

The Semantic Extension of *Tioh*⁸ 著 in Taiwanese Southern Min: An Interactive Approach^{*}

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According to traditional lexicographical practice *tioh*⁸ 著 as a polysemous word in Taiwanese Southern Min (TSM) is represented as having as many senses (or rather sememes) as there are synonymous expressions available as definientia. Such a practice inevitably results in producing unwieldy multiple senses especially of words such as *da*³ 打 in Mandarin. In order to adequately capture the asymmetric relation between form and meaning a distinction is drawn between conceptual structures and surface syntactic forms. An account based on such a distinction as well as the mapping between them can then achieve a greater measure of economy and generality since it is usually the case that a common conceptual structure or frame can be established to integrate a range of surface syntactic constructions. The polysemous lexeme *tioh*⁸ 著 is a case in point. In this paper we provide a unified account of the polysemy of *tioh*⁸ 著 based on frame semantics and basic assumptions of construction grammar (Fillmore et al. 1988, Fillmore and Atkins 1992, 1994 and Lien 2000).

Key words: semantic extension, phase, conceptual structure, mapping, interface, construction

1. Introduction

In addition to an Introduction and Closing Remarks, this paper consists of two parts: (1) grammatical constructions of *tioh*⁸ 著, (2) conceptual structures of *tioh*⁸ 著 and the mapping to syntactic structures.

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2. Grammatical constructions of *tioh*⁸ 著

In part 2, a range of grammatical constructions in which *tioh*⁸ 著 appear are presented, namely *tioh*⁸ 著 that functions as a verb (2.1), a verbal complement (2.2), a deontic modal (2.3), an adverb marker (2.4), a clausal connector (2.5), and a discourse marker (2.6).¹ In each grammatical construction of *tioh*⁸ 著 its semantic properties as well as other aspects, if any, are examined.

2.1 *Tioh*⁸ 著 as a verb

In this section an attempt is made to integrate the meanings of the verb *tioh*⁸ 著 exemplified by target-hitting, prize-winning, riddle-guessing, turn-taking, perpetrating a bad outcome, and metalinguistic operation in terms of the postulation of possible worlds and the model of mental spaces in tandem with the mechanism of metaphor.

2.1.1 Target-hitting

To hit the target, as exemplified in *Chi*ⁿ³ *tioh*⁸ *ang*⁵-*sim*¹ 箭著紅心 ‘The arrow hit the bull’s eye/hit the target right in the center’, always involves a change from a set of possibilities to the only possibility or rather necessity, i.e., to pick a possible world from a set of possible worlds.

2.1.2 Prize-winning

Winning a prize in a lottery, as in *tioh*⁸ *thau*⁵ *chiong*² 著頭獎 ‘win first prize’, and *tioh*⁸ *chiong*²-*koan*³ 著獎券 ‘win a prize in the lottery’, is a chance hitting of one possibility in the infinite realm of possibilities. Gaining access to one possibility among a set of possibilities ultimately leads to a certainty, i.e., a necessity. In fact, a real world is just one possible world out of the infinity of all possible worlds (Bradley and Swartz 1979). Metaphorically speaking, winning a prize is like hitting a target in archery.

¹ The transliteration of TSM is based on church romanization given in Douglas (1873) with modifications for mnemonic reasons. For example, tone diacritics have been replaced by superscript numerals. Open *o* is represented as /oo/. *Ch*- and *ts*- are merged into *ch*- since there is no phonemic distinction between them in modern TSM. The data used in the present paper draw heavily from Douglas (1873), Iwasaki (1916), Ogawa et al. (1931-32ab), Azumakata (1931), Embree (1984), and Chen (1991) as well as the intuition of TSM native speakers. For previous treatments of *tioh*⁸ 著 in TSM Tan (1934), Li (1950), Ong (1969), and Yang (1992), among others, are important sources of inspiration.

2.1.3 Riddle-guessing

Figuring out the solution to a riddle involves a conscious choice of a most optimal possibility out of a number of possibilities. Like winning a prize, solving a riddle is metaphorically comparable to hitting a target that denotes the truth, as in *tioh*⁸ *chit*⁸ *tiau*⁵ 著蜀條 ‘succeed in solving one riddle’.

2.1.4 Turn-taking

Turning-taking always refers to a situation in which a set of candidates are assigned a specific task to be done successively. Doing something in turn necessitates that a person or an agent is burdened with an obligation to be fulfilled. There is a temporal sequence in which a specific task is to be performed.

The task of turn-taking can be illustrated by *tioh*⁸ *pan*¹ 著班 ‘It is (somebody’s) turn’, *tioh*⁸ *li*² 著汝 ‘It’s your turn (to play your card, for example)’, and *tioh*⁸ *kak*⁴-*thau*⁵ 著角頭 ‘It’s our turn to host the carnival’. Note that *tioh*⁸ *pan*¹ 著班 ‘It is (somebody’s) turn’ should be distinguished from *lun*⁵ *pan*¹ 輪班 ‘work in shifts; doing something on a rotating basis’. The former evokes a scene of hitting a target; i.e., the person concerned is the target being hit and it is anchored at a certain point in time. On the other hand, the latter can be visualized as a revolving wheel in constant circular motion and there is a time at which a part of the wheel will touch the ground. However, there is no target-hitting event involved. Turn-taking shares with prize-winning and riddle-guessing the evocation or metaphorical extension of target-hitting. However, it has a unique augmentation of a hidden event calculable in terms of context.

2.1.5 Perpetrating a bad outcome

The frame or conceptual structure constructible for this type of grammatical template is an adverse effect brought about by an agent. In an instance exemplified by the following sentence a scene is evoked in which it is the addressee that hits the target, so to speak, the target being the bad outcome. The addressee, therefore, amounts to the cause of an untoward outcome and is to be blamed for it.²

² A structural template, as illustrated in *tioh*⁸ *i*¹ *koah*⁴-*tiau*³ 著伊割吊 ‘be tormented by him/her’ where he/she is the tormentor or more generally an agent, occurs quite often in *Li*⁴ *Jing*⁴ *Ji*⁴ 荔鏡記 ‘Story of Litchi Mirror’ (Wu 1970). Unlike the template in *Li*⁴ *Jing*⁴ *Ji*⁴, the construction treated here has the following characteristic: the predicate denoting the bad outcome is preposed whereas the agent is in focus.

- (1) Hoo⁷ goa² liau² chiⁿ⁵ long² si⁷ ni² tioh⁸ •e
 與我³了錢攏是汝著的³
 ‘It is all because of you that I lost money’

2.1.6 Metalinguistic operation

When a linguistic form is compatible with its referent, it has truth value. No compatibility between language and the world leads to falsity. The truth of a proposition and its falsity is expressed by *tioh⁸* 著 ‘That’s right’ and *m⁷ tioh⁸* 唔著 ‘That’s wrong’ respectively in TSM, as shown below:

- (2) a. Li² kong² •e tioh⁸
 汝講的著
 ‘What you said is correct/right’
 b. I¹ kong² •e m⁷ tioh⁸
 伊講的唔著
 ‘What he/she said is incorrect/wrong’

Here *tioh⁸* 著 is a linguistic form used to comment on the appropriateness of language used. It is a metalinguistic device to assess the link between language and reality. One of the senses of *tioh⁸* 著 is ‘hit (the target)’. When an expression is said to be *tioh⁸* 著 ‘true, correct’, a target-hitting metaphor seems to be evoked such that a linguistic expression correctly referring to the reality is likened to a projectile hitting the target. There is therefore an iconic or rather similarity relation between the projectile and the linguistic expression, on the one hand, and the target and the reality, on the other. In terms of the theory of mental spaces (Fauconnier 1985, Fauconnier and Sweetser 1996), two mental spaces, one depicting the target-hitting and the other delineating the relation between language and reality, can be set up and linked through our cognitive construction. It could be conjectured that the linguistic expression and the reality in the more abstract mental space evoke the projectile and the target in the more concrete space respectively. The relation between the two mental spaces is somewhat similar to the relation between text proposition and context proposition discussed in Kay (1990), in that there is something hidden which serves a background against which a proposition is explicitly expressed. The relation between language and reality can be extended to a relation between metalanguage and language when a linguistic expression is used to refer to another linguistic expression. In short, there is an interlexical or

³ Unless otherwise noted, a loan character, phonetic or semantic, will be underlined at its first appearance.

intralingual relation between them (Lyons 1995). For example, if the judgement on the correctness of an answer to a question is based on compatibility of the interlexical relation between two linguistic expressions, then it involves a more abstract mental space encompassing a relation between language and metalanguage. Thus, in a pair of sentences like:

- (3) a. A¹-ku⁷ si⁷ a¹-bu² •e⁵ hiaⁿ¹-ti⁷
 阿舅是阿母的兄弟
 ‘Uncles on the maternal side are mother’s brothers’
 b. Tioh⁸
 著
 ‘That’s correct’

The term A¹-ku⁷ 阿舅 ‘uncles’ is a linguistic expression and its definition is a metalinguistic expression. In a sentence showing interlexical relation, whether it is contradictory is determined solely in terms of semantic components of linguistic terms without referring to reality.

A disyllabic expression like to¹-tioh⁸ 都著 is also used metalinguistically, as shown below:

- (4) a. Cha¹-hng¹ lai⁵ to¹-tioh⁸
 昨昏來都著
 ‘That’s right. He came yesterday’
 b. Chit⁸ tai⁵ kong²-ming⁵ chhia¹ si⁷ i¹ e⁵ to¹-tioh⁸
 此台孔明車是伊的都著
 ‘That’s it. The bike belongs to him/her’

2.2 *Tioh*⁸ 著 as a verbal complement

When the verbal complement *tioh*⁸ 著 is a grammaticalized form of its verbal counterpart as discussed 2.1, it has shed its core sense of a sudden realization of attachment and takes on a phasal function characterizable as achievement in the sense of Vendler.⁴

⁴ A distinction is made between phase and aspect in line with Chao (1968), Cheng (1992, 1997b), Lien (1995), Tang et al. (1997), and Tsao (1998). Phase or situation in time relation (Cheng 1992), as in the phase marker *tioh*⁸ 著, seems to correspond to *aktionsart* (literally kind of action). Aktionsart refers to the inherent temporal constitution of a situation typically captured by an unadorned propositional content stripped of any bearing with reference time and speech

Besides stative verbs⁵ like *ai*³ 愛 ‘love’ and *tu*² 抵 ‘support, prop up’, from which *ai*³•*tioh*⁸ 愛•著 ‘fall in love’ and *tu*²•*tioh*⁸ 抵•著 ‘meet, run into’ can be derived respectively, there are basically two types of activity verb to which the complement *-tioh*⁸ 著 can be attached, as shown in the following tables:

(5) Activity verbs with volition

V	<i>sia</i> ⁷ 射 shoot at	<i>khoa</i> ⁿ³ 看 look at	<i>chhe</i> ⁷ 尋 look for	<i>tio</i> ⁷ 釣 to fish
VC	<i>sia</i> ⁷ • <i>tioh</i> ⁸ 射•著 shoot	<i>khoa</i> ⁿ³ • <i>tioh</i> ⁸ 看•著 see	<i>chhe</i> ⁷ • <i>tioh</i> ⁸ 尋•著 find, discover	<i>tio</i> ⁷ • <i>tioh</i> ⁸ 釣•著 ⁶ catch

Activity verbs such as *sia*⁷ 射, *khoa*ⁿ³ 看, *chhe*⁷ 尋 and *tio*⁷ 釣 can be preceded by a progressive phasal marker *tih*⁴ 著, occur in the imperative and are compatible with durative time adverbials. They also involve the semantic property of volition. But when *tioh*⁸ 著 is added, the resultant V-C compounds denote achievement in the sense of Vendler (1957). An achievement expression denotes the instant realization of an event which is anchored at a point of time, and the volitional possibility of activity verbs have been obliterated.

(6) Activity verbs not involving volition

The activity verbs in this category illustrated below are not associated with the semantic property of volition. They remain unspecified with respect to the punctuality of time until the complement *tioh*⁸ 著 is added.

time (cf. Platzack 1979:39). In contrast, aspect in the narrow sense, as in •*ah* 啊 or •*leh* 咧, denotes types of temporal situation as viewed from the standpoint of speaker, namely the reference time (Cheng 1992, 1997b and Tsao 1998). In another perspective aktionsart (or phase) and aspect are distinguished in terms of lexicalized semantic categories and grammaticalized ones (Comrie 1976, Lien 1995 and Tang et al. 1997). The demotic characters 啊 •*ah* and 咧 •*leh* as synchronically independent functional words are adopted here although they may well be etymologically 矣 and 著 respectively as expounded in Yang (1991, 1992).

⁵ Stative verbs refer to the non-dynamic state of affairs, namely stativity, which lasts for a period of time. The attachment of *tioh*⁸ 著 to a stative verb results in the V-C construction denoting an instantaneous phasal change from non-existence of a state to its existence.

⁶ A comparison of examples in TSM and their English counterparts shows that the phasal marker of achievement is coded word-externally in the former, but word-internally in the latter.

V	sah ⁿ⁴ □ inhale	khap ⁴ 磕 clash with, collide with
VC	sah ⁿ⁴ • tioh ⁸ □•著(風) ⁷ catch (a cold)	khap ⁴ • tioh ⁸ 磕•著 come striking against

Though *tioh*⁸ 著 evidently takes on the phasal function of achievement, it still retains a trace of spatial sense, since the verbs that take *-tioh*⁸ 著 as their complement must denote contact, not detachment, as shown below:

Attachment	boe ² • tioh ⁸ 買•著 bought (it)	khioh ⁸ • tioh ⁸ 拾•著 found (it)	liah ⁴ • tioh ⁸ 掠•著 caught (it)
Detachment	*boe ⁷ • tioh ⁸ *賣•著 sold (it)	*lak ⁴ • tioh ⁸ *落•著 lost (it)	*pang ³ • tioh ⁸ *放•著 set (it)free

To summarize, there are co-occurrence restrictions between the verb and its complement *tioh*⁸ 著 semantically. An understanding of V-C (*tioh*⁸ 著) constructions is incomplete without a grasp of the complexity involved in the placement of the complement *-tioh*⁸ 著 with respect to verb and object.

The complement *-tioh*⁸ 著 always occurs post-verbally, but things get more complicated when we reckon with such factors as the position of the object and the elements expressing negation, modality and phase/aspect. To simplify the matter let us ignore the object for the time being. As shown in the following table we can see that the modal, negative and phasal/aspectual elements (i.e., *u*⁷ 有/*bo*⁵ 無, *e*⁷ 會/*be*⁷ 袂, *iah*⁴-*boe*⁷ 抑未) can occur before the verb-complement construction or function as an infix flanked by the verb and its complement; the perfective aspect marker *a* 啊 as the positive counterpart of *iah*⁴-*boe*⁷ 抑未 has a unique pattern of its own and can only occur after the verb-complement sequence.

⁷ *Sah*ⁿ⁴ • *tioh*⁸ □•著 also means ‘have a crush on’.

Gr. Property	Gloss	Positive ex.	Negative ex.	Gloss
Assertion	caught	liah ⁸ u ⁷ tloh ⁸ 掠有著	liah ⁸ bo ⁵ tloh ⁸ 掠無著	did not catch
		u ⁷ liah ⁸ •tloh ⁸ 有著•著	bo ⁵ liah ⁸ •tloh ⁸ 無掠•著	
Possibility	can catch (capability)	liah ⁸ e ⁷ tloh ⁸ 掠會著	liah ⁸ be ⁷ tloh ⁸ 掠袂著	cannot catch (capability)
	can catch (possibility)	e ⁷ liah ⁸ •tloh ⁸ 會掠•著	be ⁷ liah ⁸ •tloh ⁸ 袂掠•著	cannot catch (possibility)
Aspect (Perfectivity)	have caught	liah ⁸ •tloh ⁸ •a 掠•著•啊	iah ⁴ -boe ⁷ liah ⁸ •tloh ⁸ 抑未掠•著 liah ⁸ iah ⁴ -boe ⁷ tloh ⁸ 掠抑未著	have not caught yet

Prosodically, it is interesting to note that only when the complement *-tloh⁸* 著 is immediately preceded by the verb and followed by a pause can it bear an unstressed tone marked by •.

When the object is taken into consideration, four kinds of structural templates, be they positive or negative, result, as shown in the following table:

	Positive	Negative	Structural Template
(7)	liah ⁸ e ⁷ tloh ⁸ chhat ⁸ -a ² 掠會著賊仔 (They) can catch the thief	liah ⁸ be ⁷ tloh ⁸ chhat ⁸ -a ² 掠袂著賊仔 (They) cannot catch the thief	V+X+C+O
(8)	e ⁷ liah ⁸ tloh ⁸ chhat ⁸ -a ² 會掠著賊仔 Possibly (they) can catch the thief	be ⁷ liah ⁸ tloh ⁸ chhat ⁸ -a ² 袂掠著賊仔 It is impossible that (they) can catch the thief	X+V+C+O
(9)	liah ⁸ chhat ⁸ -a ² e ⁷ tloh ⁸ 掠賊仔會著 (They) can catch the thief	liah ⁸ chhat ⁸ -a ² be ⁷ tloh ⁸ 掠賊仔袂著 (They) cannot catch the thief	V+O+X+C
(10)	chhat ⁸ -a ² liah ⁸ e ⁷ tloh ⁸ 賊仔掠會著 The thief can be caught	chhat ⁸ -a ² liah ⁸ be ⁷ tloh ⁸ 賊仔掠袂著 The thief cannot be caught	O+V+X+C

(V=verb, C=complement, O= object, X= u⁷ 有/bo⁵ 無, e⁷ 會/be⁷ 袂 or iah⁴-boe⁷ 抑未)

If, for the sake of simplicity, we ignore the placement of X for the time being, we

can see that VC precedes O in (7) and (8), and (10) can be derived from (7) by preposing or rather topicalizing O, whereas V and C are separated by O in (9). The successive occurrence of VC is conducive to the formation of compounds, and the existence of (9) where V and C are interrupted attests to its phrasal status. It should be noted that although the instantiations of four structural templates share the truth value, they differ somewhat semantically, as reflected in English translation. In other words, a structural template has a potential meaning associated with it. But there is sometimes an interplay between structural template and lexicon.

From the following table we can see the interaction between structural template and lexical choice. There is a distinction between the grammatical construction with a compositional meaning, as in (11a), (11b) and (11d), and the idiomatic construction with a built-in structural sense, as in (11c). The meaning of an idiomatic construction cannot be calculated in terms of the constituents thus constituting a *sui generis* construction.

	Positive	Negative	Structural Template
(11a)	khoa ⁿ³ u ⁷ tioh ⁸ lang ⁵ 看有著儂 saw a person	khoa ⁿ³ bo ⁵ tioh ⁸ lang ⁵ 看無著儂 saw no person	V+X+C+O
(11b)	u ⁷ khoa ⁿ³ tioh ⁸ lang ⁵ 有看著儂 saw a person	bo ⁵ khoa ⁿ³ tioh ⁸ lang ⁵ 無看著儂 saw no person	X+V+C+O
(11c)	khoa ⁿ³ lang ⁵ u ⁷ tioh ⁸ 看儂有著 take a person seriously	khoa ⁿ³ lang ⁵ bo ⁵ tioh ⁸ 看儂無著 look down on a person	V+O+X+C
(11d)	lang ⁵ u ⁷ khoa ⁿ³ tioh ⁸ 儂有看著 saw the person	lang ⁵ bo ⁵ khoa ⁿ³ tioh ⁸ 儂無看著 did not see the person	O+V+X+C

The claim that a *sui generis* construction has a non-compositional sense associated with it does not preclude the possibility that two different conceptual structures may be by accident realized as the same surface structure commonly referred to as structural ambiguity. For example, a V+X-C construction in Mandarin is ambiguous between a potential reading and an extent reading when the infix is in the positive. In the following examples, (12a) as a positive phrase has two interpretations: (12b) extent reading and (12c) potential reading. However, its negative counterpart is unambiguous, as in (13a) and (13b).

- (12) a. xie³ •de hao³ (X = •de)
寫•得好
b. ‘write well’ (extent reading)
c. ‘can finish writing (it)’ (potential reading)
- (13) a. xie³ •de bu⁴ hao³ (X = •de bu⁴)
寫•得不好
‘does not write well’ (extent reading)
b. xie³ bu⁴ hao³ (X = bu⁴)
寫不好
‘cannot finish writing (it)’ (potential reading)

Similarly, a positive construction like (14a) in TSM is ambiguous between (14b) and (14c)⁸, but when it is negated it appears in two types of construction, as exemplified by (15a), on the one hand, and (15bcd), on the other.

- (14) a. liah⁸ tloh⁸ lang⁵
掠著濃
b. ‘caught the right person’ (liah⁸ [tloh⁸ lang⁵])
c. ‘caught a person’ ([liah⁸ tloh⁸] lang⁵)
- (15) a. liah⁸ m⁷ tloh⁸ lang⁵
掠唔著濃
‘caught the wrong person’ (liah⁸ [m⁷ tloh⁸ lang⁵])
b. bo⁵ liah⁸ tloh⁸ lang⁵
無掠著濃
‘did not catch a person’ (bo⁵ [liah⁸ tloh⁸] lang⁵)
c. liah⁸ bo⁵ tloh⁸ lang⁵
掠無著濃
‘did not catch a person’ ([liah⁸ bo⁵ tloh⁸] lang⁵)
d. lang⁵ bo⁵ liah⁸ •tloh⁸
濃無掠•著
‘The person was not caught’ (lang⁵ bo⁵ [liah⁸ tloh⁸])

To recapitulate, in this somewhat more lengthy section we have addressed the issue of the co-occurrence restriction between verbs and their complement *tloh*⁸ 著, its placement with respect to verb and object as well as modal/negative operators, the

⁸ One can of course disambiguate the sentence by adding a definite or indefinite determiner to the bare nouns, as in *liah⁸ tloh⁸ hit⁴ e⁵ lang⁵* 掠著彼個濃 ‘caught that person’ and *liah⁸ tloh⁸ chit⁸ e⁵ lang⁵* 掠著蜀個濃 ‘caught one person’.

semantic contribution of structural templates, and the interaction between structural templates and lexicon.

2.3 *Tioh*⁸ 著 as a deontic modal

The deontic modal *tioh*⁸ 著 appears in simple sentences, as in (16), which involve the imposition of the speaker's will on the addressee. Their pragmatic force is pretty much like imperatives.

- (16) a. Li² tioh⁸ khah⁴ phah⁴-piaⁿ³ le.
汝著較拍拚咧
'You should work harder'
b. Li² tioh⁸ m⁷ thang¹ kong².
汝著唔通講
'You must not mention it'
c. Tioh⁸ kin² chiah⁸.
著緊食
'You should hurry up and eat it'

In terms of syntactic structure it is followed by a predicate although some linguists may not believe that modals in Chinese form a syntactic category distinct from verbs (Tsao 1996).

2.4 *Tioh*⁸ 著 as an adverb/adverbial marker

*Tioh*⁸ 著 has to be destressed when used as an adverb marker in some rare cases, as exemplified by *tia*ⁿ⁷•*tioh*⁸ 定•著 'necessarily'⁹, *bo*⁵ *tia*ⁿ⁷•*tioh*⁸ 無定•著 'not necessarily, possibly' and *chong*²•*tioh*⁸ 總•著 'at any rate, anyhow':

- (17) a. I¹ tiaⁿ⁷•tioh⁸ e⁷ lai⁵
伊定•著會來
'He'll certainly come'
b. Bo⁵ tiaⁿ⁷•tioh⁸ i¹ teh⁴ siat⁴•lang⁵
無定•著伊著設•儂
'He might well take others in'

⁹ In contrast, when bearing a stress, *tioh*⁸ 著 is not an adverb marker, but a phasal marker, as in *In*¹ *cha*¹-*bo*²-*kia*ⁿ² *kah*⁴ *lang*⁵ *tia*ⁿ⁷ *tioh*⁸ *a* 因查某团合儂定著啊 'His daughter's engagement has been settled' where *tia*ⁿ⁷-*tioh*⁸ 定著 means 'be fixed, settled'.

- c. Li² chong²•tioh⁸ khi³, m⁷ thang¹ m⁷ khi³
 汝總•著去, 唔通唔去
 ‘You must go at any rate. It won’t do if you don’t go’

There is also an expression involving *tioh⁸* 著 whose function is pretty much like an adverbial, as shown in a specific construction like *khap⁸ tioh⁸ # tioh⁸/toh⁸...* 磕著#著...¹⁰ analyzable as a complex construction made up of a subordinate clause and a main clause headed by *tioh⁸* 著 with a pause or juncture between them literally meaning ‘When it bumps against something, it will certainly ...’ but idiomatically meaning ‘be apt to ...’.¹¹ An alternative expression with the same grammaticalized meaning (perhaps a dialectal variant form) is *khap⁸ be⁷ tioh⁸ # tioh⁸/toh⁸ Y* 磕未著 # 著 Y. The literal meaning is: ‘(Even) before it bumped into something, it had Y.’ But its idiomatic meaning is ‘be apt to Y’ as in *I¹ khap⁸ be⁷ tioh⁸ # tioh⁸ kah⁴ lang⁵ oan¹-ke¹* 伊磕未著#著合儂冤家 ‘He easily got into a quarrel with others.’ Here it is perhaps more adequate to regard the structure in question as a kind of sui generis construction with a unique meaning associated with it. A unique feature of a sui generis construction is that it consists of constants as well as variables (Jackendoff 1997). In the case under discussion *khap⁸ be⁷ tioh⁸ # tioh⁸ Y* 磕未著 # 著 Y is the part not subject to change, and Y stands for the variable that can be realized in a variety of ways. Semantically the constant functions pretty much like an adverbial expression.¹²

2.5 *Tioh⁸* 著 as a clausal connector

Besides its clause-internal use treated in the preceding sections, *tioh⁸* 著 can also function as a connector linking two clauses. There are basically three types of compound sentences defined in terms of semantic relation between clauses: temporal sequence (2.5.1), cause relation (2.5.2) and conditional connection (2.5.3).

¹⁰ 磕著 is rendered as *khap⁸-leh⁴* in Chen (1991:976) and 磕未著 as *khap⁸-li⁷ tioh⁸* 磕而著 in Zhou (1993:310).

¹¹ *Khap⁸ tioh⁸* 磕著 also functions as a verb-complement expression, as in *I¹ hoo⁷ oo¹-too²-bai² khap⁸•tioh⁸* 伊與口 磕•著 ‘He was bumped against by an motorcycle’ or *I¹ e⁵ chhiu² khap⁸ tioh⁸ toh⁴-kak⁴* 伊的手磕著桌角 ‘His hand hit a corner of the table’.

¹² The construction tolerates a limited degree of lexical freedom in that *tin²-tang⁷* 振動 ‘move’ can be used in place of *khap⁸* 磕 without altering its constructional meaning, as in *Hit⁴ le⁵ lang⁵ tin²-tang⁷ tioh⁸ # toh⁸ beh⁴ bang⁷ lang⁷* 彼個儂振動著#著卜罵儂 ‘That person is apt to call others’ name’.

2.5.1 Temporal sequence

There is a three-way relationship between event time and referent time: (1) the event time is anterior to the referent time; (2) the event time is posterior to the referent time; (3) both occur at the same time. *Tioh*⁸ 著 can express the first two situations. It may be used to indicate that one event takes place earlier than another. As shown in the example *Thiⁿ¹ iah⁴ be⁷ kng¹# i¹ tioh⁸ ching¹-sin⁵ a* 天抑未光#伊著精神啊 ‘He woke up before daybreak’, the occurrence of waking up is earlier than daybreak. That is why a negative operator is used to show that an event had not occurred, i.e., day had not yet broken. *Tioh*⁸ 著 (as in *Chiah⁸ chit⁴ poe¹ chiu²# bin⁷ tioh⁸ ang⁵* 食蜀杯酒#面著紅 ‘(His) face reddened when he had a cup of wine’) can also be used to show that an event, i.e., the reddening of the face, occurs immediately after another event, i.e., the drinking of a cup of wine. Here the event time is later than the reference time. In both cases *tioh*⁸ 著 functions to signal a temporal relation between two events as well as a structural relationship between subordinate clause and main clause.

2.5.2 Cause relation

*Tioh*⁸ 著 serves as a suffix attached to verbs to form *ui⁷ tioh⁸* 爲著 ‘due to, for the sake of’ and *toa³ tioh⁸* 帶著 ‘out of consideration for’.¹³ The disyllabic frozen expressions are used as markers to initiate a clause or a phrase expressing cause in a sentence denoting a semantic link of cause and effect. As shown below, the two freezes appear in *sui generis* constructions in which the variables can be realized by a variety of expressions. Each of the constructions is followed by illustrative sentences:

- (18) a. *X (si⁷) ui⁷ tioh⁸ Y # chiah⁴/long² Z*
 X (是) 爲著 Y # 即/攏 Z
 ‘It is due to Y that X Z’
 b. *Goa² (si⁷) ui⁷ tioh⁸ li² # chiah⁴ chiah⁴ khek⁴-khui¹*
 我是爲著汝#即此克虧
 ‘It is because of you that I suffered such a loss’
 c. *Kin¹-ni⁵ ui⁷ tioh⁸ kho²-oaⁿ⁷# long² bo⁵ siu¹-sing⁵*
 今年爲著洇旱#攏無收成
 ‘All crops failed this year due to drought’

¹³ *Toa³ tioh⁸* 帶著 attested in Douglas (1873:519), Kumagai (1931:714-717) and Zhou (1998:44) has possibly dialectal variant forms such as *tai³ liam⁷* 帶念 (Douglas 1873:470) and *tai³ liam⁷ tioh⁸* 帶念著 (Ogawa et al. 1931-32b:22).

- (19) a. X si⁷ toa³ tloh⁸ Y # chiah⁴ Z
 X 是帶著 Y # 即 Z
 ‘It is out of consideration/respect for Y that X Z’
 b. Chit⁴ le⁵ tai⁷-chi⁷ goa² si⁷ toa³ tloh⁸ lin² hiaⁿ¹-ti⁷-a² #chiah⁴ u⁷ iong⁷-un² li²
 此個事志我是帶著恁兄弟仔#即有容允汝
 ‘It is only out of respect for your brother that I pardon you for this’

Ui⁷tloh⁸ 爲著 and toa³ tloh⁸ 帶著 each carry not only lexical meaning but also function as the marker of a subordinate element, be it clausal or phrasal.

2.5.3 Conditional connection

The bi-clausal construction denoting conditionality covers four types of structural templates: (1) X tloh⁸(Y) # Z, X 著(Y) # Z (2.5.3.1), (2) Tloh⁸ X # chiah⁴ Y, 著 X # 即 Y (2.5.3.2), (3) Bo⁵ X # tloh⁸ e⁷ Y, 無 X # 著會 Y (2.5.3.3), and (4) Beh⁴ X # tloh⁸ Y, 上 X # 著 Y (2.5.3.4). Whether it appears in the prodosis or apodosis, tloh⁸ 著 functions at once as a modal as well as a connector of subordinate clause and main clause in a conditional sentence.

2.5.3.1 X tloh⁸(Y) # Z, X 著(Y) # Z

The following sentences can be construed as indicating a conditional relationship. Tloh⁸ 著 denotes the result of an action as well as a conditional relationship. The result refers to what is denoted by the expression that follows tloh⁸ 著.¹⁴

- (20) a. I¹ chhio³ tloh⁸ # chin¹ ho²-khoaⁿ³
 伊笑著 # 真好看
 ‘He/she looks pretty while smiling’
 b. Goa² siuⁿ² tloh⁸ # to¹ m⁷ goan⁷
 我想著 # 著唔願
 ‘I feel resentment at the thought of it’
 c. Li² kiaⁿ⁵ tloh⁸ loo⁷ # kha¹-poo⁷ chin¹ kin²
 汝行著路 # 骹步真緊
 ‘You are light on your feet’
 d. Chiah⁸ tloh⁸ # chin¹ khoo²
 吃著 # 真苦
 ‘It tastes very bitter’

¹⁴ The temptation to regard the structural template in question as a kind of middle construction should be resisted, since the main verb in it is not limited to the transitive.

There is a juncture or a potential pause marked by # that indicates the preceding syllable bears an isolation tone, viz., in prepausal position or before a unstressed syllable.

2.5.3.2 *Tioh*⁸ X # *chiah*⁴ Y, 著 X # 即 Y

This construction expresses a necessary condition. For the sake of clarity let us first introduce the symbols for the definition of operators in conditional sentences.

Let \square = necessary, \diamond = possible, and \sim = not. We can say then that $\square = \sim \diamond \sim$, i.e., it is necessary ... = it is not possible not A conditional with the construction *tioh*⁸ X # *chiah*⁴ Y, 著 X # 即 Y expressing a necessary condition implies that if it is not the case that ..., then something will not hold. Such an implication is symbolized as follows:¹⁵

$$(21) \quad \square \ p \supset q \quad = \quad \sim \ p \supset \sim \ q$$

Here are examples involving the construction in question:

- (22) a. *Tioh*⁸ *chiah*⁸ *chit*⁴ *khoan*² *ioh*⁸-a²#*chiah*⁴ *u*⁷ *hau*⁷
 著食此款藥仔#即有效
 ‘It works if you take the medicine’
 (It is necessary to take this type of medicine. Otherwise, it will be not effective)
- b. *Tioh*⁸ *kat*⁴ *ne*¹-*khu*²-*tai*² #*chiah*⁴ *e*⁷ *eng*⁷•*le*.
 著結□#即會用得•咧
 ‘It is necessary to wear a necktie. Otherwise, it will not be socially acceptable’ or
 ‘It would be okay only if (one) should wear a necktie’

Here *tioh*⁸ 著 conveys a lexical meaning of necessity but at the same time it also functions as a correlative connector along with *chiah*⁴ 即 to express a dependence relationship between the subordinate clause (the prodosis) and the main clause (the apodosis).

2.5.3.3 *Bo*⁵ X # *tioh*⁸ *e*⁷ Y, 無 X # 著會 Y

The construction *bo*⁵ X # *tioh*⁸ *e*⁷ Y, 無 X # 著會 Y conveys a gestalt-like

¹⁵ Apart from Cheng (1997c), see Chao (1955, 1959)’s fascinating account of how logic is expressed in Chinese.

particularly conditional sense, a sense that cannot be calculated compositionally. That is, if a condition is not fulfilled an inevitable outcome will follow, symbolized as (23) and exemplified as (24):

- (23) $\sim p \supset \Box q$
 (If it is not the case that P, then it is necessary that q...)
- (24) a. $Bo^5 soe^3-jj^7 \# tloh^8 e^7 poah^8 to^2$
 無細膩#著會跋倒
 ‘If (you) are not careful, (you) will inevitably trip and fall’
- b. $Bo^5 chhing^7 hui^5-a^2 \# tloh^8 e^7 koa^{n5} \bullet tloh^8$
 無穿袈仔#著會寒•著
 ‘If you don’t wear the padded jacket, you will inevitably catch cold’

Here *tloh*⁸ 著 also serves a structural function. The implication, albeit defeasible, is that if the condition is met, an (untoward) outcome will not follow, as represented in the right-handed formulas in the following equation:

- (25) $p \supset \sim q$ (If it is the case that P ..., then it is not the case that q ...)

2.5.3.4 *Beh*⁴ X # *tloh*⁸ Y, 卜 X # 著 Y

There is a type of grammatical construction, as in (26), denoting a necessary condition under which an event is accomplished. Here *tloh*⁸ 著 develops a dual function in tandem with *beh*⁴ 卜; it has a textual function as well as a lexical sense. Its lexical sense is ‘need, demand’, and it serves as a connector signaling a conditional relation between the subordinate clause (the prothesis) and the main clause (the apodosis) at the same time. *Beh*⁴ X # *tloh*⁸ Y_n, 卜 X # 著 Y_n forms a grammatical construction expressing a conditional structure. To do something, or for something to happen, it is necessary to have something such as money or time. In other words, to have something is a precondition for the successful accomplishment of an action. You cannot get one done without the other.

- (26) a. $Beh^4 chhia^{n2} ka^1-kau^3 chit^8 geh^8-jit^8 \# tloh^8 chit^8 ban^7 khoo^1$
 卜請家教蜀月日#著蜀萬箍
 ‘It takes ten thousand dollars a month to engage a tutor’
- b. $Beh^4 khi^3 Sui^7-tien^2 tloh^8 che^7 hui^1-nng^5-khi^1 \# tloh^8 joa^7 ku^2?$
 卜去瑞典坐飛行機#著若久
 ‘How long does it take to go to Sweden by plane?’

- c. Si¹-koe¹ chit⁸ kun¹ #tioh⁸ joa⁷ choe⁷?
西瓜蜀斤#著若濟
'How much does the water melon cost per catty?'
- d. Choa⁷ boo² #tioh⁸ chiⁿ⁵
取姥#著錢
'It takes money to marry a woman'

Note that the verb in the prodosis can be hidden on the surface, as in (26c), and it is misleading to take the above sentences to be simple ones in terms of the translations in English.

2.6 *Tioh*⁸ 著 as a discourse marker

*Tioh*⁸ 著 seems to act as a suffix of discourse markers like *si*⁷ *to*¹-*tioh*⁸ 是都著, and *a*¹-*tioh*⁸/*a*¹-*toh*⁸ 阿著.

*Si*⁷ *to*¹-*tioh*⁸ 是都著 'Yes, that's right' serves to indicate the speaker's sudden realization of the state of his previous ignorance triggered by the reminder of the addressee. Suppose the speaker tried in vain to book a train ticket to Kaohsiung on a very busy holiday, and he became panicky, apparently having no alternative or being unaware of any alternative. But the addressee could make the speaker aware of the option of taking a bus instead. In this situation the speaker could utter *si*⁷ *to*¹-*tioh*⁸ 是都著 'Oh, yeah' to signal that he had all of a sudden realized an alternative that he did not know until then. Put in more general terms, the expression is used as a device for acknowledging the receipt of unexpected new information and the appropriateness of the alternative suggested.

*A*¹-*tioh*⁸ 阿著 serves as a discourse marker to signal the beginning of an explanation-giving discourse as shown in the following dialogue:¹⁶

- (27) a. Li² kin¹-na²-jit⁸ e⁷-poo¹ na²-e bo⁵ lai⁵ siong⁷ kho³?
你今旦日下晡哪會無來上課?
'Why didn't you attend the class this afternoon?'
- b. A¹-tioh⁸ lang⁵ m⁷ ho² ti⁷•le
阿著儂唔好貯•咧
'Cause I was unwell then/Well, I was unwell then'

¹⁶ *A*¹-*tioh*⁸ 阿著 as a marker of the onset of a piece of talk is arguably like *hua*⁴-*shuo*¹ 話說 'It is told that ...' as a routinized device of beginning a story in traditional vernacular novels.

3. Conceptual structure and the mapping to syntactic structure

In Part 3 we set up the conceptual structures for *tioh*⁸ 著 with close attention to a range of semantic types that appear in the object position as well as the shift of thematic roles from goal to patient or experiencer. We tackle the problem of mapping from conceptual structure to syntactic structure. In particular, two devices (i.e., rheme and kontrast) are used to capture particular ways of information packaging in TSM.

3.1 The postulation of conceptual structures

Based on its semantics, the conceptual structure of *tioh*⁸ 著 can be set up through cognitive processing/construction (Jackendoff 1990). The conceptual structure is composed of a predicate associated with a number of arguments, each of which carries a thematic role. Let T = theme, P = goal, and A = agent. We can then set up two related conceptual structures in their simplest forms:

(28) The theme moves to the goal¹⁷

(29) The agent causes the theme to move to the goal

The advantage of forming conceptual structures is that various syntactic structures can be integrated and given a unified account. For example, conceptual structure (28) underlies (30) and (31), two different grammatical structures, while conceptual structure (29), which is derived by adding an agent role to (31), can be said to be a semantic source of the grammatical construction given in (32):

(30)	<div style="border: 1px solid black; padding: 5px;"> P <i>tioh</i>⁸ T <i>Chi</i>ⁿ³ <i>tioh</i>⁸ <i>chiau</i>^{2-a2} 箭著鳥仔 ‘The arrow hit a bird’ </div>
(31)	<div style="border: 1px solid black; padding: 5px;"> T <i>tioh</i>⁸ P <i>Chiau</i>^{2-a2} <i>tioh</i>⁸ <i>chi</i>ⁿ³ 鳥仔著箭¹⁸ </div>

¹⁷ To be more precise, the conceptual structure should be rather something like ‘the theme becomes instantaneously in contact with the goal’. The action leading to such a state does not seem to constitute the center of focus in information structuring.

¹⁸ *Tioh*⁸ *chi*ⁿ³ 著箭 reminds us of a somewhat similar example, *tioh*⁸ *chhing*³ 著銃 literally ‘hit (by a bullet discharged) by a gun’ or idiomatically ‘get shot’. Unlike *chi*ⁿ³ 箭 *chhing*³ 銃 is not a theme since it is not a trajectory traveling along a path. Rather, it is the bullet that functions

(32)	'The bird was hit by an arrow'
	A V <i>tioh</i> ⁸ P
	A ¹ -thoo ⁵ -a ² sia ⁷ <i>tioh</i> ⁸ chiau ² -a ²
	阿塗仔射著鳥仔 'Tom shot a bird'

Conceptual structure 1 (CS1 for short) involves the thematic roles of goal and theme. However, there are *tioh*⁸ 著 constructions as shown below which are not so easily accommodated by CS1. Suppose X and Y stand for subject and object respectively. We can see that there are three kinds of thematic roles that X can carry, and there is a set of properties, all of them denoting adverse situations, that Y takes on.

- X₁ = goal, Y₁ = animate beings (Y = NP)
- (33) a. Tiu⁷-a² *tioh*⁸ thang⁵
 稻仔著蟲
 'The rice is infested with worms'
- b. Chha⁵-khoo¹ *tioh*⁸ beh⁸-hia⁷
 柴箍著白蟻
 'The log was infested with white ants'
- X₂ = goal, Y₂ = events (Y = N+V)¹⁹
- (34) a. Chhu³-lai⁷ *tioh*⁸ chhat⁸ thau¹
 厝裡著賊偷
 'The house was burglarized'
- b. Kang¹-tiuⁿ⁵ *tioh*⁸ he² sio¹
 工場著火燒
 'The factory caught fire'

as a theme. A way out of this dilemma is available in terms of metonymy. Thus, *chhing*³ 銃 'the gun' as a container is metonymically linked to its containee *chhing*³-*chi*² 銃子 'the bullet'; in short, there is obviously a whole-part relationship. Alternatively, the relationship can be accounted for in terms of the theory of mental spaces (Fauconnier 1985, Fauconnier and Sweetser 1996). The gun in a domain accesses the bullet in another domain through cognitive construction based on our pragmatic knowledge of the world.

¹⁹ The NPs such as *chhat*⁸ 賊 'thief' and *he*² 火 'fire' that follow the verb seem to function as agents. This structural template occurring in isolated cases is quite similar to *tioh*⁸ *i*¹ *koah*⁴-*tiau*³ 著伊割吊 'be tormented by her/him', an often encountered construction, in *Li Jing Ji* 荔鏡記 'Story of the Litchi Mirror', as mentioned in Note 2.

- X₃ (hidden subject) = patient, Y₃ = physical condition (Y = NP or V)
- (35) a. tioh⁸ koaⁿ⁵-jiat⁸-a²/ma¹-la²-li¹-a²
 著寒熱仔/口 ‘contract malaria’
 b. tioh⁸ piⁿ⁷ 著病 ‘get sick’
 c. tioh⁸ che¹ 著災 ‘be attacked by pestilence’
 d. tioh⁸ kun³-che¹ 著暍災 ‘feel drowsy’
 e. tioh⁸ ka¹-chak⁸ 著 口塞 ‘get choked’
 f. tioh⁸ siong¹ 著傷 ‘get wounded’
 g. tioh⁸ chhio³-pi⁵ 著笑脾 ‘have a laughing fit’
- X₄ (hidden subject) = experiencer, Y₄ = psychological state (Y = Adjective)
- (36) a. tioh⁸ kong⁵ 著狂 ‘go mad’
 b. tioh⁸ kiaⁿ¹ 著驚 ‘be scared’
 c. tioh⁸ kip⁴ 著急 ‘get panicky’
 d. tioh⁸ kau⁵ 著猴 ‘get hysterical’

We can see from the above that both X and Y show a variety of thematic roles or semantic properties as well as syntactic variability. On the one hand, there is a change in the thematic role of X, i.e., the NP in the subject position, from goal or target to patient or experiencer. On the other hand, there is a range of specific semantic properties expressed by Y, from animate beings through events to physical condition and psychological state. Syntactically Y may appear as pure noun phrases, predicates (i.e., N+V), verbs or adjectives. When the theme as a noun turns into an adjective denoting a psychological state, as in (36), there is also a change in its argument structure, namely a reduction of two-place predicate to one-place predicate. That is, when the theme noun changes into an adjective, its thematic role is obliterated and the only thematic role left is the experiencer that can occupy the subject position. One can build additional CSs to capture such a semantic extension and set up an inheritance relation between CS1 and additional CSs. Alternatively we can view such a relation in light of the model of mental spaces (Fauconnier 1985, Fauconnier and Sweetzer 1997). Our cognitive construction can link CS 1 to other like CSs (i.e., CS1', CS1'', etc.); for example, the domain of goal can be connected to the domain of patient through metaphoric projection. Various cognitive constructions can be contemplated to establish links among a set of mental spaces in a unified way.

3.2 Mapping from conceptual structure to syntactic structures

Mapping of the conceptual structure to the syntactic structure can be effected by the mechanism of profiling and shadowing (Goldberg 1995). Since there is a limited set

of syntactic positions, not all of the thematic roles in conceptual structure have an equal privilege of appearance on the surface. For example, *chhiu*ⁿ² 搶 ‘rob’ involves at least three thematic roles in the conceptual structure: the agent (robber), the source (the victim) and the theme (the thing to be robbed). However, in a V-O construction there is only a thematic role that can appear in the object position. In terms of the constraints of information structure a selection has to be made to pick or rather profile one thematic role to fill the position and other possible candidates will be suppressed or shadowed, as in *chhiu*ⁿ² *pe*⁵-*pau*¹ 搶皮包 ‘steal a purse’, i.e., ‘rob (somebody of his/her) purse’; and *chhiu*ⁿ² *lau*⁷-*a*¹-*peh*⁴ 搶老阿伯 ‘rob an old man’. In the first example the theme is profiled and the source shadowed, whereas in the second sentence the situation is reversed. Earlier attempts were made to account for the constraints on the choice of thematic roles in the syntactic positions in terms of the hierarchy of case roles (Fillmore 1968, 1977). In the following, however, we will pursue the mapping problem in terms of the constraint of information packaging.

Vallduvi and Vilks (1998) propose two distinctive devices (namely rheme and kontrast) in place of the traditional catch-all notion of focus to account for divergent ways of information packaging in different languages. TSM seems to lend support to their claim that the distinction should be maintained in that TSM relies on syntax (i.e., word order) and prosody (the alternation between isolation tone and combination tone) to encode rheme as opposed to theme and kontrast respectively. The theme/rheme difference involves the opposition between old and new information, whereas kontrast concerns the choice of individuals in a quantificational domain. For example, though expressing the same propositional content a pair of sentences as shown below differ in surface order:

- (37) a. *Lok*⁸-*a*² *tioh*⁸ *chi*ⁿ³ 鹿仔著箭 ‘The deer was hit by an arrow’
 b. *Chi*ⁿ³ *tioh*⁸ *lok*⁸-*a*² 箭著鹿仔 ‘The arrow hit a deer’

In unmarked cases, in (37a) the subject *lok*⁸-*a*² 鹿仔 ‘deer’ is thematic and the object *chi*ⁿ³ 箭 ‘an arrow’ as a post-verbal element is rhematic, since the earlier element carries the given information and the later element the new information. By contrast, the situation is reversed in (37b). Thus, difference in surface word order is a syntactic device to encode rhematicity.

Pronouns in the object position in TSM normally bear an unstressed tone in sentences. The unmarked use of a pronoun and its kontrast use can be shown in the following pair of sentences:

- (38) a. I¹ beh⁴ kiⁿ³ •li².
 伊卜見•汝
 ‘He/she wants to meet you’
 b. I¹ beh⁴ kiⁿ³ li², (m⁷ si⁷ i¹).
 伊卜見汝, (唔是伊)
 ‘He/she wants to meet **you**, not **him/her**’

Unlike the unmarked •li² in (38a) which bears an unstressed tone, li² is identified as a kontrast element and bears an isolation tone; it can be optionally followed by a contrastive phrase. We can see therefore that prosody plays a role in identifying a kontrast element in speech.

Let us return to the significance of word order as an interpretative device. A comparison of the following sentences shows that the subject position is a favorable position to be occupied by an agent given the right type of verbs involved. (39a) in contrast to (39b) is ruled out since our knowledge of the world (the shooting scene coupled with conceivable real-world relationships between the deer and the arrow) cannot conjure up a proper interpretation in conjunction with the surface syntactic constraint on assignment of agency to the subject in interaction with the verb sia⁷ 射 ‘shoot’.²⁰

- (39) a. *Lok⁸-a² sia⁷ tloh⁸ phah⁴-lah⁸-•e
 *鹿仔射著拍獵的
 *‘The deer shot the hunter’
 b. Phah⁴-lah⁸-•e sia⁷ tloh⁸ lok⁸-a²
 拍獵的射著鹿仔
 ‘The hunter shot the deer’

4. Grammatical construction as a pairing of a set of constraints

A grammatical construction is a pairing of form and meaning with respect to the interaction of a set of constraints in syntax, semantics, phonology, lexicon, morphology and pragmatics (Fillmore et al. 1988, Goldberg 1995, Michaelis and Lambrecht 1996, Jackendoff 1997, Kay 1997, Kay and Fillmore 1999). The meaning of a grammatical

²⁰ However, if a theme like chiⁿ³ 箭 rather than an agent is involved, the inverse word order only serves to signal a difference in discourse focus, as in Lok⁸-a² sia⁷ tloh⁸ chiⁿ³ 鹿仔射著箭 ‘The deer was hit by an arrow’, which is acceptable, along with Chiⁿ³ sia⁷ tloh⁸ lok⁸-a² 箭射著鹿仔 ‘The arrow hit the deer’.

construction may be non-compositional, as in an idiomatic piece. In other words, a particular construction may be associated with a holistic sense which cannot be arrived at compositionally in terms of the senses of its component parts.

Much like nonsegmental morphemes in Arabic (Sproat 1992), a grammatical construction can be construed as an aggregate of interrelated entities: (1) syntactic structure, (2) lexical matters (choice of words), (3) phonology including prosody (e.g., the assignment of stress and tone sandhi), (4) semantics (lexical and structural meaning)²¹ and (5) morphology.²²

Since TSM is a language with no inflectional trappings, the word, especially the grammatical morpheme, by itself does not provide a specific meaning. Except for the portmanteau words such as 袂 *be*⁷ resulting from fusing the negative element and its positive counterpart 會 *e*⁷ words in TSM as a rule are semantically simple. The semantic underspecification of a word in TSM can be illustrated by a pair of sentences as follows:²³

- (40) a. Chu¹ ka⁷ i¹ khng³ ti⁷ toh⁴-a² ting²
 書共伊園著桌仔頂
 ‘Put the book on the desk’
 b. Chu¹ khng³ ti⁷ toh⁴-a² ting²
 書園著桌仔頂
 ‘The book is on the desk’

The difference between (40a) and (40b) is that the former is dynamic whereas the latter is static. The semantic difference is coded structurally rather than in the verb *khng*³ 園 ‘put’ alone. The verb in question is therefore underspecified with respect to the semantic feature of dynamicity. Evidently, some grammatical categories are not coded in lexemes such as *khng*³ 園, let alone a polysemous word like *tioh*⁸ 著. As discussed in previous sections, *tioh*⁸ 著 acquires a range of structural senses as it gets involved in types of grammatical constructions.

One can hold the lexical items constant and see how types of templates contribute

²¹ See Sapir (1921:82-119) for discussions about a distinction between concrete concepts and relational concepts.

²² To my knowledge, although not explicitly stated, some constructional types of conceptual or semantic categorization, e.g., the notions of aspect and situation, have been proposed in studies of Taiwanese Southern Min (Cheng 1997ab and Tsao 1998).

²³ See Ong (1969), Mei (1988) and Yang (1992) for arguments of 著 as a viable etymon for *ti*⁷, a locative marker in Southern Min. *Ti*⁷ as a locative marker in this position can be replaced by such variants as *tiam*³, *toa*³ and *leh*⁴ in TSM.

specific meanings. As dealt with in 2.2, the lexical items remain unchanged, namely V = *khoa*ⁿ³ 看, X = *u*⁷ 有/*bo*⁵ 無, C = *tioh*⁸ 著 and O = *lang*⁵ 儂. There are basically two types of structural template: (1) a. VXCO, b. XVCO, d. OVXC, and (2) VOXC. Type (1) expresses the phasal meaning, whereas Type (2) exemplified by *khoa*ⁿ³ *lang*⁵ *u*⁷ *tioh*⁸ 看儂有著 ‘take somebody (e.g., him/her or me) seriously’ is exclusively used to denote an attitudinal sense. It seems that the identification of types of templates can provide a more explicit picture of the coding of word-external structural meaning. It is evident then that structural template has an abstract gestalt meaning that is not calculable compositionally. But there is still an interaction between syntactic structure and lexicon in that when *liah*⁸ 掠 ‘try to catch’ is used in place of *khoa*ⁿ³ 看 ‘look’ the abstract gestalt sense will disappear.²⁴

The remainder of this section deals with the prosodic constraints that can only be formulated in tandem with other factors such as syntactic structure.

Tioh 著 in a prepausal position behaves differently with respect to the stress assignment; that is, it can be an unstressed or a stressed syllable. As shown in the following table, when it functions as a phasal marker in a V-C construction, it is identified as an unstressed syllable marked as •*tioh*⁸.

Prosody	SU	SU	SU	SU
VC	sia ⁷ •tioh ⁸ 射•著 shoot	khoa ⁿ³ •tioh ⁸ 看•著 see	phi ⁿ⁷ •tioh ⁸ 鼻•著 to smell	tio ⁷ •tioh ⁸ 釣•著 catch
V	sia ⁷ 射 shoot at	khoa ⁿ³ 看 look at	phi ⁿ⁷ 鼻 to smell	tio ⁷ 釣 to fish

However, *tioh*⁸ is used as a stressed syllable when preceded by an infix or when the VC is separated by an infix, as shown below:

Prosody	SSS	SSS	SSS	SSS
V infix C	sia ⁷ e ⁷ tioh ⁸ 射會著 can shoot	khoa ⁿ³ be ⁷ tioh ⁸ 看袂著 can see	phi ⁿ⁷ e ⁷ tioh ⁸ 鼻會著 can smell	tio ⁷ be ⁷ tioh ⁸ 釣袂著 can catch

²⁴ One may very well question the validity of positing a constructional sense heavily dependent on the choice of lexical items. However, our postulation is indirectly supported by similar constructions like *khoa*ⁿ³ *i*¹ *bo*⁵ 看伊無 ‘look down on him/her’ and *tui*³ *i*¹ *put*⁴ *chu*⁷ 對伊不住 ‘let him/her down’.

To summarize, the phase marker *tioh*⁸ 著, when followed by a stressed syllable, will bear combination tone, but not lose its stress, as in *sia*⁷ *tioh*⁸ *lok*⁸-*a*² 射著鹿仔 ‘shot a deer’. But in prepausal position its stress patterns hinge on the constructions in which it occurs as well as the positioning of the discursual focus. In the Verb + *tioh*⁸ 著 construction *tioh*⁸ 著 will be destressed if the verb is in focus and stressed, as in *sia*⁷ •*tioh*⁸ 射•著. But it will be both stressed and bear the isolation tone when it is in focus in a Verb + INFIX + *tioh*⁸ 著 construction, as in *sia*⁷ *e*⁷ *tioh*⁸ 射會著.²⁵

There is then an unmistakable interaction between morphological process and stress assignment. However, things are not so simple as they appear to be, since prosodic constraints are not only morphologically dependent, as just stated. They must also have access to the semantic interpretation of the construction in question. As shown in the following table, a prosodic template can not be formulated before one knows whether *tioh*⁸ 著 in a construction like V + *tioh*⁸ 著 is used as a verb with a metalinguistic function or a phasal complement.

Prosody VV Metalinguistic	SS khong ² tioh ⁸ 講著 What is said is true	SS sia ² tioh ⁸ 寫著 give the right answer
Prosody VV Metalinguistic	SS khoa ⁿ³ tioh ⁸ make a right judgment	SS ²⁶ thia ⁿ¹ tioh ⁸ get it right
Prosody VC Phasal	SU khoa ⁿ³ •tioh ⁸ 看著 saw (it)	SU thia ⁿ¹ •tioh ⁸ 聽著 caught (it)

That is, *tioh*⁸ 著 constitutes a stressed syllable when it takes on a metalinguistic interpretation. Otherwise, it is unstressed in its phasal function. Therefore, the semantic interpretation should also be accessible to prosodic constraints. If morphological and semantic information should be visible to prosodic constraints, then syntactic information is an equally important source of reference in prosodic formulation. For example, *tioh*⁸ 著 can be at once both a phasal and structural marker at once, as in *chiah*⁸ *tioh*⁸ # *chin*¹ *ho*²-*chiah*⁸ 食著#真好食 ‘taste great’. As discussed in 2.5.3.1, the

²⁵ For more detailed discussion of the interface between stress assignment and discursual focus see Cheng (1997a:101-115).

²⁶ Sometimes the semantic difference is not matched by a prosodic distinction, as in *ioh*⁴ *tioh*⁸ and *ioh*⁴ •*tioh*⁸ 臆著, both meaning ‘get the right solution to a puzzle’.

phase of *tioh*⁸ 著 denotes achievement of an event. But it also functions as a clausal connector linking the subordinate clause and the main clause in a conditional sentence. *Tioh*⁸ 著 in this structural template bears stress. It should be noted that although *tioh*⁸ 著 in this structural template and *chiah*⁸ *tioh*⁸ *toh*⁸-*ioh*⁸ 食著毒藥 ‘eat poison (by accident)’ are both stressed, they differ in the pattern of tone sandhi in that the former bears an isolation tone and the latter, a combination tone. Therefore stress assignment and tone sandhi behavior are mutually independent.

To summarize, prosodic constraints of the grammatical construction involving *tioh*⁸ 著 interact with a range of grammatical compartments such as syntax, lexicon, phonology, semantics and morphology.

5. Closing remarks

According to the separation hypothesis that draws a line between lexeme and grammatical morpheme (Beard 1995), a lexeme is a major and open class lexical item with a mutually implied coding relation between form and meaning. By contrast, a grammatical morpheme is a minor and closed class element with an asymmetric form and meaning relation.

From the above discussion we can see that, when used as a verb, *tioh*⁸ 著 is a lexeme; and when used in other grammatical categories it has been grammaticalized and becomes a grammatical morpheme. However, the verb *tioh*⁸ 著 is a polysemous lexeme, i.e., a form with more than one related sense. Lexical polysemy seems to be a challenge to the separation hypothesis, but this challenge can be met. As discussed in section 2, a range of meanings associated with the verb *tioh*⁸ 著 seem to be amenable to a unified account in terms of the postulation of possible worlds and the model of mental spaces in tandem with the mechanism of metaphor. In particular, the verb *tioh*⁸ 著 undergoes a shift from a spatial to non-spatial sense. As a result, the thematic role **goal** has changed to **patient** or **experiencer** in tandem with a change of argument structure. Quite strikingly, the verb *tioh*⁸ 著 has also developed a metalinguistic function. *Tioh*⁸ 著 as a verbal complement takes on a constant phasal meaning that denotes achievement as an instantaneous realization of an event (Vendler 1957). It is evidently a type of grammaticalization as a shift from spatial to temporal dimension along with a change in its grammatical function.

To cope with the perennial problem of the form-meaning relation, we set up conceptual structures to provide a unified account for the various behaviors of the syntactic structure exhibited by *tioh*⁸ 著. The mapping problem, i.e., the change of conceptual structure to syntactic structure mediated by argument structure, is tackled in terms of the idea of rheme and kontrast. There are unmistakable signs of interaction

between word-internal semantic structure and structural templates in the formation of overall meaning of the grammatical construction in question. In its capacity as a grammatical morpheme, *tioh*⁸ 著 functions within clauses as well as across clauses. Further, it develops not only into a clause connector but also a discourse marker. We have explored the constructional aspects of *tioh*⁸ 著 as an aggregate of constraints spelt out in terms of the interface between lexicon, syntax, phonology, morphology and pragmatics.

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