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# Can a Bodily Theorist of Pain Speak Mandarin?

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## Abstract

According to a bodily view of pain, pains are objects which are located in body parts. This bodily view is supported by the locative locutions for pain in English, such as that “I have a pain in my back.” Recently, Liu and Klein (*Analysis*, 80(2), 262–272, 2020) carry out a cross-linguistic analysis, and they claim that (1) Mandarin has no locative locutions for pain and (2) the absence of locative locutions for pain puts the bodily view at risk. This paper rejects both claims. Regarding the philosophical claim, I argue that a language without locative locutions for pain only poses a limited challenge to the bodily view. Regarding the empirical claim, I identify the possible factors which might have misled Liu and Klein about the locative locutions for pain in Mandarin, and argue that Mandarin has a wide range of locative locutions for pain by conducting a corpus analysis. I conclude that compared to English, Mandarin lends no less, if not more, support to the bodily view of pain.

**Keywords** Pain · Bodily theories of pain · Cross-linguistic analysis · Mandarin · Corpus analysis

## 1 The Bodily View of Pain and Locative Locutions for Pain

Suppose you are suffering from a paper cut on the fingertip. It is beyond dispute that there is *tissue damage* in your fingertip, and you are *experiencing* pain. But there are significant disagreements among philosophers about the nature of pain. One disagreement is concerned with the question of whether pains are something mental or something bodily. According to the mental state view, pains are mental states which are “in the head if they are anywhere” (Aydede, 2019). Though there are further debates on the nature of pain *qua* mental state: for example, some argue that pains are *conscious* mental states (e.g., Dennett, 1986; Hill, 2009; Kripke, 1980; Reid, 1785/2011) and others argue that pains can be *unconscious* mental states (e.g., Armstrong, 1963; Dretske, 2006; Lycan, 1995), they all deny that pains are something

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which inhabits body parts. By contrast, bodily theorists argue that pains are states of body parts, or objects which are located in body parts (Cornman, 1977; Cutter, 2017; Graham & Stephens, 1985; Massin, 2017; Newton, 1989; Reuter et al., 2019; Stumpf, 1928; Sytsma & Reuter, 2017). This paper focuses on the bodily view that pains are objects which are located in body parts. According to Aydede (2019), many pain locutions in English lend support to this bodily view. Consider the following two sentences:

- (a) I have a coin in my left pocket.
- (b) I have a sharp pain in my left thigh.

On the face of it, (b) shares the same surface grammatical structure with (a). And this suggests that like the coin which is an object located in my left pocket, the sharp pain is, or is conceived of as, an *object* which is located in my left thigh. Let us call it the surface-grammar argument for the bodily view of pain (for a critique of this argument, see Aydede, 2019).

In a recent paper, Liu and Klein (2020) carry out a cross-linguistic analysis, and they claim that (1) pain locutions like (b), which they call locative locutions, “are impermissible in Mandarin” (p. 265) and (2) this puts the bodily view of pain “at risk” (pp. 269–270). Before discussing the empirical question of whether Mandarin has locative locutions for pain, it is worth considering the philosophical question of to what extent a language without locative locutions for pain would be a problem for the bodily view of pain.

To answer this question, it would be helpful to examine the question of to what extent the locative locutions for pain in English are a problem for the mental state view of pain. Tye (1984), for example, explicitly acknowledges that the locative locutions for pain in English pose a challenge to the adverbial theory of pain. In response, he rejects the surface-grammar argument, and argues that the locative locutions should not be understood at face value. One reason in favour of Tye’s response is that the locative locutions, if understood at face value, would generate certain problems. For instance, Block (1983, p. 517) asks us to consider the following inference:

The pain is in my fingertip.  
The fingertip is in my mouth.  
Therefore, the pain is in my mouth.

Block argues that the inference is invalid, despite the apparent validity with respect to its surface structure.<sup>1</sup> He suggests that we should not take such kind of pain locutions at face value. More specifically, Block argues that the meaning of the preposition “in” for pains *qua* mental particulars differs from the meaning of “in” for physical objects. The proposal that such kind of pain locutions should not be understood at face value is shared among many philosophers, though they may disagree on how exactly we should understand such kind of pain locutions (Noordhof, 2001, 2002, 2006; Olivier, 2006; Tye, 1995, 2002, 2005). This suggests that a

<sup>1</sup> By contrast, Reuter et al. (2019) argue that the inference is “not invalid”.

certain form of surface grammar itself does not suffice to put a philosophical view of pain at risk.

Moreover, if we take mental state views and bodily views as metaphysical theses, then a certain form of surface grammar itself can hardly provide a knockdown argument against a metaphysical thesis even if we accept that it may pose some challenge (see also, Bain, 2007). Admittedly, for some bodily theorists, the bodily view of pain is not (only) a metaphysical thesis, but a folk-psychological thesis about people's actual concept of pain (Reuter, 2011; Reuter et al., 2014; Reuter & Sytsma, 2020; Sytsma, 2010; Sytsma & Reuter, 2017). Would the existence of a language without locative locutions for pain be a grave problem for the bodily view as a folk-psychological thesis? At first glance, the existence of such a language might seem at odds with the bodily view that speakers of that language conceive of pains as objects which are located in body parts. In this sense, such a language poses a greater challenge to the bodily view as a folk-psychological thesis, as opposed to the bodily view as a metaphysical thesis. But I think bodily theorists have, at least, several possible responses at hand.

Bodily theorists may argue that speakers of different languages do have different concepts of pain. This response might not seem satisfactory for many philosophers who hold that there is an intimate relationship between concepts and experiences (e.g., McDowell, 1996). They may argue that if speakers of different languages have different concepts of pain, then they would have different experiences of pain. This is, however, at odds with the intuitive idea "that the experience of physical pain itself is a cross-cultural universal" (Liu & Klein, 2020, p. 269). While bodily theorists could also reject the idea that the experience of pain is a cross-cultural universal, I think they have a different, and perhaps better, response which explains why the existence of a language without locative locutions for pain is not a grave problem for their folk-psychological thesis.

Bodily theorists may emphasise that bodily views are not solely built on the basis of the surface-grammar argument, but are mainly supported by carefully designed empirical studies, including questionnaire studies and corpus analysis (for a review, see Sytsma & Reuter, 2017). For example, a group of empirical studies aims to find out whether ordinary people think that pain hallucinations are possible (Reuter et al., 2014). The idea is that if the mental state view of pain is true that ordinary people conceive of pains as mental states, then they would think that pain hallucinations are impossible. This is because, according to the mental state view, "any situation that a person cannot discriminate from a situation in which he himself has a pain counts as a situation in which he has pain." (Putnam, 1963/2014, p. 218) The result of these studies, however, shows that "almost two-thirds of the participants ... endorsed the possibility of pain hallucinations" (Reuter et al., 2014, p. 87). According to Reuter et al. (2014), this result supports the view that pains are bodily states, as opposed to mental states. It is important to note that the result supports not only the view that pains are bodily states but also the view that pains are objects located in body parts, which is the bodily view Liu and Klein (2020) take issue with.

Can the existence of a language with locative locutions for pain pose a challenge to these empirical studies? It might be if there is an argument that

locative locutions for pain are important variables in these studies, the absence of which would change the result. Since not only is such an argument absent in Liu and Klein's paper but it is far from clear that such an argument is plausible, the existence of a language without locative locutions for pain does not seem to be a grave problem for the bodily view of pain as a folk-psychological thesis.<sup>2</sup>

In this section, I have argued that a language without locative locutions for pain can hardly pose an enormous challenge to the bodily view of pain as a metaphysical thesis or a folk-psychological thesis. I acknowledge that such a language, if exists, would be a challenge for a bodily theorist who intends to build her theory on the basis of the surface-grammar argument. However, for it to be a real, rather than an imaginative, challenge, one needs to demonstrate that such a language actually exists. Liu and Klein (2020) argue that Mandarin is such a language. I disagree. In the next section, I shall argue that Mandarin in fact contains a wide range of locative locutions for pain, which lend support to the bodily view of pain.

## 2 Locative Locutions for Pain in Mandarin

Mandarin is the largest spoken language in the world by the number of native speakers (Wang & Sun, 2015, p. 578). Liu and Klein (2020, pp. 264–265) claim that “[t]he locative form for reporting on physical pain in English ... [is] impermissible in Mandarin”. If the idea behind the surface-grammar argument is correct that the surface grammar of pain locutions in a particular language reflects the concept of pain in that language, then Liu and Klein's claim seems to suggest that few Mandarin speakers conceive of pains as objects which are located in body parts. At first blush, this suggestion about Mandarin speakers' concept of pain seems implausible, because at the very least there is no evidence that the bodily view of pain is something alien to Mandarin speakers. The implausibility of this suggestion in turn indicates that there is something wrong with Liu and Klein's claim about the pain locutions in Mandarin.

Liu and Klein acknowledge that Mandarin has predictive locutions for pain, such as that “my back hurts” and that “my back is painful”. By contrast, what they call the locative form of pain locutions has four distinctive features as follows:

- (1) It uses a prepositional phrase; most importantly, it can take the preposition ‘in’ as in ‘in my back’ – the use of the preposition ‘in’ signals the body part where pain is located;
- (2) Pain is countable – one can say ‘a pain’;
- (3) It permits an existential construction as in ‘THERE IS a pain’.

<sup>2</sup> If speakers of different languages do have a similar concept of pain, then it is reasonable to expect that speakers of a language without locative locutions for pain would not give drastically different answers in these empirical studies.

- (4) It permits a possessive construction as in ‘I HAVE a pain in my back’. (ibid., p. 265)<sup>3</sup>

According to Liu and Klein, the locative locutions “at least on the surface, would commit pains to being the objects of sensation, rather than just properties of objects like body parts.” (ibid., p. 262) For the sake of the argument, I shall accept this point. The controversial claim proposed by Liu and Klein is that none of these features is permissible in Mandarin and hence Mandarin has no locative locutions for pain. Before discussing the detail of these four features, I’m not convinced that we should unreflectively take the grammatical features of English as the criteria to make a judgement about Mandarin. For example, one grammatical feature of English locutions for past actions is that past tense verbs should be used. By contrast, in Mandarin the same verb is used to refer to past and present actions. It would be absurd, however, to conclude that Mandarin has no locutions for past actions just because we cannot find any past tense verbs in Mandarin. Of course, it does not mean that we cannot use any features of English to make a judgement about Mandarin. But it is reasonable to say that we should be extra cautious about what an apparent difference between English and Mandarin can tell us. In the following, I shall argue that Liu and Klein’s claim may be misguided by some apparent differences between English and Mandarin.

The first feature of the locative form of pain locutions in English is “the use of the preposition ‘in’ [which] signals the body part where pain is located” (Liu & Klein, 2020, p. 265). Is a similar kind of pain locutions permissible in Mandarin?

Liu and Klein acknowledge that in Mandarin the postposition *lǐ* is “similar in meaning to the English prepositions ‘in’ or ‘inside’, in specifying the location of concrete physical object”. But they claim that “*lǐ* is not usually used in a postpositional phrase in Mandarin to signal the body part affected by physical pain.” (ibid., p. 266).

Liu and Klein did not provide much evidence to support this claim. It seems that their claim was based on the intuition of a few Mandarin speakers (ibid., footnote 8). To verify Liu and Klein’s claim, it would not be enough to appeal to a few more Mandarin speakers’ intuition, no matter whether it may confirm or disconfirm Liu and Klein’s claim. Instead, to get a comprehensive picture of Mandarin pain locutions, it is better to conduct a corpus analysis, which will also help us verify whether certain kinds of pain locutions are in fact present in Mandarin (for a discussion of the significance of corpus analysis for philosophy, see Bluhm, 2016). There are quite a few existing Chinese corpora. The corpus I shall use is called the Beijing Language and Culture University Corpus Center Corpus, or the BCC Corpus for short (Xun et al., 2016). It is available online for free (<http://bcc.blcu.edu.cn>).

<sup>3</sup> It is also questionable to what extent and in what sense these four features are universally present in the locative locutions for pain in English. For example, according to *Practical English Usage*, “toothache, earache, stomach ache and backache are usually uncountable in British English. In American English, these words are generally countable if they refer to particular attacks of pain.” (Swan, 2016, Sect. 11.119.7) Since the locutions for these pains in British English do not have Feature (2). If the lack of Feature (2) puts the bodily view of pain at risk, as Liu and Klein seem to suggest, then they would have to say that British English poses, while American English doesn’t pose, a challenge to the bodily view, and that British English speakers conceive of pain in a different way from American English speakers. These two claims appear somewhat counterintuitive. And this in turn casts doubt on the significance of Feature (2).

Mandarin has three words whose meaning is similar to that of the English word *pain*: *tòng*, *téng*, and *téngtòng*. If Liu and Klein's (2020, p. 266) claim is true that “*lǐ* is not usually used in a postpositional phrase in Mandarin to signal the body part affected by physical pain”, then we would not find Mandarin pain locutions with the following structure:

Noun phrase + *lǐ* + *tòng/téng/téngtòng*

However, when the phrase *lǐ téng* (里疼 “in pain”) is searched in the BCC Corpus, it generates 58 results including<sup>4</sup>:

嘴里疼  
zuǐ-lǐ téng  
mouth-in pain  
“pain in mouth”  
肚里疼  
dù-lǐ téng  
belly-in pain  
“pain in belly”

These two examples, I think, suffice to illustrate that, contra Liu and Klein's claim, in Mandarin *lǐ* can be used in a postpositional phrase to signal the body parts affected by physical pain.<sup>5</sup>

Moreover, not only does Mandarin have a postposition *lǐ*, which is similar to the English preposition *in*, it also has, I shall note, at least two prepositions *yú* (于) and *zài* (在), which can be used to report on the location of pain in body parts. When the phrase *tòng yú* (痛于 “pain in”) and *tòng zài* (痛在 “pain in”) are searched in the BCC Corpus, the result includes the following examples:

痛于骨髓  
tòng yú gǔsuǐ  
pain in bone marrow  
“pain in the bone marrow”  
痛在哪里?  
tòng zài nǎlǐ?  
Pain in where?  
“Where is the pain?”

The fact that Mandarin has both the postposition *lǐ* and the prepositions *yú* and *zài* to signal the body parts affected by physical pain suggests that regarding the first feature, Mandarin lends no less, if not more, support to the bodily view of pain.

The second feature of the locative form of pain locutions in English is that “[p]ain is *countable* – one can say ‘a pain’ (Liu & Klein, 2020, p. 265). Is a similar kind of pain locutions permissible in Mandarin?

<sup>4</sup> CL: classifier; LIG: marker of ligature in dependency relations; DEM: demonstrative.

<sup>5</sup> Some of the results generated by the BCC Corpus are not suitable counterexamples. But for the purposes of this paper, the abundance of counterexamples itself suffices to reject Liu and Klein's claim that locative locutions for pains “are impermissible in Mandarin” (Liu & Klein, 2020, p. 265).

Liu and Klein (2020, p. 266) claim that “in Mandarin ... one cannot say ‘a pain’ ... [because] [i]n Mandarin, sensations in general are not countable”.

I agree that one cannot say “a pain” in Mandarin. But the reason is not that pain or sensations in general are not countable in Mandarin. Rather, it is because unlike English, Mandarin does not have articles: a, an, and the. Obviously, we cannot use Mandarin’s lack of articles and hence the lack of the phrase “a pain” to support the claim that pain is not countable in Mandarin. Otherwise, it might imply a silly claim that nothing in Mandarin is countable.

To check whether pain is countable in Mandarin, instead of asking whether “a pain” is permissible, we should ask whether “one pain”, “two pains” and the like are permissible. Again, we shall rely on corpus analysis. When the phrase *yī tòng* (一痛 “one pain”) is searched in the BCC Corpus, it generates 893 results including:

这一痛  
zhè yī tòng  
DEM one pain  
“this one pain”  
左肩一痛  
zuǒ jiān yī tòng  
Left shoulder one pain  
“one pain in the left shoulder”  
一痛再痛  
yī tòng zài tòng  
One pain again pain  
“one pain after another”

When we replace the Chinese word *yī* (一 “one”) with a bigger number, the BCC Corpus generates more examples, such as:

三病二痛  
sān bìng èr tòng  
three illness two pain  
“three illnesses and two pains”

Interestingly, in Mandarin the meaning of the phrase *sān bìng èr tòng* is not that the subject suffers from literally three illnesses and two pains, but that the subject suffers from many illnesses and many pains. Phrases with a similar meaning include:

三病四痛  
sān bìng sì tòng  
three illness four pain  
“three illnesses and four pains”  
七病八痛  
qī bìng bā tòng  
seven illness eight pain  
“seven illnesses and eight pains”  
十病九痛

shí bìng jiǔ tòng  
 ten illness nine pain  
 “ten illnesses and nine pains”

The specific example Liu and Klein take issue with is:

\*一个疼痛  
 \*yīgè téngtòng  
 one:CL pain  
 “a pain”

They write that “[o]ne cannot say” *yīgè téngtòng* in Mandarin (ibid.). I agree that *yīgè téngtòng* is not an idiomatic Mandarin locution. But this doesn’t entail that Mandarin speakers cannot use the “one:CL” structure to report on physical pain. Even though *yīgè téngtòng* is not idiomatic, we shall check whether Mandarin speakers use *yīgè téng* and *yīgè tòng*. When the latter phrases are searched in the BCC Corpus, it generates 223 and 659 results, respectively, including:

这叫一个疼  
 zhè jiào yīgè téng  
 this is.called one:CL pain  
 “This is called a pain.”

These examples suffice to illustrate that, contra Liu and Klein’s claim, pain can be countable in Mandarin.

The third feature of the locative form of pain locutions in English is that “[i]t permits an existential construction as in ‘THERE IS a pain.’” The fourth feature is that “[i]t permits a possessive construction as in ‘I HAVE a pain in my back.’” (ibid., p. 265).

Liu and Klein acknowledge that “Mandarin has an equivalent to ‘there is’ in English (i.e. *yǒu*)” (ibid., p. 266). But it is crucial to notice that the Mandarin word *yǒu* can be used in the existential sense as well as the possessive sense. We cannot rely on the surface grammar of a Mandarin locution with the word *yǒu* to judge whether it is used in the existential sense or the possessive sense. For example, in the locution that *huǒxīng yǒu shuǐ* (火星有水 “There is water on Mars”) it is an existential use of *yǒu*, while in the locution that *wǒ yǒu qián* (我有钱 “I have money”) it is a possessive use of *yǒu*. This means that the surface grammar of a Mandarin locution with the word *yǒu* cannot tell us whether it meets the requirement of the third feature or the fourth feature. That being said, we can still ask whether Mandarin has locutions for pain using the word *yǒu*. Liu and Klein argue that the answer is negative because Mandarin speakers do not say:

\*我有痛。  
 \*wǒ yǒu tòng  
 1SG have pain  
 “I have pain.”



Indeed, this is not an idiomatic Mandarin locution for physical pain. But it does not entail that Mandarin has no locutions for physical pain with the word *yǒu*. Once again, we shall use a corpus analysis to find out the answer. When the phrase *yǒu tòng* (有痛 “have pain”) is searched in the BCC Corpus, it generates 1697 results including:

右肾区有痛  
yòu shèn qū yǒu tòng  
left kidney area there.is pain  
“There is a pain in the left kidney area.”  
患者有痛  
huànzhe yǒu tòng  
patient have pain  
“Patient has pain.”

It is evident that, contra Liu and Klein’s claim, Mandarin has pain locutions in the existential sense, and pain locutions in the possessive sense.

So far, I have argued that Mandarin has pain locutions with all the four features of the locative form of pain locutions in English. This suggests that many pain locutions in Mandarin also lend support to the bodily view of pain. Moreover, there are many Mandarin pain locutions which take pains not only as objects but as moving objects:

痛彻心扉  
tòng chè xīn fēi  
pain penetrate heart door  
“Pain penetrates the door of the heart.”  
痛入骨髓  
tòng rù gǔ suǐ  
pain enter bone marrow  
“Pain enters the bone marrow.”<sup>6</sup>

The Mandarin locutions provided in this section, I think, are more than enough to illustrate that Mandarin has a wide range of locative locutions for pain.

It might be argued that some of these Mandarin locutions can be given a non-locative interpretation: among the examples related to the first feature, *zuǐ-lǐ téng* (“pain in mouth”) can be interpreted as “mouth hurts”, which is a predictive locution; among the examples related to the second feature, *sān bìng èr tòng* (“three illnesses and four pains”) can be interpreted as “three kinds of illness and two kinds of pain”, which only says that there are different kinds of pain, rather than that pain is countable; among the examples related to the third feature, *yòu shèn qū yǒu tòng* (“There is a pain in the left kidney area.”) can be interpreted as “the left kidney area hurts”, which is a predictive locution.

<sup>6</sup> These two phrases can be used either literally or metaphorically. When they are used literally, it’s evident that the pain is conceived of as a moving object. It is worth emphasizing that even when they are used metaphorically, their surface grammar still supports that the pain is conceived of as a moving object.

In response, I do not deny that some of the aforementioned Mandarin locutions are open to various interpretations, including a non-locative interpretation. But the question of how a location can be interpreted is importantly different from the question of what the surface grammar of that locution shows. Consider the English locative locution “There is a pain in my back.” It can arguably be interpreted as “My back hurts”, which is a predictive locution. But the possibility of this interpretation doesn’t entail that the surface grammar of “There is a pain in my back” cannot lend support to the bodily view of pain. Similarly, as far as the surface grammar is concerned, the aforementioned pain locutions in Mandarin are sufficient to show that compared to English, Mandarin lends no less, if not more, support to the bodily view of pain.

### 3 Conclusion

Cross-linguistic research can shed invaluable light on philosophical theories (e.g., Stich et al., 2018). The apparent linguistic differences between various languages, however, can sometimes be deceptive. Liu and Klein (2020) carried out a cross-linguistic analysis concerning the bodily view of pain that pains are objects which are located in body parts. And they claimed that (1) Mandarin has no locative locutions for pain and (2) the absence of locative locutions for pain puts the bodily view of pain at risk. In this paper, I first discussed the philosophical claim and argued that the significance of the challenge posed by a language without locative locutions for pain is overestimated. Then I discussed the empirical claim. I identified the possible factors which might have misled Liu and Klein about Mandarin pain locutions, and argued that Mandarin has a wide range of locative locutions for pain, which lend support to the bodily view, by conducting a corpus analysis. The use of corpus analysis invites further inquiries about, for example, how many kinds of pain locutions there are in English and Mandarin, what their frequencies are, and to what extent they can support a particular theory of pain. Answers to these questions, though beyond the scope of this paper, will help us achieve a deeper understanding of the nature of pain.

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