Thinking about Xiang3 in Taiwan: Some Native-Speaker Opinions

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It has been observed in languages such as Japanese and Korean that 'internal states', e.g. mental processes, emotions, opinions, etc., can be easily expressed with a first-person sentential subject, but cannot be easily expressed with a third-person subject (Uehara 2000). In English, on the other hand, “He thinks it will rain very shortly” sounds just as natural as “I think it will rain very shortly”. We report here the results of a survey of 182 native speakers of Taiwan Mandarin (TM), 32 of whom were monolingual speakers and 150 of whom were also native speakers of Taiwan Southern Min (TSM) with regard to the use of both plain xiang3 and xiang3shuo1, which contains the complementizer shuo1 (Cheng 1985), to express the opinions of first and third person subjects in each variety of Chinese. The results show that both TM and TSM exhibit different degrees of acceptability between the two person subjects. We argue that the structural patterns of person restriction observed in TM and TSM can be accounted for in terms of cognitive and sociolinguistic factors.

1. Introduction

Reported opinion can be expressed in Chinese using a variety of different verbs, including 想 xiang3 ‘to cogitate’, 覺得 jue2de ‘to feel’, 人為 ren4wei2 ‘believe it to be the case that’, 看 kan4 ‘to see’ and 說 shuo1 ‘to say’. Of these, xiang3 is the verb whose core meaning best matches the meaning ‘to think’ that linguists (Wierzbicka 1974, Romaine and Lange 1991, Chafe 1994, etc.) consider to be the prototypical framing verb for reported thought. For this reason, this study examines xiang3, and focuses on its use in Taiwan Mandarin (henceforth TM).

Over the past few years several linguistic studies have been presented that focus on the role of thought reporting verbs, including xiang3, in expressing opinions (Sanders

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1 Disagreement does exist even among prescriptive authorities as to the degree to which xiang3 can in fact express the strong opinion of a sentential subject. On the one hand, Xiandai Hanyu Cidian (1999) explicitly lists the subjectively strong verb 人为 ren4wei2 ‘believe it to be the case that’ as one of its basic meanings, while on the other hand Lū (1981) is more circumspect, offering only the more tentative 料想 liao4xiang3 ‘expect’ and 估计 gu1ji4 ‘reckon’ as semantic equivalents. Given its relatively wider authoritative currency, we follow Xiandai Hanyu Cidian here.
et al. 2000, Lin 2002, Huang 2003). This paper utilizes the questionnaire survey method to assess the grammatical judgments of native (monolingual TM and bilingual TM/TSM) speakers of TM and Taiwan Southern Min (henceforth TSM), supplemented by those of Beijing Mandarin (henceforth BM), in their uses of xiang3 to express opinions. It argues the usage pattern of xiang3 by those Chinese speakers surveyed can be uniformly accounted for by a cognitive factor of subjectivity (Langacker 1985, Uehara 2000, etc.) and also that the usage patterns of TM speakers can be considered to be under both the superstratum and substratum influences of BM2 and TSM respectively.

This paper is organized in the following manner: The next section introduces and examines some previous approaches to TM xiang3. In section 3 we look at reported thought from a cross-linguistic perspective, while in section 4 we discuss the methodology of our survey. In section 5 we present the survey results. Section 6 analyzes and discusses the results, and section 7 concludes the paper.

2. Previous Analyses of Xiang3

Based on paradigmatic uses of xiang3 in TM, TSM and BM, Sanders et al. (2000) argued that the TM pattern can be explained in terms of three factors: cognition, historical base linguistic structure and the socio-linguistic history of language contact. The part of their study relevant to the present study is the paradigms of xiang3 on which they based their claims. Their paradigm is reproduced below:

<table>
<thead>
<tr>
<th>Subject</th>
<th>TSM</th>
<th>TM</th>
<th>BM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>Wo3 xiang3 + sentential complement</td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td>3rd person</td>
<td>Ta1 xiang3 + sentential complement</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>1st person</td>
<td>Wo3 xiang3shuo1 + sentential complement</td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td>3rd person</td>
<td>Ta1 xiang3shuo1 + sentential complement</td>
<td>ok</td>
<td>ok</td>
</tr>
</tbody>
</table>

They contrast the degree of acceptability of ‘opinion’ xiang3 in TSM and TM on the one hand, and BM on the other, for first and third person subjects. Their paradigm above supposes two major distinctions between the two communities:

1. Neither TM ['opinion’ xiang3 + sentential complement] nor TSM ['opinion’ siuN7 + sentential complement] (both henceforth collectively referred to as xiang3) may be used with a 3rd person subject, whereas ‘opinion’ xiang3 together with a 3rd person subject is acceptable to speakers of BM.

2. The addition of shuo1 in TM or kong3 in TSM (both henceforth collectively referred to

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2 For the purposes of this study BM refers to prescriptive Chinese in general, including both spoken Beijing Mandarin, broadcast Mandarin and written Chinese.
as shuo1), something Cheng (1985) labels a ‘complementizer’, is fully acceptable in both varieties of Chinese in Taiwan, whereas the resultant [xiang3shuo1 + sentential complement], where shuo1 lacks any literal sense of ‘to say’, is totally unacceptable in BM.

Their discovery of the usage distinctions between xiang3 and xiang3shuo1 in relation to person of the subject was the first of its kind, but their study was based largely on the linguistic intuitions of just a small handful of native speakers. Both Lin (2002) and Huang (2003), on the other hand, based their respective analyses on conversational discourse data.

Examining several verbs of opinion with a focus on reported speech and reported thought, Lin (2002:268) observes that xiang3 performs three functions: “reporting a (sic) previous inner speech, in which case both direct and indirect thought are possible, expressing a person’s opinion or belief, and framing the subsequent discourse.” She also notes that “the frame wo3 xiang3 is getting semantically bleached and ‘decategorized’ through pragmatic inferencing” (p. 269). Unlike the previous study, however, she fails to note in her own analysis any distinction between the use of xiang3 and the use of xiang3shuo1, and her statistics mix the two together as a single phenomenon. Such a treatment strongly suggests that the use of shuo1 is virtually optional.

Huang (2003:438), on the other hand, explicitly rejects the optionality of shuo1, maintaining that “the linker shuo1...is best understood as a ‘de dicto introducer’, since it marks the following clauses as being in the semantic domain de dicto, in which reference is made to the elements of speech rather than to the elements of reality.” In other words, xiang3 by itself refers to the elements of reality while xiang3shuo1 refers to the elements of speech; the two are not functionally identical.

Having also recognized the need to functionally distinguish what he calls the ‘deontic’ use of xiang3/xiang3shuo1 (‘I am/was thinking about; ‘I was to’; ‘I am deciding to’) from what he calls the ‘epistemic’ use of xiang3/xiang3shuo1 (corresponding roughly to ['opinion' xiang3/xiang3shuo1 + sentential complement] in Sanders et al. 2000), Huang fails to provide any concrete examples, save one sentence involving xiang3shuo1. Therefore it is difficult to know for absolute certainty the exact details of what he is describing. He does, however, provide three sets of statistics: the ratio in the speech corpus of the deontic use of xiang3/xiang3shuo1 versus its epistemic use (59.7%:40.3%), the ratio in the speech corpus of the use of xiang3 versus xiang3shuo1 (48.1%:51.9%), and the ratio in the speech corpus among 1st, 2nd and 3rd person subjects in the use of xiang3/xiang3shuo1 (83.1%:11.6%:5.2%). Nonetheless, Huang fails to suggest any interrelationship among the three sets of statistics. Because of this, it is unclear as to what the behavior of the epistemic use of xiang3 and xiang3shuo1 vis-a-vis 1st and 3rd person subject actually is, which is a main concern of this study.
3. Reported Thought: Putting Xiang3 in a Cross-Linguistic Perspective

Based on Table 1 above, let us reproduce the grammatical distinction between 1st and 3rd person subjects of opinion ‘think’ predicates in TM and TSM first noted by Sanders, et al. (2000).

Table 2: Patterns of Reported Thought Expressions in TSM & TM

<table>
<thead>
<tr>
<th>subject</th>
<th>xiang3 ‘think’</th>
<th>xiang3shuo1 ‘think say’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td>3rd person</td>
<td>X</td>
<td>ok</td>
</tr>
</tbody>
</table>

The question now arises as to whether the pattern observed above, where ‘think’ alone can express the opinion of a first person subject, but not that of a third person subject, is cross-linguistically unique or not.

Uehara (2000) examined cross-linguistic variations of the patterns of linguistic subjectivity, and demonstrated that languages exhibit varying degrees of subjectivity, defined as the speaker’s participation in the conceptual structures of linguistic expressions (Langacker 1985). Internal state predicates in languages like Japanese represent such patterns, and they entail, by default, the speaker as the experiencer of such states (Kuroda 1973, Kuno 1973, Iwasaki 1993, Uehara 1998).

Japanese omou ‘think’, in particular, exhibits a parallel pattern to its counterpart expression in TM and TSM. When the unmarked form omou is used, the subject of the predicate is the first person whether or not the first person pronoun watasi is linguistically encoded, while the aspectual marker te-iru has to be used in expressing the third person’s thought, as shown in (1):

(1) a. watasi wa soo omou. / omot-teiru.
    I TOP so think / be-thinking
    ‘I think so.’

b. kare wa soo *omou. / omot-teiru.
    he TOP so think / be-thinking
    ‘He thinks so.’

So the Japanese pattern can be summarized as follows:
Sanders & Uehara: Thinking about Xiang3

<table>
<thead>
<tr>
<th></th>
<th>omou</th>
<th>omotte iru</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person subject</td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td>3rd person subject</td>
<td>X</td>
<td>ok</td>
</tr>
</tbody>
</table>

The TM pattern in Table 2 is reproduced here for comparison:

<table>
<thead>
<tr>
<th></th>
<th>xiang3</th>
<th>xiang3shuo1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person subject</td>
<td>ok</td>
<td>ok</td>
</tr>
<tr>
<td>3rd person subject</td>
<td>X</td>
<td>ok</td>
</tr>
</tbody>
</table>

There are other languages with internal state predicates showing similar grammatical behavior, and they include Angam-Naga, a Tibet-Burman language (Giridhar 1975), Newari, another Tibet-Burman language (DeLancey 1987) and Korean. Emotion predicates in Korean, just like those in Japanese, can take the first person but resist the use of the third person for the experiencer subject of the predicates as shown in (2):

(2) a. Na nun kippu-ta.
I TOP glad
‘I am glad.’

Ms. Kim TOP glad
‘Ms. Kim is glad.’

To express the third person’s internal states as in the English translation in (2b), the predicates have to accompany some evidential markers (of conjecture, hearsay, etc.). Angam-Naga and Newari cases are much less conspicuous: In these languages, morphological markers of person do not accompany the predicates in general, but they are required for internal state predicates only. The pattern in Angam-Naga (Giridhar 1975, reproduced from Iwasaki 1993) is shown in (3):

(3) a. ā ā-ní bá
I 1-happy AUX
‘I am happy.’

b. puō puō-ní bá
he 3-happy AUX
‘He is happy.’
The conceptual motivation for such grammatical distinctions is clear. What is going on inside one’s physical body can be known firsthand by the owner of that body, the actual experiencer, but this knowledge is only known indirectly by others. Thus, the speaker has direct access to his own opinions, feelings, sensations, etc., but not to the internal thoughts of others. Languages can vary in their degree of sensitivity to such an epistemological distinction, and TM and TSM are among those languages that show some sensitivity to this.

TM’s and TSM’s employment of the form “say” in their “repair” mechanism for the third person subject of the verb “think” can be accounted for in the following two ways. One is that the formal distinction “iconically” (Haiman 1980) reflects the conceptual distinction in question. Cheng 1985 reports that in TM and TSM (as well as in some other southern Chinese varieties), the verb ‘to say’ functions as a clause-initial complementizer—similar to the English complementizer ‘that’ (without the literal meaning of saying). Then, the existence of the complimentizer seems to correlate with the nature of the content of embedded clauses being more or less objectively “knowable” (See Wierzbicka 1988 for the case of that in English). The other is that, in the case of the complementizer shuo1 ‘say’, it reflects the pragmatic truism that it is never possible to know what another person is thinking unless he first “says” it.

4. Methodology

In order to empirically assess the respective degree of acceptability in TM of [xiang3 + sentential complement] and [xiang3shuo1 + sentential complement] following 1st person and 3rd person subjects, which in turn would allow us to ascertain just how the behavior of xiang3 in both TM and TSM fits into the larger cross-linguistic typology discussed immediately above, a form was constructed that included a set of four sentences, one set for TM and another for TSM. Each set included 1st and 3rd person subjects only, with each subject followed once by xiang3 and once by xiang3shuo1, and in every case the xiang1 or xiang3shuo1 was followed by the sentential complement 等一下會下雨 deng3 yi2xia4 hui4 xia4 yu3 ‘in just a moment it will rain’. Thus, the four sentences are numbered from (i) to (iv) here, and can be translated roughly into English as below:

(i) I think it will rain in just a moment.
(ii) He thinks it will rain in just a moment.
(iii) I think that it will rain in just a moment.
(iv) He thinks that it will rain in just a moment.

3 In the process of distributing the survey form we clearly told each informant that xiang3shuo1 did NOT mean here “want to say”, but rather simply expressed the subject.
4 A copy of this survey form is found in the appendix.
Subjects, recruited from a pool of students from three different colleges in the Tainan-Kaohsiung area, were asked to read each sentence and rate its degree of acceptability in terms of being either (1) ‘natural’, (2) ‘a bit strange’, or (3) ‘unnatural’. When the xiang1 or xiang3shuo1 versions of the same sentence were both judged to be natural, they were also requested to explain if the two sentences meant the same thing, and if not, in what way their meanings were different. Altogether a total of 182 subjects were surveyed, of whom 150 were bilingual speakers of TM and TSM and 32 were monolingual speakers of TM. The overall results of those two surveys are presented immediately below.

5. Overall Results

Table 3 below presents the overall results of the Taiwan survey.

<table>
<thead>
<tr>
<th></th>
<th>TM</th>
<th>TSM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Natural</td>
<td>A Bit Strange</td>
</tr>
<tr>
<td>1st person + xiang3</td>
<td>162 (89%)</td>
<td>17 (9%)</td>
</tr>
<tr>
<td>3rd person + xiang3</td>
<td>21 (12%)</td>
<td>73 (40%)</td>
</tr>
<tr>
<td>1st person + xiang3shuo1</td>
<td>74 (41%)</td>
<td>70 (38%)</td>
</tr>
<tr>
<td>3rd person + xiang3shuo1</td>
<td>61 (34%)</td>
<td>55 (30%)</td>
</tr>
</tbody>
</table>

Table 3 largely confirms the pattern originally suggested by Sanders et al. (2000) shown in Table 1 concerning the behavior of [xiang3 + sentential complement] and [xiang3shuo1 + sentential complement] in TM and TSM vis-a-vis 1st and 3rd person subjects. For both TM and TSM, [Wo3 xiang3 + sentential complement] is seen to enjoy a very high degree of acceptability, [Wo3 xiang3shuo1 + sentential complement] also displays a reasonably high degree of acceptability, and [Ta1 xiang3shuo1 + sentential complement] is preferred over [Ta1 xiang3 + sentential complement] by very wide margins. Additionally, [Ta1 xiang3 + sentential complement] exhibits an extremely low level of acceptability. However, other, more interesting tendencies were also observed, and these are discussed in the following section.

5. Discussion

Based on the above results we will first discuss in section 5.1 how to best modify the paradigm outlined in Table 1 by Sanders et al. (2000), and then highlight in sections
5.2 and 5.3 new discoveries from the survey data. In doing so, we will consider the effects of cognitive factors, as well as substratum (TSM) and superstratum (BM and written Chinese) influences, on the development of \([\text{xiang3} + \text{sentential complement}]\) and \([\text{xiang3shuo1} + \text{sentential complement}]\) usage in TM.

5.1 Modification of Sanders et al. (2000) Paradigm

In all cases, regardless of whether it is TM, TSM or BM, \([\text{Wo3 xiang3} + \text{sentential complement}]\) displays a higher degree of acceptability than does \([\text{Ta1 xiang3} + \text{sentential complement}]\). And in the cases of TM and TSM, \([\text{Wo3 xiang3shuo1} + \text{sentential complement}]\) likewise exhibits a higher degree of acceptability than does \([\text{Ta1 xiang3shuo1} + \text{sentential complement}]\). In other words, in all cases, the expression of opinion by means of the form \([\text{xiang3} + \text{sentential complement}]\) is more naturally used with 1\(^{st}\) person subjects than with 3\(^{rd}\) person subjects.

This part of the survey results requires us to slightly modify the paradigm originally posited by Sanders et al. (2000). More specifically, the original paradigm used the categorical, binary distinction for the acceptability judgement of \(\text{xiang3}\) and ‘\(\text{xiang3shuo1}\)’ uses in each context, and rendered \([\text{Ta1 xiang3} + \text{sentential complement}]\) ‘ok’ for BM, and rendered \([\text{Ta1 xiang3shuo1} + \text{sentential complement}]\) ‘ok’ for TM or TSM. The survey, however, indicates that neither 3\(^{rd}\) person subject pattern is particularly ‘ok’ in either BM, TM or TSM. The survey, however, indicates that neither 3\(^{rd}\) person subject pattern is particularly ‘ok’ in either BM, TM or TSM.

Examining this situation from a cognitive perspective, however, we see that this can be easily accounted for. The point revealed in the current survey can be paraphrased as “it is always easier to express the opinion of a 1\(^{st}\) person subject than it is to do so for a 3\(^{rd}\) person subject,” and so the numbers shown in the tables above are easily explainable and predictable because of the inherent nature of mental state predicates such as ‘opinion’ \(\text{xiang3}\), as is argued by Sanders et al. (2000) themselves, as well as by Lin (2002) and Huang (2003). That is, because mental state predicates denote the internal states of sentient beings, they are only directly accessible to the experiencer himself. Therefore the speaker can only enjoy prime privilege in describing his own mental states, and is at a much greater disadvantage when describing the mental state of someone else. Thus, using Huang’s words, the 1\(^{st}\) person subject “would be the canonical site for the expression of speaker point of view, and that the third person subject would be the least appropriate,” (Huang 2003:439). In fact, as noted earlier, his own statistics show that \(\text{xiang3}\) is used with a 1\(^{st}\) person subject 83.1% of the time while the 3\(^{rd}\) person subject is only used 5.2% of the time. For these reasons, we see that this cognitive constraint in terms of an epistemological perspective on the use of those mental process predicates in question explains the distribution patterns shown in Tables 2 and 3.

Finally, the binary grammatical judgements assumed by Sanders et al. (2000) lead their original paradigm to suggest yet another point which needs to be modified here; the original paradigm makes no claim about the relative degree of acceptability of \([\text{Wo3 xiang3} + \text{sentential complement}]\) and \([\text{Wo3 xiang3shuo1} + \text{sentential complement}]\) in
either TM or TSM. Therefore, the two forms might well be interpreted as being largely interchangeable. This will be discussed in section 5.3, where we examine subtle differences between the TM and TSM paradigms of xiang3/xiang3shuo1.

5.2 New Observations

The overall results of the Taiwan survey shown in Table 2 not only require us to modify the original paradigm as we have done above, but they also provide us with new facts. In particular, the data reveals that in TM, 1st person subjects are used more with xiang3, while 3rd person subjects are used more with xiang3shuo1. As we can see in that table, in the case of TM voting there exist 162 ‘natural’ votes for ‘Wo3 xiang3...’ while there exist just 72 natural votes for ‘Wo3 xiang3shuo1...’. On the other hand, there exist just 21 ‘natural votes for ‘Ta1 xiang3...’, while there exist 61 ‘natural’ votes for ‘Ta1 xiang3shuo1...’ . These ratios of 162:72 and 21:61 strongly suggest that xiang3 and xiang3shuo1 are not completely synonymous and that they are used in correlation with the person of the subject.

Turning now to TSM, we see a similar correlation between form and person. In TSM 3rd person subjects are even more conspicuously linked with xiang3shuo1 than they are in TM, although 1st person subjects in TSM are less clearly linked with xiang3 and are used with xiang3 and xiang3shuo1 with a nearly equal degree of acceptability. Although the TM and TSM grammars are not completely the same, we can nevertheless see similar tendencies in both languages that suggest a division of labor between xiang3 and xiang3shuo1, where the former is associated with the 1st person, and the latter is associated with the 3rd person.

Having said this, by merely comparing the raw vote count for ‘Wo3 xiang3shuo1’ with that for ‘Ta1 xiang3shuo1’, one might be led to argue to the contrary that in both varieties of Chinese xiang3shuo1 is in fact more acceptable with a 1st person subject than it is with a 3rd person subject. The point to make here, however, as already discussed above, is that there exists a clear cognitive motivation for why the expression of internal mental states are more naturally associated with 1st person subjects than with 3rd person subjects. In other words, everything being equal, 1st person subjects are inherently a more felicitous factor in these expressions than are 3rd person subjects.

5.3 Teasing Out Some Substratum and Superstratum Effects

As noted by (Kubler 1981, Huang 1993, etc.), the sociolinguistic history of TSM is rather complex, with a combination of both substratum (e.g. TSM) and superstratum (e.g. media broadcasts in Taiwan through the 1970s, written Chinese, etc.) influences serving to shape the present form of the language. Because of this, we chose to separate the data of bilingual speakers of TM and TSM from that of monolingual TM speakers in order to see if there indeed existed any differences in the linguistic intuitions of these two subgroups with regard to the use of TM xiang3 and xiang3shuo1. We also wanted to see if bilinguals maintained any distinction in grammatical intuition between the two...
languages, or whether their intuitions for both languages were in fact essentially the same.

6.3.1 Results: Bilingual Speakers

The results for bilingual speakers are shown below in Table 4.

Table 4: TM and TSM data for bilingual speakers

<table>
<thead>
<tr>
<th></th>
<th>Taiwan Mandarin</th>
<th></th>
<th>Taiwan Southern Min</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Natural</td>
<td>A Bit Strange</td>
<td>Unnatural</td>
<td>Natural</td>
</tr>
<tr>
<td>1st person + xiang3</td>
<td>136 (91%)</td>
<td>12 (8%)</td>
<td>2 (1%)</td>
<td>113 (75%)</td>
</tr>
<tr>
<td>3rd person + xiang3</td>
<td>15 (10%)</td>
<td>58 (39%)</td>
<td>77 (51%)</td>
<td>18 (12%)</td>
</tr>
<tr>
<td>1st person + xiang3shuo1</td>
<td>60 (40%)</td>
<td>59 (39%)</td>
<td>31 (21%)</td>
<td>110 (73%)</td>
</tr>
<tr>
<td>3rd person + xiang3shuo1</td>
<td>49 (33%)</td>
<td>45 (30%)</td>
<td>56 (37%)</td>
<td>86 (57%)</td>
</tr>
</tbody>
</table>

From the table above we note that bilinguals do transfer from TSM to TM some, but not all, of their grammatical intuition concerning the use of xiang3, while at the same time maintaining separate intuitions in TM and TSM concerning the use of xiang3shuo1. In the case of xiang3, bilinguals reject its use with 3rd person subjects at roughly the same rate in both TM and TSM. However, when xiang3 combines with a 1st person subject we see that bilinguals consider its use to be noticeably more acceptable in TM than it is in TSM.

We suspect that the bilingual group’s higher acceptance rate of “Wo3 xiang3...” in TM than in TSM is related to the parallel phenomenon also observed in the table above that bilinguals, regardless of whether the sentential subject is a 1st person or a 3rd person, accept the use of xiang3shuo1 in TSM at a significantly higher rate than they do in TM. In other words, bilinguals appear to associate xiang3shuo1 with TM usage, very likely due to the superstratum effect of both written Chinese and broadcast Mandarin in Taiwan, because neither written Chinese nor broadcast Mandarin in their first three decades in Taiwan likely employed an epistemic use of xiang3shuo1 at all. And in opposition to TSM xiang3shuo1, due largely to both the positive use of xiang3 and the failure to use xiang3shuo1 in the superstratum language, xiang3 likely acquired more salient association among bilinguals with TM usage instead. The implication of such a situation is that in the collective mind of this bilingual group, the distinction between xiang3 and xiang3shuo1 might now be in part a reflection of different languages, registers or styles than an indication of different linguistic functions. This then explains why “Wo3 xiang3...” is more acceptable for bilinguals in TM than it is in TSM.
6.3.2 Results: Bilingual versus Monolingual Speakers

The results for bilingual versus monolingual TM speakers are shown in Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Bilinguals</th>
<th></th>
<th>Monolinguals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Natural</td>
<td>A Bit</td>
<td>Unnatural</td>
<td>Natural</td>
</tr>
<tr>
<td>1st person +</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>xiang3</td>
<td>136</td>
<td>12</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>(91%)</td>
<td>(8%)</td>
<td>(1%)</td>
<td>(81%)</td>
</tr>
<tr>
<td>3rd person +</td>
<td>15</td>
<td>58</td>
<td>77</td>
<td>6</td>
</tr>
<tr>
<td>xiang3</td>
<td>(10%)</td>
<td>(39%)</td>
<td>(51%)</td>
<td>(19%)</td>
</tr>
<tr>
<td>1st person +</td>
<td>60</td>
<td>59</td>
<td>31</td>
<td>14</td>
</tr>
<tr>
<td>xiang3shuo1</td>
<td>(40%)</td>
<td>(39%)</td>
<td>(21%)</td>
<td>(44%)</td>
</tr>
<tr>
<td>3rd person +</td>
<td>49</td>
<td>45</td>
<td>56</td>
<td>12</td>
</tr>
<tr>
<td>xiang3shuo1</td>
<td>(33%)</td>
<td>(30%)</td>
<td>(37%)</td>
<td>(38%)</td>
</tr>
</tbody>
</table>

The most striking fact revealed in Table 4 is that monolinguals accept “Ta1 xiang3...” at twice the rate that bilinguals accept it while at the same time more than 50% of all bilinguals reject this form outright, at a rate that is 50% higher than what is observed among monolinguals. This clearly indicates that the two groups harbor very different intuitions about the acceptability of “Ta1 xiang3...”. In displaying a strong aversion to “Ta1 xiang3...”, bilinguals reflect the substratum influence of TSM. Monolinguals, on the other hand, seem to be less affected by TSM intolerance of “Ta1 xiang3...”, and on the contrary, are much more influenced by the superstratum affects of both written Chinese and broadcast Mandarin, as neither of these display the same degree of intolerance for “Ta1 xiang3...” as is exhibited in TSM. In fact, as is shown in Table 6 below, the rate of acceptance/rejection of “Ta1 xiang3...” among monolingual speakers of TM does not appear to differ much from the acceptance/rejection rate of “Ta1 xiang3...” observed in our very limited quantity of BM data we collected separately.

<table>
<thead>
<tr>
<th></th>
<th>TM Monolinguals</th>
<th>BM Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Natural</td>
<td>A Bit</td>
</tr>
<tr>
<td>3rd person +</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>xiang3</td>
<td>(19%)</td>
<td>(47%)</td>
</tr>
</tbody>
</table>

With regard to the epistemic use of “Ta1 xiang3...”, although the relative influence of substratum and superstratum factors on TM play out differently among monolingual speakers than they do among bilingual speakers, that does not happen to be
quite so much the case when it involves the epistemic use of xiang3shuo1. Returning once again to Table 5 above we can see that both bilingual and monolingual speakers of TM maintain roughly the same grammatical intuitions about the use of xiang3shuo1, both for 1st person subjects and for 3rd person subjects, although monolingual speakers in fact display slightly greater tolerance for the epistemic use of xiang3shuo1 in TM than do bilinguals. We suspect that this slightly greater tolerance among monolinguals for the use of xiang3shuo1 in TM relates to what has already been noted above that bilinguals seem to view xiang3shuo1 more as a marker of TSM usage, and because of this, they consider its use to be less appropriate in TM. Once bilinguals have come to more strongly associate xiang3 with TM usage and to view xiang3shuo1 as a marker of TSM usage, then it opens the door for them to rate the use of “Wo3 xiang3...” in TM more positively than do monolinguals, and to rate its use in TM more positively than its use in TSM. And because they consider xiang3shuo1 to be a marker of TSM, it should also not be surprising to see that they would rate its use in TM slightly more harshly than would monolingual speakers.

7. Conclusions

The factors that have worked to form the collective grammatical rules for opinion xiang3 and xiang3shuo1 in TM are both sociolinguistic and cognitive. Sociolinguistically, we have identified two substratum effects of TSM on the development of TM relevant to this study. These are the TSM epistemic use of xiang3shuo1, which is certainly not commonly observed in prescriptive Chinese (BM and written Chinese), as well as the high degree of intolerance exhibited in TSM for [Ta1 xiang3 + sentential complement], a usage that is quite acceptable in the superstratum language. In the case of xiang3shuo1 we note that this usage is well accepted in TSM, while in prescriptive Chinese it is not. That this form is accepted in TM at a fairly high level, and that both monolingual and bilingual TM speakers rate its acceptability at approximately the same level, reflects the strong influence that TSM has exerted across the entire TM speech community. At the same time however, because xiang3shuo1 does not enjoy a similarly high degree of acceptability in TM, we are also able to observe and appreciate the dampening effect that prescriptive Chinese has had on the influence of TSM in this regard. The fact that bilingual speakers collectively feel more comfortable when xiang3shuo1 is used in TSM than when it is used in TM indicates that psychologically bilinguals do distinguish the two grammars and that they consider xiang3shuo1 to be more a maker of TSM.

In the case of [Ta1 xiang3 + sentential complement], on the other hand, we see that monolingual TM speakers exhibit a higher degree of tolerance for this construction than do bilingual speakers of TM. Therefore we can either conclude that the substratum TSM effect of largely rejecting this form has had greater influence on bilingual TM speakers than it has on monolingual speakers, or we can alternatively claim that the superstratum influence of prescriptive Chinese, which shows more tolerance toward [Ta1
xiang3 + sentential complement] than does TSM, has been greater on monolingual
speakers of TM than it has been on bilingual speakers.

At the same time, however, we also suggest that functional distinctions between
xiang3 and xiang3shuo1 are not merely the result of substratum and superstratum
influences, but are cognitively motivated too. In expressing the internal states such as
the thought processes of sacient beings, the speaker has direct access to his own thought, but
has only indirect access to those of others. These epistemic differences between the two
modes of expressing internal states are reflected in the language structures to varying
degrees from language to language. In the case of TM and TSM, where two forms are
available, namely, xiang3 and its structurally more marked variant, xiang3shuo1, we
argue that the difference in the usage patterns in terms of person restriction between the
two expressions is motivated by, and thus a reflection of, the difference in their
epistemological perspective in human cognition.

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Appendix 1: TM Survey Form

_______ 歲  男/女  教育程度_____________________

國語
（口語而不是書面語）
(只要劃✓即可)
自然 有一點奇怪  不自然

(a) 我想等一下會下雨.

(b) 他想等一下會下雨.

(c) 我想說等一下會下雨.

(d) 他想說等一下會下雨.

意見欄：在“(a)我想”和“(c)我想講”，“(b)他想”和“(d)他想講”的兩套用法中，假如(c)和(g)或(f)和(h)均被勾選在「自然」的情況下，您對兩個被勾選的用法，在語感或語境方面是否覺得有所差異？若有的話，請談談您的意見。另外，若是在以上的四個例句中您勾選任何一個為「有一點奇怪」的話，請說明一下您判斷的理由是什麼。謝謝！

⊙關於“(a)我想”和“(c)我想講”：

⊙關於“(b)他想”和“(d)他想講”：

⊙關於被勾選為「有一點奇怪」的理由：

(a) “我想...”：

(b) “他想...”：

(c) “我想講...”：

(d) “他想講...”：
Appendix 2: TSM Survey Form

______ 岁  男/女  教育程度____________________

閩南話

(只要劃✓即可)
自然  有一點奇怪  不自然

(e) 我想臨邊着雨矣.
(我想等一下會下雨.)

(f) 伊想臨邊著雨矣.
(他想等一下會下雨.)

(g) 我想講臨邊著雨矣.
(我想說等一下會下雨.)

(h) 伊想講臨邊著雨矣.
(他想說等一下會下雨.)

意見欄：在“(e) 我想”和“(g) 我想講”, “(f) 伊想”和“(h) 伊想講”的兩套用法中, 假如(e)和(g)或(f)和(h)均被勾選在「自然」的情況下,您對兩個被勾選的用法,在語感或語境方面是否覺得有所差異？若有的話,請談談您的意見。另外, 要是在以上的四個例句中您勾選任何一個為「有一點奇怪」的話, 請說明一下您判斷的理由是什麼。謝謝!!

⊙關於“(e) 我想”和“(g) 我想講”:

⊙關於“(f) 伊想”和“(h) 伊想講”:
关于被标为「有一点奇怪」的理由：

(c) “我想...”:

(f) “伊想...”:

(g) “我想讲...”:

(h) “伊想讲...”: