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# Calquing, Structural Borrowing and Metatypy in the Dongxiang language

## Author version

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#### **Abstract**

The Dongxiang language, spoken in Southern Gansu province in the People's Republic of China, is a Mongolic language that has been in contact with Linxianese, a neighboring Chinese dialect. These contacts have induced massive phonological and lexical changes in the Dongxiang language, but only a few syntactic changes due to the influence of Linxianese can be traced. In this paper, I describe and analyze two particular cases of the grammatical function expansion of two suffixes, -ni and -ji, used with adjectives in Dongxiang. From those examples, I try to show that there is a difference between two phenomena present in the Dongxiang language, one being closer to a calque and the other closer to grammaticalization, and eventually metatypy. I also describe a hypothetical borrowing process reflecting the grammatical integration of these two suffixes.

#### **Keywords**

 $language\ - calque\ - grammatical\ borrowing\ - metatypy$ 

#### Résumé

La langue dongxiang, parlée dans le sud du Gansu en République Populaire de Chine, est une langue mongolique qui a été en contact avec le dialecte chinois voisin de Linxia. Celui-ci a influencé la langue dongxiang sur le plan phonologique et lexical de façon importante alors que la syntaxe ne semble pas avoir été autant influencée. Dans cet article, je décris et analyse deux suffixes, -ni et -ji, utilisés avec des adjectifs, dont les fonctions se sont étendues sous l'influence du linxianais. A partir de ces exemples, j'essaye de montrer qu'il existe deux phénomènes distincts, l'un se rapprochant du calque et l'autre de la grammaticalisation, et éventuellement de la métatypie. Je tente également de décrire le processus d'emprunt possible qui reflète l'intégration grammaticale des deux suffixes dans la langue dongxiang.

#### Mots-clés

contact de langue - langue dongxiang - calque - emprunt grammatical - métatypie

#### 1. Introduction

People's Republic of China. Several minority ethnic groups speaking languages belonging to different families (Sino-Tibetan, Turkish and Mongolian) live in this region. The Dongxiang language, along with Mangghuer, Mongghul, Bonan and Easter Yughur, is known as one of the peripheral Mongolic languages of this region which have been isolated from other Mongolic languages. These languages have common typological forms inherited from Middle Mongolian and have all been influenced by the surrounding Chinese dialects to a greater or lesser degree. This region is often described as a Sprachbund, or linguistic area, and comparative studies on the subject have been first provided by Dwyer (1992), followed by Slater (2003), Janhunen (2004) and Delige'erma & Bo (2006). Nugteren (1997, 2011) has worked through a comparative approach more specifically on the phonological features and their evolution. Research on the Dongxiang language itself was provided during the second half of the twentieth century by Western and Chinese scholars. Todaeva's (1961) work was the first description of this language, followed by Liu's (1983), Buhe's (1987) and Kim's (2003) concise grammar. The most complete description available today on the Dongxiang language remains Field's (1997) unpublished grammar of Santa Mongolian (Dongxiang language) which focuses on an internal description of the language and gives an analysis on contact-language-induced changes from a phonological and lexical point of view. Bao (2006) oriented her work on the description of contact-induced phenomena in the Dongxiang language but does not describe mechanisms that led to the change and does not take into account all the specificities of the Chinese dialects involved.

In this paper, I will discuss syntactic features induced by contact language phenomena in the Dongxiang language, that is to say calques, structural borrowing and metatypy. I will specifically analyze two Dongxiang markers -ni and-ji and will show the resemblance with their Chinese counterparts, and I will try to identify to which phenomena they can be linked. The term calque, or loan translation, refers to new words modelled after words which exist in another language. It differs from borrowing, where a foreign word and its meaning are adopted wholesale into the other language as a loan word (Bussmann 1996). Structural borrowing is the adoption of a structural feature into a language (Kossman 2007). Metatypy denotes a change in a morphosyntactic type, which occurs when speakers are bilingual and restructure the morphosyntactic constructions of one of their languages on the model of constructions found in the other language (Ross 2007). These three features suggest that there is a model language from which the structures take their source, and a replica language, which is the language where the structures are transposed. In this case study,

model language will refer to Linxianese and replica language to the Dongxiang language.

In the particular case of metatypy, it cannot occur without calquing but calquing can occur without metatypy. The latter differs from structural borrowing because it 'entails the imitation in the replica language of constructions in the model language. This imitation makes use of or builds on constructions that already exist in the Replica language' (Ross 2007: 24).

Many theories in contact language literature describe the different phenomena induced by such situations as part of a continuum where at the ex tremes lexical borrowing and grammaticalization can be found (see among others Thomason & Kaufman 1988, Appel & Muysken 1987 and Auer 1998). It is defined as the development from lexical to grammatical forms (also referring to functional categories) and from grammatical to even more grammatical forms (Heine & Kuteva 2005). If we follow this continuum, calques shall be closer to lexical borrowing while metatypy shall be closer to grammaticalization. Metatypy suggests that grammatical change is wider and therefore more systematic than calques. It is not clear where grammatical calques end and where metatypy starts and there might be intermediate stages between the two. However, Ross (2007) thinks that metatypy is preceded chronologically by lexical and grammatical calquing but is separate from these processes. Therefore, even if the chronological order does follow the same pattern as described by the continuum models, there can be layers that overlap each other. In the case of metatypy, speakers of bilingual speech communities establish functional correspondences between constructions of the two languages and remodel the constructions of the replica language so that they more closely match those of the model language. This includes narrowing, adapting and/or extending the functional ranges of certain constructions in the replica language. These adaptations may in turn lead to grammaticalization.

I will describe and analyze two particular cases of a calque and a grammatical function expansion of the suffixes -ni and -ji used with adjectives. I will try from those examples to show that there is a difference between the two phenomena, one being closer to a calque and the other closer to grammaticalization, and eventually metatypy. I will then describe a hypothetical borrowing process reflecting the grammatical integration of these two suffixes.

#### 2. Context

The Dongxiang language is spoken by about 300,000 speakers who, for the greater part, live in the Dongxiang Autonomous District in the south of Gansu province in the People's Republic of China. Even though the origin of the Dongxiang people remains uncertain, historical and linguistic evidence shows that it was most probably formed around the 13th century (Ma Tong 1981 and Ma

The Dongxiang language has an SOV word order with strictly suffixing and agglutinative morphology. Numerous phonological, lexical and syntactic elements are clearly inherited from 13th century Mongolian (Field 1997; Nugteren 2011) while other elements such as vowel harmony and vowel length have completely disappeared1. The loss of these fundamental phonological features2, as well as the significant volume of Chinese loan vocabulary and the emergence of new syntactic structures are changes that have been induced through language contact with different varieties of Chinese. The nature of this contact can be distinguished as being either historical Or modern. Historical contact refers to contact with Linxianese, which is spoken by the neighboring Hui<sup>3</sup> community of the town of Linxia, and it is believed to have been occurring since the earliest times of the formation of the language (Bao 2006). Such contact has induced massive phonological and lexical changes in the Dongxiang language, yet only a few (if any) syntactic changes that are due to the influence of Linxianese can be traced. As the town of Linxia was and still is a regional trading hub, it was also the center of convergence for all neighboring communities and hence for speakers of Mongolic, Sinitic and Turkish languages. Evidence of contact with these languages can be found in Linxianese, which has developed singular syntactic features that are usually absent in Chinese dialects. Among these are SOV word order and the use of cases and converbs. As Linxianese and the Dongxiang language's principal syntactic features (word order) are very similar, very little change has occurred in the Dongxiang syntax and, most of the time, it has been induced through the lexical loan process<sup>4</sup>. Due to the fact that the syntax of the Dongxiang language has not been much influenced, it is supposed that the syntactic changes in Linxianese occurred during the early stage of formation of the Dongxiang language or even before contact between the two languages ever occurred. Modern contact refers to contact between the Dongxiang language and other Chinese varieties spoken in the region (Mandarin dialects of the Northwest including those of Lanzhou, Xining, etc.), and also to contact with the modern standard Chinese variety, Putonghua, that has occurred very recently. In fact, this contact started during the mid-90s and has been encouraged by different factors, such as workers' mobility, education development and economic growth. As Northwest varieties are very different syntactically from the Dongxiang language

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<sup>&</sup>lt;sup>1</sup> Scholars are even wondering if long vowels have ever been developed in the Dongxiang language; see Field (1997) and Bao (2007).

Poppe (1965) states that vowel harmony and vowel length are characteristics common to all Altaic languages in general and to Turkish and Mongolic languages in particular.

³ The Hui are one of the 55 official ethnic minorities (少数民族) in the People's Republic of China and are predominantly Muslim.

<sup>&</sup>lt;sup>4</sup> For example, the significant amount of Chinese adverbs loaned into Dongxiang reduces the use of post verbal converbs and desinences, therefore the syntax is indirectly influenced.

and Linxianese, this contact started to influence the Dongxiang language on many different levels. Among these may be mentioned resultative verbal construction calques on Putonghua and Northwest Chinese structures, the restricted use of marked morphology (through direct loans of adverbs and translation loan copying of Chinese unmarked morphology) and the appearance of new word categories (classifiers, particles, clitics, etc.) which are phenomena that seem to have been developed more recently under the increasing influence of the Northwest Chinese varieties. However most of these are still under a process of stabilization and have to be considered as being speech variation rather than language change. In parallel, code switching and code mixing are greatly used among the bilingual community and it is sometimes very difficult to see where one starts and the other ends. It is often said that most Dongxiang speakers also speak Chinese, however, no complete survey ever has been done among the speakers to confirm this<sup>5</sup> and it is important to note that most Chinese scholars regroup all varieties of Chinese under the umbrella 'Chinese language.' Therefore it is very difficult to It is difficult to understand if they refer to Linxianese or to the standardized variety of Chinese when describing both the sociological and linguistic phenomena.

## **3** Corpus and References

Most of the examples I have used for this paper have been taken from the corpus I collected during two periods of field work (March – July 2009 and April – July 2010) conducted in the context of my PhD dissertation entitled Language contact in North–West China: A case-study of the Dongxiang language. The corpus was recorded among a network of speakers representing 23 people living in Suonanba (镇南坝) and Maomao (毛毛) villages, both situated in the Dongxiang Autonomous District in Gansu province. The corpus is composed of 30 texts (14 dialogues and 16 monologues/told stories), all of spontaneous speech and that comprise about 1,800 sentences. For comparison purposes, I have also used chapters 1 to 5 of Buhe's research (1987), material for which was collected between 1980 and 1984, and examples in Field's thesis (1997), for which field work was conducted between 1991 and 1994.

# 4 Case Study

In the Dongxiang language, markers -ni and -ji have several different functions and are sometimes used for the same function depending on the origin of the word they are used with. Both -ni and -ji can be used as suffixes with borrowed adjectives. -ni can be used as genitive and accusative marker as well as a third

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<sup>&</sup>lt;sup>5</sup> In 1958, a geographic-based study on bilinguals in the Dongxiang Autonomous District (Chen 2006) was conducted without precisely describing the type of Chinese being investigated. Since then, other research has been done only on specific geographic areas or on partial groups of speakers

person possessive, while -ji can be used as manner adverbial. I will describe the different uses of -ni and -ji and will analyze their relationship with Chinese (Linxianese and Putonghua) in order to define whether or not they can be considered as calques or grammatical borrowings and to what extent these can be considered as part of metatypy.

Traditionally used to mark the genitive and accusative cases, -ni has also been used to calque certain functions of the Linxianese particle ji (地). The marker -ji is a calque (and/or a borrowing) of the Linxianese dialect particle ji when used with adjectives preceding verbs.

#### 4.1 Use of -ni with Borrowed Adjectives in Dongxiang

In the Dongxiang language, most of the borrowed Chinese adjectives are direct loans that do not require any suffixes, while borrowed verbs must have one, for example:

(1) putong ordinary.common 'common' (from Chinese pǔ tōng 普通)

However, some Chinese adjectives are borrowed together with the marker -jiwhich is a direct loan of Chinese marker de(i) pronounced ji or qi in Linxianese.

(2) Gauji youliyouqi-**ji** intui yizhong oqin-le, a bit naughty-**DE** like one kind girl-PL

hhe-le ye jianbushang.3PL also scorn'Even if they are only a bit naughty, he despises that kind of girl.'

In Linxianese, the function of particle ji ( $\rlap/$ i) is to show that whatever it is suffixed to is in a modifying relationship with whatever follows. However, in Dongxiang, adjectives borrowed from Linxianese together with the Chinese suffix -ji, seem to be forming an inseparable unit with the adjective, and the suffix does not have all the grammatical functions it has in Chinese even when the adjective is not modifying the head, for example:

- (3) zhongyaoji important 'important' (from Chinese zhòngyàode 重要的)
- (4) xiancheng**ji** ready.made 'ready-made' (from Chinese xiànchéngde 现成的)

In standard Chinese, the marker de has many functions such as marking genitives, adverbs, relative clauses and associative phrases. Syntactically however, these structures share a common feature: -de is suffixed to a phrase that precedes the head which it is modifying. When an adjective precedes a head noun in Chinese, it is often followed by de. This phrase is considered to be a relative clause. This is because of the verbal nature of adjectives in Chinese. When de is not used, the phrase is considered to be an attributive adjective (Li & Thompson 1981: 113–126). Most monosyllabic adjectives can modify the noun in a clause with or without using the particle de, for example:

While all reduplicated adjectives have to be used with the particle *de*, for example:

Some other adjectives cannot modify the noun either without the particle *de*, for example:

The particle de 约can also be used to substantivize adjectives, for example:

(10) 天 热 下 了,我 你 哈 
$$tci\tilde{c}^{243}$$
  $z_{2}^{42}$   $x_{2}^{42}$   $lio$ ,  $y_{2}^{43}$   $y_{1}^{i43}$   $x_{2}^{43}$  weather hot start PART 1SG 2SG PART

缝 的 了 一 个 薄薄 的  $f_{2}^{2}$   $f_{2}^{2}$   $f_{3}^{2}$   $f_{4}^{2}$   $f_{5}^{2}$   $f_{5}^{2}$ 

'The weather is hot now, I sewed a very light blanket for you.'

In Dongxiang, other Chinese-origin adjectives are suffixed by the indigenous genitive case marker form -ni of Mongolic origin. This borrowed adjective suffix is a loan translation of Chinese particle de used with adjectives in Chinese, for example:

- (12) fan**ni** square 'square' from Chinese fangde (方的)
- (13) xieni slanted.inclined 'slanted' from Chinese xiede (斜的)

Most adjectives borrowed from Chinese have the indigenous suffix -ni, which functions as a genitive marker the same way in Dongxiang as the Linxianese particle ji does in Chinese. Thus -ni is a calque of Linxianese ji and in this way indicates that the adjective is borrowed, -ni does not occur with indigenous adjectives in Dongxiang, and thus it is not a grammatical marker.

In my opinion, the above-described suffixes are two different phenomena taking their source from the same Chinese particle ji. In Dongxiang, the suffix -ji is a direct loan, a grammatical borrowing to which partial syntactic functions and phonological forms have been loaned; on the other hand, -ni is a calque of its Linxianese counterpart ji and it has kept its Dongxiang indigenous form. In both

cases, the syntactic primary functions have been partially abandoned.

Chinese borrowed adjectives are sometimes borrowed with the suffix -ji or the calqued suffix -ni. As the particle ji can be used in Linxianese to mark the genitive as well as relative clauses, there has been an association of their functions in the Dongxiang language. The marker -ni being the Dongxiang counterpart of the Linxianese genitive case ji, it has been associated with the homophonous clause marker ji in Chinese.

The use of borrowed adjective suffixes and calques of Chinese particles is attested in both Field's (1997) research and Buhe's (1987) material, which means that this is the result of contact with Linxianese and has been present for a long time.

# 4.2 Manner Adverbial -ji

In the Dongxiang language, manner can be expressed by reduplication of an adjective or by the addition of marker -ji to the adjective, which is a homophonous form of the borrowed adjective marker -ji described above. This marker seems to be a calque of the Linxianese particle ji (4b), which is used with adjectives before verbs to express manner.

However, this suffix is not obligatory in Dongxiang and is often omitted and it can be used with both borrowed and indigenous adjectives.

Most often, they are used after reduplicated borrowed adjectives or onomatopoeias, for example:

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(14) Ingiese yanzi-de kun-ni pazhapazha-ji then courtyard-LOC man-ACC gluttonously-MAN

ijie-zhuo, gie-ne.
eat-PERF say-IMP
'Then, they said, a man was gluttonously eating in the courtyard.'
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Field (1997) describes -ji as a calque of an adverbial construction expressing manner in Linxianese where the particle ji (地) is used too with duplicated adjectives. In standard Chinese, the adverbial particle de (地), which is the equivalent of the Linxianese particle ji, is generally not used with monosyllabic words (15) while its use is optional with dissyllabic adjectives (including reduplicated forms), when used as an adverbial modifier (16), for example:

warmly (DE) welcome 'welcome warmly'

However, the use of the adverbial particle de ( $\frac{1}{2}$ ) is obligatory when it is used with dissyllabic adjectives expressing state or condition, for example:

In Linxianese, this suffix is automatically added to any duplicated or multisyllabic adjective in adverbial position, for example:

'Why aren't you leaving rapidly? What are you doing?'

Field (1997) notes that in his corpus this construction is only used in Dongxiang with onomatopoeias, while evidence of *-ji* used with all kinds of borrowed adjectives can be found in Buhe's (1987) corpus and mine. However, these

adjectives are always multisyllabic:

(20) Luanqibazao-ji kielie-zhuo mess-MAN talk-PROG 'We are just talking nonsense.'

The use of *-ji* is also found in indigenous formations, for example *udu udu-ji* 'day by day' where it seems to be adopted as an adverbial suffix. In Ma & Chen's (2001) dictionary, *-ji* is sometimes considered to be an adverbial suffix, as for example in the adverb *mimi mama-ji* 'very densely,' based on adjective *mimi* 

mama 'very dense,' and the adverb *mimi-ji* 'secretly,' based on the noun mimi 'secret'. It is also important to note that some native onomatopoeic expressions, such as *huru huru* 'ono. sound of sob', *hushi hushi* 'ono. sound of sob', *wara wara* 'ono. sound of din' and *wang wang* 'ono. sound of dog barking,' do not require *-ji* to be used as adverbs, while others such as *hhahha-ji* 'doing haha' cannot do without it.

In this case, the suffix -ji may first have been borrowed together with the Chinese borrowed adjectives when expressing manner, as in the case of adjectives borrowed together with -ji, and then become independent, transforming itself into a calque, as it can be used with onomatopoeias and other indigenous reduplicated adjectives as well.

Nowadays, -ji is definitely not a simple borrowed adjective suffix anymore as it can be used totally independently and can even be omitted, therefore it has been grammaticalized. As has already been mentioned, in Linxianese the particle ji used to express genitive or used as a marker of relative clauses is homophonous with ji (地) used with adjectives to express manner.

In my opinion it is more likely that -ji is a calque rather than structural borrowing because it is used only when the speaker specifically wants to express manner in this way; had it been a grammatical borrowing, it would be found used anytime, with any kind of adjective.

# 4.3 Use of -ni to Substantivize Adjectives

In the Dongxiang language, third person possession can be expressed on the possessed NP by using the marker -ni. According to Field (1997), this marker is the genitive case, which is used in a different way<sup>6</sup>, attached to the possessedNP and not the possessor, for example (Field 1997: 366):

(21) Funiegvan fugu-dene arasun-ni kuarala-zhi fox die-DO skin-3PS ONOM-SS

*dungkulie-zhiwo*. make.a.sound-PROG

'After the fox died, his skin was making 'kuarala' sound.'

This marker can also be used to substantivize adjectives, e.g.:

(22) youshi-de bi chighan-ni musi-zhuo. Sometimes-DAT 1SG white-3PS wear-PROG 'Sometimes I wear white (the white one).'

Most of the time, these adjectives are colour adjectives, but the marker can

<sup>&</sup>lt;sup>6</sup> Tsydendambaev (1979) thinks that genitive case \*-ni in Mongolic languages originated from two auxiliary elements, the third person possessive \*n and the historical pronoun of the third person singular \*i.

also be used with other indigenous adjectives, for example:

(23) Chi uzhe-zhi zui dogvun-ni shi bi wo ma?

2SG see-SIMUL most ugly-3PS be 1SG be INT

'In your eyes, I am the ugliest thing that exists (the ugliest one)?'

Similar examples can be found in Zhao (1980: 89):

(24) Fugie-ni bolu-wo. big-3PS ripe-PER 'The big one is ripe.'

This phenomenon is not limited to the Dongxiang language and is found in other Mongolic languages from the Gansu–Qinghai region like Bonan, Mangghuer and Mongghul but also in other isolated Mongolic languages such as Dagur, where the 3rd person possessive suffix is used with adjectives in similar ways<sup>7</sup>. Examples from Bonan (25) and Mongghul (26) are given below:

- (25) bu xəra-nə lə nggagə-nə. 1SG black-3PS NEG resin-like-IMP 'I don't like the black one (thing).' (Buhe & Liu 1980: 37)
- (26) xara-nə saiin a.
  black-3PS good AUX
  'The black one is good.' (Zhaonasitu 1981: 61)

In Chinese, the particle  $rac{d}{d}$ , de in Putonghua, pronounced ji in Linxianese, can be used, among other functions, as a genitive marker and also as a clause nominalizer. Therefore, it can be found following an adjective, which makes its use very similar to the one described in the Dongxiang language and other Mongolic languages, for example:

- (27)我 红色 的。 要 那 wŏ vào nà gè hóngsè de red.color want that CLF DE 'I want the red one.'
- (28) 我 不 喜欢 黑 的。 wǒ bù xǐhuān hēi de 1 neg like black DE 'I don't like the black one (thing).'

A parallel can be made between the Dongxiang suffix -ni and the Chinese

<sup>&</sup>lt;sup>7</sup> Moreover, Turkic languages use the Turkic 3rd person possessive *-(s)I(n)* in the same way. This can be found in Salar, a Turkic language spoken in Gansu, but also in Turkish, e.g. *iyi* 'good' and *iyi-si* 'the good one'.

particle ji/de, as they both can be used as genitives and to substantivize adjectives. However, as similar functions can be found in all Mongolic languages and even in Turkish, this similarity cannot be explained by the languages' contact situation. On the contrary, it seems that these functions have developed in Chinese and Dongxiang independently and the phenomenon is not a grammatical loan from one language to the other. As there are existing correspondences between Chinese de and Dongxiang -ni, this phenomenon could have been identified as metatypy, that is to say that, even though the two languages have created similar functions independently, they have formed a mirror effect linked by the two suffixes' (-ni and -ji) other functions, namely borrowed adjective marker (gramatical loan and calques of Chinese de/ji) and manner adverbial marker

(grammatical loan and calques of Chinese de/ji (地)). However, according to Ross (2007), in the case of metatypy, there must be a replica language copying

constructions and syntactic functions of a model language, which is not the case here, and refers to a kind of morphosyntactic restructuration in the Replica language. Nonetheless, it can be said that the fact that Chinese *ji/de* and Dongxiang -ni share the same functions to mark the genitive and to substantivize adjectives has probably encouraged the extension of the function of the marker -ni as a borrowed adjective suffix.

#### 5 Conclusion

In the examples above, -ni and -ji can have different functions when used with adjectives in the Dongxiang language. They can be borrowed adjective suffixes (-ni and -ji), manner adverbials (-ji) or adjective substantivizers (-ni) and can be interpreted in a variety of different ways from the contact language phenomena point of view.

When it is used as a borrowed adjective marker, -jis a direct loan, probably a grammatical borrowing directly loaned together with the adjective which has gradually lost most of its grammatical functions. On the other hand, the borrowed adjective marker -ni is a calque of Linxianese particle ji. The Dongxiang language uses an indigenous suffix to imitate the structural function of a particle in the influencing language and create grammatical innovation in the receiving language. The motivation for using both -ni and -jias borrowed adjective markers remains uncertain, however, Dongxiang's suffix -ni has definitely extended its syntactic function through the calquing process. In this particular case, it is possible that the Linxianese particle jiwas first borrowed together with the adjective keeping part of its syntactic functions, that Dongxiang's suffix -ni has then calqued its functions on Chinese and that both have been slowly lexicalized and have lost most of their syntactic features. However, this process cannot be verified as we lack historical evidence in Dongxiang, and it may also be the result of an abrupt

change in the language rather than a slow development.

In the case of manner adverbial ji, it is most likely to be a grammatical loan from Linxianese ji ( $\not$ ). It is sometimes borrowed together with the Chinese adjective and can also be used with indigenous reduplicated adjectives. It is not always clear whether or not its grammatical functions are intact in all cases and it can be considered either as a borrowed adjective marker, a manner adverbial or an adverb marker. As explained for the use of -ni as a borrowed adjective marker, it is difficult to decide whether the suffix -ji was first borrowed together with its syntactic functions or as part of the lexical stem. As already mentioned, it is possible that jiwas first loaned together with the Chinese borrowed adjectives when expressing manner, as in the case of adjectives borrowed along with -ji, and then has become independent, transforming itself into a calque, as it can be used with onomatopoeias and other indigenous reduplicated adjectives as well.

In both cases, it is very difficult to establish a chronological order of borrowing and calquing for when -ji and -ni are used as borrowed adjective suffixes or when -ji is used as an adverbial of manner marker. Finally, the Dongxiang suffix -ni can be used as a genitive marker and adjective substantivizer, while Linxianese particle ji can also be used with the same functions. These similarities are not due to contacts between the two languages because genitive markers are used to substantivize adjectives in all peripheral Mongolic languages as well as most Chinese dialects. However, this resemblance must have encouraged the development and the spread of the so called 'functional mirror' in both languages.

It is quite clear that manner adverbial *-ji* is a structural borrowing of the Chinese *ji* (地) while borrowed adjective suffix *-ni* is a calque of Chinese *ji*. Even though the Dongxiang language has been heavily influenced by Linxianese on the lexical level, the two features I describe are isolated cases of borrowing—calquing particles on a more syntactic level. In my opinion, the phonologic and syntactic resemblances in both languages of these particles/ suffixes/markers have encouraged the spread of syntactic features in the Dongxiang language.

However, this does not seem to match with metatypy. Indeed, one of the differences between structural borrowing and metatypy described by Ross (2007) includes the fact that metatypy is a general phenomenon while structural borrowing suggests the borrowing of individual structures. Moreover, reanalysis and grammaticalization as defined by scholars (Harris & Campbell 1995) are also phenomena that imply the whole language syntax and therefore do not correspond to the situation of the Dongxiang language. It is true that

correspondences between the structures of Dongxiang and Linxianese can be made on a word-to-word basis most of the time. Calques of Linxianese word structures are widely found in the vocabulary but other structural calques borrowed from Linxianese and standard Chinese are rarer. Moreover, the resemblance between Dongxiang and Linxianese syntactic structures is not due to the influence of the Chinese language on the Dongxiang language but rather to the contrary. This 'structural mirror' can be found in the oldest descriptions of the Dongxiang language and so forms part of the historical contacts as defined earlier. If metatypy has ever occurred, it was a long time ago, even maybe at the earliest stage of formation of the two languages and the model language was Dongxiang and the replica language Linxianese.

Therefore, this cannot be considered as metatypy. However, in this particular case, there is a gradual stage of restructuration where only isolated phenomena of functional adaptation appear and predict more structural changes in the language. In other words, there is another intermediate stage between calque and metatypy which is an intermediate grammatical restructuring level. I believe that the Dongxiang language is actually in this intermediate level, which predicts more structural changes that may lead to metatypy in the future.

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