Case markers and language contact in the Gansu-Qinghai linguistic area

Chenlei Zhou
Chinese Academy of Social Sciences

This paper examines the forms and usage of case markers in the Gan-Qing dialects, the Amdo Tibetan and Altaic languages in the Gansu-Qinghai linguistic area (GQLA), including datives, accusatives, absolutives, comitatives, instrumentals, ablatives, locatives, genitives, comparatives and reflexive possessives. We come to two conclusions: (1) most markers in Gan-Qing dialects are widely distributed, but some are narrowly distributed and (2) case markers in Gan-Qing dialects are overwhelmingly from the Chinese inventory rather than direct copied from Amdo Tibetan or Altaic languages. These findings enable us to shed light on the situation of language contact in the GQLA and illustrate that there are two major strata of contact in the GQLA.

Keywords: case markers, language contact, linguistic area

1. Introduction

In northwest China – specifically in the west of Gansu, the east of Qinghai and the border between the two provinces – a number of Chinese dialects and Amdo Tibetan and Altaic languages (including Mongolic and Turkic groups) have undergone intense, long-term contact, forming the Gansu-Qinghai linguistic area (henceforth the GQLA).[1] Although this area is "currently less popular" than others, Xu (2015a) pointed out that the language contact in the GQLA is "as significant as in other areas". One of the earliest systematic studies of the contact in the GQLA is Li (1983). In his pioneering work, Li discussed three varieties in the GQLA (or what he called "Western China"), i.e., the Wutun dialect (a Chinese dialect influenced by Amdo Tibetan), the Chinese dialect spoken by Hui people

---

[1] Researchers use different terms to name this linguistic area: "Qinghai-Gansu Sprachbund" (e.g., Slater 2003), "Amdo Sprachbund" (e.g., Sandman 2016), and "Gansu-Qinghai linguistic area" (e.g., Zhou 2019a), the one used in this paper.

(influenced by Altaic languages), and Bonan (a Mongolian language influenced by Chinese). He pointed out that in this particular area, a number of ethnic groups live and interact, including "the Bonan people, the Santa people, the Han Chinese, Tibetans, and Salars as well as the Hui". These ethnic groups with different language backgrounds interacted with each other for a long time, leading to similarities in linguistic structures (grammatical and phonological) and further forming a linguistic area. Later scholars (Dwyer 1995; Slater 2003; Xu 2014; Sandman 2016; Peyraube 2018; Xu & Peyraube 2018; Zhou 2019a; among others) who investigated languages in this area considered their object of study in the context of the linguistic area, holding that the language contact in this area may play a role in explaining a particular phenomenon.

Before proceeding with the discussion, we would like to shortly revisit the concept of a linguistic area (or Sprachbund). Despite the disagreement among scholars on the specific criteria used to define a linguistic area (e.g., How many languages from different families or groups should be involved in a linguistic area? How many shared features does a linguistic area need?), it is widely accepted that a typical linguistic area generally has four key factors: a geographical area, a set of languages from different families, some shared features, and the distinctive features that belong to the area and are not found outside the region of the same family (see, e.g., Thomason 2001; Aikhenvald & Dixon 2001; Enfield 2005; Campbell 2006). For the concept of the GQLA, as argued in Peyraube (2018) and Xu & Peyraube (2018), it is reasonable to acknowledge its validity because it basically fits the criteria mentioned above. Xu (2014) listed six shared features in the GQLA, such as the basic order of OV and the use of case markers, which notably confirms the existence of this linguistic area. Xu & Peyraube (2018), based on Xu (2014), added four more syntactic features concerning case markers to the set of shared features of the GQLA, which will be further discussed in this paper.

In the GQLA, the Amdo Tibetan, Altaic languages and the Chinese dialects interact with each other; each can be both a source language and a recipient language. First, Amdo Tibetan heavily affected Altaic languages and Chinese dialects. To name just one example, the numeral structure of "N+Num" (instead of "Num+N") in the Zhoutun dialect and some Altaic languages (e.g., Salar, Bonan, Kangjia and Santa) resulted from the influence of Amdo Tibetan (Zhou 2020). Sandman & Simon (2016) treated Amdo Tibetan as the "model language" in the GQLA, or what they termed the "Amdo Sprachbund". Second, Altaic languages very strongly affected Chinese dialects. As is well illustrated in this paper, some case markers in Chinese dialects are certainly directly borrowed from nearby Altaic languages. Third, Chinese dialects also affected Altaic languages. As reported in Slater (2003), even the core numerals in Mangghuer were loaned from Chinese: "[T]he only two numeric forms which retain Mongolic roots" are *nige* 'one' and *ghu* 'two',

whereas "the rest of the numerals in the language are Chinese borrowings."[2] Under this context, it is highly interesting to determine the origin of each case marker in the Chinese dialects, one of the main topics in this paper.

Among the three types of languages (i.e., Chinese, Amdo Tibetan and Altaic languages) in the GQLA, Chinese fundamentally changed its typological features, from a VO to an OV pattern,[3] accompanied by the emergence of case marking systems in the Chinese dialects in this area (which we term the Gan-Qing dialects in this paper); this phenomenon is one of the most intriguing, since Mandarin Chinese is a (morphological) case-absent language. The case marking systems in Gan-Qing dialects are a frequent topic described and discussed by an increasing number of studies, which can be roughly divided into three types. The first type is general studies. A. Zhang (2013) comprehensively studied the various case markers in Chinese dialects in what she named the He-Huang district, an alternative term for the GQLA. Xu (2015b) thoroughly discussed the origin of the case markers in Gan-Qing dialects, including the dative, accusative, possessive, ablative, instrumental and comitative markers. The second type consists of special studies of case marking systems in individual dialects. Examples include the Xining (Wang 2012), Bonan Han (Zhang 2013) and Gan'gou dialects (Yang and Zhang 2016). Additionally, in some descriptive or reference grammars, a particular chapter is devoted to describing the case marking system, such as those in the Tangwang dialect in Xu (2014), the Wutun dialect in Sandman (2016) and the Zhoutun dialect in Zhou (2016). The third type includes studies of specific case markers. The dative-accusative marker -xa has received the most attention; see Dede (2007), Yang (2014), Xu (2018) and Zhou (2019a, b). Yang (2015) elaborated on the uses of the reflexive possessive (RP) marker -naŋ in the Gan'gou dialect. Zhou (forthcoming) discussed the comitative-instrumental markers originating from 'two' in both Gan-Qing dialects and some Altaic languages in the GQLA.

How, then, did Gan-Qing dialects develop case markers? The general answer, of course, is contact with the other two OV languages, Amdo Tibetan and Altaic languages, in the same area. However, a comprehensive understanding cannot be obtained until additional questions are answered: (1) Which language, Amdo Tibetan or Altaic languages, plays a more important role in the emergence of case marking systems in Gan-Qing dialects? (2) When did the case markers in Gan-Qing dialects form? (3) Do the case markers in Gan-Qing dialects have a one-to-one correspondence to those in Amdo Tibetan or Altaic languages? (4) Do

---

2. Comparatively, the influence from Altaic and/or Chinese to Amdo Tibetan seems less obvious (although see Poppe 1965) and is needed further investigation.

3. This pattern can be subdivided into solid OV and preferred OV. Dialects such as Wutun and Zhoutun belong to the former, while Xining and Tangwang belong to the latter (see Zhou 2017).

Gan-Qing dialects directly copy the case markers from Amdo Tibetan or Altaic languages? (5) Are there some particularities in the case marking systems in the GQLA? By examining these questions, we attempt to learn more about language contact in the GQLA.

Basic information about the dialects and languages discussed in this paper is listed in Table 1 below.

Table 1. The dialects and languages discussed in this paper

Name	Group	Spoken areas
Zhoutun	Sinitic	Guide County, Tibetan Autonomous Prefecture of Hainan
Xining	Sinitic	Xining city and nearby counties
Wutun	Sinitic	Tongren County, Tibetan Autonomous Prefecture of Huangnan
Xunhua	Sinitic	Salar Autonomous County of Xunhua
Gan'gou	Sinitic	Hui and Tu Autonomous County of Minhe
Linxia	Sinitic	Hui Autonomous Prefecture of Linxia
Bonan Han	Sinitic	Jishishan Bonan, Dongxiang and Salar Autonomous County
Tangwang	Sinitic	Dongxiang Autonomous County
Amdo Tibetan	Tibetic	Mainly scattered in the Tibetan Autonomous Prefectures
Santa	Mongolic	Hui Autonomous Prefecture of Linxia
Bonan	Mongolic	Dongxiang Autonomous County
Mongghul	Mongolic	Huzhu Tu Autonomous County
Mangghuer	Mongolic	Hui and Tu Autonomous County of Minhe
Tongren Monguor	Mongolic	Tongren County, Tibetan Autonomous Prefecture of Huangnan
Eastern Yugur	Mongolic	Sunan Yugur Autonomous County
Kangjia	Mongolic	Jianca County, Tibetan Autonomous Prefecture of Huangnan
Western Yugur	Turkic	Sunan Yugur Autonomous County
Salar	Turkic	Salar Autonomous County of Xunhua

This paper considers the markers below: in Section 2, the dative and accusative/absolutive case markers are examined; Section 3 addresses the comitative and instrumental case markers; the ablative case markers are scrutinized in Section 4; and other markers – including locative, genitive, comparative and RP markers – are discussed in Section 5. In Section 6, we make two observations: (1) some markers in the Gan-Qing dialects are widely distributed, whereas some are narrowly distributed, and (2) the case markers in Gan-Qing dialects are overwhelmingly from the Chinese inventory rather than direct copies from Amdo Tibetan or Altaic languages. From both (1) and (2), we argue that there are two major strata of language contact in the GQLA. Finally, in Section 7, we present a conclusion with brief answers to the questions raised above and some issues worthy of further investigation.

2.   Datives and accusatives/absolutives

The reason we consider datives and accusatives together is that they have syn-cretism in Gan-Qing dialects. By contrast, in Amdo Tibetan, it is absolutives that are similar to accusatives in that both mark patient-like roles in transitive clauses.

2.1   Gan-Qing dialects

In all the Gan-Qing dialects (at least those of concern in this paper), the dative-accusative marker is *-xa* (and *-a* as the allophone). The uses of this marker, as Zhou (2019a) described, are basically consistent in all dialects. We consider the Zhoutun dialect as an example (the examples from the Zhoutun dialect are based on fieldwork; some are also found in Zhou 2019a, b).[4]

(1)   *-xa* as a dative marker
    a. 我 郭啊 书　一 本 给　了
       ŋɤ kua　fu　i　pɤ̃ kɨ　lɔ
       1　3:DAT book one CL give PFV
       'I gave him/her a book'.

    b. 扎西 玉林 哈　衣裳 取　给
       tʂaɕi ylĩ　xa　iʂã　tshu kɨ
       zhaxi Yulin DAT coat take give
       'Zhaxi takes the coat for Yuli'.

    c. 扎西 我啊 说 着　个
       tʂaɕi ŋa　ʂuɤ tʂɤ　kɤ
       zhaxi 1:DAT say PROG PART
       'Zhaxi is talking to me'.

    d. 我 你啊 岁数 大 着　多
       ŋɤ nia　suɨfu ta tʂɤ　tuɤ
       1　2:DAT age　old NMLZ much
       'I am much older than you'.

As a dative marker, *-xa* can label various semantic roles, including the recipient, benefactive, addressee and comparative standard, as shown in (1a)–(1d), respec-tively. Moreover, *-xa* can be an accusative marker (see (2)).

---

4. Zhoutun dialect is spoken in Zhoutun Village, Guide County, Hainan Tibetan Autonomous Prefecture, Qinghai Province. With the significant in- fluence of Amdo Tibetan, the basic word order of Zhoutun has changed from SVO to SOV (Zhou 2016).

(2) *-xa* as an accusative marker

    a. 扎西 玉林 哈 打 了

        tʂaɕi ylĩ xa ta lɔ

        Zhaxi Yulin ACC beat PFV

        'Zhaxi has beaten Yulin'.

    b. 扎西 医院 里 人 哈 看 去 了

        tʂaɕi yyã li ɻə̃ xa khã tɕhi lɔ

        Zhaxi hospital POST person ACC.DEF watch go PFV

        'Zhaxi went to the hospital to visit the patient'.

    c. 苹果 哈 我 一 个 吃 了

        phĩkuɣ xa ŋɣ i   kɣ tʂhʅ lɔ

        apple   ACC 1   one CL eat PFV

        'I ate an apple'.

The accusative use of *-xa* is shown in (2). In fact, *-xa* is not obligatory but is used in the sense of differential object marking (DOM), which is influenced by three features: animacy, definiteness and word order. That is, when a patient is high-animate, definite or before the agent (as shown in (2a–c), respectively), *-xa* is used. See the detailed discussion in Zhou (2019a).

    The various semantic roles marked as datives in the Zhoutun dialect are also labeled as datives in other Gan-Qing dialects, and DOM also exists in other Gan-Qing dialects. For details, see Wang (2008, 2012), Zhang (2013), Xu (2014), Yang (2014), Sandman (2016), etc. Thus, we can conclude that the dative-accusative marker *-xa* is a widely distributed marker with consistent functions in the GQLA. However, there are two roles, i.e., possessors and experiencers, that are marked by dative *-xa* only in some Gan-Qing dialects. See examples from the Zhoutun dialect below.

(3) 扎西 哈 钱 有 嘀

    tʂaɕi xa tɕhiɛ iɯ ti

    zhaxi DAT money have PART

    'Zhaxi has money'.

(4) 扎西 哈 热 着 很 哩

    tʂaɕi xa ɻɣ tʂɣ xɻ̃ lɨ

    zhaxi DAT hot NMLZ very PART

    'Zhaxi feels very hot'.

In (3) and (4), the uses of Zhaxi are as the possessor and experiencer, respectively (the 'experiencer' here specifically refers to an animate subject that can convey subjective feelings; see Zhou (2019a) for details), and both are attached by the dative *-xa*. The same situation occurs in the Gan'gou dialect (Yang 2014) and

Bonan Han dialect (Zhang 2013) but is not recorded in other Gan-Qing dialects.[5] We attribute this kind of usage of *-xa* to the contact with Amdo Tibetan, which has similar usage of the dative, as shown below.

2.2   Amdo Tibetan

For Amdo Tibetan, we mainly consider the example of Machu as a representative dialect that has been studied comprehensively in Zhou (2003).

2.2.1   *Datives*

The two basic forms of dative markers in Machu, according to Zhou (2003), are *-na* and *-la*; the latter also has allophones such as *-ŋa*, *-ra*, and *-wa*. The roles that can be marked by datives in Machu include recipients, benefactives, addressees and possessors; see Examples (5–9), respectively.

(5) *hdʐon   mi   ŋa   ɕokhdək zək wʐən tha*
     Zhuoma ERG 1:DAT umbrella one give   PFV
     Zhuoma gave an umbrella to me.

(6) *kho mi   la   rogs byadpar dgav*
     3   people DAT help do   like
     He likes to help people.

(7) *tɕhətɕhawo ndʐo hdu   ŋa   tɕək wu had*
     2:PL   go   when 1:DAT one call PART
     When you go, call me.

(8) *ɬawɕam ma ʁaŋ jɔ   khə*
     Laxian DAT right have PART
     Laxian has rights.

The usage above is typical for a dative marker, while in Machu, datives can also mark roles related to locative meaning. This function can be labeled as LOC and manifests in the relationship between a LOC and a DAT, i.e., LOC>DAT, a typologically recurring chain (Heine and Kuteva 2002; Næss 2008; among others). See the following examples:

---

5. Gan'gou dialect is spoken in Gan'gou Town, Minhe Hui and Tu Autonomous County, Qinghai Province. It is deeply affected by Mangghuer nearby (Yang 2014). Bonan Han is spoken in Jishishan Bao'an Dongxiang and Sala Autonomous County, Linxia Hui Autonomous Prefecture, Gansu Province, particularly in the "three villages of Bao'an" (Dadun, Meipo and Ganhetan in Dahejia Town. (Zhang 2013)

(9)　*ŋa rdzaʂaŋ ŋa　soŋ ŋe　　tshe　ŋ̍o*
　　1　street　LOC go　CONJ food buy
　　I go to the street and buy food.

Note that, unlike in Gan-Qing dialects, the dative markers in Machu do not mark the standards in comparative constructions (in Machu, standards are marked by *wti na* look COND 'if look', which will be further discussed in Section 5).

　　In Zhou (2003), we do not find examples in which the dative marks the experiencer. However, in Amdo Tibetan, dative experiencers do exist. See the following examples:

(11)　a.　*ŋa　　hŋəd tʂo=nə　　hlakhæ zəg　ji=thæ*
　　　　　　1:DAT sleep desire=CONJ yawn　　INDEF do:COM=DIR:EV
　　　　　　'I felt sleepy and yawned.'　　　　　　(Sun 1993:363, cited from Slater 2003:101)
　　b.　*ŋa　　tʃəɣ　khu-hkod-hkə*
　　　　　　1:DAT a.bit be.ill-IPFV-IMMEDIATE.EV
　　　　　　'I feel a bit ill.'　　　　　　　　　　　　　　　　　　(Zhou 2019a:441)

This phenomenon is also found in other Tibetic languages, such as Lhomi (Bickel 2004:82), but not in Altaic languages (Zhou 2019a). Thus, the source language that engenders the dative experiencers in Gan-Qing dialects is likely to be Amdo Tibetan. Zhou (2019a) has more detailed discussions of this topic.

2.2.2　*Absolutives*

Amdo Tibetan is an ergative-absolutive language in which P's and S's are marked by absolutives, while A's are ergative. See this example from Machu:

(12)　*tshethar kə　tɔ　　　ŋ̍then*
　　Caita　　ERG cigarette smoke
　　'Caita smokes a cigarette.'

However, it should be noted that some patient-like roles in Amdo Tibetan are marked not by absolutives but by datives. See Example (13):

(13)　a.　*nor ra rdo　gis　ma rgyag*
　　　　　　cow DAT stone INST NEG hit
　　　　　　'Don't hit the cattle with a stone.'
　　　　　　　　　　　　　　　　　(Wang 1995:16–17, cited from Dede 2007:872)
　　b.　*khö　　nga-la dung-song*
　　　　　　3:ERG 1-DAT beat-PFV.EGO.CENTRIPETAL
　　　　　　'He beat me.'　　　　　(Bell 1919:27[31], cited from Vollmann 2008:38)

The usage of datives to mark some patients in Tibetan supports the idea that the formation of the dative-accusative marker -*xa* in Gan-Qing dialects was due to the influence of contact with Amdo Tibetan. See Section 6.

2.3   Altaic languages

2.3.1   *Datives*

The forms of dative markers in the Altaic languages in the GQLA are quite consistent in each group: -dA (A for vowels) in the Mongolic group and -(G)A in the Turkic group. For Mongolic, we take Mangghuer as an example. In Mangghuer, according to Slater (2003), the dative marker is -*du* (and an infrequently alternative marker -*di*), marking roles such as recipients, benefactives/malefactives, addressees and possessors. Furthermore, -*du* is a locative marker marking the 'location in space, in time, or in the course of an event'. We briefly use two examples to illustrate the two kinds of usages of -*du* as a dative and a locative marker, respectively.

(14) *huguer jiaoduer   gan=du manten ba-ji   hu-lang*
      cow   every:day 3=DAT bread   defecate-IMPERF give-OBJ:IPFV
      'Cow defecated bread for her every day'.   (Slater 2003: 143)

(15) *qi=ni   huayan=du bao-ba*
      2=GEN garden=DAT go:down-SUBJ:PFV
      '(it) fell into your garden'.   (Slater 2003: 167)

The dative-locative syncretism also exists in other Mongolic languages in the GQLA, as shown in Table 2.

Table 2. The dative/locative markers in the Mongolic languages in the GQLA

Languages	Dative/locative markers	Sources
Santa	*-de*	Kim (2003)
Bonan	*-da; -de*	Wu (2003)
Mongghul	*-də*	Zhaonasitu (2008a)
Mangghuer	*-du; -di*	Slater (2003)
Tongren Monguor	*-da; -də*	Fried (2010)
Eastern Yugur	*-də*	Zhaonasitu (2008b)
Kangjia	*-da/ -dʉ; -ta/ -tʉ; te*	Siqinchaoketu (1999)

The situation is distinct in the Turkic languages in the GQLA, in which datives are formally identical to allatives. See the following examples from Salar (Ma 2013: 54):

(16)   a.   *u ali-ğa   armut bir   ver-ji*
            3 Ali-DAT pear   one give-PST
            'He gave a pear to Ali'.
      b.   *ali funie-ğa   var-ji*
            Ali sideline-ALL go-PST
            'Ali went to do part-time work'.

The dative-allative syncretism is also seen in Western Yugur (Chen and Lei 2008), another Turkic language in the GQLA.

2.3.2   *Accusatives*

The accusative markers in both the Mongolic and Turkic languages in the GQLA are -nA, revealing the close relation between the two groups. See the examples from Mangghuer (Slater 2003:164) and Salar (Ma 2013:20), respectively.

(17)   a.   *ni   muni aguer=ni   ala ge-jiang*
            this 1:GEN daughter=ACC kill do-OBJ:PFV
            'It killed my daughter'.
      b.   *me(n) emex-nï̈   yi-ji*
            1   steamed bun-ACC eat-PST
            'I ate the steamed bun'.

According to Slater (2003:164), DOM occurs in Mangghuer: 'Generally, it is highly affected, individuated patients which are also definite that receive accusative case marking'. For -*ni* in Salar, it is used if and only if the patients are definite (Ma 2013). For detailed information, see Slater (2003) and Ma (2013).

     We list in Table 3 the accusative markers in the Altaic languages in the GQLA.

Table 3.   The accusative markers in the Altaic languages in the GQLA

Languages	Accusative markers	Sources
Santa	*-ni*	Kim (2003)
Bonan	*-ne*	Wu (2003)
Mongghul	*-nə*	Zhaonasitu (2008a)
Mangghuer	*-ni*	Slater (2003)
Tongren Monguor	*-nə*	Fried (2010)
Eastern Yugur	*-ə; -in; -n*	Zhaonasitu (2008b)
Kangjia	*-ni*	Siqinchaoketu (1999)
Western Yugur	*-nə; -də; -n*	Chen and Lei (2008)
Salar	*-nï̈*	Ma (2013)

2.4   Summary

The dative and accusative/absolutive markers in the GQLA can be summarized as follows: In Gan-Qing dialects, they are both -*xa*. In Amdo Tibetan, the dative marker, also being a locative marker, is -*la*; although absolutives are zero marked, some patient-like roles are marked by the dative. In Altaic languages, the dative markers are -dA (also a LOC in the Mongolic group) and -(G)A (also an ALL in the Turkic group), and the accusative marker is -nA.

According to the above facts, in terms of datives and accusatives in Gan-Qing dialects, two phenomena are notable: (1) the dative-accusative syncretism does not exist in either Amdo Tibetan or Altaic languages in the same area, and (2) the marker -*xa* is formally identical to neither the Amdo Tibetan nor Altaic languages.

3.   Comitatives and instrumentals

As in Section 2, we considered comitatives and instrumentals together because they involve syncretism in the Gan-Qing dialects and Altaic languages. Taking a closer look, we find one of the frequently used comitative-instrumental markers in the GQLA that originated from the numeral 'two', a rare source for comitatives (and then for instrumentals, given the COM>INS chain in the Gan-Qing dialects and Altaic languages in the GQLA).

3.1   Gan-Qing dialects

All the Gan-Qing dialects studied in this paper, except Bonan Han, share a comitative-instrumental marker meaning 'two', despite the subtle phonetic difference. The Wutun and Linxia dialects have the transparent forms -*liangge* and -*liaŋkə*, respectively, which are composed of *liang/ liaŋ* 'two' and *ge/ kə* CL in Chinese. See the following examples:

(18)   Wutun dialect   (Sandman 2016: 57–58)

    a.   *ngu ngu-de tixang-liangge   qhi-zhe*
        1   1-ATTR younger brother-COM go-PROG
        'I will go together with my younger brother'.

    b.   *gu   agu shetek-liangge zhaze   da-pe-lio   ze-li*
        that girl rock-INS   window hit-get broken-PFV EXEC-SEN.INF
        'That girl broke the window with a rock'.

(19)   Linxia dialect   (adapted from Dwyer 1992: 5)

    a.   *ŋo tɕia liaŋkə pfu   tsʅ*
        1   3   COM   NEG go
        'I won't go with him/her'.

    b.   *ŋo pfi   liaŋkə ɕi   tsʅ*
        1   pen INS   write words
        'I write with a pen'.

The Xunhua, Xi'ning, Gan'gou and Tangwang dialects have another form, *-lia* 'two', a Chinese portmanteau form of *-liangge* (Feng 2002). The form in the Zhoutun dialect is *-lā*, also a portmanteau form of *-liangge* (manifested through the replacement of *-lā* with *-liangge* in particular situations). Since the uses of those forms of 'two' are consistent, for the sake of space, we do not provide further discussion here.

    Another comitative-instrumental marker used in a few Gan-Qing dialects is *-la*. In fact, *-la* is the only form in Bonan Han. See the following examples from Zhang (2013: 41).

(20)   a.   我 的   尕   兄弟   我 拉   玩   着   哩
        wo de   ga   xiongdi wo la   wan zhe   li[6]
        1   GEN little brother 1   COM play PROG PART
        'My younger brother is playing with me'.

    b.   你 钢笔   拉   写
        ni gangbi la   xie
        2   pen   INS write
        'Write with a pen'.

The Linxia and Tangwang dialects, according to Dwyer (1992) and Xu (2014), also have *-la* in addition to 'two' (*-liaŋkə* and *-lia*, respectively). Thus, *-la* is unlikely to be a further reduction of *-liaŋkə* and *-lia*.

3.2 Amdo Tibetan

3.2.1 *Comitatives*

Although it is not reported in Machu (Zhou 2003) and Wang (1995), a concise grammar of spoken Amdo Tibetan, Amdo Tibetan does have a comitative marker, *-la/-ra*, which is also a coordinator (Mingyuan Shao, personal communication). See the examples below (given by Shao):

---

6. Examples of Bonan Han and some other dialects are transcribed in pinyin in this paper when the authors present them only in Chinese characters.

(21) a. *brnyan'.phrin-na lta-rgyu-ra   nyan-rgyu gnyis.ka yod-ni red.*
         television-DAT   watch:IPV-NOM-CONJ listen-NOM two   have-PFV:FACT
         'On television, there is something to watch and something to listen to'.

   b. *mo   de.ring   pha.ma-la mnyam.gis zi.ling-nga*
         3:ERG today father.mother-COM together   Xining-LOC
         bud-thal.
         go:PFV-DIR.EV
         'Today she went to Xining with her parents'.

In written Tibetan and many Tibetan dialects other than Amdo, the comitative marker *-dang* also functions as a coordinator (Vollmann 2008; Shao and Li, unpublished). Unlike that in Gan-Qing dialects and Altaic languages discussed below, comitative-instrumental syncretism is rarely seen in Tibetan. Vollmann (2008) noted that *-dang* in Ladakhi has an INS function, whereas in most Tibetan dialects, INS is identical to ERG; see below.

3.2.2   *Instrumentals*

The instrumental marker in Amdo Tibetan is identical to the ergative marker (see Wang 1995; Vollmann 2008). In Machu, there are two basic forms of instrumental-ergative markers: *-gis* (with *-ngə*, *-kə* and *-ɣə* as variants) and *-vis*. See the following Examples (Zhou 2003: 217):

(22) a. *tɕhu koŋbi ɣə jəye tʂhi*
         2   pen   INS word write
         'Write with a pen'.

   b. *wsamndzəp kə rta   ptak*
         Sanmuzhu   ERG horse tie up:PFV
         'Sanmuzhu tied up the horse'.

3.3   Altaic languages

The Altaic languages in the GQLA have comitative-instrumental syncretism. There are two common markers, *-la* and *-'two'-la* (composed of the root meaning 'two' and the affix *-la*). Among the Altaic languages studied in this article, three have only *-la*, including Mongghul, Eastern Yugur and Salar; in contrast, Bonan and Tongren Monguor have only *-'two'-la*. The other three languages, i.e., Kangjia, Mangghuer and Santa, have both *-la* and *-'two'-la* with a slight difference: in Kangjia, both the forms *-la* and *-'two'-la* can function as comitatives and instrumentals; in Mangghuer, *-la* can mark comitatives and instrumentals, whereas *-'two'-la* is only an instrumental marker; and the situation is entirely the opposite in Santa, in which *-'two'-la* marks both comitatives and instrumentals

while *-la* (recorded as *-le/-re* in Kim (2003)) marks only comitatives. Another form of comitative in the Altaic languages in the GQLA is *-tai* in Mangghuer, which is a marker descending from Mongolic (Slater 2003: 171) and often seen in Altaic languages outside the GQLA. Here, we briefly consider the examples of *-la* and *-'two'-la*, respectively.

(23)   *-la* as a comitative-instrumental marker in Mangghuer   (Slater 2003: 170)
    a.   *madage chu-saihang   nige=la ger   pudu-jiang*
         Madage most-beautiful one=COM house change-OBJ:PRV
         'Madage set up house with the most beautiful one'.
    b.   *gan-si ni   tuosi=la dimei china-jiang   bai*
         3-PL   this oil=INS bread cook-OBJ:PFV EMPH
         'They cooked bread with this oil'.

(24)   *-ɢala* as a comitative-instrumental marker in Kangjia (Siqinchaoketu 1999: 101)
    a.   *nɔrɜɯni   dami-ɢala ideʁasina*
         boiled meat rice-COM   eat
         'Eat meat with rice'.
    b.   *sɯgɯ-ɢala tʃetʃi*
         axe-INS   chop
         'Chop with an axe'.

Regardless of the form (*-la* or *-'two'-la*), the comitative-instrumental syncretism in the Altaic languages in the GQLA requires explanation. Because this syncretism rarely if ever exists in Altaic languages outside this area (for these languages, the syncretism is often between comitatives and possessives). We regard this comitative-instrumental syncretism in the GQLA as a regional innovation. See the further discussion in Section 7.

4.   Ablatives

4.1   Gan-Qing dialects

Compared to the dative-accusative and comitative-instrumental markers, the ablative markers in Gan-Qing dialects are less consistent with each other. There are four major types of ablative markers, -tA, -sA, -ɕA and -*l/ra*, if classified by the initial consonant.

4.1.1   *-tA*

The marker -tA includes three forms, *-ta*, *-tha* and *-thala*; *-ta* is found in the Bonan Han and Linxia dialect (in which the author recorded it as -tA). See the following example from Bonan Han (Zhang 2013: 38):

(25) 我 这 个 路上   搭 走 哩
    wo zhe ge lushang   da zou li
    1   this CL road:POST ABL walk PROG
    'I am going to walk on this road'.

Moreover, *-tha* is found in Zhoutun and Bonan Han. See the following example from the Zhoutun dialect.

(26) *ni ali   tha lɛ   lɔ*
    2 where ABL come PFV
    'Where did you come from?'

As in (27), *-thala* is used in Bonan Han.

(27) 我们   明天   塔拉 做 吧
    women mingtian   tala zuo ba
    2:PL   tomorrow ABL do PART
    'Let us do (it) from tomorrow onward'.   (Zhang 2013: 37)

Note that *-ta* and *-tha* can mark both times and locations as the origin, while *-thala* can mark only times.

4.1.2   *-sA*

Depending on the [±retroflex] of the consonant, -sA is represented as *-sa* and *-ṣa*: while *-sa* is used in the Xining and Gan'gou dialects, *-ṣa* is used in the Gan'gou dialects. See the examples from Xining[7] in (29) (Wang 2012: 472) and Gan'gou in (30) (Yang and Zhang 2016: 30) for *-sa* and *-ṣa*, respectively.

(28) 我 出差   去 着 前日   北京 唦 刚 回来 啊
    wo chuchai   qu zhe qianri beijing sa gang huilai a
    1   business.trip go PROG last.days Beijing ABL just   return PART
    'I just came back a few days before I went on the business trip'.

---

7. Xining dialect "is spoken in the northeastern corner of Qīnghǎi Province in the urban core of the city as well as in Dàtóng, Huángzhōng, Huángyuán, Hùzhù, Píng'ān, Ményuán, and Guìdé with some slight variation in pro- nunciation and lexicon in these counties" (Wang and Dede 2016: 407).

(29) 老师   学校   里   哟   来   了
      laoshi xuexiao li   sha lai   le
      teacher school   POST ABL come PFV
      'The teacher came from school'.

4.1.3 *-ɕA*

The marker -ɕA is represented as *-ɕiɛ* in Tangwang[8] and *-ɕie* in the Gan'gou dialects. See the following example from Tangwang (Xu 2014: 196):

(30) 我 家   里   些   来   料
      wo jia   li   xie lai   liao
      1   home POST ABL come PFV
      'I came from home'.

4.1.4 *-l/ra*

The marker *-l/ra* is mainly used in the Wutun dialect, and Bonan Han also occasionally uses *la*. See the examples from Wutun (Sandman 2016: 53, 55).

(31) a. *aga   dadada gguan-la   lai-lio*
          elder brother just   temple-ABL come-PFV
          'Elder brother just came from the temple'.
      b. A: *a-ra   zhai-lio*
              what-ABL pick-PFV
              'From where did you pick up (the ears of wheat)?'
          B: *xaitang-de   wu-ra*
              school-ATTR DIST-ABL
              '(We picked the ears of wheat) there near the school'.

There are two other ablative markers in the Gan-Qing dialects. One is *-tɕia*, a frequently used marker, in the Xining dialect. However, this form (i.e., with *-tɕ* as the initial consonant) is unique in the Gan-Qing dialects, and Wang (2012) infers that it came from the Wu dialect rather than the Tibetan or Altaic languages. Another marker is *-ʂʅ* in the Gan'gou dialect. Yang and Zhang (2016) point out that it is employed only by the locative Hui people and list no examples of this marker. Thus, we do not discuss these two markers separately.

Notably, among the four kinds of forms of ablatives, -sA and -ɕA can mark the standards in comparatives, while -tA and *-l/ra* cannot. See the following examples:

---

8. Tangwang dialect is spoken in Tangwang Town, Dongxiang Autonomous County, Linxia Hui Autonomous Prefecture, Gansu Province. (Xu 2014)

(32) ʂa in the Gan'gou dialect   (Yang and Zhang 2016: 31)
兄弟　阿姐　　哟　大
xiongdi ajie   sha da
brother elder sister ABL tall
'The younger brother is taller than the elder sister'.

(33) ɕiɛ in the Tangwang dialect   (Xu 2014: 197)
马　驴　　些　快
ma   lü   xie kuai
horse donkey ABL fast
'Horses are faster than donkeys'.

The fact that -sA and -ɕA can mark comparative standards while -tA and *-l/ra* cannot shows that the two sets of ablatives may have different origins. Moreover, except when used independently, -sA and -ɕA can also mark comparative standards after a dative marker. See Examples (34) and (35) from the Gan'gou and Tangwang dialects, respectively.

(34) 兄弟　阿姐 哈 哟 大
xiongdi ajie   ha sha da
brother sister DAT ABL tall
'The younger brother is taller than the elder sister'.   (Yang and Zhang 2016: 31)

(35) 尕　王　尕　张　　哈　些　大
ga   wang ga   zhang ha xie da
little Wang little Zhang DAT ABL old
'Little Wang is older than little Zhang'.   (Xu 2014: 201)

As discussed in Section 2.1, the dative marker *-xa* in the Gan-Qing dialects can mark comparative standards. As shown in (34) and (35), in some Gan-Qing dialects, comparative markers are composed of dative markers followed by ablative markers. This typologically rare compound form again shows that the ablative markers of -sA and -ɕA have different origins from -tA and *-l/ra*. This, along with evidence represented below from the Amdo Tibetan and Altaic languages, shows that the dative marker *-xa* and ablative markers -sA and -ɕA were formed in different strata of language contact. See Section 6 for further discussion.

4.2 Amdo Tibetan

In Amdo Tibetan, the ablative markers are *-nas* and *-gi* (Wang 1995). The former descends from Classical Tibetan and is also used in other modern Tibetan dialects (Vollmann 2008), while the latter is formally identical to the ergative and instrumental marker. In Machu, *-nas* becomes *-ni* or the disyllable form *-yəni*. See the following Examples (Zhou 2003: 232, 230):

(36) *tɕho kaŋ   ni joŋ   nə*
      2   where ABL come part
      'Where do you come from?'

(37) *rmatɕhə yəni htsu   jathak   mə raŋngə*
      Machu   ABL Hezuo distance NEG far away
      'It is not far away from Machu to Hezuo.'

Another ablative form *-gis* in Machu is identical to ERG/INS (with *-ngə*, *-kə* and *-yə* as variants), which mainly denotes the material of an object. See the following example:

(38) *tɕhəra ʁoma yə li   nə   re*
      cheese milk   ABL make PART is
      'Cheese is made from milk.'   (Zhou 2003: 232)

In this context, *-yə* can be interpreted as marking the source material, a broader reading of the ablative meaning, while the typical meaning of ablatives, i.e., to mark local origin, is not conveyed with *-gis* in Machu. However, in some other Amdo dialects, such as Rebkong and Xiahe, the form *-gi* can mark the roles as typical ablatives. See Wang (1995: 15) and the following example.

(39) *nga pe.cin gi   yong nas*
      1   Beijing ABL come PART
      'I came from Beijing.'

Note that although modern Tibetan does have an ablative marker *-las* that marks comparative standards (Vollmann 2008), this usage is, based on available materials, not seen in *-nas* and *-gis* through Amdo Tibetan.

4.3 Altaic languages

The forms of ablative markers can be subdivided into two types in the Altaic languages spoken in the GQLA: -sA for Mongolic and -(n)dAn for Turkic.

4.3.1 *Mongolic languages*

The ablative form that overwhelmingly has the greatest use in the Mongolic languages in the GQLA is -sA, which is mainly realized as *-sa* and sporadically used as *-se*, *-so*, *-sala* and *-za* in different languages. See the examples of *-sa* from Mangghuer and Tongren Monguor, respectively.

(40) *dasi=ni   ruang=sa kejia-sang-ni   qi-shi-li*
     1:PL=GEN place=ABL separate-PFV-NOML seven-ten-li
     'In (a place) which is seventy li away from our place'.   (Slater 2003:169)

(41) *nokə au   silaŋ=sa*
     that man Xining=ABL
     'That man came from Xining'.   (Fried 2010:64)

4.3.2 *Turkic languages*

In the Turkic languages spoken in the GQLA, the ablative form is -(n)dAn. See the examples from Salar and Western Yugur, respectively.

(42) *Qadïr bo   Yili-den gi-miš*
     Kader grandfather Yili-ABL come-PST
     'Grandfather Kader came from Yili'.   (Ma 2013:57)

(43) *joraqdan bər kəsi   gelov   dro*
     south:ABL one people come:PROG be
     'Someone is coming from the south'.   (Chen and Lei 2008:794)

The ablative markers in the Altaic languages, including both the Mongolic and Turkic languages studied in this article, often mark comparative standards. (Thus, the term ablative-comparative marker is commonly used in the literature on Altaic languages.) The examples below are from Eastern Yugur and Salar, respectively.

(44) *tʃiitʃe moorə-so turɣen bai*
     car   horse-ABL fast   be
     'Cars are faster than horses'.   (Zhaonasitu 2008b: 392)

(45) *se(n) men-den jadax ir-a*
     2   1-ABL   old   be-PRS
     'You are older than me'.   (Ma 2013:57)

In summary, the forms of ablatives in the Altaic languages in the GQLA are listed in Table 4.

Table 4. The ablatives in the Altaic languages in the GQLA

Languages	Accusative markers	Sources
Santa	*-se*	Kim (2003)
Bonan	*-sa; -se*	Wu (2003)
Mongghul	*-sa; -za*	Georg (2003)
Mangghuer	*-sa*	Slater (2003)
Tongren Monguor	*-sa*	Fried (2010)
Eastern Yugur	*-sa; -se; -so*	Zhaonasitu (2008b)
Kangjia	*-sa; -sala; -dzala*	Siqinchaoketu (1999)
Western Yugur	-(n)dAn	Chen and Lei (2008)
Salar	-dAn	Ma (2013)

5.   Other markers

This section addresses other markers, including locatives, genitives, comparatives and RPs. Classifying these markers into an "other" category by no means implies their inessentiality, but in the studies of Gan-Qing dialects, researchers seldom consider the corresponding forms as case markers (locatives, genitives and comparatives), or the marker is narrowly distributed (RPs). A thorough survey of these forms within the framework of case marking systems would provide a more comprehensive understanding of the language contact in this area.

5.1   Locatives

The discussion about locatives in Amdo Tibetan and Altaic languages occurs throughout the preceding sections. To put it simply, the locative markers in both languages are the same as the dative markers. In Gan-Qing dialects, there is no locative marker as might first appear. The "locative postposition" in the literature, however, is in fact the locative marker that we will discuss in Gan-Qing dialects. Compared to the Chinese locative postposition, the locative marker in Gan-Qing dialects underwent a high degree of grammaticalization. The overriding locative markers in Gan-Qing dialects are *-li* 里 'inside' and *-shang* 上 'above' in Chinese. We examine the two markers in the Zhoutun dialect.

First, we examine *-li*. The original function of *-li* is to denote the interior of three-dimensional space (as in (46)). In Zhoutun, *-li* further indicates nontypical three-dimensional space (see (47)–(48)) or even no space (e.g., abstract nouns without entity and time) at all (see (49)).

(46) *ɣ ɣkã   li   iu li   pɨ*
  fish fishbowl LOC exist PART PART
  'Fish is in the fishbowl'.

(47) *lɔkɛ   li   khã tɕhi lɔ*
  labor.camp LOC see go PFV
  'Went to see (someone) in the labor camp'.

(48) *lu li   tɕi   liã tʂhɤ thĩ tʂɤ kɤ*
  road LOC several CL car stop PROG PART
  'Several cars are on the road'.

(49) a. *thiãtɕhiypɔ   li   thiãɪɛ ɕia li   ʂuɤ*
   weather.forecast LOC rain fall PART say
   'The weather forecast says that it is going to rain'.
  b. *ʂã'u li i   kɤ ʂuɨ lɔ*
   noon LOC one CL sleep PFV
   '(I) slept at noon'.

The word *ɣkã* 'fishbowl' in (46) is a typical three-dimensional space; *lɔkɛ* 'labor camp' is, strictly speaking, three-dimensional, but in (47), it is its location property that is emphasized. In (48), *lu* 'road' is not three-dimensional but two-dimensional space. In (49a), *thiãtɕhiypɔ* 'weather forecast' is an abstract space without entity, while in (49b), *ʂã'u* 'noon' relates to time but no longer to space.

 Another common locative marker in the Zhoutun dialect is *-xã* 'above' (the equivalent form of *-shang* in Mandarin Chinese). See the following examples:

(50) *fãtĩ xã iu lɨ*
  roof LOC exist PART
  '(Something is) on the roof'.

(51) *ŋɤ miɔ   xã   tɕhi lɨ*
  1 temple LOC go PART
  'I am going to the temple'.

(52) *ŋɤ pɔtʂhŋ   xã kuãkɔ   kɤ tɤ   tɕhi lɨ*
  1 newspaper LOC advertisement CL publish go PART
  'I am going to place an advertisement in the newspaper'.

(53) *ɕyɤɕi xã itiã pu ɻ̃tʂɤ̃ lɨ*
  study LOC a.bit NEG hard PART
  '(Someone) does not study hard at all'.

In (50)–(53), the constituents marked by *-xã* gradually move away from typical locations but become more abstract. The examples thus show the high degree of grammaticalization of *-xã* as a locative marker.

The similar usage of *-li* and *-shang* can be found in other dialects (e.g., Gan'gou and Xi'ning dialects, see Yang and Zhang 2016; Wang 2018). For the sake of space, we do not discuss this further. The usage of locatives in the Amdo Tibetan and Altaic languages can be seen in Sections 2.2 and 2.3, and for detailed information, one can reference the other studies mentioned in this paper.

Given that the locatives in Amdo Tibetan and Altaic languages grammaticalized to become datives, one may ask why the locatives in Gan-Qing dialects have not become datives? The reason is that another locative meaning marker, *-ɕia* 下 'below', in Gan-Qing dialects evolved to become a dative marker, and we shall return to this topic in Section 6.

5.2   Genitives

The genitive marker in Gan-Qing dialects is -tA, which is realized as *-tə/-tɤ*, *-ti*, *-tsʅ* and *-tɕi* in different Gan-Qing dialects. The form -tA is actually the most frequently used and multifunctional *de* 的 in Chinese (see below). Compared to *de* in Mandarin Chinese, -tA in Gan-Qing dialects is used more obligatorily as a genitive marker. See the examples from the Zhoutun dialect.

(54) *ŋɤ *(tɤ) ʂupɔ   xuE   xɤ   lɔ   kɤ*
      1   GEN   school.bag break COMP PFV PART
      'My school bag is broken'.

(55) *ŋɤ *(tɤ) ata   sʅ   lɔ*
      1   GEN   father die PFV
      'My father died'.

While (54) reflects the alienable possessive, (55) indicates the inalienable possessive. Neither is grammatical without the genitive marker. However, in Mandarin Chinese, both sentences are acceptable even if *de* is omitted. For further discussion of the obligatory use of the genitive marker in the Zhoutun dialect,[9] see Zhou (2016).

In other dialects, such as Bonan Han and Gan'gou, -tA is also used obligatorily. In embedded possessive constructions (i.e., a possessive construction embedded

---

9. This does not mean that the genitive *de* is always unnecessary in Mandarin Chinese. In fact, when the possessive relations are alienable, *de* is usually needed. Thus, the phrase 'my bag' should be *wo de bao* 1 GEN bag in Chinese, although *de* could be omitted from 'my bag is broken' in (46).

in a matrix possessive construction) in Bonan Han, for example, -tA is needed between each possessor-possessee pair (e.g., [[*wo de ga xiongdi*] *de jia*]] [[1 GEN little brother] GEN home]] 'My younger brother's home'. Zhang 2013: 31). By contrast, in Mandarin Chinese, only one GEN is needed (e.g., [[1 little brother] GEN home]] or [[1 GEN little brother] home]]), or in this particular instance, even zero GEN is acceptable (i.e., [[1 little brother] home]]). When describing the possessive constructions in the Gan'gou dialect, Yang and Zhang (2016) also stated that despite the similarity between -tA in Gan'gou and *de* in Mandarin Chinese, "the -tA in Gan'gou is used (almost) obligatorily"; for many possessive constructions in which *de* can be omitted in Mandarin Chinese, -tA is necessary in the Gan'gou dialect.

We hold that the form -tA is actually from *de* in Mandarin Chinese not only because of the phonetic and functional correspondence between the two forms but also because in Altaic and Amdo Tibetan in the GQLA, the genitive markers have forms distinct from -tA. In Altaic languages, genitives are usually identical to accusatives. For example, in Mangghuer, both the genitive and accusative markers are *-ni*. (56) is a good example that simultaneously contains the two functions of *-ni*.

(56) *bi qi=ni burer=ni kelie=ni   lai di-sa,*
      1 2=GEN calf=GEN tongue=ACC NEG eat-COND
      'If I do not eat your calf's tongue'.   (Slater 2003: 92)

(56) also indicates the necessity of *-ni* in every possessive construction, a situation also seen in the Turkic languages in the GQLA. An example is *menïŋ yaŋï daŋɢïna kelïn* 1:GEN new:GEN lovely wife 'My new lovely wife' in Western Yugur (Zhong 2009). This may account for the performance of the obligatory usage of -tA in Chinese dialects.

In Amdo Tibetan, GEN is formally identical to ERG and INS. For example, in Machu, the ERG-INS form *-gis* (*-ngə*, *-kə*, and *-ɣə*; see 3.2.2) is also used as GEN.

(57) *nor tɕhu ɣə   hwe tɕha*
      Nuoqu   GEN book
      'Nuoqu's book'.   (Zhou 2003: 213)

5.3   Comparatives

As mentioned in 2.1, the dative marker *-xa* in all Gan-Qing dialects can indicate comparative standards as a comparative marker. In this section, we discuss two other strategies for marking comparative standards in the GQLA. First is the compound form of -DAT-ABL. Specifically, some Gan-Qing dialects with -sA and -ɕA

as ablative markers can use the combination of DAT and ABL as a comparative marker. See 4.1.4 for a discussion.

The second strategy we focus on in this section is the use of the marker meaning 'look'. This marker is observed not only in Gan-Qing dialects but also in Amdo Tibetan and Altaic languages (Salar) in the GQLA. See the examples below before the discussion.

(58) Amdo Tibetan   (Sandman and Simon 2016: 112)
      lʰasa-'a   ᵠti-na   sǝlaŋ   ʧʰe-gi
      Lhasa-DAT look-COND Xining big-TEST
      'Xining is bigger than Lhasa.'

(59) Salar   (Sandman and Simon 2016: 112)
      biqirox jiguo elige   ʤan-aŋ   vaq-sǝ   da ayǝr-a ro
      cloth   all   that.way life-2POSS look-COND too heavy-TEST INT
      'Are all such clothes weightier (i.e., more important) than your life?'

(60) Gan-Qing dialects
      a. *tʂaɕi tɤ fʐ̃ʂu kʰã lɔ   ti,   ŋɤ tɤ   fʐ̃ʂu kɔ   lɨ*
          Zhaxi GEN score look PFV PART 1   GEN score high PART
          'My score is higher than Zhaxi's.'   (Zhoutun dialect, fieldwork)
      b. 哥哥   哈 看 呵   还是 兄弟   歹
          gege   ha kan he   haishi xiongdi   dai
          elder.brother ACC look COMP still   younger.brother capable
          'The younger brother is more capable than the elder brother.'

                                              (Xining dialect, Wang 2009: 242)
      c. 马   *(*阿*/*哈*)* 看 着*/*是   快
          ma   a/ha   kan zhe/shi   kuai
          horse ACC   look PROG/COND fast
          '(Something is) faster than a horse.'   (Bonan Han dialect, Zhang 2013: 39)
      d. *je-ge   jjhakai zhungo kan-la   xaige ga-li*
          this-REF country China look-COND very small-SEN.INF
          'This country is much smaller than China.'

                                              (Wutun dialect, Sandman 2016: 146)

Literally, the construction 'A 'look', B X' means 'Looking at A, B is X', which is further read as the comparative meaning 'B is more X than A'.

Given the parallel performance between the comparative standard markers in Gan-Qing dialects and Amdo Tibetan, Sandman (2016: 147) claimed that the formation of the comparative markers meaning 'look' in the Gan-Qing dialects (specifically referring to Wutun) is due to the influence from Amdo Tibetan. However, in Sandman and Simon (2016), they argued that "it is an independent

development of the Amdo Sprachbund and its source remains unclear". Apart from the source language of the marker, the fact that this marker is not observed in the corresponding languages, i.e., Tibetan, Altaic and Chinese, outside the GQLA shows that this is another regional innovation, which again suggests the close contact among languages in the GQLA.

5.4 Reflexive possessives

The term RP refers to something that belongs to itself. Its marker is narrowly distributed in the Gan-Qing dialects in the GQLA. We only find it, based on current materials, in the Gan'gou and Tangwang dialects, as in the examples below.

(61) 牛犊儿 哈 囊 抓 住
     niuduer ha nang zhua zhu
     calf   ACC RP   catch COMP
     'Catch your own calf'.   (Gan'gou dialect, Yang 2015: 51)

(62) *və tɕa   li   nə tɕhi lɛ*
     1 home POST RP go   PART
     'I am going to my own home'.   (Tangwang dialect, Xu 2014: 232)

The RP markers *-nang* and *-nə* in the two dialects were produced by contact with neighboring Altaic languages. Mangghuer, which heavily influenced the Gan'gou dialect, has an RP marker that is phonetically the same, *-nang*.

(63) *meghe=sa=nang zhaler kong   san-wu-shi-ge   daoda*
     village=ABL=RP strong person three-five-ten-CL call
     'Call thirty to fifty strong young men from your own village'.   (Slater 2003: 174)

Santa, the language that greatly affected the Tangwang dialect, also has an RP marker *-ne*. See the following examples:

(64) *chi kha(-ni)-ne   wagha*
     your hands(-ACC)-RP wash
     'wash your (own) hands'.   (Kim 2003: 357)

However, Amdo Tibetan has no RP marker. The Gan-Qing dialects spoken quite far from Mangghuer and Santa (such as the Zhoutun and Wutun dialects) also had no RP marker. In conclusion, the RP markers in the Gan-Qing dialects are narrowly distributed and originate from the contact with nearby Altaic languages.

6.   Discussion

After examination of case markers in the languages and dialects in the GQLA, this section provides further discussion. The aim is twofold: First, we seek to offer two observations on the case markers in the GQLA (especially those in the Gan-Qing dialects), namely, (6.1) the markers can be classified into widely distributed and narrowly distributed markers, and (6.2) most markers are from the Chinese inventory and represent a borrowing type, the borrowing of pattern. Second, we aim to obtain a better understanding of language contact in the GQLA, particularly noting that there are two major strata of contact between the Gan-Qing dialects and the other languages.

6.1   Widely and narrowly distributed markers

In terms of the geographical distribution, the majority of the case markers in Gan-Qing dialects are widely distributed; i.e., they are distributed throughout most of the Gan-Qing dialects. Only a few markers appear in particular dialects, and these markers are thus narrowly distributed.

The widely distributed markers include the following:

(65) a. dative-accusative marker: *-xa*
      b. comitative-instrumental marker: 'two'
      c. locative marker: *-li* and *-shang*
      d. genitive marker: -tA
      e. comparative marker: *-xa* and 'look'

The narrowly distributed markers are as follows:

(66) f. ablative marker: -tA, -sA, -ɕA and *-l/ra*, each appearing in limited dialects
      g. comparative marker: ablatives -sA and -ɕA and the compound of -DAT-ABL
      h. reflexive possessive marker: -nA

The widely distributed markers outnumber the narrowly distributed ones 5 to 3 or, if the syncretism forms (such as dative-accusative) are treated separately, 7 to 3.

The distribution of widely and narrowly distributed markers can further reveal the contact scenario in the GQLA, which we will return to in 6.3 after another related issue is discussed below.

6.2   Markers from the Chinese inventory

There is a well-established view that case markers in Gan-Qing dialects formed through language contact. However, for every specific form of the markers, the relevant discussions have been insufficient. In this section, we argue that, somewhat unexpectedly, the vast majority of the forms of case markers in Gan-Qing dialects are from Chinese. Each form from (a) to (h) mentioned above is examined below.

a.   The dative-accusative marker -*xa* is from the Chinese locative postposition -*ɕia* 'below'. Zhou (2019a) argued that "in the contact with Tibetan, -*xa* was firstly used as a dative marker and can mark some 'patients/objects'. Then, -*xa* was further extended to the accusative, leading to the dative-accusative syncretism that cannot be found in both Tibetan and Altaic languages". Another common view of the origin of *xa* is that it came from the Chinese topic marker/pause particle *xa* (Dede 2007; Xu 2015b, 2018). We prefer the argument in Zhou (2019a) (See Zhou (2019b) in detail); regardless of which explanation is correct, *xa* is widely accepted as being derived from the Chinese inventory rather than directly copied from Amdo Tibetan or Altaic languages.

b.   The comitative-instrumental marker 'two' is from the combination of the Chinese numeral *liang* 'two' and the classifier *ge*. It could perhaps be argued that the 'two' markers in Chinese were copied from the counterpart 'two'-*la* in Altaic languages (as in Dwyer 1992). However, this hypothesis is less likely to be valid because (1) the 'two' marker in Gan-Qing dialects is distributed far more widely than that in Altaic languages; (2) there is a proper grammatical context for 'two' in Gan-Qing dialects to develop into a comitative-instrumental marker (i.e., in the NP1 (and) NP2 'two' construction, in which 'two' underwent the development of 'two' (appositive)>postpositive coordinator>comitative>instrumental); and (3) Altaic languages outside of the GQLA do not have the comitative-instrumental marker 'two'. To combine these three points, we argue that the marker 'two' originated from Chinese and then influenced the Altaic languages. See Zhou (forthcoming) for much more detail.

c.   The locative markers -*li* and -*shang* are definitely Chinese words; in fact, they are so 'Chinese' that researchers often consider them not as case markers but only as common postpositions or even postlocative nouns in Chinese. The same applies to (d) the genitive marker -tA. Since -tA is so frequently used in Chinese, researchers often overlook its (obligatory) usage in Gan-Qing dialects as a genitive marker.

e. Comparative marker. The dative *-xa* plays a role in marking comparative standards in all the Gan-Qing dialects we studied. As mentioned, *-xa* came from *-ɕia* in Chinese. Another common marker is 'look', possibly being influenced by Amdo Tibetan (Sandman 2016, but see Sandman & Simon 2016), which has the corresponding form *ti-na* 'look'-COND. However, Gan-Qing dialects have not directly copied the form *ti-na*; instead, they have chosen the Chinese element *kan* 'look'.

The markers from (f) to (h) are basically non-Chinese. The different forms of ablative markers (f) may have different origins. Quite simply, -sA is from Altaic languages, whereas -ɕA has two possible origins: from Chinese *-ɕia* 'below' (Zhang and Yang 2016) or from -sA in Altaic languages (Mo 2010). Unfortunately, the origins of -tA and *-l/ra* are hard to determine. We currently tend to assume that they are from the compound form of the two, as in '*-tAla*', from which -tA and *-l/ra* are then separately borrowed by different dialects. This form can be found in Santa and Amdo Tibetan: *-tala* in Santa (Mo 2010) and Amdo Tibetan *thək she* (<*thugs su*<*thugs la*, Rigzin and Gao 2009), both of which mean 'until'. 'Until' can be read in a specific context as 'from', such as 'do not work until tomorrow', which roughly means 'starting to work tomorrow'. From the perspective of pronunciation, *-tala* seems more likely to be the source, but it is hard to explain why the marker from Santa can be borrowed into those Gan-Qing dialects strongly affected by Amdo Tibetan, such as the Wutun and Zhoutun dialects, in which no other case markers are convincingly related to Altaic languages. The form *thək she* in Amdo Tibetan, however, is a more probable source. Amdo Tibetan can use *-la* separately to mean 'until' to replace *thək she* (<*thugs la*), as in the following example:

(67) *tʂe dʐa thək she/ la ŋa taŋ*
      noon until   sleep
      '(Someone) slept until noon'.   (Rigzin and Gao 2009: 89)

Thus, *-la* may be borrowed directly by some Gan-Qing dialects, such as Wutun. This also means that the form **thugs la* may have existed, and hence, **thugs* may be borrowed separately into some Gan-Qing dialects as *-tha/-ta*. Therefore, the phenomenon that the Wutun and Zhoutun dialects, both strongly affected by Amdo Tibetan, use different ablative forms *-la* and *-tha*, respectively, can be understood. That is, these dialects borrowed different parts from the Tibetan **thugs la*. In addition, since **thugs la* had become *thək she* in contemporary Amdo Tibetan, this borrowing likely happened in an early stage. Nevertheless, due to the lack of further evidence, the origin of -tA and *-l/ra* in the Gan-Qing dialects is an open question.

g. The ablative markers -sA and -ɕA are borrowed from Altaic languages, along with their usage in marking comparative standards. The compound -DAT-ABL, however, is a typologically rare if not unique comparative marker. This shows the different strata of contact in the GQLA. The use of the dative marker as a comparative marker in all Gan-Qing dialects reflects the early contact in the GQLA; however, for some Gan-Qing dialects that are spoken in the vicinities of the areas where Altaic languages are spoken, the ablative marker has been added, illustrating their later contact with Altaic languages and resulting in the combination of the -DAT-ABL form.

h. The RP marker exists in only a few Gan-Qing dialects (currently found only in the Gan'gou and Tangwang dialects). The common feature of the two dialects is that both had close contact with the nearby Altaic languages (Mangghuer and Santa, respectively), which is a clear reason for the formation of this marker.

Following Stolz et al. (2008:vii), there are two types of borrowing in language contact: the borrowing of pattern (i.e., abstract structures from a source to a recipient language) and the borrowing of matter (i.e., actual linguistic items from a source to a recipient language). Case markers (a)–(e) represent the former, while markers (f)–(h) represent the latter. One may ask why the Chinese forms of (a)–(e) are available to serve as case markers corresponding to those in Amdo Tibetan and Altaic languages. First, most of the markers of (a)–(e) are postpositional *per se* in Chinese. Examples include the dative-accusative -*xa* (-ɕ*ia* 'below'), the genitive -tA and the locative -*shang* and -*li*. For the comitative-instrumental -*liangge* 'two', although usually located before the nouns it modifies, it can also occur after an appositive construction, where it underwent further development. (e) is an exception, but because *ti* 'look' in Tibetan is semantically transparent, it is convenient to use the corresponding word *kan* in Chinese. In addition to the position, their original meaning is related to the target function as a case marker. For example, -*li* and -*shang* express a locative meaning in Chinese. Therefore, it is not surprising that those Chinese forms were chosen. In contrast, both ablatives and RPs are narrowly distributed, and there are no corresponding postpositional elements in Chinese; thus, Gan-Qing dialects must borrow directly from the counterparts in Amdo Tibetan or Altaic languages.

6.3 Different strata of language contact in the GQLA

Based on the descriptions and observations regarding case markers, we propose that there are two major strata of contact in the GQLA. In the early stratum, Gan-Qing dialects made contact with Amdo Tibetan, and in the second major stratum, some Gan-Qing dialects had contact with the neighboring Altaic languages.

The following can be observed. First, the existence of a large number of widely distributed markers probably reflects that the Gan-Qing dialects once had a close relationship and underwent basically simultaneous contact, an assumption that is also supported by the common choice of their borrowing type, i.e., borrowing of pattern. The special usage of the dative marker *-xa* to mark experiencers in at least three nonadjacent dialects (i.e., Zhoutun, Gan'gou and Bonan Han dialects) further illustrates, on the one hand, the strong relationship among the Gan-Qing dialects and, on the other hand, the fact that the source language in the early contact is Amdo Tibetan, in which datives have similar functions. Second, the narrowly distributed markers show the influence of Altaic languages. In particular, there are three markers, i.e., the -sA ablative marker, the -DAT-ABL comparative marker and the RP marker, clearly demonstrating the contact between some Gan-Qing dialects and Altaic languages. However, this contact occurred locally rather than globally.

The assumption of the existence of two major strata of language contact in the GQLA from the perspective of case markers is upheld by the fact that the Tibetans lived in this region centuries earlier than Altaic groups. From the Tang Dynasty (618–907 A.D.) to the Five Dynasties (907–960 A.D.), Tubo, a Tibetan regime in ancient China, occupied this region, whereas Altaic groups in the same area, such as the Santa and Bonan, were formed in the years surrounding the establishment of the Yuan Dynasty (1271 A.D.) (see also Zhou 2019a, b). In contrast, the Han people have lived in this area since the Han Dynasty.[10] Therefore, it can be naturally inferred that the contact between Gan-Qing dialects and Amdo Tibetan occurred earlier, while the contact between Gan-Qing dialects and Altaic languages occurred later.

7.   Conclusion

After examining case markers in the GQLA, including datives, accusatives/absolutives, comitatives, instrumentals, ablatives, locatives, genitives, comparatives and RPs, this paper provides two main observations on the markers in Gan-Qing dialects. Namely, they can be classified as widely distributed and narrowly distributed, and most forms of these markers are from Chinese, which reflects the borrowing of pattern. Based on the observations on case markers, this paper sheds light on

---

10.   Based on many factors such as wars, migration and immigration, the population composition of the Han people in the GQLA is not uniform but multilayered, warranting further investigation. However, it is generally reasonable to claim that the Han people underwent long-term contact with Tibetans before their contact with Altaic groups.

the situation of language contact in the GQLA, highlighting the two major strata in this contact: the earlier contact between Gan-Qing dialects and Amdo Tibetan and the later contact between Gan-Qing dialects and Altaic languages.

Let us return to the five questions raised in Section 1, which we can briefly answer now. (1) Amdo Tibetan plays a more important role in the emergence of case marking systems in Gan-Qing dialects. On the one hand, Gan-Qing dialects first underwent contact with Amdo Tibetan for a long time, during which the case marking systems formed. On the other hand, the main case markers (the widely distributed markers) in Gan-Qing dialects formed through pattern borrowing during contact with Amdo Tibetan. (2) The widely distributed markers formed during contact with Amdo Tibetan, while the narrowly distributed markers (except for ABL -tA and -l/ ra) formed during the later contact with Altaic languages. (3) Despite the approximate correspondence of the case markers in Gan-Qing dialects to those in Amdo Tibetan and Altaic languages, one-to-one correspondence is not observed. For example, the datives and accusatives in Gan-Qing dialects are syncretic, which is not observed in the other two; moreover, in Gan-Qing dialects, the datives do not bear locative meaning, but there are two markers, *-li* and *-shang*, for locatives. (4) Gan-Qing dialects tended to choose the form from the Chinese inventory rather than directly copying the case markers from the other two languages. (5) There are at least four kinds of case markers in the GQLA that present some particularities. The first is the dative-accusative syncretism in Gan-Qing dialects, as just mentioned. Second, the comitative-instrumental marker 'two' reflects a regional innovation from two perspectives: 'two' is a typologically rare source for comitatives and instrumentals, and the comitative-instrumental is not seen in Amdo Tibetan and Altaic languages outside of the GQLA. The third kind is the compound -DAT-ABL comparative marker. The fourth type is the comparative marker 'look'. As mentioned at the end of Section 5.3, this marker is not observed in the Tibetic, Altaic and Sinitic languages and dialects outside of the GQLA.

Due to the long-term and intense contact among various ethnic groups, the languages in the GQLA are unceasingly affected by other languages. Scholars realized this in much earlier research, such as Laufer (1916) on Tibetan, Poppe (1965) on Altaic languages and Li (1983) on Gan-Qing dialects. Hence, it is complicated to clarify the relationship among these languages. This paper has presented a tentative study from the perspective of case markers; Xu (2018), in addition to case markers, offers a perspective of loan words. Nevertheless, the relationship requires further research from other perspectives.

Funding

Acknowledgements

Abbreviations

1, 2, 3	first, second, third person	INS	instrumental
ABL	ablative	INT	interrogative
ACC	accusative	IPFV	imperfective
ALL	allative	LOC	locative
ATTR	attributive	NEG	negative
CL	classifier	NMLZ	nominalizer
COM	comitative	OBJ	objective
COMP	complement	PART	particle
COND	conditional	PFV	perfective
CONJ	conjunctive	PL	plural
DAT	dative	POSS	possessive
DEF	definite	POST	postposition
DIR	directive case	PROG	progressive
DIST	distal	PRS	present
EMPH	emphasize	PST	past tense
ERG	ergative	REF	referential
EV	evidential	RP	reflexive possessives
EXEC	executive auxiliary	SEN.INF	sensory.inferential
GEN	genitive	SUBJ	subjective
INDEF	indefinite	TEST	testimonial

References

Aikhenvald, A.Y. & Dixon, R.M.W. (2001). Introduction. In Aikhenvald & R.M.W. Dixon (Eds.), *Areal Diffusion and Genetic Inheritance* (pp. 1–26). Oxford: Oxford University Press.

Bickel, B. (2004). The syntax of experiencers in the Himalayas. In P. Bhaskara Rao & K.V. Subbarao (Eds.), *Non-Nominative Subjects* (pp. 78–111). Amsterdam: John Benjamins. https://doi.org/10.1075/tsl.60.06bic

Campbell, L. (2006). Areal linguistics: A closer scrutiny. In Y. Matras, A. McMahon & N. Vincent (Eds.), *Linguistic Areas: Convergence in Historical and Typological Perspective* (pp. 1–31). New York: Palgrave Macmilan. https://doi.org/10.1057/9780230287617_1

Chen, Z. & Lei, X. (2008). Xibu Yuguyu jianzhi [A Brief Description on Western Yugur], in H. Sun (Ed.) Zhongguo Shaoshuminzu Jianzhi Congshu (Di 5 Juan) [Series of Brief Descriptions on Minority Nationalities in China (Vol.5)] (pp. 751–854). Beijing: Nationalities Press.

Dede, K. (2007). The Origin of the Anti-Ergative [Xa] in Huangshui Chinese. *Language and Linguistics* 8(4). 863–81.

Dwyer, A.M. (1992). Altaic Elements in the Línxià Dialect: Contact-Induced Change on the Yellow River Plateau. *Journal of Chinese Linguistics* 20 (1): 160–179.

Dwyer, A.M. (1995). From the Northwest China Sprachbund: Xúnhuà Chinese Dialect Data. *Yuen Ren Society Treasury of Chinese Dialect Data* 1. 143–182.

Enfield, N.J. (2005). Areal linguistics and Mainland Southeast Asia. *Annual Review of Anthropology* 34. 181–206. https://doi.org/10.1146/annurev.anthro.34.081804.120406

Feng, C. (2002). Shuliang jiegou heyinci "lia" "sa" de jige wenti [Issues on the numeral portmanteaus *lia* and *sa*]. Yuyan Yanjiu [Studies in Language and Linguistics]. 2002 (2). 38–44.

Fried, R. (2010). A Grammar of Bao'an Tu: A Mongolic Language of Northwest China. Buffalo: University of Buffalo Ph.D dissertation.

Georg, S. (2003). Mongghul. In J.A. Janhunen (Ed.), *The Mongolic Languages* (pp. 286–306). London and New York: Routledge.

Heine, B. & Kuteva, T. (2002). *World Lexicon of Grammaticalization*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511613463

Kim, S.S. (2003). Santa. In J.A. Janhunen (Ed.), *The Mongolic Languages* (pp. 346–363). London and New York: Routledge.

Laufer, B. (1916). Loan-words in Tibetan. *T'oung Pao* 17. 403–552. https://doi.org/10.1163/156853216X00157

Li, C.N. (1983). Languages in contact in western China. *East Asian Languages* 1. 31–51.

Ma, W. (2013). Salayu Xingtai Yanjiu [Studies on the Morphology in Salar]. Beijing: Minzu University of China Ph.D dissertation.

Mo, C. (2010). Dongxiangzu hanyu zhong xie, you lada/ dala, aha de yongfa ji laiyuan [Dongxiang language *xie, you, la da/dala* and *aha*, usage and source]. Gansu Gaoshi Xuebao [Journal of Gansu Normal Colleges] 2010(6). 31–33.

Næss, Å. (2008). Varieties of dative. In A. Malchukov & A. Spencer (Eds.), *The Oxford handbook of case* (pp. 572–580). Oxford: Oxford University Press.

Peyraube, A. (2018). On some endangered Sinitic languages spoken in Northwestern China. *European Review* 26(1). 130–146. https://doi.org/10.1017/S1062798717000394

Poppe, N. (1965). *Introduction to Altaic Languages*. Wiesbaden: Otto Harrassowitz.

Rigzin, W. & Gao, X. (2009). The Product of Language Contact: Sentence Structure in the Hezhou Chinese Dialect and the Amdo Tibetan Dialect. *Macrolinguistics* 3. 85–98. https://doi.org/10.26478/ja2009.3.3.4

Sandman, E. & Simon, C. (2016). Tibetan as a "model language" in the Amdo Sprachbund: evidence from Salar and Wutun. *Journal of South Asian Languages and Linguistics* 3(1). 85–122. https://doi.org/10.1515/jsall-2016-0003

Sandman, E. (2016). A grammar of Wutun. Helsinki: The University of Helsinki Ph.D dissertation.

Shao, M. & Li, C. unpublished. Zangyu xuci daŋ de yufahua [On the grammaticalization of *daŋ* in Tibetan].

Siqinchaoketu. (1999). Kangjiayu Yanjiu [Studies on Kangjia language]. Shanghai: Shanghai Far East Publishers.

Slater, K.W. (2003). *A Grammer of Mangghuer: a Mongolic Language of China's Qinghai-Gansu Sprachbund*. London and New York: Routledge Curzon.

Stolz, T., Bakker, D., & Rosa, S.P. (Eds). (2008). *Aspects of Language Contact*. Berlin/ New York: Mouton de Gruyter. https://doi.org/10.1515/9783110206043

Sun, Jackson T.-S. 1993. Evidentials in Amdo Tibetan. *Bulletin of the Institute of History and Philology* 63.4:945–1,001.

Thomason, S.G. (2001). *Language Contact: An Introduction*. Edinburgh: Edinburgh University Press.

Vollmann, R. (2008). *Descriptions of Tibetan Ergativity: A Historiographical Account*. Graz: Leykam.

Wang, Q. (1995). *A Grammar of Spoken Amdo*. Chengdu: Sichuan Nationality Publishing House.

Wang, S. (2008). Xining Fangyan Zhuanti Yanjiu [Monographic Study on Qinghai Dialects]. Shanghai: Shanghai Normal University MA dissertation.

Wang, S. (2009). Xining fangyan de chabiju [The comparative constructions in the Xining dialect] Zhongguo Yuwen [Studies of the Chinese Language]. 2009(3): 241–247.

Wang, S. (2012). Xining fangyan de jieci leixing [The pattern of the adpositions in the Xi' ning dialect]. Zhongguo Yuwen [Studies of the Chinese Language] 2012(5). 469–478.

Wang, S. (2018). Jiechu yu gongxing: Xining fangyan fangsuoci de yufahua [Contact and university: the grammaticalization of the locational words in Xining dialect]. Paper presented to *The Fifth Summit Forum on the Study of Chinese and Ethnic Languages from the Perspective of Typology*. Beijing: Beijing Language and Culture University. 24–25 November 2018.

Wang, S. & Dede, K. (2016). Negation in the Xīníng Dialect. *Language and Linguistics* 17(3): 407–429. https://doi.org/10.1177/1606822X15586686

Wu, H. (2003). Bonan. In J.A. Janhunen (Ed.). *The Mongolic Languages* (pp. 325–345). London and New York: Routledge.

Xu, D. (2014). Tangwanghua Yanjiu [Studies on Tangwang]. Beijing: Nationalities Press.

Xu, D. (2015a). The role of geography in the northwest China linguistic area. In D. Xu & J. Fu (Eds.), *New Studies of Space and Quantification in Languages of China* (pp. 57–73). Netherlands: Springer.

Xu, D. (2015b). Sinitic languages of Northwest China: Where did their case marking come from? In G. Cao, R. Djamouri & A. Peyraube (Eds.), *Languages in contact in North China: Historical and Synchronic Studies* (pp. 217–243). Paris: EHESS, Centre de recherches linguistiques sur l'Asie orientale.

Xu, D. (2018). Ganqing yidai yuyan jiedai de lishi cengci ji moshi [The borrowing layers and patterns in the languages of Gan-Qing area]. Minzu Yuwen [Minority Languages] 2018 (1): 3–21.

Xu, D. & Peyraube, A. (2018). Zhongguo jingnei Gansu Qinghai yidai de yuyan quyu [Linguistic Area of Gansu-Qinghai in China]. Hanyu Xuebao [Chinese Linguistics] 2018(3): 2–15.

Yang, Y. (2014). Qinghai Minhe Gangouhua de duogongneng gebiaoji 'ha' (The Multi-Functional Case Marker [xa] in Gangou Chinese Dialect in Minhe Hui and Monguor Autonomous County, Qinghai Province) Fangyan [Dialects]. 2014 (3):230–41.

Yang, Y. (2015). Qinghai Minhe Gangouhua de yuxu leixing [Word Order Typology of Gangouhua in Qinghai Minhe]. Minzu yuwen [Minority Languages]. 2015 (6):15–30.

Yang, Y. & Zhang, J. (2016). Qinghai Minhe Gan'gou hua de gebiaoji xitong [The case marking system in Gan'gou dialect]. Minzu Yuwen [Minority Languages] 2016 (5):1–14.

Zhang, A. (2013). Ganqing hehuang fangyan mingci de gefanchou [Nominal cases in He-Huang dialects in Gansu and Qinghai provinces]. Zhongguo Yuwen [Studies in the Chinese Language]. 2013 (4): 291–307.

Zhang, J. (2013). Baoanzu Hanyu fangyan gefanchou yanjiu [The study of the case in the Chinese dialect used by the race of Bonan]. Lanzhou: Lanzhou University MA thesis.

Zhaonasitu. (2008a). Tuzuyu jianzhi [Descriptions of Tu], in H. Sun (Ed.) Zhongguo Shaoshuminzu Jianzhi Congshu (Di 6 Juan) [Series of Brief Descriptions on Minority Nationalities in China (Vol.6)] (pp. 177–246). Beijing: Nationalities Press.

Zhaonasitu. (2008b). Dongbu yuguyu jianzhi [Descriptions of Eastern Yugur], in H. Sun (Ed.) Zhongguo Shaoshuminzu Jianzhi Congshu (Di 6 Juan) [Series of Brief Descriptions on Minority Nationalities in China (Vol.6)] (pp. 370–440). Beijing: Nationalities Press.

Zhong, J. (2009). Xibu Yuguyu Miaoxie Yanjiu [Descriptions and Studies of Western Yugur]. Beijing: Nationalities Press.

Zhou, C. (2016). Qinghai Zhoutunhua cankao yufa [The reference grammar of Zhoutun in Qinghai Province]. Tianjin: Nankai University Ph.D. dissertation.

Zhou, C. (2017). On the word order of ditransitive constructions in Northwestern Chinese. *Journal of China Studies* 20(3). 29–45. https://doi.org/10.20288/JCS.2017.20.3.3

Zhou, C. (2019a). A special case marking system in the Sinitic languages of northwest China. *Journal of Chinese Linguistics* 47(2): 425–452.

Zhou, C. (2019b). Ganqing fangyan gebiaoji 'ha' de laiyuan [The origin of the dative-accusative marker *xa* in Gan-Qing dialects]. *Language and Linguistics*. 20(3): 494–514.

Zhou, C. (2020). The structure of Num+CL in the Zhōutún dialect: Issues induced by language contact. *Language and Linguistics*. 21(1): 145–173.

Zhou, C. (forthcoming). From "two" to a comitative-instrumental case marker: A regional innovation in Gansu-Qinghai linguistic area. Accepted by *Language and Linguistics*.

Zhou, M. (2003). Maqu Zangyu Yanjiu [Studies on Machu Tibetan]. Beijing: Nationalities Press.

Address for correspondence

Chenlei Zhou
Institute of Linguistics
Chinese Academy of Social Sciences
No. 5, Jianguomennei Street
Beijing, 100732
P.R. China

zhouchenlei@126.com