

THE EVOLUTION OF POLYFUNCTIONALITY OF *DĀY* CONSTRUCTION IN THAI: SPLIT PATTERNS OF POSSIBILITY-RELATED MODAL CONCEPTS*

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0 Abstract

This study aims to investigate historical changes in Thai modal concepts marked by the irrealis marker *cà?* (> *càk*), especially possibility-related concepts denoted by periphrastic constructions containing the morpheme *dây*. I have examined irrealis expressions in Thai inscription corpora from the end of the 13th century through the 20th century, and found that Thai modal concepts in the present have gradually emerged. In semantic extensions of Thai modals, an original modal concept does not disappear even after a newly derived modal concept has established itself. Rather, it is as if one single line split into two lines both of which would continue extending.¹ In particular, I have identified two directions of semantic changes involved in split patterns of possibility-related modal concepts in Thai: (1) less subjective > more subjective; (2) non-volitive (participant-external) > volitive (participant-internal). The latter direction is opposed to the direction that has been postulated in the literature of historical semantic change. I have also found split patterns with little change in subjectivity, to which most of previous studies have not paid due attention.

Keywords: modals, historical semantics, epigraphy

1 Introduction

This paper examines historical changes in the types of modal concepts marked by the irrealis marker *cà?* (> *càk*) in Thai. Specifically, this paper analyses split patterns of the modal concepts by using discourse corpora of Thai inscriptions from the end of the 13th

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¹ This kind of historical semantic change is often called ‘layering’ (Hopper 1991: 22) in the study of grammaticalization, i.e., the process whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions, and, once grammaticalized, continue to develop new grammatical functions (Hopper & Traugott 1993: xv).

century through the 20th century (see the list of the inscription corpora at the end of this paper).² I use the term ‘split patterns’ to mean patterns of semantic extension in which a more specific modal concept emerges out of a less specific modal concept, and the original concept does not readily disappear and typically remains long after the new concept becomes established, as if one single line split into two lines both of which keep extending (shown in Diagram 1 in Section 5).

In this paper, special consideration is given to split patterns of the possibility-related types of modal notions such as ‘ability (or participant-internal, volitive possibility)’ and ‘circumstantial possibility (or participant-external, non-volitive possibility)’. Those possibility-related concepts are expressed by specific constructions ending up with the morpheme *dây* (see examples (18) through (23) in Section 5). *Dây*’s original substantive meaning is supposed to be ‘quantity-emergence’, that is, coming into existence of a certain number, volume, distance, or duration of some entity (Takahashi & Shinzato 2005, Takahashi 2008b).³

I have found that in Thai, ‘ability (participant-internal, volitive possibility)’ evolved out of ‘circumstantial possibility (participant-external, non-volitive possibility)’, and in turn ‘circumstantial possibility’ derived from ‘circumstantial impossibility’. The direction of the former split pattern (circumstantial possibility > ability) is opposed to the direction found in most of the existing studies on the evolution of modal concepts, namely ‘ability > circumstantial possibility (root possibility)’ or ‘participant-internal modality > participant-external modality’ (Bybee 1988, Bybee & Pagliuca 1985, Bybee et al. 1994, Heine & Kuteva 2002, Traugott 2006, Traugott & Dasher 2002, van der Auwera & Plungian 1998, *inter alia*).⁴ Furthermore, the latter split pattern (circumstantial impossibility >

² It is generally believed that the oldest Thai inscription (King Ram Khamhaeng Inscription) was made in 1292. There is an opposing view, however, that it was made in 1354-1376 (Prasithrathsint 2006: 129). Since I do not have knowledge of the inscription-dating, in this study I simply follow the former general view that the oldest one was made in 1292 (the end of the 13th century).

Note that the number of Thai inscriptions is limited to a few hundreds and each inscription is not long. Moreover, most of their contents is about the Buddhist religion or royalty-related matters such as politics and laws. Since the inscription data thus have the limitations in terms of quantity and genre-variety, it might be possible that some missing types of modal expressions with *càk* / *cà?* (and *dây*) in earlier periods were actually in use but unfortunately are not attested due to the limitations of the data. This study, however, uses the inscription data because the data nonetheless have a very good point. That is, the production years of most of the inscriptions have been estimated ranging from the end of the 13th century throughout the 20th century, which enables us to at least roughly see which types of Thai expressions were getting more and more (or less and less) common in a relatively long time span.

³ Matisoff (1991: 419-420) and Bisang (1996: 569-570) among others postulate that the original meaning of the Thai morpheme *dây* is ‘get’. Enfiled (2001: 279-280, 2004: 276) posits that the original meaning of the Lao morpheme *dāj* and the corresponding morpheme in other Tai languages is ‘come to have, acquire’.

⁴ However, van der Auwera et al. (2009) examine semantic extension of so-called ‘acquisitive’ modals (e.g. ‘I get to watch TV tonight’) and acknowledge its plausible bidirectionality between ‘participant-external’ and ‘participant-internal’ possibility. It also deserves mentioning that Li (2004) and Shinzato (2008) report the details of historical semantic change from ‘participant-external’ to ‘participant-internal’ possibility observed in Chinese and Japanese, respectively. Li argues for the following

circumstantial possibility) has scarcely been discussed in the relevant literature.⁵ I believe that the findings of this study shed some light on the theory of the directionality of the evolution of modal concepts.

This paper is organized as follows. Sections 2 and 3, respectively, explain the nature of the irrealis marker in Thai and the semantic map of modal concepts to be used for visualizing a seven-century course of gradual change in Thai modal concepts. Section 4 presents quantitative data regarding historical changes in Thai modal concepts. Section 5 accounts for split patterns of possibility-related modal concepts in Thai, some of which have hitherto been rarely documented. In Section 6, I will give concluding remarks.

2 Thai irrealis marker

Thai, an isolating language, has a morpheme indicating the irrealis status of the situation represented by the following verb phrase, namely *càʔ*. Thai lacks the obligatory coding of grammatical categories, and therefore *càʔ* is not an obligatory marker of irrealis. However, in present-day Thai *càʔ* is necessarily used to express counterfactuality (Srioutai 2004) and to form an irrealis complement with the complementizer or relativizer *thîi* (Diller (2001) calls *càʔ* in this usage ‘irrealis-complement formative’). Accordingly, I regard *càʔ* in modern Thai as the irrealis marker proper.

The irrealis marker *càʔ* derives from the verb *càk* meaning ‘to intend, consider’ (Diller 1988). The word form *càk* began to change into *càʔ* in the middle of the 14th century, and *càʔ* came to be commonly used in succeeding ages (Diller 1988, Takahashi 2007). Diller (2001) further hypothesizes that the two morphemes, *càk* and *càʔ*, have undergone the process of grammaticalization proceeding along the path indicated in (1), which is based on the attested grammaticalization path of the English auxiliary ‘will’ (Bybee et al. 1991: 26-29) as shown in (2).

- (1) Grammaticalization path of *càk* / *càʔ* in Thai (Diller 2001):
desire > intention > future > irrealis
- (2) Grammaticalization path of ‘will’ in English (Bybee et al. 1991):
desire > intention > future > probability, imperative

However, Diller (2001) did not present Thai diachronic data to verify this hypothesis. This study, on the other hand, uses a data-driven approach. Previously I have gathered modal expressions marked by the irrealis marker from the aforementioned inscription corpora (Takahashi 2007). With this diachronic corpus data, in this paper I will examine historical

semantic change of a Chinese modal for possibility *dě/de*: (a) ‘participant-external non-deontic’ > (b) ‘deontic/epistemic’ > (c) ‘participant-internal possibility’. In a similar vein, Shinzato discusses the following stages of semantic change of two Japanese modals for possibility *naru* and *dekiru*: (a) ‘disabling conditions exist external to non-specific individuals’ > (b) ‘disabling conditions exist external to specific individuals temporarily’ > (c) ‘disabling conditions exist internal to specific individuals temporarily’ > (d) ‘disabling conditions exist internal to specific individuals permanently’ > (e) ‘enabling conditions exist internal to specific individuals permanently’.

⁵ The semantic shift from negative to positive possibility of Japanese and Thai modals for possibility is reported in Takahashi & Shinzato (2005), Shinzato (2008) and Takahashi (2008b).

changes in the types of the modal concepts. I consider a new modal concept encoded by a certain conventionalized construction to be fully established when it becomes amenable to marking by irrealis. From the corpus data, I see that, over time, the number of specific types of modal concepts marked by the irrealis marker has gradually increased. Put differently, specific modal concepts with clear semantic boundaries in the present have gradually emerged from inclusive and ambiguous modal concepts with fuzzy boundaries in the past. I have also found that the two morphemes, *càk* and *càʔ*, have been compatible with quite a wide range of modal situations since as early as the 14th century (shown in Figure 3 in Section 4). This fact makes it clear that they had become an irrealis marker proper before that period. Therefore, if Diller's (2001) assumption about the grammaticalization path of the two morphemes (i.e. desire > intention > future > irrealis) holds, this process of grammaticalization must have been accomplished prior to the 14th century. In this paper, however, I am not able to validate his assumption because of the lack of relevant diachronic data in the corpora. What I can do instead is to reconstruct the most reasonable split patterns of Thai modal concepts marked by the full-fledged irrealis marker from the 14th century onward (see Section 5).

3 Semantic map for modal concepts

I follow Narrog's (2005: 683-690) idea that modal concepts can be classified in terms of the dimensions of (a) 'speaker-orientation' or 'subjectivity' and (b) 'volitivity'. Figure 1 illustrates a semantic map for modal concepts, where six representative modal concepts hold respective positions in terms of the two dimensions (cf. Figure 3 in Narrog 2005: 694).

(Hearer-oriented, Intersubjective) ↑ <i>Speaker-oriented, Subjective</i> ↓ <i>Event-oriented, Objective</i>	Imperative	Conditional concessive
	Obligation	Prediction
	Volition	Apparent imminence
	<i>Volitive</i>	<i>Non-volitive</i>

Figure 1. An illustrated semantic map for modal concepts

'Speaker-oriented' or 'subjective' situations are directly linked to the speaker's own modal judgment at the time of speech in the given speech situation. In contrast, 'event-oriented' or 'objective' situations are concerned with conditions on a participant of the described event, independent of the speaker and the present speech act. However, the distinction between subjective and objective situations is a gradient. For instance, 'volition' and 'apparent imminence' are less subjective than 'obligation' and 'prediction'. On the other hand, the distinction between 'volitive' and 'non-volitive' situations is a discrete one since they constitute a dichotomy as to whether or not the 'element of will' (Jespersen 1924: 320-321) is involved, or to put it another way, whether or not the person concerned has an 'interest' (Heine 1995: 29) or 'preference' (Givón 1990: 528-530) in an event occurring or not occurring. In this regard, it is evident that deontic (e.g. obligation) and boulomaic (e.g. volition) modal situations are volitive, while epistemic (e.g. prediction) and evidential (e.g. apparent imminence) modal situations are non-volitive.

It is known that languages with the irrealis-marking system may differ in the range of modal contexts in which the irrealis marker appears, that is, the types of modal concepts may cross-linguistically differ (Mithun 1995, Elliott 2000). Figure 2 below indicates Thai modal concepts that are attested to be compatible with the irrealis marker *càk* / *càʔ*.

(Intersubj.)		1.1 Conditional concessive (e.g. (3))
Subj. ↑	2.1 Appropriateness (e.g. (12)), 2.2 Permission (e.g. (13)), 2.3 Obligation (e.g. (14))	1.2 Prediction (e.g. (4)), 1.3 Inevitability (e.g. (5)), 1.4 Conclusion (e.g. (6)(7))
	2.4 Ability (e.g. (15))	1.5 Circumstantial impossibility (e.g. (8)), 1.6 Circumstantial possibility (e.g. (9))
↓ Obj.	2.5 Volition (e.g. (16)), 2.6 Desire (e.g. (17))	1.7 Conditionals (e.g. (10)), 1.8 Apparent imminence (e.g. (11))
	<i>Volitive</i>	<i>Non-volitive</i>

Figure 2. Semantic map for Thai modal concepts

From Figure 2 we can see how close or distant each modal concept is to the others. Take the concepts of ‘ability’ (2.4) and ‘circumstantial possibility’ (1.6) for example. They show the same degree of subjectivity, but they are contrastive in their volitivity values; that is, ‘ability’ is volitive, while ‘circumstantial possibility’ is non-volitive.

It should be noted that although I accept the subjectivity and volitivity dimensions posited by Narrog (2005), the position of ‘ability’ in my semantic map of modals (Figure 2) is not the same as that in his semantic map of modals (cf. Figures 4 and 7 in Narrog 2005: 695, 702). He considers ‘ability’, like ‘apparent imminence’, as non-volitive and less subjective than ‘circumstantial possibility’, whereas I consider it to be volitive and no less subjective than ‘circumstantial possibility’. In my opinion, the concept of a human being’s physical or mental ‘ability’ entails his volition or desire to become able to do something, which is evidently distinct from the purely non-volitive concept of ‘circumstantial possibility’.⁶ Moreover, I assume that the concept of ‘possibility’ in general, be it volitive or non-volitive, always involves the speaker’s evaluation of the possibility. That is to say, when mentioning some possibility (or impossibility), the speaker should have evaluated in what sense it is possible (or impossible). This is the reason why I regard ‘ability’, ‘circumstantial impossibility’ and ‘circumstantial possibility’ to be more subjective than ‘volition’, ‘desire’, ‘conditionals’ and ‘apparent imminence’ which are more objective and closer to mere propositional concepts.

Thai expressions for all the modal concepts listed in Figure 2 above, which are from the inscription corpus data, are given in examples (3) to (17) below.⁷

⁶ Narrog (personal communication) comments that although especially learnt or acquired ability might be subject to the person’s volition, there is good cross-linguistic evidence that ability also is non-volitive and many languages express it through a non-volitive ‘out-of-control’ (‘spontaneous’) marker.

⁷ Sample expressions with *càk* / *càʔ* cited in this paper are transcribed into phonetic equivalents in present-day Thai. Abbreviations for functional morphemes in the English glosses are: IRR(ealis),

1. Non-volitive

1.1 Conditional concessive ‘Even if ...’

- (3) suuu **càk** náp kô læ mí? thûan
 even if IRR count CONJ NEG fully
Even if you would count them, you could not finish counting them. [5] (1361)⁸

1.2 Prediction ‘... will ...’

- (4) **cà?** pay sùu ?abaayyathúk sǎa plàaw
 IRR go towards the way to hell PERF uselessly
They will go to hell in vain. [91] (1734)

1.3 Inevitability ‘... will ...; It is inevitable to ...’

- (5) sǎnkèet weelaa phrá?sǒn **cà?** loŋ sùat mon nay bòot
 notice time monk IRR go down recite a sutra in temple
They notice the time when monks will come to recite a sutra in the hall. [190]
 (1782-1925)

1.4 Negative conviction (Conclusion) ‘It is never possible to ...’

- (6) chây **cà?** níyom yindii lûam sǎy látthí? sàatsanǎa
 NEG IRR favor be glad believe in ideology faith religion
 ?ùuun nòk càak phrá?phútthasàatsanǎa nán hǎa mí? dâ
 other besides Buddhism TOP seek NEG POSSI
It is impossible that we would willingly believe in other religions than the Buddhism.
 [187] (1782-1925)

1.4 Ironical interrogative (Conclusion) ‘Wherever can one find ...?’

- (7) **cà?** hǎa mít mǔan cǎw thîi nǎy dâ
 IRR seek friend be like he where POSSI
Wherever can I find a good friend like him? [278] (1925-1978)

1.5 Circumstantial impossibility ‘... is not achieved; it is not possible to ...’

- (8) **cà?** phannanaa bôo mí? dâ læy
 IRR describe NEG POSSI PART
It is impossible to describe it. [86] (1528)

1.6 Circumstantial possibility ‘... is achieved; it is possible to ...’

- (9) mây mii pratuu thîi **cà?** ?òk pay phaay nòk dâ
 NEG there is door REL IRR exit go outside POSSI
There is no door through which we can go out. [146] (1782-1925)

NEG(ative), POSSI(bility), PART(icle), TOP(ic marker), REL(ativizer), CONJ(unction), CAUS(ative), PERF(ective), COP(ula), and NOM(inalizer).

⁸ The number in the brackets attached to the end of each English translation (e.g. [5]) is the registration number for the identification of inscriptions that have been discovered in and around Thailand, and the number in the parentheses (e.g. (1361)) is the estimated production year of each source inscription.

1.7 Conditionals ‘If ...’

- (10) phì? **càk** náp dûay duan dây yìp mùuun sòi phan hòk sòp
 if IRR count with month emerge 24,060
 duan
 month
 If we count by the month, it will be 24,060 months. [3] (1357)

1.8 Apparent imminence ‘... is about to ...’

- (11) muang sùkhōothay núi mii dàn **càk** tèek
 city Sukhothai TOP noisy as if IRR be broken
 The city of Sukhothai is so noisy as to be nearly broken. [1] (1292)

2. Volitive

2.1 Appropriateness ‘... should ...; It is appropriate to ...’

- (12) khuān **cà?** pen thīi chūuun chom yindii
 should IRR COP NOM love be glad
 It should be loved. [178] (1782-1925)

2.2 Permission ‘It is possible for one to ...’

- (13) **cà?** phùuk nay bāan kōo dây
 IRR perform a ceremony in home CONJ POSSI
 One can perform a ceremony (of establishing the Sangha communion area) in the home. [193] (1925-1978)

2.3 Obligation ‘One must ...’

- (14) phūu thīi tham chūa **cà?** tōng ráp thúk
 person REL do bad IRR must receive sorrow
 Those who commit a sin must suffer. [256] (1925-1978)

2.4 Ability ‘One is able to ...’

- (15) ?àat sāmāat **cà?** ?athíthāan dûay khaathāa bòt day bòt nūn
 be able IRR pray with Pali verse a certain paragraph
 hây khróp dây
 CAUS fully POSSI
 One is able to pray by saying a certain full paragraph of a Pali verse. [257] (1925-1978)

2.5 Volitive ‘One will ...’

- (16) phūua **cà?** hây ?aanaaprachaaarāatsàdōon thánj puan
 in order to IRR CAUS the people in general
 chom lên
 look at with admiration play
 ... to let the general public look at it respectfully. [187] (1782-1925)

2.6 Desire ‘One wants to ...’

- (17) mii sàtthaa **cà?** khrây sâaŋ ʔaaraam
 have faith IRR desire build temple
 With faith in the Buddhism, they want to build a temple. [86] (1528)

4 Quantitative data

This section provides quantitative data on occurrences of *càk* and *cà?* in Thai inscriptions, which give an entire picture of gradual increase in the number of specific types of Thai modal concepts marked by *càk* / *cà?*.

Table 1 shows the number of occurrences of the two morphemes in different semantic contexts of the inscription discourses. For convenience's sake, I divide the documented history of the Thai language into the following four periods according to different dynasties:

Period I: the Sukhothai period (1292-1438)

Period II: the Ayutthaya-Thonburi period (1438-1782)

Period III: the first half of the Rattanakosin period (1782-1925)

Period IV: the latter half of the Rattanakosin period (1925-1978)

A total of 635 tokens of *càk* and *cà?* were found in the inscriptions, though 15 of them were not decodable due to the unreadability of some inscriptions in Period I. The ratio comparing the two morphemes' occurrences in each period is also indicated at the bottom of Table 1.

Table 1 reveals that before Period III the ratio of occurrences of the two morphemes in the volitive contexts exhibits higher values than that in the non-volitive contexts, but after Period III the two ratios do not differ very much. Note that *càk* was used as a verb in Period I. Since the number of occurrences of its verbal usage is too small (only four), I cannot tell exactly what verbal meaning it had. At any rate, the important point is that since Period I the two morphemes have been capable of functioning as an irrealis marker occurring not only in the contexts of 'desire', 'volition (intention)' and 'prediction (future)', which are named in (1) above, but also in the contexts of 'conditional concessive', 'inevitability', 'conditionals' and 'apparent imminence'.

Table 1. Occurrences of *càk* and *cà?* in different semantic contexts of Thai inscription discourses⁹

	Period I Sukhothai 1292-1438		Period II Ayutthaya & Thonburi 1438-1782		Period III Rattanakosin King Rama 1-6 1782-1925		Period IV Rattanakosin King Rama 7-9 1925-1978	
1. <i>Non-volitive</i>	50	38%	21	28%	73	53%	134	48%
1.1 Conditional concessive	6	5%	1	1%	11	8%	6	2%
1.2 Prediction, 1.3 Inevitability, 1.4 Conclusion (including Negative conviction, Ironical interrogative)	32	24%	14	18%	56	41%	109	39%
1.5 Circumstantial impossibility, 1.6 Circumstantial possibility	0		2	3%	3	2%	11	4%
1.7 Conditionals, 1.8 Apparent imminence	12	9%	4	5%	3	2%	8	3%
2. <i>Volitive</i>	77	59%	53	72%	64	47%	144	52%
2.1 Appropriateness, 2.2 Permission, 2.3 Obligation	0		4	5%	10	7%	45	16%
2.4 Ability	0		0		0		8	3%
2.5 Volition, 2.6 Desire	77	59%	49	66%	54	39%	91	33%
VERB <i>càk</i>	4	3%	0		0		0	
Total	131 +15	100%	74	100%	137	100%	278	100%
<i>càk</i> : <i>cà?</i>	119 : 27		44 : 30		1 : 136		4 : 274	

Figures 3 through 6 below are semantic maps designating a variety of Thai modal concepts marked by the irrealis marker *càk* / *cà?* in each of the four periods. From the first two Figures (Figures 3 and 4) we can see that the irrealis marker began to be used in the contexts of ‘appropriateness’ and ‘circumstantial impossibility’ in Period II (1438-1782).

⁹ I have rounded off the decimal fractions of the percentages indicated in Table 1 and Figures 3 to 6, and so the total of the percentages in each part may be slightly under or over 100%.

Volition 38%, Desire 21%	Conditional concessive 5% Prediction 11%, Inevitability 14% Conditionals 8%, Apparent imminence 2% ¹⁰
<i>Volitive</i>	<i>Non-volitive</i>

Figure 3. Semantic map for Thai modal concepts marked by the irrealis marker in Period I

Appropriateness 5% Volition 54%, Desire 12%	Conditional concessive 1% Prediction 9%, Inevitability 9% Circumstantial impossibility 3% Conditionals 5%
<i>Volitive</i>	<i>Non-volitive</i>

Figure 4. Semantic map for Thai modal concepts marked by the irrealis marker in Period II

Figure 4 above and Figure 5 below show that the irrealis marker began to be used in the contexts of ‘permission’, ‘conclusion’ and ‘circumstantial possibility’ in Period III (1782-1925).

Appropriateness 7%, Permission 1% Volition 32%, Desire 7%	Conditional concessive 8% Prediction 13%, Inevitability 24%, Conclusion 2% Circumstantial impossi. 1%, Circumstantial possi. 1% Conditionals 2%
<i>Volitive</i>	<i>Non-volitive</i>

Figure 5. Semantic map for Thai modal concepts marked by the irrealis marker in Period III

¹⁰ Although the concept ‘apparent imminence’ disappears in the semantic maps of Period II-IV (Figures 4 to 6), I do not think that the irrealis marker was incompatible with the meaning of ‘apparent imminence’ during that time. The occurrence frequency of ‘apparent imminence’ expressions in the inscriptions is low, presumably because inscription discourses normally have nothing to do with situations characterized as ‘apparent imminence’. In fact, the irrealis marker in present-day Thai is still compatible with the meaning of ‘apparent imminence’. There are some entrenched forms with the irrealis marker for the concept (e.g. *kamlan cà?* ‘be about to’, *klây cà?* ‘nearly’) which are used in oral discourses more frequently than in written discourses (Takahashi 2002).

Figure 5 above and Figure 6 below show that the irrealis marker began to be used in the contexts of ‘obligation’ and ‘ability’ in Period IV (1925-1978).

<p>Approp. 14%, Perm. 1%, Obligation 1%</p> <p>Ability 3%</p> <p>Volition 24%, Desire 8%</p>	<p>Conditional concessive 2%</p> <p>Prediction 14%, Inevitability 24%, Conclusion 1%</p> <p>Circumstantial impossi. 2%, Circumstantial possi. 2%</p> <p>Conditionals 3%</p>
<i>Volitive</i>	<i>Non-volitive</i>

Figure 6. Semantic map for Thai modal concepts marked by the irrealis marker in Period IV

Thus, specific modal concepts in Thai have gradually emerged, at least, since the 15th century. In addition, the irrealis marker came to be less and less used in the contexts of ‘volition’ (38% → 54% → 32% → 24%) and ‘desire’ (21% → 12% → 7% → 8%), while it came to be more and more used in the contexts of ‘inevitability’ (14% → 9% → 24% → 24%), ‘prediction’ (11% → 9% → 13% → 14%) and ‘appropriateness’ (0% → 5% → 7% → 14%). It follows that formerly the irrealis marker was more likely to mark less subjective types of irrealis situations, but recently it has been used to mark more subjective types.

5 Split patterns of Thai modal concepts related to possibility

In this section, I will closely examine historical split patterns of the possibility-related types of modal concepts (such as ‘circumstantial possibility’ and ‘ability’) expressed in Thai. Here I limit the discussion to the issue of split patterns of possibility-related concepts because I could not find a sufficient number of tokens of expressions for modal concepts other than those related to possibility in the inscription data.

Examples (18) through (23) provide samples of Thai modal expressions of the possibility-related types which I have collected from the inscription corpora. To identify possible split patterns involving these possibility-related concepts, I have analysed similarities in their syntactic forms and semantics.

1.5 Circumstantial impossibility ‘... is not achieved; it is not possible to ...’

(18)=(8) **cà?** phannanaa bòò mí? **dây** ləəy
IRR describe NEG POSSI PART
It is impossible to describe it. [86] (1528)

1.4 Negative conviction (Conclusion) ‘It is never possible to ...’

(19)=(6) chây **cà?** níyom yindii lûam sǎy látthí? sàatsanǎa
NEG IRR favor be glad believe in ideology faith religion
?ùuun nõk càak phrá?phútthasàatsanǎa nán hǎa mí? **dây**
other besides Buddhism TOP seek NEG POSSI
It is impossible that we would willingly believe in other religions than the Buddhism. [187] (1782-1925)

1.6 Circumstantial possibility ‘... is achieved; it is possible to ...’

(20)=(9) mây mii pratuu thîi **cà?** ?òok pay phaay nôok dây
 NEG there is door REL IRR exit go outside POSS
There is no door through which we can go out. [146] (1782-1925)

2.2 Permission ‘It is possible for one to ...’

(21)=(13) **cà?**¹ phùuk nay bâan kôo dây
IRR perform a ceremony in home CONJ POSSI
One can perform a ceremony (of establishing the Sangha communion area) in the home. [193] (1925-1978)

2.4 Ability ‘One is able to ...’

(22)=(15) ʔaat sǎamǎat **càʔ** ʔathíthǎan dūay khaathǎa bòt day bòt nùŋ
 be able IRR pray with Pali verse a certain paragraph
 hây khróp dây
 CAUS fully POSSI
One is able to pray by saying a certain full paragraph of a Pali verse. [257]
 (1925-1978)

1.4 Ironical interrogative (Conclusion) ‘Wherever can one find ...?’

(23)=(7) **cà?** hăa mít mŭian câw thii năy **dây**
IRR seek friend be like he where POSSI
Wherever can I find a good friend like him? [278] (1925-1978)

It is noteworthy that the syntactic forms for these possibility-related concepts in Thai all include the functional morpheme *dây* meaning ‘possibility’. Having analysed diachronic corpus data of *dây* expressions which I have compiled from Thai inscriptions (Takahashi 2005, 2006), I hypothesize *dây*’s grammaticalization from a verb into a modal, as follows (Takahashi & Shinzato 2005, Takahashi 2008b).¹¹ The verb *dây* originally expressed the meaning of ‘emergence’ in affirmative assertions and ‘non-emergence’ in negative assertions. When the meaning of ‘non-emergence’ was extended from the nominal domain (non-emergence of an object) into the verbal domain (non-achievement of an event) and the construction expressing the latter more abstract sense (VP NEG *dây*) became entrenched, *dây* gained the function of signalling ‘circumstantial impossibility’ (viz. it is not possible to do/be something due to certain circumstances). In the case of example (18) above, the entity that the writer wants to describe has very special properties in quality or quantity, and so he cannot perfectly describe its specialty (such as its wonderfulness or numerousness).

Plausible derivations of the other possibility-related constructions exemplified in (18) to (23) above are as the following.

(a) circumstantial impossibility (e.g. (18)) > negative conviction (e.g. (19)):

¹¹ Enfield (2001, 2003, 2004) has proposed different grammaticalization paths for so-called ‘acquire’ words which, he assumes, subsume the Thai verb *dây*.

The verb *hăa* ‘seek’ came to be included in the construction for circumstantial impossibility (*hăa* NEG *dây* ‘seeking is not achieved; it is not possible to find out’), and another clause beginning with *chây* (*chây* (NP) VP ‘it is not ...’) came to precede the construction, which resulted in the construction for negative conviction (*chây* (NP) VP, *hăa* NEG *dây* ‘It is never possible to ...’).¹²

(b) circumstantial impossibility (e.g. (18)) > circumstantial possibility (e.g. (20)):

The negative in the construction for circumstantial impossibility came to be omitted, which gave rise to the construction for circumstantial possibility (VP *dây* ‘... is achieved; it is possible to ...’).

(c) circumstantial possibility (e.g. (20)) > permission (e.g. (21)):

The verb phrase in the construction for circumstantial possibility came to refer to an action to be engaged in by someone, which led to the construction for permission ((agent-NP) VP *dây* ‘It is possible for one to ...’).

(d) circumstantial possibility (e.g. (20)) > ability (e.g. (22)):

The two loanwords *phat* ‘brave’ (from Khmer) and *săamâat* ‘hope, desire’ (from Pali) came to be added to the construction for circumstantial possibility. At the same time, the verb phrase in the construction came to refer to someone’s action. This resulted in the construction for ability ((agent-NP) *phat* *săamâat* VP *dây* ‘One is able to ...’).

(e) circumstantial possibility (e.g. (20)) > ironical interrogative (e.g. (23)):

The interrogative *thi năy* ‘where’ came to be included in the construction for circumstantial possibility, which yielded the construction for ironical interrogative (VP *thi năy* *dây* ‘Wherever can one ...?’).

The derivational relationships among the five split patterns (a) to (e) is graphically shown in Diagram 1 below. In Period II, the concept of ‘circumstantial impossibility’ (e.g. (18)) was established. In Period III, ‘negative conviction (conclusion)’ (e.g. (19)) and ‘circumstantial possibility’ (e.g. (20)) derived from ‘circumstantial impossibility’, and also ‘permission’ (e.g. (21)) derived from ‘circumstantial possibility’. And in Period IV, ‘ability’ (e.g. (22)) and ‘ironical interrogative (conclusion)’ (e.g. (23)) derived from ‘circumstantial possibility’.

¹² Although in present-day Thai the morpheme *chây* means ‘yes, that is correct’, originally it was a negative marker preceding a noun phrase (Takahashi 2008a). It came to be used as a constituent of some formulaic expressions like (19) before changing into the non-negative meaning in the present.

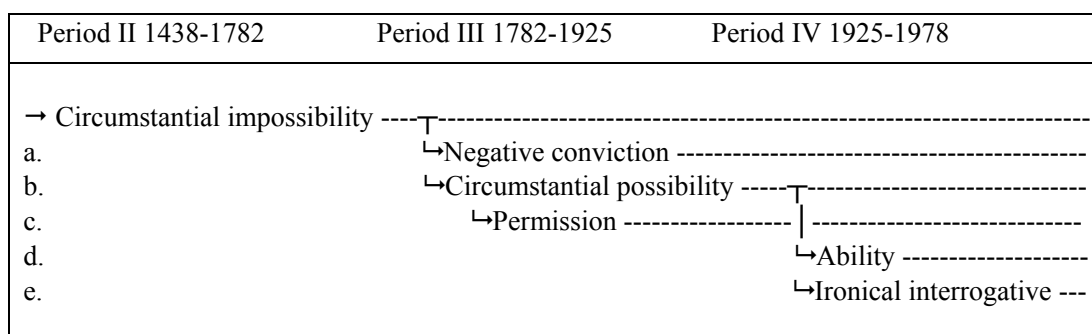


Diagram 1. Split patterns of possibility-related modal concepts in Thai

(24) and (25) summarize the directionalities of semantic changes involved in these split patterns occurring during Periods II-IV (1438-1978).

(24) Directionality of changes in subjectivity of possibility-related concepts in Thai:
less subjective > more subjective

(25) Directionality of changes in volitivity of possibility-related concepts in Thai:
non-volitive > volitive¹³

Figures 7 to 10 below graphically depict different types of change in the values of subjectivity and volitivity associated with the split patterns (a) to (e) indicated in Diagram 1 above.

<i>Subj.</i> ↑	Permission	Ironical interrogative	Negative conviction
↓ <i>Obj.</i>		↖ Circumstantial possibility ↗ (c) (e)	↗ Circumstantial impossibility (a)
	<i>Volitive</i>	<i>Non-volitive</i>	

Figure 7. Semantic map for split patterns with change from ‘less subjective’ to ‘more subjective’

¹³ In her study on developments of Thai verbs into auxiliaries, Meesat (1997: 178) states that the verb *tôŋ* ‘hit, fit’ began to be used as an auxiliary expressing ‘obligation’ (i.e. volitive, deontic modality) in the reign of King Rama 1 (1782-1809), and then gained another auxiliary function to express ‘conclusion’ (i.e. non-volitive, epistemic modality) in the reign of King Rama 4 (1851-1868). Similarly, Diller (1988: 291) mentions that the Khmer-derived verb *phàat* ‘brave’ first developed into a modal for ‘ability’ (i.e. volitive, dynamic modality) and then came to function as a modal for ‘probability (possible conclusion)’ (i.e. non-volitive, epistemic modality). Unfortunately, however, my corpus data of irrealis expressions in the inscriptions dated in 1292-1978 do not include evident samples of the ‘conclusion’ usage of *tôŋ* (*càp tôŋ* VP ‘it is concluded by inference that ...’) and the ‘probability’ usage of *phàat* (*phàat càp* VP ‘it might appear that ...’), and therefore in this study, which deals with rather limited language data, I cannot attest the direction of these late semantic changes of Thai modals, viz., ‘volitive > non-volitive’.

The three split patterns in Figure 7, (a) ‘circumstantial impossibility > negative conviction (conclusion)’, (c) ‘circumstantial possibility > permission’ and (e) ‘circumstantial possibility > ironical interrogative (conclusion)’ exhibit changes in subjectivity, namely ‘less subjective > more subjective’. This direction is consistent with the hypothesis called ‘unidirectionality of semantic change’ or ‘subjectification’ (Traugott 1982, 1989).

Subj. ↑	Ability	← Circumstantial possibility (d) ← Circumstantial impossibility (b)
↓ Obj.		
	<i>Volitive</i>	<i>Non-volitive</i>

Figure 8. Semantic map for split patterns with little change in subjectivity

In contrast, the two split patterns in Figure 8, (b) ‘circumstantial impossibility > circumstantial possibility’ and (d) ‘circumstantial possibility > ability’ exhibit little change in subjectivity. It appears that judging to be possible is no more subjective than judging to be impossible; judging to be physically or mentally possible is no more subjective than judging to be circumstantially possible; and so on. So far the literature on semantic change has offered little in-depth analysis of these split patterns.¹⁴

Subj. ↑	Permission	(c)
	Ability	↖ ← Circumstantial possibility (d)
↓ Obj.		
	<i>Volitive</i>	<i>Non-volitive</i>

Figure 9. Semantic map for split patterns with change from ‘non-volitive’ to ‘volitive’

The two split patterns in Figure 9, (c) ‘circumstantial possibility > permission’ and (d) ‘circumstantial possibility > ability’ exhibit shift in volitivity, namely ‘non-volitive > volitive’. This shift is opposed to the widespread view that non-volitive modal concepts arise from volitive (agent-oriented) ones (Bybee et al. 1994). However, my investigation into the Thai diachronic corpus data reveals that this view is not applicable to Thai. Aside from the recent semantic extensions of *tôn* (obligation > conclusion) and *ʔaat* (ability > probability) (see Footnote 13), semantic changes of Thai modals in the past are largely ‘non-volitive > volitive’. This supports Narrog’s (2005) claim that actually this direction of semantic change is pervasively found in many languages.

¹⁴ Shibuya (1993) and Shinzato (2008), which investigate the evolution of Japanese modals for possibility, are a couple of exceptions.

Subj. ↑		Ironical interrogative	Negative conviction
↓ Obj.		↑ Circumstantial possibility (e)	← Circumstantial impossibility (b) → ↓ (a)
	<i>Volitive</i>	<i>Non-volitive</i>	

Figure 10. Semantic map for split patterns with no change in volitivity

The three split patterns in Figure 10, (a) ‘circumstantial impossibility > negative conviction (conclusion)’, (b) ‘circumstantial impossibility > circumstantial possibility’ and (e) ‘circumstantial possibility > ironical interrogative (conclusion)’ exhibit no change in volitivity. Curiously, as far as Thai possibility-related concepts are concerned, non-volitive concepts more frequently split and became diversified than volitive concepts did.

6 Concluding remarks

In this study, I have examined actual discourses in Thai diachronic corpus data and found a number of plausible split patterns of Thai modal concepts related to possibility.

In order to explain the facts presented here, I suggest that the two opposing directions of semantic change between the two types of possibility-related concepts, i.e. ‘ability > circumstantial possibility (root possibility)’ and the other way around, may correspond to the typological dichotomy of the characteristic way of describing a situation, namely ‘person- vs. situation-focus’ (Hinds 1986; cf. also Teramura 1976 and Ikegami 1991). Person-focus languages (like English) tend to focus on the agent (i.e. conscious, willful and responsible person) in describing a situation, whereas situation-focus languages (like Japanese and Thai) tend to describe the whole event without placing a special focus upon the agent. It is reasonable to assume that in person-focus languages, the domain of volitive modal concepts, rather than the domain of non-volitive modal concepts, has rich split patterns, since lexical items expressing an agent’s volitive action, ability, desire and the like are apt to evolve into modal markers, the process of which Langacker (1999: 297-315) calls ‘attenuation’. In situation-focus languages, on the other hand, the domain of non-volitive modal concepts, rather than the domain of volitive modal concepts, has rich split patterns, since the lexical items for volition-related concepts are less likely to be employed for the expression of a modal concept. Whether this is true or not remains a matter of future research.

In conclusion, following Narrog (2005), I suggest that the directions of semantic change, except for the seemingly universal direction ‘less subjective > more subjective’, may vary across languages. I also suggest that variation in the directions may reflect variation not only in the linguistic structures (morphosyntactic principles and lexical systems) but also in the speakers’ preferred style of the description of a state of affairs.

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