

Interrogatives of reason in Tibeto-Burman languages of Sichuan

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This is a typological study of the *why*-interrogative expressions in Tibeto-Burman languages, or the non-Chinese Sino-Tibetan languages, in Sichuan, southwest China. After examining 22 languages/dialects, the interrogative category of reason is grouped into three types, viz. the distinct *why*-type, the *how*-type, and the *what*-type, according to the interrogative categories from which they are derived. It is discovered that the *what*-type is the dominant strategy for languages in Sichuan to derive the reason category. It is also common for Tibeto-Burman languages to use verbal interrogatives, namely interrogative verb phrases and interrogative words with verbal origins, dominantly in the sense of ‘to do what’ and ‘to become what’, to ask for reason. After a focused investigation of the verbal interrogatives, it is found that Tibeto-Burman languages in Sichuan distinguish purpose from cause via word/phrase distinction, sentential positions and semantic differences. A path of grammaticalization of the verbal interrogatives is thus proposed and analyzed. Finally, the derivation maps of interrogatives in Cysouw (2005) and Hölzl (2018) are complemented with a refined distinction between purpose and cause.

Keywords: interrogatives of reason, verbal interrogatives, Tibeto-Burman languages, purpose & cause, typology

1. Introduction

Among the eight basic interrogatives meaning ‘who’, ‘which’, ‘what’, ‘how many/much’, ‘why’, ‘how’, ‘where’, and ‘when’, the one for reason (i.e., ‘why’) is considered especially complex in its phonology, morphology, and cognitive process-

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ing (Heine et al. 1991; Mackenzie 2009). According to Heine et al. (1991: 58) and Dixon (2012b: 414), ‘why’ is commonly based on ‘what’. Therefore, *why*-words are often morphologically segmentable, containing a ‘what’ morpheme, such as standard Mandarin *wèi shénme* (for what) ‘why’. Even the morphologically non-segmentable modern English *why* is the descendent of the Old English *hwȳ* (literally ‘by what’), the instrumental case of *hwæt* ‘what’ (Partridge 2006: 3791). In Wobzi Khroskyabs, a rGyalrongic language in western Sichuan, China, the *why*-word *thjô*, as shown in (1), is also the instrumental form of *what*, reconstructed in Lai (2017) as **thjo=γə* (what=INSTR) which gives rise to **thjo-γ>*thjoγ*.

(1) Wobzi Khroskyabs

vlavrónj thjô rmê=tə spraskâ næ-dâ rə-ŋə=tə.

Bla.brang why name=DEF reincarnated.monk IPFV.PST-EXIST NPST-be=DEF

‘As for why (our house) is called “Blabrang”, it’s because there was a reincarnated monk.’

(Lai 2017: 208)

Reason interrogatives are usually discussed as part of the overall question system (e.g., Siemund 2001; König & Siemund 2007; see a comprehensive summary of post-1990 references on interrogatives in Hölzl 2018: 55). Previous typological studies of interrogatives have paid attention to pidgins and creoles (Muysken & Smith 1990; Haspelmath & the APiCS Consortium 2013), Australian languages (Mushin 1995), Formosan languages (Huang et al. 1999), Indo-European languages (Hackstein 2004) and the languages of the world in general (Heine et al. 1991; Cysouw 2005; Idiatov 2007; Dixon 2012b; Dryer 2013). Few focused studies have been done regarding the interrogatives of Tibeto-Burman languages. Recent publications regarding Tibeto-Burman languages, e.g., Luo (2016), often focus on interrogative strategies of polar questions and *wh*-questions, but not the morphosyntax of the interrogatives.

Regarding the relations among the interrogatives, Cysouw (2005) and Cysouw & Hackstein (2011) propose the major pathways of the derivation of question words (see Figure 1).

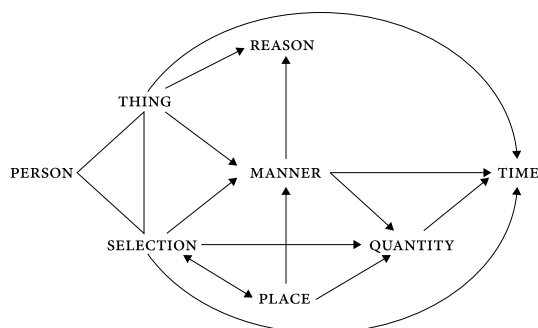


Figure 1. Major pathways of derivation of question words (Cysouw 2005: 2)

It can be seen that there are two direct paths towards the interrogative category REASON, namely from THING and MANNER.¹ After examining the data from north-east Asia (e.g., Tungusic), Hölzl (2015; 2018: 83) extends Cysouw's (2005) derivation paths as in Figure 2. Besides the two additional paths from THING and MANNER to KIND, there is one more derivation from ACTIVITY to REASON, e.g., Manchu *ai-na-me* (what-v.do-CVB.IPFV) 'why', literally 'doing what' or 'in order to do what'. Therefore, the three categories directly connected with REASON are THING, MANNER, and ACTIVITY.

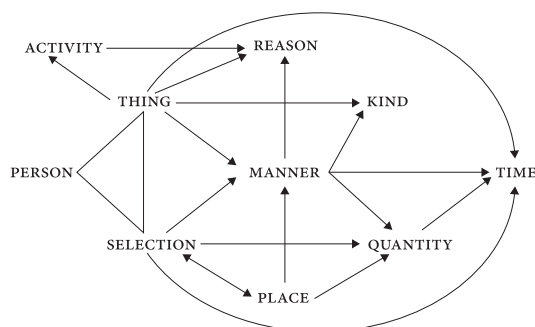


Figure 2. Derivation of the interrogatives (Hölzl 2018: 83)

However, the ACTIVITY-to-REASON derivation has often been under-studied in Tibeto-Burman languages. It is actually common for Tibeto-Burman languages to use interrogative verb phrases or interrogative words with verbal origins (see §3.3.4.1) to express reason, such as Nuosu (Loloish) $\epsilon i^{44} \eta^{33}$ (what:do) 'why', Namuyi (Naic) $fu^{55} mu^{55}$ (what do) 'to do what, for what purpose' (Yin 2016), Yongning Na (Naic) $\partial tse l$ (what.do) 'why' (Michaud 2018), and Puxi Qiang (Qiangic) $\eta i pi$ (what:become) 'why' (Huang 2004), glossed by the authors. Since the interrogative expressions of reason are often considered non-segmentable in reference grammars and lexicons, their verbal components thus become invisible. These verbal interrogatives (see §4) are even excluded from the interrogative system in some previous works. For example, only the reason interrogative formed through the noun phrase, $\epsilon i^{44} d\dot{z}i^{21} \eta u^{44}$ (what reason) 'why', is considered as part of the interrogative system of Nuosu, while the Nuosu interrogative compound verb $\epsilon i^{44} \eta^{33}$ (what:do) 'why' is excluded (see Gerner 2013: 174). As a matter of

1. In the current paper, we use *why/how/what*-word or *why/how/what*-expression to refer to the interrogative categories of REASON, MANNER, and THING in Cysouw (2005), Cysouw & Hackstein (2011) and Hölzl (2015; 2018). This somehow Anglo-centric terminology is only for the purpose of convenient understanding; it does not mean that the English interrogative categories are basic and that the other languages are based on these categories in English.

fact, there can be several different subtypes of ‘why’ in a given language (Dixon 2012b). In the present paper, we shall prove that verbal interrogatives of reason, including interrogative verb phrases and interrogative words with verbal origins, are not only part of the interrogative system, but also make important distinctions between cause and purpose in many Tibeto-Burman languages.

This paper will start with an introduction of the Tibeto-Burman languages in Sichuan (§2) and continue with a typology of reason interrogatives (§3). §4 is devoted to verbal interrogatives of reason, including their morphosyntax and functions. We also explain why verbal interrogatives are commonly used to ask for reason in Tibeto-Burman languages. We end the paper in §5 by applying the findings to some Sinitic languages and complementing the derivation maps of the interrogatives in Cysouw (2005) and Hölzl (2018) with a refined distinction between purpose and cause.

Because the subgrouping of Tibeto-Burman within the Sino-Tibetan hypothesis remains controversial (e.g., van Driem 2007; Jacques & Michaud 2011), we shall not use *Tibeto-Burman* in the present study in a subgrouping sense, but only as a term to refer to “non-Chinese Sino-Tibetan languages” (Jacques 2015). Moreover, it needs to be pointed out that this paper does not identify any areal pattern since verbal interrogatives are not only found in Tibeto-Burman languages in Sichuan, but also prevalent in other language groups and families, such as Sinitic languages and Hmongic languages. Sichuan is selected mainly due to the understudy of the reason interrogatives in Tibeto-Burman languages of the region, the availability of first-hand data, and quality data from existing literature, and the fact that western Sichuan is one of the hotspots of linguistic diversity in China.

2. Languages in Sichuan

Languages in Sichuan are largely Sinitic and Tibeto-Burman, with several Hmong-Mien and Kra-Dai languages (e.g., Bouyei and Miao in Muli, southwest Sichuan). Many regions of Tibeto-Burman languages (e.g., Khams Tibetan, Stodsdie, Stau-Dgebshes, Ersu) in Sichuan used to be under the administration of the former Xikang Province (literally ‘Western Khams’), established in 1939 by the Republic of China and partly merged into the current Sichuan in 1955 by the People’s Republic of China. The Sinitic languages, mostly Southwest Mandarin, are spoken across the whole province, quite homogeneously in the Chengdu Plain to the east of the Qionglai Mountains. The Tibeto-Burman languages are spoken in the mountainous regions to the west of the Qionglai Mountains.

The Chengdu-Chongqing dialect, a major sub-dialect of Southwest Mandarin, is the dominant local Sinitic language of Sichuan. There are other dialects

of Southwest Mandarin in Sichuan with fewer speakers than the Chengdu-Chongqing dialect, namely Minjiang dialect, Renshou-Fushun dialect and Ya'an-Shimian dialect (Institute of Linguistics, CASS et al. 2012). Additionally, due to historical wars and large migrations from Guangdong and Hunan provinces during the Yuan, Ming, and Qing dynasties, since approximately 800 years ago, Hakka and Xiang have become the other two major Sinitic languages spoken in Sichuan (Cui 1985; 1996; 2011). But they exist in the form of language islands, scattered among the Southwest Mandarin-speaking regions.

According to Glottolog 4.4 (Hammarström et al. 2021), at least 28 Tibeto-Burman languages are spoken in Sichuan. They are spoken mainly in Liangshan Yi Autonomous Prefecture (or Liangshan), Rngaba Tibetan and Qiang Autonomous Prefecture (or Rngaba) and Garzê Tibetan Autonomous Prefecture (or Garzê). The number should be growing as new languages are identified, such as the seven Tibetic languages – Takhog, Woto, Eastern Chunag, Sastod, Metsa, Take and Tsherga – discussed in Jackson T.-S. Sun (2018). If the seven Tibetic languages are counted, the number of Tibeto-Burman languages spoken in Sichuan can reach 35. Moreover, another reason for the possible increase in the number of languages is: what had been considered as dialects are argued to be separate languages. For instance, Tosu and Lizu were considered as dialects of Ersu in Hongkai Sun (2001), but are treated as distinct languages, namely Ersu, Tosu, and Lizu, in Yu (2012). Since the spatial distributions of languages are usually beyond the administrative division, some Tibeto-Burman languages are spoken across the borders of Sichuan, Yunnan, and the Xizang (Tibet) Autonomous Region, such as Sichuan Yi, Pumi, Khams, and Amdo Tibetan.

Tibeto-Burman languages in Sichuan can be subgrouped into five branches, based on Jacques & Michaud (2011) and Glottolog 4.4 (Hammarström et al. 2021), namely Loloish, Ersuish, Qiangic,² Naic, and Tibetic. The following language names are also based on the two references (with the numbers of languages indicated in the brackets):

- Loloish (2): Sichuan Yi, Lisu;
- Ersuish (3): Ersu, Tosu (or Duoxu), Lizu;
- Qiangic (16): Pumi, Zhaba (or nDrapa), Queyu (or Choyo), Eastern Muya, Western Muya, Southern Qiang, Northern Qiang, Southeast Maoxian Qiang, Khroskyabs, Stodsde, Stau-Dgebshes, Japhug, Tshobdun, Zbu, Situ, Guiqiong;

2. Chirkova (2012) casts doubt on the validity of considering Qiangic as a genetic unit, and views it as an areal grouping.

- Naic (4): Yongning Na (or Mosuo), Namuyi (or Namuzi), Shixing (or Xumi), Laze;
- Tibetic (3): Amdo Tibetan, Khams Tibetan, Baima.³

The first four categories are subgrouped under Burmo-Qiangic, and Tibetic under Bodic. Other subgroupings can be found in Bradley (1997; 2002), Matisoff (2015), and Thurgood (2017).

The high linguistic diversity in Sichuan can be attributed to three reasons. Firstly, the Tibeto-Burman languages in Sichuan have a long history of about 5,000 years, migrating south from the upper reaches of the Yellow River into the eastern edge of the Tibetan Plateau (including the current west Sichuan) (Shi 2018; Sagart et al. 2019; Zhang et al. 2019). Other than history, two more possible reasons for the high linguistic diversity in Sichuan are environmental and socio-cultural. As Sichuan is dense in rivers and extremely mountainous to its west, its landscape promotes linguistic isolation and diversification, as well as language contact (see Axelsen & Manrubia 2014; Daohua as a Tibetan-Chinese contact language in Atshogs 2004). Moreover, as Jacques (2019) points out, since western Sichuan was at the periphery of the historical Tibetan Empire (7th to 9th AD), linguistic diversity was better maintained than in the central regions of the polity (i.e., Lhasa and environs). But the Tibetan cultural influence in western Sichuan is significant, besides the Tibetic language-speaking regions. Most of the Qiangic language speakers in Sichuan are classified as ethnic Tibetan, mainly because of the practice of Tibetan Buddhism. These Qiangic languages are mainly found in Rngaba and Garzê. This zone fell under the realm of the former Tibetan Empire.

3. A typology of reason interrogatives in Sichuan

The linguistic data in the present study are summarized in Table 1. Twenty-two Tibeto-Burman languages/dialects are considered. The Sichuan Yi data, including Niesu and Nuosu, two closely related Loloish varieties, are mainly first-hand and taken from spontaneous narrations of folk stories collected during fieldwork in Liangshan Yi Autonomous Prefecture, Sichuan, from 2017 to 2021. There are altogether around 150 folk stories, riddles and song lyrics in Niesu and Nuosu in the authors' Sichuan Yi corpus. Data of other Tibeto-Burman languages were collected from existing literature. Note that we do not have Pumi data in Sichuan

3. The subgrouping of Baima is debatable. It was recognized as a Qiangic language in Hongkai Sun (1980). Current opinions treat Baima either as a separate Bodic language (Sun et al. 2007) or an isolate Tibetic language (Chirkova 2008).

proper, so we consider data of Wadu Pumi⁴ (Northern) and Niuwozi Pumi (Central) used in the Sichuan-Yunnan border area.

Table 1. Languages/dialects used in the present study

Language/dialect	Glottocode	Representative region
Amdo Tibetan	amdo1237	Northern Rngaba, Sichuan
Ersu	ersu1241	Yuexi, Liangshan, Sichuan
Guiqiong	guiq1238	Kangding, Garzê, Sichuan
Japhug	japh1234	Maerkang, Rngaba, Sichuan
Khams Tibetan	derg1234	Dege, Garzê, Sichuan
Khroskyabs (Wobzi)	eree1240	Jinchuan, Rngaba, Sichuan
Lizu	lizu1234	Muli, Liangshan, Sichuan
Muya	muya1239	Kangding, Garzê, Sichuan
Namuyi	namu1246	Muli, Liangshan, Sichuan
Northern Qiang (Mawo)	nort2722	Heishui, Rngaba, Sichuan
Northern Qiang (Ronghong)	west2876	Maoxian, Rngaba, Sichuan
Pumi (Niuwozi)	sout2729	Ninglang, Sichuan-Yunnan border
Pumi (Wadu)	nort2723	Ninglang, Sichuan-Yunnan border
Shixing	shix1238	Muli, Liangshan, Sichuan
Sichuan Yi (Adur Niesu)	butu1242	Butuo, Liangshan, Sichuan
Sichuan Yi (Shynra Nuosu)	yish1238	Xide, Liangshan, Sichuan
Sichuan Yi (Yynuo Nuosu)	yinu1238	Meigu, Liangshan, Sichuan
Situ	situ1238	Maerkang, Rngaba, Sichuan
Southern Qiang (Puxi)	sout2728	Lixian, Rngaba, Sichuan
Tosu	tosu1234	Mianning, Liangshan, Sichuan
Tshobdun	tsho1240	Maerkang, Rngaba, Sichuan
Yongning Na	yong1288	Yanyuan, Liangshan, Sichuan

Based on our data, interrogative words of reason in Tibeto-Burman languages of Sichuan can be grouped into three types according to the interrogative categories that they are derived from, viz. the distinct *why*-type, the *how*-type and the

4. *Pumi* is a sinicized transliteration of the autonym *Prinmi* [$p^{h,ɿH} mi^H$] (Central Pumi, Niuwozi dialect, see Ding 2014). The autonym for Wadu Pumi is $t^h\tilde{o}m\tilde{a}$, literally ‘white people’ (Daudey 2014: 23).

3.1 Distinct *why*-type

(2) Ersu

$n\bar{a}$ $amua$ $a=z\bar{l}$ yi - ka = $tc^h o$ $\bar{a}^t k^h ua$
 2SG why 1SG.SLF=GEN.family house-CLF.generic=upper side stone:big.stone
 $ts\bar{a}$ = $\bar{e}?$
 throw=Q
 ‘Why did you throw stones onto the roof of my house?’ (Zhang 2013: 551)

(3) Tshobdun rGyalrong

nekəʔ moste k'hénəŋ tʃʰe te-tə-səŋʃe
that.near.you single.woman house why IPFV-2-cause.to.go
ne-re ŋoʔ tə-tsəʔ-əŋ.
IPFV.PST-be.necessary be PFV-say-1SG
“Why did you have to let that single woman go up to our house?” I
demanded.
(Sun & Bstan'dzin Blogros 2019: 62)

(4) Guiqiong

nun z'ei mə-go-le ji-'wu tɕibə?
 2SG food NEG-eat-PFV go-GN why
 'Why are you leaving without eating anything?' (Jiang 2015: 309)

Tshobdun *tʃʰe* and Guiqiong *teibə* ‘why’ may be historically related to Tshobdun *tʃʰə* ‘what’ and Guiqiong *teiu* ‘what’. But it is not known what sound change has occurred, since neither Tshobdun *tʃʰe* nor Guiqiong *teibə* is decomposable synchronically. Since the category REASON is of a higher order in the semantic map (see Figure 2) and normally derived from other interrogatives, the *why*-type is likely the result of losing the etymological transparency.

5. According to Chirkova & Wang (2014), the Ersu *why*-word is often followed by the cause-effect clause-linker *tətəyi* or the shorter form *tə*, namely in the form of *amua tətəyi* or *amua tə* (why so) ‘so why’.

3.2 How-type

The *how*-type means that the reason interrogatives, if morphologically decomposed, allow only the meaning ‘how’ to be retrieved, and are thus derived from the interrogative category *MANNER*. Asking reason with *how* is a crossover function of *how* and pragmatically different from questioning with basic *why*. The implication is often that the speakers question the state-of-affairs at which they feel surprised or unsatisfied (Lü 1980; Tsai 2007). For example, Zhang (2013: 551) indicates that Ersu *how*-word *andzi* implies scolding when asking for reason, while *amua* ‘why’ only denotes reason neutrally. Example (5) thus has two interpretations: one asking for manner, and one for reason but rhetorically. Ersu *how*-word *andzi* is a result of vowel reduction of the full form *ane-dzi* (what-way), according to Chirkova & Wang’s (2014) data on Pangloss.

- (5) Ersu
nə andzi a=zɿ *yi-ka=tɕʰo* *ɬʰkʰua* *tsə=ɛ?*
 2SG how 1SG.SLF=GEN.family house-CLF=upper side stone:big stone throw=Q
 ‘Why did/How could you throw stones onto the roof of my house?’
 (Zhang 2013: 551)

Similarly, Nuosu (Sichuan Yi) *how*-word *kʰu²¹ɳ³³* (how:do) and Niesu (Sichuan Yi) *a²¹sɿ²¹ɳ³³* (how.do) also have two interpretations, see (6) and (7). But they differ from Ersu *andzi* in that both of them are verbs (also see §4). Firstly, both of them have to-do verb *ɳ³³* in their morphology. Secondly, the non-final clause marker *ta³³*, grammaticalized from the durative marker, can follow such interrogatives, see (8) and (9). This usage shows that *kʰu²¹ɳ³³* and *a²¹sɿ²¹ɳ³³* are predicates of the non-final clauses. According to Sichuan Yi native speakers, adding *ta³³* only reduces, but does not remove, the ambiguity. That is, it enhances the manner reading, but does not eliminate the rhetorical reason reading.

- (6) Nuosu
nɯ³³ kʰu²¹ɳ³³ tsʰo³³ tsɿ⁵⁵?
 2SG how:do people blame
 ‘How do you blame people?’ or rhetorically ‘why do you blame people? (I think you should not do it.)’
 (Native speaker source)
- (7) Niesu
nɯ³³ a²¹sɿ²¹ɳ³³ to⁵⁵tsʰɿ³³?
 2SG how.do fire:worship
 ‘How do you celebrate torch festival?’ or rhetorically ‘why do you (as a Han Chinese) celebrate the torch festival? (I think it is not your business.)’
 (Native speaker source)

- $$nu^{33} k^h u^{21} \dot{m}^{33} ta^{33}, ts^h o^{33} \quad ts\eta^{55}?$$

2sg how:do NF people blame

‘How do you do it, blaming people?’

(Native speaker source)

- $$nu^{33} a^{21} s \eta^{21} \dot{m}^{33} ta^{33}, to^{55} ts^h \eta^{33}?$$

2SG how.do NF fire:worship

‘How do you do it, celebrating torch festival?’

(Native speaker source)

$$me^Hti=a^Hwa^Lzja^Lni^H\mu a^Lkwz^Htsh^L=ge^L \quad 3^H \quad to^F \quad ma^R=xa^L?$$

what=M reason 3PL;M cattle:slaughter=TOP 1SG see NEG=good

‘Why is it no good for me to watch them slaughtering cattle?’ (Ding 2014:230)

In Shynra Nuosu, the *what*-word ϵi^{44} is juxtaposed before $dzi^{21}nu^{44}$ ‘reason’, see (11). Gerner (2013: 174) glossed Shynra Nuosu $dzi^{21}nu^{44}$ as a postposition meaning ‘because of’. However, the nominal status of $dzi^{21}nu^{44}$ can be proved by using it as the head of a noun phrase, such as $dzi^{21}nu^{44} ts^h_1^{44} t\epsilon i^{33}$ (reason this CLF, ‘this reason’). Note also in Example (11) that it is a common strategy in Tibeto-Burman languages to use the to-do verb to introduce the manner adverbial (see § 4.4).

(11) Shynra Nuosu

zo³³ ɛi⁴⁴ dzi²¹nu⁴⁴ m³³ p^ho³³ bo³³ sa⁵⁵?

sheep what reason do run go all

‘Why have all the sheep run away?’

(Gerner 2013: 174)

In addition, Japhug rGyalrong *tɛ^hindza* (what:reason) ‘what reason’ is a compound word, compared with the synonymous noun phrase *tɛ^hi u-ndza* (what 3SG.POSS-reason) ‘what reason’ (Jacques 2021: 199, 201). In Situ rGyalrong, the same noun phrase type is found in different dialects: *t^hə wo-jtɛ^hét* (what POSS.INDEF-reason) ‘what reason’ (Zhang 2020: 546), and *t^hi w-ət^he* (what 3SG.GEN-reason) ‘what reason’ (Prins 2016: 580).

3.3.2 What-word with direct semantic extension

We consider the semantic extension from *what* to *why* eligible only if the *what*-word may not function as the argument (including copula complement) of the clause. Therefore, although the usage of ‘what’ as a *why*-word is largely restricted to intransitive verbs/clauses, intransitivity is neither sufficient nor necessary. It is in line with the category REASON which functions as an adverbial modifier of the clause, rather than an argument. Compare English Example (12) and Namuyi (13). While *what* is the argument of the preposition *for* in (12), *fu⁵⁵lu⁵⁵* ‘what’ is not an argument in (13).

(12) *What are you happy for?*

(13) Namuyi

no³¹ fu⁵⁵lu⁵⁵ mæ⁵⁵-dzo³¹?

2SG what NEG-happy

‘Why aren’t you happy?’

(Yin 2016: 37)

Jacques (2021: 200–201) explicitly rejects the translation of (14) as a transitive clause ‘what are you laughing at?’, but gives the translation ‘why are you laughing’. He also indicates that Japhug rGyalrong *tɛ^hi* ‘what’ on its own can occur in questions for reason or purpose.

(14) Japhug rGyalrong

a-tɛime, tɛ^hi nuu-tuu-nɣre ɲu?

1SG.POSS-lady what SENS-2-laugh be:FACT

‘My lady, why are you laughing?’ (Not ‘what are you laughing at?’)

(Jacques 2021: 201)

This type of *what*-words can ask for reason both neutrally and rhetorically, as in the following Shynra Nuosu Example (15).

- (15) Shynra Nuosu
ts^hl³³ ɕi⁴⁴ k^ha⁵⁵?
 3SG what happy
 ‘Why is he so happy?’ or ‘Why is he so happy? (I don’t think he should be.)’
 (Native speaker sources)

3.3.3 *What*-word as oblique for reason

Functioning as an adverbial modifier of the clause predicate, an oblique expressing reason can be formed through the combination of the *what*-words with adpositions and dative markers, and through instrumental inflection.

3.3.3.1 REASON as adpositional phrase

Tibeto-Burman languages in Sichuan can use postpositional phrases meaning ‘because of what’ to express reason, e.g., Ronghong Qiang *ŋi(yi) χuanŋi* (what because.of) (LaPolla & Huang 2003: 53), as in (16) below.

- (16) Ronghong Qiang
ŋi χuanŋi kə-zɛi-n-a?
 what because.of thus-cry-2SG-Q
 ‘Why are you crying?’
 (LaPolla & Huang 2003: 257)

In Tshobdun rGyalrong, another way of asking for reason, besides the *why*-word *tʃʰv* (see §3.1), is *tʃʰə ŋoʔ=ʰdenəʔ* (what be=for), as in (17), where the object of the causal interrogative adpositional phrase is a copular construction (Sun & Bstan’dzin Blogros 2019).

- (17) Tshobdun rGyalrong
q^hoʔ o-vlɛrgɛn ó-p^ha=z paʃe=nəʔ tʃʰə ŋoʔ=ʰdenəʔ
 SEQ 3SG.POSS-old monk 3SG.POSS-place=LOC pork=DET what be=for
ɤdenbe kə-náχtu mɛ-cə te-tsəʔ-cə.
 EMPH NMLZ.SBJ=buy not.exist-MED PFV.TR-say-MED
 ‘And said to his old monk, “I don’t know why but no one wanted to buy the pork.”’
 (Sun & Bstan’dzin Blogros 2019: 573)

3.3.3.2 REASON as dative-marked nominal

The *what*-words in Tibeto-Burman languages of Sichuan are often dative-marked to form reason interrogatives. In Amdo Tibetan, the *why*-interrogative is *tɕʰəzək=a* (what=DAT, literally ‘to what’), where a dative case marker is encliticized, see (18).

- (18) Amdo Tibetan
tɕʰəzək=a ma-joŋ=ni?
 what=DAT NEG-come=SFP
 ‘Why did (you) not come?’
 (Ebihara 2011: 65)

Khams Tibetan $te^{53}=le^{31}$ (what=DAT, literally ‘to what’) is also a dative-marked oblique, see (19) where the dative marker also marks the recipient $k^h o^{53}$ ‘3SG’, based on the data in Wang (2013).

(19) Khams Tibetan

$te^h o^{55} k^h I k^h o^{53}=le^{31} te^{53}=le^{31} se^{31} zI^{53} j\ddot{r}^{31}?$

2SG ERG 3SG=DAT what=DAT tell tam SFP

‘Why did you tell him?’

(Wang 2013: 85)

Similar dative-marking is found in Mawo Qiang, a northern non-tonal dialect of Qiang, as $\eta ika=ci$ (what=DAT) ‘why’. Although Liu (1998: 210) analyzed $=ci$ as a patient marker, it is in fact a dative enclitic based on Liu’s data.

3.3.3.3 REASON as instrumental form

In Wobzi Khroskyabs, the *why*-word $thj\hat{o}$ is the instrumental form of $thj\hat{e}$ ‘what’ (Lai 2017), see (1), reconstructed in Lai (2017) as $*thj\hat{o}=y\hat{a}$ (what=INSTR). Although there is only one language under this type in our data, using the instrumental form as the *why*-word is also found in other languages, such as modern English *why* (Partridge 2006: 3791) (see §1 above). Since, in general, modern Tibeto-Burman languages in Sichuan are less inflected than Indo-European languages, except for the polysynthetic rGyalrongic branch, the lower frequency of this strategy can be predicted.

3.3.4 What-word as the object of the verbal interrogatives of reason

In this section, we shall first define verbal interrogatives of reason, comparing it with the interrogative verb proposed by Hagège (2008). Then we shall list the common meaning patterns of the verbal interrogatives.

3.3.4.1 Defining verbal interrogatives of reason

Verbal interrogative is different from interrogative verb proposed by Hagège (2008). If an interrogative expression is headed by a verb, it can be a verb phrase, such as Namuyi $fu^{55} mu^{55}$ (what do) ‘to do what, for what purpose’ and Niuwozi Pumi $me^H d\check{z}\hat{o}^L$ (what become) ‘why’. If an interrogative expression is a compound containing an interrogative and a verb, its grammaticalization gives rise to an interrogative word. The interrogative words are found to belong to the word class of verb in most of the Tibeto-Burman languages, such as Nuosu $\epsilon i^{44} \eta^{33}$ (what:do) ‘why’ and Niesu $a^{33} \eta^{55} \eta^{33}$ (what:do) ‘why’, serving as adverbials of the sentence. Therefore, verbal interrogative in the present study refers to interrogative verb phrases, and interrogative words which have verbal origins and may still possess verbal properties.

Interrogative verbs are mainly found in synthetic languages, such as Indonesian and Dyrbal (Hagège 2008; Dixon 2012b). Such verbs are so fusional that they are not segmentable into an interrogative and a verb. Therefore, interrogative verbs behave both as verbs and as question words (Hagège 2008). However, this concept may not apply to analytic languages since interrogative expressions are often decomposable. Although some languages do have a higher degree of being fusional, such as rGyalrongic and Qiangic languages, the morphology of Tibeto-Burman languages in China is largely isolating. The only instance in our data which may fit the definition of Hagège's interrogative verb is Muya $\varepsilon^{thá}$ 'to do what, for what purpose'. According to the glossing in Bai (2019:315), ε - is the interrogative prefix for content question word, but $thá$ is not the to-do verb.

The distinction between verbal interrogatives and interrogative verbs can be further demonstrated by an example from Sinitic languages. Hagège (2008:2) treated *gànmá* in Mandarin Chinese, an analytic language, as an interrogative verb in his data. His rationale is that "Chinese *gànmá* 'do what?' which, in a diachronic analysis, might be a reduced form of *gàn-shénma* 'do-what', but is not an analyzable word in contemporary Chinese, since there is no autonomous word *má* meaning 'what.'" (Hagège 2008:11). However, *gànmá* should be treated as a verb phrase meaning 'to do what' since a classifier can be easily inserted, see (20). Therefore, the interrogative meaning of *gànmá* is expressed by *má*, but not the verb *gàn* 'to do'. The so-called "interrogative verb" does not express interrogative by itself, and is thus a misnomer.

(20) Mandarin Chinese

qiú lái gè dàlǎo jiǎngjiě xià, wǒ jiēxiàlái gāi gàn diǎn
 beg come CLF experienced man explain a bit 1SG next should do CLF
má?
 what

'Some experienced man, please come to explain a bit, what should I do next?'

(<https://bbs.nga.cn/read.php?tid=23393927&rand=614>)

Therefore, since interrogatives with verbal elements in most of the Tibeto-Burman languages do not fit the definition of interrogative verbs in Hagège (2008), verbal interrogative is a more appropriate term for the data in the present study.

3.3.4.2 Patterns of verbal interrogatives of reason

We have found that Tibeto-Burman languages in Sichuan tend to form the verbal interrogatives of reason in the structure of 'what-word + verb'. The most common head verbs are to-do verbs, e.g., Lizu $xæ^{55}mu^{31}$ (what:do) 'why' and Namuyi $fu^{55}mu^{31}$ (what:do) 'why', and copula verbs meaning 'become', e.g., Shixing $H_{tc}hi$

^Hlæ (what become) ‘why’ (Chirkova 2009) and Puxi Qiang *ŋipi* (what:become) ‘why’ (Huang 2004). A third pattern may exist in Guiqiong (Qiangic) *teiutsi* (what:say) ‘why’, using the verb of speech *tsi* (Jiang 2015). We consider the Guiqiong pattern possible, given that say-what pattern is commonly used to ask for reason in other Tibeto-Burman languages, such as Manange (Nepal) *ta²² pi-tse⁵²* (what say-CC) ‘why’ (Hildebrandt & Bond 2017:523) (see §4.4). Moreover, some languages use *why*-expressions only based on the meaning ‘to do what’, while other languages have their *why*-expressions based on two or even more meanings of ‘to V what’. We shall examine the details of the verbal interrogatives of the Tibeto-Burman languages in Sichuan in §4.

4. Verbal interrogatives of reason in Sichuan

In most cases, verbal interrogatives of reason in Tibeto-Burman languages in Sichuan are decomposable into a verbal morpheme and an interrogative morpheme. Such interrogatives, by definition (see §3.3.4.1), can be words or phrases. In this section, we shall first provide semantic, phonological and grammatical criteria to distinguish whether they are words or phrases. This distinction will then be shown to be of value to a refined semantic system of interrogatives, with the cause/purpose distinction.

4.1 Criteria for distinguishing verbal interrogative words and phrases

First, words exhibit morphological integrity and allow no insertion of other words in-between. However, a phrase can include other words, such as modifiers.

The most common pattern of verbal interrogatives of reason in Tibeto-Burman languages is ‘*what*-word + to-do verb’. This pattern is a verb phrase originally meaning ‘to do what’, with possible further grammaticalization to be an interrogative word expressing ‘why’ (see §4.2, §4.3 and §4.4). For example, after grammaticalization, the do-what phrase becomes a compound as a reason interrogative in Nuosu and Niesu. While a classifier can be inserted into the do-what phrase of Niesu (Adur) *a³³ʂ⁵⁵ m³³* and Nuosu (Shynra) *ɛi⁴⁴ m³³*, see (21) and (22), no insertion is allowed in the reason interrogative words, see (23) and (24). The same is also true for Nuosu (Yynuo) *ɛa⁴⁵ m³³* (what:do) ‘why’ and *ɛa⁴⁵ m³³* (what do) ‘to do what’.

- (21) Nuosu
ba²¹ka³³=ko³³ ts^ho³³ gu⁴⁴=su³³ ɛi⁴⁴ tɛi³³ m³³?
 village=LOC people CLF.PL=DET what CLF do
 ‘What are the people in the village doing?’ (Native speaker source)
- (22) Niesu
a³³ ɣ⁵⁵ tɕa³³ m³³ to²¹?
 what CLF do can
 ‘What can (you) do?’ (Native speaker source)
- (23) Niesu
 a. *nie³³ su³³ a³³ ɣ⁵⁵ m³³ ta³³, to⁵⁵ ts^hɿ³³?*
 Niesu people what:do NF fire:worship
 ‘Why do the Niesu people celebrate the torch festival?’
 b. **nie³³ su³³ a³³ ɣ⁵⁵ tɛi³³/tɕa³³ m³³ ta³³, to⁵⁵ ts^hɿ³³.*
 Niesu people what CLF/CLF do NF fire:worship
 (Native speaker source)
- (24) Nuosu
 a. *ŋa³³ a⁵⁵ go²¹ su⁴⁴ ɕa³³ di⁴⁴ ŋu³³, ɛi⁴⁴ m³³ ta³³, a²¹=zo⁵⁵ di⁴⁴=su³³*
 1SG empty poor REP COP what:do NF NEG=entertain REP=NMLZ
ŋu³³?
 COP
 ‘It is said that I am indeed poor, (but) why do (you) say that I will not entertain you?’
 b. **ɛi⁴⁴ tɕa³³ m³³ ta³³, a²¹=zo⁵⁵ di⁴⁴=su³³ ŋu³³?*
 what CLF DO NF NEG=entertain REP=NMLZ COP
 (Native speaker source)

In Tosu, also known as Duoxu, the verb phrase *xo³³ me³³* ‘to do what’, see (25), can be inserted with *tɛa³³*, a syllable which results from vowel fusion of the numeral *tɛi³³* ‘one’ and the classifier (*w*)*a*. However, such insertion is not found with *xo³³ me³³* as a reason interrogative verb in Chirkova & Han (2016) and the Tosu text collection by Katia Chirkova on Pangloss, see (26). The word status of *xo³³ me³³* is also confirmed by Chirkova (personal communication, 2021).

- (25) Tosu
na²² ma⁵³ xo³³ tɛa³³ me³³?
 sister what one.CLF do
 ‘What does the sister do?’ (Chirkova & Han 2016: 27)

- (26) Tosu
 $no^{33} xo^{33} me^{33} ma^{53} - la^{31} ?$
 2SG what:do NEG-come
 ‘Why did not you come?’ (Chirkova & Han 2016: 22)

Second, a word may denote a non-compositional meaning beyond the sum of its components, while a phrase conveys a compositional meaning of its words.

In the two Examples (23a) and (24a) in Niesu and Nuosu, the ‘why’ meaning cannot be well predicted by the literal reading ‘to do what’; so $a^{33} \xi l^{55} \eta^{33}$ and $\epsilon i^{44} \eta^{33}$ should be words. Similarly, in Namuyi, the interrogative compound word $fu^{55} mu^{31}$, literally ‘to do what’, only has the non-compositional reason reading in Example (27).

- (27) Namuyi
 $a^{55} \kappa o^{55} la^{55} no^{31} fu^{55} mu^{31} su^{53} \text{æ}^{31} ?$
 uncle tiger 2SG what:do gallop ATT
 ‘Uncle Tiger, why are you galloping?’ (Yin 2016: 42)

Third, words and phrases may have a different phonological behavior in segments and/or suprasegmentals.

We have found in Wadu Pumi, Yongning Na, Namuyi, and Lizu the segmental and suprasegmental differences between verb phrases of reason and interrogative compounds of reason. According to Daudey (2014: 135), the interrogative word $m\dot{\eta}\eta\eta$ ‘why’ in Wadu Pumi consists of $m\dot{\eta}\eta$ ‘what’ and $\dot{q}\ddot{o}\eta$ ‘to become’. In the verb phrase meaning ‘to become what’, $\dot{q}\ddot{o}\eta$ is the head verb, see (28). However, $\dot{q}\ddot{o}\eta$ changes its stop initial to a homorganic liquid $\eta\eta$ when it is used as the reason interrogative word $m\dot{\eta}\eta\eta$.

- (28) Wadu Pumi
 $n\dot{\eta}\eta m\dot{\eta}\eta t^h\check{\epsilon}-\dot{q}\ddot{o}\eta ?$
 2SG what FR.SP-become
 ‘What’s up with you? (literally, what do you become)’ (Daudey 2014: 583)

Segmental change also occurs to Yongning Na (Mosuo) $\text{ə}tse\eta$ (what.do) ‘why’. According to Michaud (2018: 64), $\text{ə}tse\eta$, see (29), is a contracted form of the *what*-word and the *do*-word, namely $\text{ə}tso\eta$ ‘what’ and $j\dot{\eta}\eta$ ‘do’. The syllable contraction makes $\text{ə}tse\eta$ non-segmentable. It should be noted that although the shortened form may lead to phonological modification, it alone is not adequate to conclude whether a target unit is a word or phrase, such as the liaison within French phrases (e.g., *l’aime* ‘love him’ is a phrase with syllable contraction). Other grammatical evidence is needed for the decision. The further evidence confirming Yongning Na $\text{ə}tse\eta$ being a verb is that a variant of the *why*-expression is the

auxiliary verb construction *əʔtseʔ jiʔ* (why do) ‘why’, see (30), where the to-do verb *jiʔ*, as an auxiliary, introduces the verb as an adverbial (see § 4.4).

(29) Yongning Na

ɿʃʂʰeʔdʑuʌmaʌ tsʰiʔniʔ əʔtseʔ huʔ-ɿʌʔ?
 name today what.do go.PST-INC

‘Why has Erchei Ddeema gone away today?’

(Michaud 2017: 46)

(30) Yongning Na

əʔtseʔ jiʔ [ʰæʌkiʌ] jiʔ?

why do coming of age ceremony do

‘Why do (we) have the coming of age ceremony?’

(Michaud 2011: S7)

Next, the canonical do-what verb phrase in Namuyi is *fu⁵⁵ mu⁵⁵*, see (31), compared with the interrogative compound word *fu⁵⁵ mu³¹*, see (27). The two verbal interrogatives only differ in tones of the head verb.

(31) Namuyi

ŋi³¹=ji⁵⁵ nbəʌ³³ mo⁵⁵ fu⁵⁵ mu⁵⁵-æ⁵³?
 2SG.GEN=GEN wife what do-IPFV

‘What does your wife do?’

(Yin 2016: 237)

The similar suprasegmental difference is observed in Lizu (Ersuish) *xæ⁵⁵ mu³¹* (what:do) ‘why’, see (32), and *xæ⁵⁵ mu⁵⁵* (what do) ‘to do what’, according to Lizu data on Pangloss. Other than the tonal difference of the head verb, a numeral, i.e., *te³¹* ‘one’, can be inserted in the verb phrase *xæ⁵⁵ mu⁵⁵*, see (33).

(32) Lizu

ne⁵⁵ xæ⁵⁵ mu³¹ dʒi⁵⁵=e²³ ku⁵⁵ zɿ²³ bo dʒi⁵⁵=e²³ kʰæ le?

2SG what:do say=COS here sit EGO say=COS moment FOC

‘Someone said: “Why are you sitting here?”’

(Chirkova & Wang 2015a: S22)

(33) Lizu

ze⁵⁵ je⁵⁵ ne⁵⁵ xæ⁵⁵ te³¹ mu⁵⁵ bo dʒi⁵⁵ o?

daughter 2SG what one do EGO say ATT

‘(Someone said:) “Daughter, what are you doing?”’

(Chirkova & Wang 2015b: S8)

A final morphosyntactic distinction between word and phrase is that words become lexicalized and the formatives cannot be replaced, whilst words in phrases can be replaced as long as the syntactic categories fit.

There are two to-do words in Niesu, namely *ŋi³³* and *tsɿ⁵⁵*. The two to-do verbs are functionally divided with a certain degree of overlap. While *ŋi³³* expresses ‘to do concrete things’, e.g., *dza³³ ŋi³³/*tsɿ⁵⁵* (food do) ‘to cook food’,

$ts\eta^{55}$ expresses ‘to do sophisticated things’, e.g., $ts^ho^{33} *m^{33}/ts\eta^{55}$ (people do) ‘conduct oneself correctly’. Although $ts\eta^{55}$ overlaps with m^{33} in the basic sense of ‘to do’, e.g., $s\eta^{55} m^{33}/ts\eta^{55}$ (thing do) ‘to do something’, $ts\eta^{55}$ cannot replace m^{33} in the compound verb $a^{33}s\eta^{55}m^{33}$ (what:do) ‘why’, see (34). Example (34b) is ill-formed after replacing $a^{33}s\eta^{55}m^{33}$ with $*a^{33}s\eta^{55}ts\eta^{55}$. But it is fine to replace m^{33} with $ts\eta^{55}$ when $a^{33}s\eta^{55}m^{33}$ is a phrase meaning ‘to do what’ and used to ask for purpose (see §4.2.2).

(34) Niesu

- a. $nie^{33}su^{33}=na^{33}$, $a^{33}s\eta^{55}m^{33}$ ta^{33} , $ts^h\eta^{33}$ xu^{33} $a^{21}=dzu^{33}?$

Niesu=TOP what:do NF dog meat NEG=eat

‘Why do not the Niesu people eat dog meat?’

- b. $*nie^{33}su^{33}=na^{33}$, $a^{33}s\eta^{55}ts\eta^{55}$ ta^{33} , $ts^h\eta^{33}$ xu^{33} $a^{21}=dzu^{33}?$

Niesu=TOP what:do NF dog meat NEG=eat

(Native speaker source)

A similar phenomenon is found with Namuyi to-do verbs, i.e., mu^{55} and si^{55} (Yin 2016). Although mu^{55} and si^{55} are interchangeable in asking for ‘to do what’, si^{55} is not the head of the reason interrogative in Namuyi lexicon (Yin 2016).

In sum, first, ‘to do what’ and ‘to become what’ are the two common literal meanings of verbal interrogatives of reason in Tibeto-Burman languages of Sichuan. Secondly, there is a word/phrase distinction among these verbal interrogatives. In the next section, we shall prove that the word/phrase distinction is correlated with the distinction between cause and purpose. Table 2 summarizes the literal meanings and word/phrase status of verbal interrogatives of reason in some Tibeto-Burman languages in Sichuan and the border area, based on the above morphosyntactic tests and available conclusive data.

Table 2. Verbal interrogatives of reason in some Tibeto-Burman languages

Language	Interrogative	Glossing	Word or phrase
Muya	$\varepsilon r\acute{ı}$	why.be ‘why’	word
	$\varepsilon t^h\acute{a}$	what.do ‘why’	word
Nuosu (Shynra)	$\varepsilon i^{44}m^{33}$	what:do ‘why’	word
	$\varepsilon i^{44}m^{33}$	what do ‘to do what’	phrase
Nuosu (Yynuo)	$\varepsilon a^{45}m^{33}$	what:do ‘why’	word
	$\varepsilon a^{45}m^{33}$	what do ‘to do what’	phrase
Niesu (Adur)	$a^{33}s\eta^{55}m^{33}$	what:do ‘why’	word
	$a^{33}s\eta^{55}m^{33}$	what do ‘to do what’	phrase

Table 2. (continued)

Language	Interrogative	Glossing	Word or phrase
Pumi (Niuwozi)	<i>me^H qzō^L</i>	what become ‘why’	phrase
Pumi (Wadu)	<i>mĩŋoŋ</i>	what:become ‘why’	word
	<i>mĩŋ pù</i>	what do ‘to do what’	phrase
Yongning Na	<i>aʔtseʔ</i>	what.do ‘why’	word
	<i>aʔtseʔ jiʔ</i>	why do ‘why’	phrase
Shixing	<i>H_{tc^{hi}} H_{w3}</i>	what do ‘to do what’	phrase
	<i>H_{tc^{hi}} H_{læ}</i>	what become ‘why’	phrase
Lizu	<i>xæ⁵⁵ mu³¹</i>	what:do ‘why’	word
	<i>xæ⁵⁵ te³¹ mu⁵⁵</i>	what do ‘to do what’	phrase
Namuyi	<i>fu⁵⁵ mu³¹</i>	what:do ‘why’	word
	<i>fu⁵⁵ mu⁵⁵</i>	what do ‘to do what’	phrase
Tosu	<i>xo³³ me³³</i>	what:do ‘why’	word
	<i>xo³³ tæa³³ me³³</i>	what do ‘to do what’	phrase

4.2 Purpose/cause distinction in Tibeto-Burman languages

In this section, we shall address the functions of verbal interrogatives of reason in Tibeto-Burman languages, i.e., how they differentiate between purpose and cause, two sub-categories of reason.

4.2.1 Theoretical differences between purpose and cause

Purpose and cause are two distinct interrogative categories of reason, namely *for what* and *why*, respectively (Heine et al. 1991: 56). However, since cause and purpose both express explanations for the situation expressed in the sentence, they are often realized by the same morphosyntax (Payne 1997: 318). Thompson et al. (2007: 250–251) and Verstraete (2008: 762) propose that purpose differs from cause in that purpose represents a mental state of the agent, or intentionality, and the motivating event must be unrealized at the time of the main event, while cause expresses a motivating event which may be realized at the time of the main event or that the agent does not intend to realize a subsequent event (also see Givón 2001; Schmidtke-Bode 2009). In actual language use, offering a purpose as the answer to a question asking for cause, or vice versa, creates the impression that the question is not properly answered.

A language often has a *why*-expression which asks for general reason, covering both cause and purpose, such as English *why*. However, while the question

becomes more cause-sensitive, such as asking for habitual events and generic concepts, a purpose answer may be inappropriate. For example, (35a) is cause-sensitive, with an annual activity (i.e., to celebrate the Spring Festival) and a generic concept (i.e., the Chinese people). Therefore, it is only appropriate to offer a cause as the answer, see (35c). If (35a) is answered by (35b), it means that the speaker does not have enough knowledge for the question or wants to create a special effect. Other possible cause-sensitive questions can be about negated events, e.g., Tosu (41), and stative events, e.g., Yongning Na (45). If the question is not cause-sensitive, English *why* can also ask for purpose. For example, if the generic concept is removed, i.e., *why do you celebrate the Spring Festival*, a purpose answer is acceptable. Therefore, while cause can always be the target of inquiry of the general reason interrogative, purpose may not be necessarily so. In the following discussion, the term *cause*, instead of *reason*, is thus used to contrast with *purpose*.

Moreover, a language may have another interrogative expression which asks for purpose exclusively in all contexts, such as English *for what*. It even asks for purpose with a habitual event and generic concept, e.g., *for what do the Chinese people celebrate the Spring Festival?* In this case, (35b) is a suitable answer.

- (35) a. *Why do the Chinese people celebrate the Spring Festival?*
 b. Answer as purpose: *Chinese people celebrate the Spring Festival in order to pray for good luck in the coming year.*
 c. Answer as cause: *Long time ago, a monster beast preyed on people the night before the beginning of a new year. Chinese people put up red paper decorations on their windows and doors, and set off firecrackers at each year's end to scare away the beast. They were successful and the beast never came back. People kept the tradition to the present.*

4.2.2 Cause and purpose distinction in Tibeto-Burman languages

If one *why*-word asks for both purpose and cause, such as (35a), the purpose/cause distinction needs to be made based on contextual information. In our investigation, however, many Tibeto-Burman languages show clear morphosyntactic distinctions between purpose and cause. The linguistic strategies differentiating purpose from cause include whether the verbal interrogative is a grammaticalized interrogative word or an interrogative verb phrase, their literal meaning, and their position in the interrogative sentence.

There are two observations about the cause/purpose distinction in Tibeto-Burman languages of Sichuan. If a language possesses verbal interrogatives of reason which are derived from the meaning 'to do what' only, the cause/purpose distinction is twofold: (1) the grammaticalized interrogative word asks mainly for cause, but also covers purpose in general contexts, while the interrogative verb

phrase asks only for purpose; (2) the interrogative word often occurs before the main verb of the clause or the supporting clause, but the verb phrase after.

Supporting clause is a term adopted from Dixon (2012a). It refers to the clause which does not carry the mood of the sentence in clause-linking construction. It is contrastive to focal clause which carries the mood of the sentence. Therefore, the clause predicated by the verbal interrogative is the focal clause, which determines the interrogative mood of the sentence, and the other non-embedded clause is the supporting clause. The semantic classification of clause linking as supporting and focal clauses is convenient for typological discussion since the main or final clause and the dependent or non-final clause, as syntactic concepts, may behave differently in languages. For instance, the dependent clause or non-final clause may denote the purpose/cause and the main clause or final clause may denote the effect, see (23a); the opposite situation is also attested, see (38a).

The second observation is also twofold: (1) if a language possesses verbal interrogatives of reason which are derived from more than one meaning, mostly ‘to do what’ and ‘to become what’ in our data, the meaning ‘to become what’, either as an interrogative word or verb phrase, asks mainly for cause, but also covers purpose in general contexts, while ‘to do what’ as a verb phrase asks only for purpose; (2) there is less positional restriction upon the *why*-interrogatives based on ‘to become what’ in the sentence, which often function as a full clause, while the ones based on the meaning ‘to do what’ tend to occur after the main verb of the simple clause or the supporting clause.

4.2.2.1 Verbal interrogatives of reason only based on do-what meaning

In (36), Niesu $a^{33}\xi^{55}m^{33}$ ‘why’ is placed before the main verb $to^{55}ts^h\gamma^{33}$ ‘to celebrate the torch festival’ of the clause. It is grammaticalized as an interrogative word since no insertion of words is allowed (see §4.1). It is possible to transform the sentence into a complex sentence with the non-final clause marker ta^{33} , see (23a) in §4.1. In this case, $a^{33}\xi^{55}m^{33}$ is the predicate of the dependent adverbial clause, or focal clause, but still before the supporting clause predicated by $to^{55}ts^h\gamma^{33}$.

- (36) Niesu
 $nie^{33}su^{33}$ $a^{33}\xi^{55}m^{33}$ $to^{55}ts^h\gamma^{33}?$
 Niesu people what:do fire:worship
 ‘Why (for what cause) do the Niesu people celebrate the torch festival?’
 (Native speaker source)

Meanwhile, (36) is semantically sensitive: it is restricted to a habitual event, i.e., celebration of a traditional festival, and asks for realized historical facts. Therefore, the cause interpretation is the only option.

Similarly, in Nuosu, (37) is the beginning sentence of a narration about the origin of making animals reside with Nuosu people. The clause predicate is a serial verb construction, preceded by the interrogative word $\epsilon i^{44} \eta^{33}$. In current Nuosu-speaking regions, domestic animals are kept in the wing-rooms of the residence. The expected answers to (37) are restricted to realized historical facts only. Offering a purpose as the answer reveals that the speaker does not have enough historical knowledge to answer the question. A purpose response could be a humiliation in the Sichuan Yi society since orality, such as debating, narration and recital of traditional stories and knowledge, is a very important part of daily life.

- (37) Nuosu
 $vo^{33} ts^h o^{33} \epsilon i^{44} \eta^{33} dzu^{33} de^{33} zi^{44} = ko^{33} tsi^{21} ta^{33}?$
 mankind what:do livestock take house=LOC insert DUR
 ‘Why (for what cause) do people have their livestock stay close to home?’
 (Gerner 2013: 525)

Moreover, (38) is a Nuosu conversation taken from Gerner (2013: 538). (38b), as an answer to (38a), is yet to be achieved. Since only purpose reading is allowed in (38a), the volitive modal mo^{33} , which expresses Niesu future actions, is thus compatible with the postposed purpose interrogative.

Additionally, $\epsilon i^{44} \eta^{33}$ is a verb phrase meaning ‘to do what’ in (38a), not a word. The evidence is that a classifier $t\epsilon i^{33}$ can be inserted without affecting the meaning of the sentence, see (39).

- (38) Nuosu
 a. $nu^{33} dz i^{33} t\epsilon i^{55} \quad \xi u^{33} t\epsilon i^{55} = si^{44} \quad ta^{33}, \epsilon i^{44} \quad \eta^{33} = mo^{33} = di^{44}.$
 2SG copper:slap steel:slap=SEQ NF what do=VLT=REP
 ‘Why (for what purpose) do you prepare the copper and steel?’
 (Gerner 2013: 538, with native speaker modification)
 b. $\eta a^{33} de^{33} = si^{44} \quad \xi l^{21} \eta^{44} \eta u^{33} dz i^{44} \quad t\epsilon l^{55} ku^{33} a^{44} i^{33} = ko^{33} ndze^{33}$
 1SG make=SEQ heaven:earth name=NAGT strike
 $zi^{33} = mo^{33} = di^{44} = su^{33} = di^{44}.$
 go=VLT=REP=NMLZ=REP
 ‘I make (the weapon) to strike Zhege’alu on earth or in heaven.’
 (Gerner 2013: 538)

- (39) Nuosu
 $nu^{33} dz i^{33} t\epsilon i^{55} \quad \xi u^{33} t\epsilon i^{55} = si^{44} \quad ta^{33}, \epsilon i^{44} \quad t\epsilon i^{33} \eta^{33} = mo^{33} = di^{44}.$
 2SG copper:slap steel:slap=SEQ NF what CLF do=VLT=REP
 ‘Why (for what purpose) do you prepare the copper and steel?’
 (Gerner 2013: 538, with native speaker modification)

After exhausting the authors' Sichuan Yi corpus (see § 3), as well as the Nuosu stories in Gerner (2013), 28 *why*-sentences are found. There are 26 of them using the do-what meaning as cause interrogatives, namely Niesu $a^{33}\varepsilon l^{55}\eta^{33}$ 'why' and Nuosu $\varepsilon i^{44}\eta^{33}$ 'why', before the main predicate of the simple sentences or before the supporting clause of the complex sentences. In the same collections of Sichuan Yi texts, although only two sentences use the do-what meaning for purpose interrogative, they are uniformly verb phrases placed after the main predicate of the simple sentences or the supporting clause of the complex sentences. For example, in one of the two purpose interrogatives, the head to-do verb η^{33} is replaced by the synonymous to-do verb $ts\eta^{55}$, see (40).

- (40) Niesu
 $\eta a^{33} k^h\gamma^{44} k\gamma^{33} \quad a^{44} bi^{33} ma^{33} \varepsilon i^{44} \quad a^{33}\varepsilon l^{55} ts\eta^{55} di^{44}=\varepsilon l^{33} \quad \eta u^{33}$.
 1SG bamboo basket worn CLF take what do REP=NMLZ COP
 '(You say) why (for what purpose) should I do with a broken bamboo basket?'
 (Native speaker source)

Example (40) is part of a conversation between an unfilial son and his father. The son used (40) to question the intentionality of his father's suggestion of keeping the broken basket. After hearing the son's question in (40), his father answers it with a purpose: "Although (the worn basket) has no use now, in the future, if you live to an age as old as me, your son will carry you here (with this broken basket) to cast you into the river." The answer is about a future event, which is not realized by the time of the conversation.

Compare Tosu Example (26), repeated here as (41), with (42). The interrogative word $xo^{33}me^{33}$ is preposed before the main verb of the clause in (41). Since the sentence is negated, only a cause reading is possible. However, the do-what verb phrase, inserted with $t\acute{e}a^{33}$ (see § 4.1), is used in (42) which renders a purpose reading for unrealized events. After examining all the Tosu data of connected speech on Pangloss and in Chirkova & Han (2016), no counter-examples are found in folk stories or conversations. We found 17 *why*-sentences in Tosu. But all of the sentences use the preposed $xo^{33}me^{33}$, and no examples with postposed $xo^{33}t\acute{e}a^{33} me^{33}$ have been found.

- (41) Tosu
 $no^{33} xo^{33}me^{33} ma^{53} -la^{31}?$
 2SG what:do NEG-come
 'Why (for what cause) did not you come?' (Chirkova & Han 2016: 22)

- (42) Tosu
no³³ la³¹ xo³³ tɛa³³ me³³? a³³ kei ji³³?

2SG come what one.CLF do where go

‘Why (for what purpose) do you come? Where will you go?’

(Chirkova & Han 2016: 15)

In Namuyi, if the verbal interrogative of reason is preposed before the other verb of the sentence, the interrogative word *fu⁵⁵ mu³¹* (what:do) ‘why’ is used, see (27). Both cause and purpose readings are possible for (27) since the question is general. If the verbal interrogative is postposed, the verb phrase *fu⁵⁵ mu⁵⁵* (what do) ‘to do what, for what purpose’ is used, see (43). The speaker unhappily questions the intentionality of the addressee with (43). Since it asks for purpose, the verb phrase *fu⁵⁵ mu⁵⁵* is compatible with the prospective aspect *ji³³*, which manifests that it is not realized. We found five examples after going through the Namuyi folk stories in Yin (2016), including two with preposed *fu⁵⁵ mu³¹* and three with postposed *fu⁵⁵ mu⁵⁵*. No counter-examples have been found.

- (43) Namuyi
no³¹ ηa⁵⁵ dæ⁵³ tɛ^h i³³-su³¹ fu⁵⁵ mu⁵⁵ ji³³? no³¹ lo⁵⁵ tɕi⁵⁵ mu⁵⁵ hũ⁵³ mo³¹.

2SG 1SG ALL DIR-accompany what do PROS 2SG work do go ATT

‘“Why (for what purpose) do you keep guarding me? You should do your work!”’

(Yin 2016: 116)

A final supporting example is from Lizu. Compare Example (32) with (44). It is observed that the interrogative word *xæ⁵⁵ mu³¹* is preposed while the verb phrase *xæ⁵⁵ mu⁵⁵* is postposed. Example (44) shows that a numeral *te³¹* ‘one’ can be inserted into the verb phrase.

- (44) Lizu
t^h e⁵⁵ bi de³³-k^h wæ⁵⁵ ge xæ⁵⁵ te³¹ mu⁵⁵ e³³=mæ⁵⁵=ndo³¹ dʒi⁵⁵=e²³.

there upward-big NON-EGO what one do COS=NEG=see say=COS

‘Well, I don’t know why (for what purpose) it grows upward.’

(Chirkova & Wang 2015a: S13)

The answer to (32), according to the context in Chirkova & Wang (2015a: S24, S25), is “I was here when it was raining and I am here taking care of the birds”. The answer expresses only the motivation or the cause, rather than the intentionality of realizing a subsequent event. But it is also possible for (32) to ask for purpose since the question is general. However, Example (44) expresses a strong purpose reading based on the story context (Chirkova & Wang 2015a: S5–S12). Since the magic buckwheat shed keeps growing bigger, the speaker feels baffled and uses (44) to question the intentionality of the magic buckwheat as if it is alive. And

a change-of-state marker v^{33} follows the purpose verb phrase, showing that the event is unrealized. After going through the Lizu folk stories on Pangloss, there are four *why*-sentences, including three with preposed interrogative word $xæ^{55}mu^{31}$ and one with postposed interrogative phrase $xæ^{55}te^{31}mu^{55}$, which is cited as (44). No counter-examples were found.

We do not have a pair in Yongning Na to demonstrate the purpose/cause distinction. But there are no counter-examples after examining the text collection on Pangloss deposited by Alexis Michaud, and the description and lexicon of the language (Lidz 2010; Michaud 2017, 2018). It is consistent in Yongning Na that the interrogative word $əʔtseʔ$ ‘why’ precedes the other verb in the clause and asks for cause, such as the stative event in (45).

- (45) Yongning Na
 $\eta æʔ = ɿ - seʔ$ $əʔtseʔ$ $tʂʰuʔneʔ - jiʔ hɿʔ$ $niʔ?$
 2PL=ASSOCIATIVE-TOP what.do so skillful COP
 ‘Why are you so skillful?’ (Michaud 2013: S198)

4.2.2.2 Verbal interrogatives of reason based on different verb-what meanings

In Wadu Pumi, while $mínjòŋ$ ‘why’ is an interrogative word, based on the meaning ‘to become what’ (see §4.1), see (46), $mínj pù$ (what do) ‘to do what, for what purpose’ is the interrogative verb phrase asking for purpose, see (47). Since (46) is not cause-sensitive, $mínjòŋ$ can cover both cause and purpose. As a word, $mínjòŋ$ occupies a preposed position before the clause predicate, but not a postposed position at the end of the sentence after we examined the Wadu data on Pangloss and in Daudey (2014). On the other hand, $mínj pù$ is a verb phrase, and it is placed after the main verb of the clause to ask for purpose. After reviewing the Wadu Pumi data on Pangloss and in Daudey (2014), we found two examples with postposed $mínj pù$, one of which is (47). Their context can be found in Daudey & Gerong Pincuo (2011: S19, S21). Both of them are used by the speakers to angrily challenge the intentionality of the addressee’s behaviour.

- (46) Wadu Pumi
 $dəbũ$ $mínjòŋ$ $(təə)$ $dʒə̀nónkʰæ$ $təʰwí$ $təə$ $lʰæ?$
 then why (say) society be.good say RHET
 ‘Why am (I) saying that (such a) society is good?’ (Daudey 2014: 135)
- (47) Wadu Pumi
 $é=gáé$ $dʒá - jí$ $tʰiŋ - jǐ$ $nǐŋ$ $nè - dzéj$ $mínj$ $pù = dǔ$.
 1SG=GEN eat-NMLZ drink-NMLZ 2SG DOWN-ride what do=IPFV:EGO:2SG
 ‘Why (for what purpose) do you ride my food and drink?’ (Daudey 2014: 188)

In Ding's (1998; 2014) Niuwozi Pumi data, no *why*-sentences based on 'to do what' have been found. But *why*-sentences with the verb phrase $me^H \dot{q}z\tilde{o}^L$, literally 'to become what', are identified. It can function as a full clause and be placed either before or after the supporting clause, denoting the same meaning. Compare (48) and (49). However, the presence of a nominal clause strongly favors the fronting of the interrogative expression (Ding, personal communication, 2021), see (50). Since the context is general, $me^H \dot{q}z\tilde{o}^L$ in all these examples can cover both cause and purpose.

(48) Niuwozi Pumi

$me^H \dot{q}z\tilde{o}^L = si^L$, $a^L le^H = ge^H \ n\dot{z}^L - kw\dot{z}^H = \dot{a}ju^L?$

what become=PFV child=TOP DOWN-cry=IPFV

'Why is the child crying? (literally, what's happened, the child is crying)'

(Ding, personal communication, 2021)

(49) Niuwozi Pumi

$a^L le^H = ge^H \ n\dot{z}^L - kw\dot{z}^H = \dot{a}ju^L$, $me^H \dot{q}z\tilde{o}^L = si^L?$

child=TOP DOWN-cry=IPFV what become=PFV

'The child is crying, why? (literally, the child is crying, what's happened)'

(Ding, personal communication, 2021)

(50) Niuwozi Pumi

$me^H \dot{q}z\tilde{o}^L = si^L$, $ni^F \ t\dot{z}^H ni^L = ge^L \ kw\dot{z}^H = \dot{a}a^H \ ti^L?$

what become=PFV 3SG one:day=TOP cry=IPFV;M NMLC

'Why is he crying for a full day? (literally, what's happened, he is crying for a full day)'

(Ding 1998: 162)

Shixing is another example of using different verbal interrogatives with different head verbs. The interrogative verb phrase $^H t\epsilon^h i \ ^H l\grave{a}$ (what become) 'why' is the canonical *why*-word in the interrogative system of Shixing, according to Chirkova (2009: 31), see (51) and (52a). Similar to Niuwozi Pumi, the aspect marker $^H s\grave{7}$ marks the clause boundary and $^H t\epsilon^h i \ ^H l\grave{a} = ^H s\grave{7}$, literally 'what's happened', functions as a full clause. Although $^H t\epsilon^h i \ ^H l\grave{a}$ is used before the supporting clause predicated by $^H qua$ 'to cry' and $^H q^h a\dot{o}^L s\tilde{o}$ 'be bitter' in (51) and (52a), respectively, it is fine to use $^H t\epsilon^h i \ ^H l\grave{a}$ after the supporting clause (Chirkova, personal communication, 2021). Moreover, although a purpose answer is fine for (51) which has a general context, only a cause reading is possible for (52a) since it asks for the explanation of a stative event, i.e., being bitter. It is also how (52a) is answered by (52b) with a cause, not a purpose.

- (51) Shixing
 ${}^Lz3-Hmi$ ${}^Ht\epsilon^hi$ ${}^Hl\alpha=^Hs\gamma$, ${}^Hqua=^Hji=^Ldz\tilde{o}$?
 child-NM what become=PRF cry=GEN=DUR
 ‘Why is the child crying? (literally, what’s happened to the child, being crying)’
 (Chirkova 2009: 27)

- (52) Shixing
 a. ${}^L\eta3=^Hji$ ${}^Lts^h\gamma-^Ldz\gamma3=^Hji$ ${}^Hts^hu-^Lsu\tilde{e}$ ${}^Lha=^H\gamma\gamma$ ${}^Ht\epsilon^hi$ ${}^Ll\alpha=^Hs\gamma$,
 1SG=GEN life-friend=GEN lung-liver this=TOP what become=PRF
 ${}^Hq^hao^Ls\tilde{o}=^Lji$ ” ${}^{HL}p3=^Lli=^Ln\tilde{o}$.
 bitter=PROG speak=NMLZ.PST=COP
 “‘Why are my wife’s lungs and liver so bitter? (literally, what’s happened to my wife’s lungs, it is so bitter?)’ The ghost asked the man.”
 (Chirkova 2009: 80)
 b. ${}^L\gamma ni=^Hji$ ${}^Lts^h\gamma-^Ldz\gamma3$ ${}^H\gamma ni$ ${}^H\gamma\tilde{o}$ ${}^Ldz3=^Ll\alpha=^H\gamma\gamma$ ${}^Hq^hao^Ls\tilde{o}$ ${}^Hk^ho^Lr\tilde{e}$ ” ${}^{HL}t^hi$
 2SG=GEN life-friend 2SG self eat=become=TOP bitter possible that
 ${}^{HL}p3=^Lli=^Ln\tilde{o}$.
 speak=NMLZ.PST=COP
 ‘Then the man answered the ghost in the following way: “Maybe you find them bitter, because they are your own wife’s.”’
 (Chirkova 2009: 81)

In contrast, the other interrogative verb phrase in Shixing, ${}^Ht\epsilon^hi$ Hw3 (what do) ‘to do what, for what purpose’, occupies a more fixed position in the clause, see (53a), i.e., after the main verb of the same clause. (53a) questions the intentionality of leading the ox back and forth. (53b) answers (53a) as the purpose of the action.

- (53) Shixing
 a. ${}^H\gamma ni$ ${}^Hqao=^Ls\gamma$ ${}^{LH}dz3$ Lzu , ${}^Ll3=^Lt^ha=^H\chi ao$ ${}^Lb3=^Ls\gamma$,
 2SG slaughter=PRF eat COND PFV=PROH=slaughter make=PRF
 ${}^L\epsilon i-^Ll3-^Hsu\tilde{e}$ ${}^Lk^hu-^Ll3-^Hsu\tilde{e}$ ${}^Ht\epsilon^hi$ ${}^Hw3=^Hji$?
 to-PFV-lead fro-PFV-lead what do=PROG
 ‘If you want to kill and eat the plow ox, why (for what purpose) are you leading it to and fro?’
 (Chirkova 2009: 70)
 b. ${}^H\epsilon a^H\beta a$ ${}^L\gamma\gamma$ ${}^Hb3=^Ls\gamma$ ${}^ts^ha^Lki$ ${}^Ldzu=^LxI=^Hs\gamma$, ${}^Hmi\alpha$ ${}^Ht\epsilon^hu=^Hs\gamma$,
 first ox=PNT.ANM thorn:bush prick=CAUS=PRF wound appear=PRF
 ${}^Ls^Lji=^H\gamma\gamma$ ${}^Hqao=^Ls\gamma$ Ldz3 ${}^Lt\epsilon i-^Ht\epsilon i$ ${}^Lb3=^Hr\tilde{e}$ ${}^{HL}\epsilon\gamma3=^Lji$ ” ${}^{HL}t^hi$
 then=TOP slaughter=PRF eat do-do make=INST think=PROG that
 ${}^{HL}p3=^Lli=^Ln\tilde{o}$.
 speak=NMLZ.PST=COP
 “‘The reason is that I want to injure it on the thorns first, so that it bleeds, and then I will slaughter and eat it.’”
 (Chirkova 2009: 71)

After reviewing the Shixing folk stories on Pangloss and in Chirkova (2009), we found 19 *why*-sentences. All the eight examples with ${}^Htɕ^{hi} {}^Hlæ$ (what become) ‘why’ are preposed before the supporting clause, although ${}^Htɕ^{hi} {}^Hlæ$ can also be placed in Shixing sentences after the supporting clause. They can cover both cause and purpose. The other 11 *why*-sentences use ${}^Htɕ^{hi} {}^Hw_3$, whose meaning is based on ‘to do what’. In ten of them, ${}^Htɕ^{hi} {}^Hw_3$ is postposed after the predicates of the clause or the supporting clause, and asks for purpose. But there is one case of using ${}^Htɕ^{hi} {}^Hw_3$ to ask for purpose before the supporting clause (Chirkova 2014: S8). The context is based on a brutal rich man angrily questioning the intentionality of a humble person’s behavior. We shall explain in §4.3 that, due to pragmatic reasons, the purpose interrogatives may also be fronted, but with much lower frequency.

There are some languages in our data which have *why*-interrogatives based on other meanings than ‘to become what’, besides the ones on ‘to do what’. After reviewing the Guiqiong reference grammar (Jiang 2015), the verb phrase *tei* *bei* (what do) ‘to do what, for what’ is found to be always postposed for purpose, see (54), where the speaker questions the intentionality of sending girls to school. The other *why*-sentence found in Jiang (2015), whose interrogative *tei* *utsi* is based on ‘to say what’, is also placed after the supporting clause, see (55). They can cover both cause and purpose. There is no preposed *tei* *utsi* being found.

(54) Guiqiong

ɕiɛ-’wu dz’imeɪ de-le ’inɛ-me mū dz’i tsen-le teiu bei?

say-GN girl big-PFV other-GEN person book learn-PFV what do

‘They said that girls would become people of other families when they grew up. Why (for what purpose) let them go to school?’ (Jiang 2015: 347)

(55) Guiqiong

nun z’ɕi mə-go-le ji-’wu, teiutsi?

2SG food NEG-eat-PFV go-GN what:said

‘Why are you leaving without eating anything?’

(Jiang 2015: 309)

Muya *ɛrí* is also flexible in sentential position. According to Bai (2019: 313), *ɛrí* means ‘be why’, rather than simply ‘why’, manifesting its verbal nature. It is fine to place *ɛrí* before or after the supporting clause, see (56) and (57). We found three examples with *ɛrí* in the Muya stories in Bai (2019): two of them occur after the supporting clause and one before.

(56) Muya

[nɛ t’hotsó pɛ] ɛrí ɲo?

2SG AS-run IPFV.2SG why EGO:SAP

‘Why are you running?/You are running, why?’

(Bai 2019: 315)

(57) Muya

ɛrí ɲo yoné dzópu tá-tʰö nyú-tʰa ti?

why EGO:SAP 1PL.INCL.POSS king up-grow NEG-can STA

‘Why is it that our king can never grow up?’

(Bai 2019: 434)

However, all the three examples with *ɛtʰá* (what.do) ‘to do what, for what purpose’ in the Muya stories in Bai (2019) occur uniformly after the supporting clause, see (58b) where the speaker questions the children’s intentionality after the speaker saw them fiercely fighting for just a tsampa container, as in (58a).

(58) a. *putsʰí tósə i kʰəlō tó-lō no-tá-tu*

child many ERG tsampa.container one-CLF:GENRL DOWN-PLUR-fight.for

pi ró ɣʃ-tʃɛ sə nyi.

IPFV place US-arrive PFV EGO:AP

‘As they arrived at that place, they found that many children were fighting for a tsampa container.’

b. Muya

není ontólō no-tá-tu tsəkiú, ɛtʰa pe tá

2PL:ERG like.that DOWN-PLUR-fight DM what.do IPFV/1/2NONSG say

sə nyi.

PFV EGO:AP

‘“Why (for what purpose) are you fighting like that?” they asked.’

(Bai 2019: 431)

Finally, we found 25 *why*-sentences in Tshobdun rGyalrong (Sun & Bstan’dzin Blogros 2019), 23 of which use the *why*-word *tʰə*, see (3), and one uses the adpositional phrase *tʰə ɲoʔ=denəʔ* (what be=for), see (17). There is only one *why*-sentence using the do-what verb phrase *tʰə ne-pɔj* (what IPFV-do); it is post-posed for purpose, see (59). The imperfective marker *ne-* is used to indicate the unrealized event with *tʰə ne-pɔj*. Example (59) is contextualized as a question asking for the intentionality of the exorcist’s going out at night, which is about an unrealized event, namely to sacrifice his body to the ghosts (Sun & Bstan’dzin Blogros 2019: 601).

(59) Tshobdun rGyalrong

ɛ-ɛgergen mer ne-kə-nɛʃə ʃɛ=nəʔ tʰə ne-pɔj ɲoʔ=kə

1SG:POSS-master night IPFV-NMLZ-go:RDPL=SUB what IPFV-do be=DM

ne-səsi-cə.

PFV:TR-think-MED

‘(The exorcist’s disciple thought) why (for what purpose) my master keeps going out at night.’

(Sun & Bstan’dzin Blogros 2019: 601)

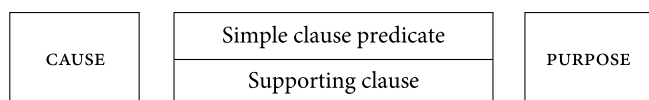
4.3 Summary

After having examined the text data on Pangloss, the folk stories in text collections and those appended to the reference grammars of the following languages, as well as their transcribed and glossed data on the Collecting and Recording Platform of China Language Resources (or 中國語言資源保護工程采錄展示平臺):⁶ Sichuan Yi, Tosu, Shixing, Namuyi, Muya, Tshobdun, Yongning Na, Pumi, Lizu, and Guiqiong, 105 *why*-sentences with verbal interrogatives of reason are found, see the summary in Table 3. The reason why fewer purpose interrogatives are found than cause interrogatives may be that asking for the intentionality or purpose is often more attitudinally marked than just asking for the general motivation, such as the unhappiness in (43) and the bafflement in (44).

Table 3. Sentential positions of verbal *why*-interrogatives

<i>Category 1: Why-interrogatives based on to-do meaning only</i>				
Cause word		Purpose phrase		Sample language
preposed	postposed	preposed	postposed	Sichuan Yi, Tosu, Yongning Na, Namuyi, Lizu
64	0	0	6	
<i>Category 2: Why-interrogatives based on more meanings other than to-do</i>				
Cause word		Purpose phrase		Sample language
preposed	postposed	preposed	postposed	Shixing, Muya, Pumi, Guiqiong, Tshobdun
14	4	1	16	

Based on our Tibeto-Burman data, if a language possesses verbal *why*-interrogatives which are derived from the meaning ‘to do what’ only, or Category 1 in Table 3, the *why*-word asks mainly for the cause, but also covers purpose in general contexts, while the *why*-verb phrase asks only for the purpose. Their positions in the sentence are often fixed, namely the *why*-word usually occurs before the main verb of the clause or the supporting clause, but the *why*-verb phrase after. According to Table 3, all the 64 *why*-words for cause are preposed and all the six *why*-verb phrases for purpose are postposed. Category 1 can be schematized as below:



6. Available at <https://zhongguoyuyan.cn/> (accessed 2021–11–18). The data were partly transcribed and glossed when we accessed the platform.

Moreover, a language may possess verbal *why*-interrogatives which are derived from more than one meaning, namely ‘to do what’ and ‘to V what’, or Category 2 in Table 3. In our data, most of the ‘to V what’ is ‘to become what’, e.g., Pumi and Shixing, and some are ‘to be what’, e.g., Muya, and ‘to say what’, e.g., Guiqiong. While the do-what verb phrase asks uniformly for purpose or intentionality, the other V-what expressions ask mainly for cause, but also cover purpose in general contexts. The V-what expressions have less positional restriction, which may be placed before or after the supporting clause. According to Table 3, despite the less positional restriction, 14 V-what expressions out of the 18 examples in spontaneous speech are preposed. This tendency reflects diagrammatic iconicity (Haiman 1980; Givon 1985; Diessel 2008), i.e., the position of cause before the event follows the logical and actual order of information sequence. Similar to Category 1, the do-what verb phrase for purpose strongly prefers the position after the main verb of the simple clause or the supporting clause. Table 3 indicates that 23 of them use do-what meaning to ask for purpose and 22 are postposed.

The only exception of preposed purpose interrogative based on the do-what meaning is found in Shixing (Chirkova 2014: S8). Due to pragmatic reasons, such as afterthought, it is possible for the purpose interrogatives to be fronted; even so, the phrasal status of the purpose interrogatives remains unchanged. Given that Shixing native speakers are not available, we can use Niesu (Sichuan Yi) as an example. According to the Niesu consultants, if the verb phrase $a^{33}\xi\eta^{55}m^{33}$ ‘to do what, for what purpose’ is fronted, without any insertion, they would mainly understand (60a) as a question for cause since the surface form is identical to the interrogative word $a^{33}\xi\eta^{55}m^{33}$ ‘why’. But when the phrasal status of the *why*-interrogative becomes clear, such as by inserting the classifier $t\epsilon i^{33}$ or replacing the to-do verb m^{33} with the synonymous to-do verb $ts\eta^{55}$, the cause reading is lost in (60b); it is thus only possible to use the interrogative verb phrase to query the intentionality of the addressee being so straightforward.

(60) Niesu

- a. $nu^{33} a^{33}\xi\eta^{55} m^{33} ta^{33}, a^{44} dzo^{33} \sim dzo^{33}?$
 2SG what do NF straightforward~RDPL
 ‘Why are you so honest?’
- b. $nu^{33} a^{33}\xi\eta^{55} t\epsilon i^{33} m^{33} ta^{33}, a^{44} dzo^{33} \sim dzo^{33}?$
 2SG what CLF do NF straightforward~RDPL
 ‘For what are you so honest?’ (Native speaker source)

Therefore, Category 2 can be schematized as below:

CAUSE	Simple clause predicate	PURPOSE/CAUSE
	Supporting clause	

4.4 Why verbal interrogatives are frequently used in Tibeto-Burman languages

It can be seen from the above data that different Tibeto-Burman languages use different strategies to create their cause interrogatives. However, it seems quite consistent for them to use the do-what meaning for purpose. We suggest that there are three structural conditions related to this usage: the use of *in situ* interrogative strategy, the pre-verbal adverbial position, and the use of to-do verb to introduce the adverbial of the clause.

The following developmental path is proposed for Tibeto-Burman languages. Firstly, when there is a need to raise question about purpose, Tibeto-Burman languages tend to maintain the interrogative *in situ*, thanks to the interrogative strategy (see Luo 2016). Under some circumstances the *in situ* verbal interrogative with do-what meaning will be further grammaticalized to form an interrogative word (see Aikhenvald 2011), and continue the grammaticalization to cover cause. This hypothesis is supported by Heine et al. (1991) and Kuteva et al. (2019) that it is a well-attested path for purpose interrogatives to develop the function of asking for cause. It also explains why the cause interrogative can often cover purpose if the context is general. Our claim also accounts for the reason why the English verb phrase *to do what* fails to become a basic interrogative category, since English is not a *wh-in-situ* language.

The next structural condition is that in Tibeto-Burman languages, adverbials, such as temporal and locational nouns and adverbs, are placed before the main verb of the clause. It is also common for verbs to be stacked before the other verbs in a multi-verb construction to express cause and manner as adverbials. Therefore, the interrogative words of reason, grammaticalized from the do-what meaning, can occupy the pre-verbal position as adverbials. The developmental process is schematized as below. Given the diversity of languages, the whole process may not be completed in every language. Languages display different features because they are at different developmental stages.

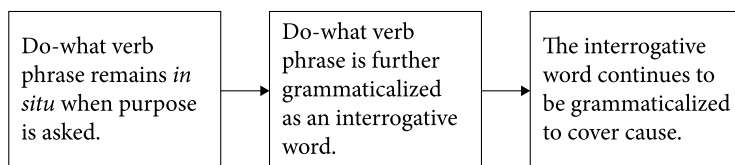


Figure 3. The grammaticalization of the do-what meaning as cause/purpose interrogatives

The third structural environment related to the grammaticalization is that many Tibeto-Burman languages use to-do verbs to introduce the adverbials. For example, the Nuosu to-do verb η^{33} introduces time ($a^{33}ho^{44} a^{21}=dzi^{21}$ as verb phrase) as adverbials in (61), and the Niesu to-do verb η^{33} introduces cause as an adverbial clause in (62). It is also possible for η^{33} to combine with a noun and form a verb phrase, and serve as the adverbial of the sentence, see (63). In line with this feature, the cause interrogative words based on the meaning ‘to do what’ are headed by to-do verbs, and can thus serve as the adverbial of the sentence.

- (61) Nuosu
 $si^{21}p^h o^{33} ci^{21}$ $\eta^{33} t\epsilon e^{55} ta^{33}=su^{33}$ $a^{33}ho^{44} a^{21}=dzi^{21}$ η^{33}
 master like this do set settled=NMLZ long NEG=become do
 $t\epsilon^h a^{21} \eta^{33} ka^{55} du^{33} dzi^{33}=o^{44}$.
 name know=PFV
 ‘Not long after, Chalym’ga knew the thing was set by the master.’
 (Native speaker source)

- (62) Niesu
 $a^{33} \eta^{55} ndza^{55} gui^{33} a^{33}=na^{33}$ $\eta^{33} ta^{33}, ts^h \eta^{33} xo^{33} \eta^{33} ta^{33}, ts^h i^{33} t\epsilon^h o^{55}$
 new wife adjacency go NEG=willing do NF 3SG set up NF fall here
 $o^{44} ts^h \eta^{33} vu^{33} gui^{44}=\eta^{33} \eta u^{33}$.
 down enter:go=NMLZ COP
 ‘(The old wife was) not willing (to let Chygue’alu) go back to his new wife, and so she set (him) up, and (Chygue’alu) fell into (the Dianchi Lake) from here.’
 (Native speaker source)

- (63) Nuosu
 $i^{21} si^{21} \eta^{44} a^{33} tu^{44} \eta^{33}=ko^{44}=nu^{33}, ci^{21} ci^{33}=t^h u^{33}=ko^{33}$ $\eta^{33} si^{21}$
 the long past do=moment=FRM wife:marry=time=moment horse take
 $dz \eta^{33}=ze^{55} \eta u^{33}$.
 carry=form COP
 ‘Like the old (tradition), when marrying a wife, the (correct) way is to take a horse to carry the wife.’
 (Native speaker source)

The following examples are from Namuyi and Yongning Na, where the to-do verbs mu^{55} and ji^{17} are used as auxiliary to introduce the verb phrase as manner adverbial of the clause, see (64) and (65).

- (64) Namuyi
 $t\epsilon i^{33} nb\ae^{55} t\epsilon i^{33} nb\ae^{55} mu^{55} nb\ae^{55}$
 one hop one hop do hop
 ‘(The frog) hopped forward.’
 (Yin 2016: 182)

- (65) Yongning Na
p^hɣ^lɬɰ^l ji^l ha^l dzu^l
 pay attention do meal eat
 ‘(We should) eat with very careful table manners.’ (Michaud 2012: 50)

We have also observed that Yongning Na differs from Namuyi and Sichuan Yi in that its *why*-expression *ə^ltse^l* (what.do) can be introduced by the to-do verb as an adverbial, in the form of *ə^ltse^l ji^l* (what.do do) (Michaud 2018). However, such a construction is not allowed in Sichuan Yi, namely **ɛi⁴⁴m³³m³³*, **ɛa⁴⁵m³³m³³* and **a³³ɣ⁵⁵m³³m³³*. Neither did we find similar constructions in Namuyi. This difference suggests that the to-do verb *ji^l* in Yongning Na has reached its “developmental end-point” since it, as an auxiliary, can be used with its corresponding main verb, such as English *go* in *he is going to go to the cinema* (see Heine 1993). But to-do verbs in Namuyi and Sichuan Yi are not yet at such a stage. Other Tibeto-Burman languages using to-do verbs to introduce adverbials include Niuwozi Pumi *pa^F*, see (66).

- (66) Niuwozi Pumi
t^h3^L-daw^H pa^F=nō^L t^je^Hme^H gə^L-t^jnjō^L
 TLC-tired do=DUR home out-appear
 ‘(He) returned home tired.’ (Ding 2014: 240)

Since this is a shared feature among Tibeto-Burman languages, we also find examples from outside China, such as Manange (Nepal) *la*, see (67), Tshangla (Bhutan and India) *anyi*, the non-final form of *ale* ‘to do’, see (68), and Chantyal (Nepal) *la* ‘to do’, see (69), to name just a few.⁷

- (67) Manange (Nepal)
mi=ko t^hɣ^lɬ-p^l la-tse, kete-tsi.
 person=DEF big-NOM do-CC shout-PFV
 ‘The man shouted loudly.’ (Hildebrandt n.d.: 14)
- (68) Tshangla
phama-gi waktsa-ba thamcen dolo a-nyi phang-ca.
 parent-AGT child-PL all equal do-NF love-COP
 ‘Parents love their children equally.’ (Andvik 2017: 434)

7. The *why*-expressions in Chantyal and Tshangla are also based on ‘to do what’. Chantyal *tala* ‘why’ can be decomposed as *ta* ‘what’ and *la* ‘to do’ (Noonan & Hildebrandt 2017: 502). Tshangla *hang anyi* ‘why’ is decomposed as *hang* ‘what’ and *anyi* ‘do’; there are two contracted forms of *hang anyi* in Tshangla: *hanyi* (what.do_{NE}) ‘why’ and *hale* (what.do_{infinitive}) ‘why’ (Andvik 2010: 197). But Manange *ta²² pi-tse⁵²* (what say-cc) ‘why’ is headed by the verb *pi* ‘to say’ (Hildebrandt & Bond 2017: 523).

(69) Chantyal

cakre makre la-i ci-wa
 sit cross legged do-ANT sit-NOM
 ‘to sit cross legged’

(Noonan & Hildebrandt 2017: 506)

5. Conclusion and implications

The present paper is a typological study of interrogatives of reason in Tibeto-Burman languages in Sichuan. Different strategies of forming reason interrogatives are summarized, namely by distinct *why*-word without transparent etymology, *how*-expression (often rhetorically), *what*-word if it is not an argument of the clause, *what*-word plus causal nouns, adpositional phrases, dative-marked nominals, instrumental forms and finally by verbal interrogatives based on the meaning ‘to V what’. We find that there is often a cause/purpose distinction in the Tibeto-Burman languages. The purpose interrogatives are formed quite consistently in our data based on the verb phrase meaning ‘to do what’. It is possible for the do-what verb phrase to be further grammaticalized as an interrogative word, facilitated by the structural environment of the Tibeto-Burman languages. It is also possible for the Tibeto-Burman languages to use other non-verbal strategies without grammaticalizing the to-do verbs, or utilize other verb heads for the cause interrogatives.

There are at least two implications of the study. First, we can use the findings, mainly the ones about verbal interrogatives, to investigate Sinitic languages where verbal interrogatives of reason are also commonly used. Second, the purpose to cause development may further complement the derivation maps of the interrogatives in Cysouw (2005) and Hölzl (2018).

5.1 Verbal interrogatives of reason in Sinitic languages

According to the data in Luo (2016) and Sheng (2020), almost all Sinitic languages can use to-do verbs plus interrogative morphemes to create the *why*-interrogatives, such as Yongxin Gan (Central Chinese) *tsuá* (do.what) ‘why’, a contracted form of *tsū* ‘do’ and *kuá* ‘what’. Moreover, verbal interrogatives with the do-what form are also found in ancient Chinese to ask for reason, such as 作(什)麼 *zuò(shén)me* ‘why’, and such interrogatives show positional preference, similar to our findings on Tibeto-Burman languages, in that they tend to appear before the main verb when asking for cause, and after the main verb when asking for purpose (Feng 2003; Li 2019). In the following part, we shall address two Sinitic

languages, Southwest Mandarin (Northern Chinese) and Cantonese (Southern Chinese).

Tibeto-Burman language speakers in Sichuan and its borders are often bilingual speakers of their ethnic languages and Chengdu-Chongqing Southwest Mandarin (SWM). There are up to nine ways of asking for reason in Chengdu-Chongqing SWM,⁸ among which *tsu*²¹³ *sa*²¹³*tsɿ*⁵³ and *kan*²¹³ *sa*²¹³*tsɿ*⁵³, both glossed as do:what/do what, ‘to do what, why’, are the two verbal interrogatives.

As is predicted by the cause/purpose distinction in §4.2.2, *tsu*²¹³ *sa*²¹³*tsɿ*⁵³ ‘to do what’ asks for purpose if postposed, see (70b); if preposed, both purpose and cause readings are possible if the context is general, see (70a). In addition, it is fine to insert a word between *tsu*²¹³ and *sa*²¹³*tsɿ*⁵³ if it is postposed for purpose, hence a verb phrase, see (70b). However, it is impossible to do so if it is preposed, hence an interrogative word. The word/phrase distinction can also be proved by the contracted form of *tsu*²¹³ *sa*²¹³*tsɿ*⁵³, i.e., *tsua*²¹³*tsɿ*⁵³, although quite subtle. Sinitic languages are known to lack phonemic stress, but stress is useful in distinguishing their words and phrases. Duanmu (1998) indicates that stress of Chinese compounds is left-headed and that of Chinese phrases right-headed, similar to English. The contracted form *tsua*²¹³*tsɿ*⁵³ cannot receive stress on its second syllable if preposed, **tsua*²¹³*tsɿ*⁵³, but is acceptable to either receive stress on both syllables or just on the first one, see (71a). However, if postposed, it is acceptable to have the stress only on the second syllable, namely *tsua*²¹³*tsɿ*⁵³, see (71b).

The co-existence of a full form *tsu*²¹³ *sa*²¹³*tsɿ*⁵³ and a contracted form *tsua*²¹³*tsɿ*⁵³ without any positional differences suggests an intermediate stage in the grammaticalization of the verbal interrogatives in Chengdu-Chongqing SWM. There is also a competition with *kan*²¹³ *sa*²¹³*tsɿ*⁵³ and its contracted form

8. The following phrases or words are the nine *why*-expressions in Chengdu-Chongqing SWM: *sa*²¹³*tsɿ*⁵³ *juæn*²¹*jin*⁵⁵ (lit. what reason) ‘what reason’, a phrase; *sa*²¹³*tsɿ*⁵³ (lit. what) ‘why’, a word; *lan*⁵³-*ko*²¹³ (lit. which.kind-CLF) ‘why’, a word; *lan*⁵³-*mən*⁵⁵ (lit. which.kind-PL) ‘why’, a word; *tsa*²¹-(*ko*²¹³) (lit. how(-CLF)) ‘why’, a word; *tsu*²¹³ *sa*²¹³*tsɿ*⁵³ (lit. do:what/do what) ‘why’, a word (cause) and a phrase (purpose); *kan*²¹³ *sa*²¹³*tsɿ*⁵³ (lit. do:what/do what) ‘why’, a word (cause) and a phrase (purpose); *wei*²¹³ *sa*²¹³*tsɿ*⁵³ (lit. for:what/for what) ‘why’, a word (cause) and phrase (purpose); *wei*²¹³ *la*⁵³-*jan*²¹³ (lit. for:which-kind/for which kind) ‘why’, a word (cause) and a phrase (purpose). Some of them ask for reason with their crossover functions, such as expressing *why* via *what* with *sa*²¹³*tsɿ*⁵³ ‘what’, via *how* with *lan*⁵³-*ko*²¹³ ‘how’, via *how* with *lan*⁵³-*mən*⁵⁵ ‘how’, and via *how* again with *tsa*²¹-(*ko*²¹³) ‘how’.

$ka^{213}ts\gamma^{53}$, which can replace $tsu^{213}sa^{213}ts\gamma^{53}$ and $tsua^{213}ts\gamma^{53}$ in all the examples,⁹ with the same morphosyntactic and phonological behaviors.

(70) Chengdu SWM

- a. $\eta i^{53} tsu^{213} sa^{213} ts\gamma^{53} ta^{213} t^h a^{55}?$
 2SG do:what hit 3SG
 ‘Why (for what purpose/for what cause) did you hit him/her?’
 (Native speaker sources)
- b. $\eta i^{53} ta^{213} t^h a^{55} tsu^{213} (ko^{213}) sa^{213} ts\gamma^{53}?$
 2SG hit 3SG do CLF what
 ‘Why (for what purpose) did you hit him/her?’ (Native speaker sources)

(71) Chengdu SWM

- a. $\eta i^{53} tsua^{213} ts\gamma^{53} ta^{213} t^h a^{55}?$
 2SG do:what hit 3SG
 ‘Why (for what purpose/for what cause) did you hit him/her?’
 (Native speaker sources)
- b. $\eta i^{53} ta^{213} t^h a^{55} tsua^{213} ts\gamma^{53}?$
 2SG hit 3SG do what
 ‘Why (for what purpose) did you hit him/her?’ (Native speaker sources)

Moreover, the postposed verb phrase $tsu^{213}sa^{213}ts\gamma^{53}$ or $tsua^{213}ts\gamma^{53}$ in (70b) and (71b) can be fronted for pragmatic reasons, such as afterthought, see (72). In this case, the fronted $tsu^{213}sa^{213}ts\gamma^{53}/tsua^{213}ts\gamma^{53}$ must be followed by an intonation pause. Although it is preposed after the fronting, it still expresses purpose and maintains the phrasal status, not a cause interrogative word. An intervening morpheme can still be inserted in (72) due to the purpose reading, namely $tsu^{213}ko^{213}sa^{213}ts\gamma^{53}$ (do CLF what) ‘to do what, for what purpose’, and the contracted form $tsua^{213}ts\gamma^{53}$ can still be stressed on its second syllable.

(72) Chengdu SWM

- $tsu^{213} (ko^{213}) sa^{213} ts\gamma^{53} / tsua^{213} ts\gamma^{53}, \eta i^{53} ta^{213} t^h a^{55}?$
 do CLF what do what 2SG hit 3SG
 ‘Why (for what purpose) did you hit him/her?’ (Native speaker sources)

The do-what verb phrases in the above Chengdu-Chongqing SWM examples, see (70b) and (71b), function as V2 of the serial verb construction. Similar cases are widely found in Sinitic languages. For example, $tsou^{22}met^{55}je^{23}$ (do what) ‘to do

9. tsu^{213} has more collocations with nouns than kan^{213} , such as $tsu^{213}/kan^{213}p^h o\gamma^{21}jou^{213}$ (do friend) ‘make friend’, $tsu^{213}/kan^{213}zən^{21}$ (do people) ‘conduct oneself properly’, $tsu^{213}/kan^{213}fan^{53}$ (do rice) ‘cook meal’, and $tsu^{213}/kan^{213}sən^{55}ji^{213}$ (do business) ‘do business’.

what, for what purpose' in Cantonese is also a verb phrase in the serial verb construction in (73). It is grammaticalized as an interrogative word, if used in the pre-verbal position in (74).¹⁰ According to Yip & Matthews' (2007: 112) study on Cantonese-English bilingual children, *what are doing*, calqued on *tsou²² met⁵⁵je²³*, emerges before the general *why* in English acquisition, e.g., *what are doing no eat?* 'why aren't you eating?'. This sequence agrees with the grammaticalization path in Figure 3, i.e., purpose appears earlier than cause.

- (73) Cantonese
nei²³ kem³³ ken³⁵tsæ:ŋ⁵⁵ tsou²² (ti⁵⁵) met⁵⁵je²³ a:³³?
 2SG so nervous do (some) what Q
 'Why (for what purpose) are you so nervous?' (Native speaker source)
- (74) Cantonese
nei²³ tsou²² met⁵⁵je²³ kem³³ ken³⁵tsæ:ŋ⁵⁵ a:³³?
 2SG do:what so nervous Q
 'Why are you so nervous?' (Matthews & Yip 2011: 380)

5.2 A derivation map incorporating purpose

Based on the differences between purpose and cause, we suggest that the cover term *reason* in the derivation maps of Cysouw (2005) and Hölzl (2018) should be sub-categorized. The same method has been applied to SELECTION/THING and KIND/MANNER. The former pair used to be under OBJECT as one category in Heine et al. (1991: 56), but is bifurcated into SELECTION and THING in Cysouw (2005), see Figure 1. The KIND/MANNER pair was under the *how*-category in Heine et al. (1991: 56) and MANNER in Cysouw (2005), but is sub-divided in Hölzl (2018), see Figure 2. Therefore, since we know the direction of the derivation from purpose to cause,¹¹ according to Heine et al. (1991) and Kuteva et al. (2019), the deriva-

10. There is another interrogative word of reason in Cantonese: *ti:m³⁵kai³⁵* (how:explain) 'why'. According to Matthews & Yip (2011: 379–380), *ti:m³⁵kai³⁵* asks for both cause and purpose, and is normally used pre-verbally.

11. Luraghi (2003), on the basis of the Greek preposition *dia*, suggested that the purpose/cause pathway may be bi-directional. But we do not have evidence in our data to prove a reversed process from cause to purpose. Instead, the purpose-to-cause unidirectional development can be further supported by studies from language acquisition, such as Yip & Matthews' (2007) study on Cantonese-English bilingual children (see § 5.1). Moreover, Wode (1971) and Kangassalo (1995) indicate that children speaking different languages fully acquire interrogative words for reason at a later stage than *what*-words. Since most of the *why*-words for purpose are composed of *what*-words in our data, we can thus infer that purpose interrogatives are

tion maps of interrogative words in Cysouw (2005) and Hölzl (2018) can be complemented with a refined distinction between purpose and cause interrogatives. Since the *why* category is structurally more complex than the others and many derivations are possible, it is natural to see the reason area more crisscrossed in Figure 4 (cf. Figure 2).

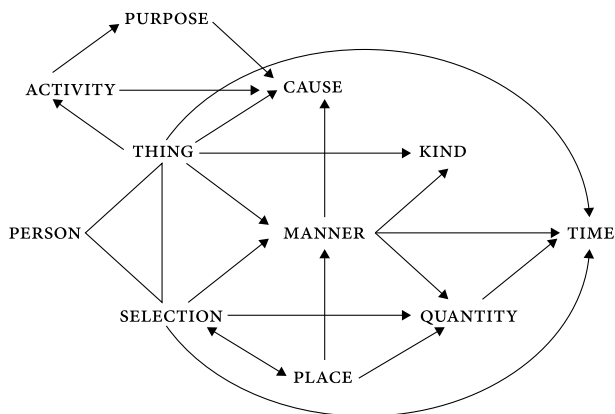


Figure 4. A revised derivation map of interrogative words with a focus on category REASON

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acquired before cause ones. In other words, the derivational path from purpose to cause coincides with the acquisitional order.

Abbreviations

1	first person	LOC	locative
2	second person	M	modificatory
3	third person	MED	mediative evidential
AGT	agentive	NAGT	non-agentive
ALL	allative	NEG	negation
ANM	animate	NF	non-final clause marker
ANT	antipassive	NM	nominal
AP	all participants	NMLC	nominal clause marker
AS	directional prefix for away from the speaker	NMLZ	nominalizer
ATT	attitudinal marker	NOM	nominative
CAUS	causative	NON-EGO	non-egophoricity
CC	clause chainer	NONSG	nonsingular
CLF	classifier	NPST	non-past
CLF:GENRL	general classifier	PFV	perfective
COND	conditional	PL	plural
COP	copula	PLUR	pluractional
COS	change of state	PNT	patient
CVB	converb	POSS	possessor
DAT	dative	PRF	perfect
DEF	definite	PROG	progressive
DEM	demonstrative	PROH	prohibitive
DET	determiner	PROS	prospective
DIR	directional	PST	past
DM	discourse marker	Q	question marker
DOWN	directional prefix for downward	REP	reported
DUR	durative	RDPL	reduplication
EGO	egophoricity	RHET	rhetorical question marker
EMPH	emphatic	SAP	speech act participants
ERG	ergative	SBJ	subject
EXIST	existential verb	SENS	sensory
FACT	factual	SEQ	sequentializer
FOC	focus marker	SFP	sentence-final particle
FR.SP	from speaker	SG	singular
FRM	frame-setter	SLF	self
GEN	genitive	STA	stative aspect
GN	gnomic tense marker and agentive nominaliser –‘wu	SUB	subordinator
INC	inceptive	SWM	Southwest Mandarin
INCL	inclusive	TAM	TAM marker
INDEF	indefinite	TLC	translocative
INST	instigation	TOP	topic marker
INSTR	instrumental	TR	transitive
IPFV	imperfective	US	directional prefix for upstream
		VLT	volitive

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