

# Encoding Prefixation in Southern Min

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## Abstract

This study adopts an inter-disciplinary approach to explore how the prefixation is encoded and contributes to the word formation in Zhangzhou Southern Min, an under-described Sinitic dialect spoken in the southern Fujian of mainland China. It reveals the semantic function, morpho-syntactic characteristics, prosodic effect, pragmatic significance of prefixation in this dialect, along with their occurrence constraints. The exploration directly fills in the research gap in the study of Zhangzhou grammar, and substantially advance our knowledge of the encoding of prefixation in southern Chinese dialects. It contributes well-attested linguistic data to the typology of prefixation as an important phenomenon in the world's natural languages, while enlightening the discussion on how Sinitic languages should be better defined from the morpho-syntactic perspective.

Keywords: refixation, semantics, morpho-syntax, phonology, constraint, Zhangzhou, Southern Min

## 1 Introduction

Affixation broadly refers to a morphological process whereby lexical or grammatical information is added to an existing lexical base and a new lexeme, or a new form of the same lexeme is derived (Hall, 2008; Hawkins & Gilligan, 1998; McCarthy, 2002). Natural languages vary in what morphological processes are available in their grammar, how frequently the processes are used, and what types of information are encoded. For example, English expresses the plurality of nouns

using suffixation (e.g., table/tables, friend/friends) (McCarthy, 2002). Zapotec, a language spoken in Oaxaca, Mexican, expresses the plurality through prefixing ka-morpheme to nominal bases (Marlett, 1985). Yoruba, a language of south-western Nigeria, uses a separate word to encode the plurality, such as the word okunrin means ‘the man’ and its corresponding plural form is awon ‘the men’ (Ajiboye, 2005). As seen, morphology is not equally prominent in spoken languages, as the same information can be encoded differently. Languages are thus classified into different types, such as analytic and synthetic, depending on the complexity of morphology and the method they employ to construct words (e.g., Banfi & Arcodia, 2007; Bybee et al., 1990; Basciano, 2017).

Sinitic languages, along with Yoruba and Vietnamese, are often cited to be isolating because of their exhibiting an extreme degree of analyticity with little affixation (Lin, 2001; Liao, 2014). However, this convention has been challenged because both inflectional and derivational affixes are continually discovered in the synchronic speech of those so-called isolating languages (Lin, 2001; Liao, 2014; Arcodia & Basciano, 2012; 2022). For example, in Zhangzhou Southern Min, a Sinitic dialect spoken in southern Fujian province of southeast China, the prefix *ʔv33* can be attached to kinship terms (*ʔv33-kɔŋ35* ‘grandfather’) or the first name of personal names (*ʔv33-kun22* ‘address a girl whose last syllable of first name is kun 22’) to express closeness and affection. The infix *ʔv51* can be inserted into disyllabic bases and serve as a modifying marker (*kjə35-ʔv51-tʰw22* ‘bridge-*ʔv51*-head: a place name’), or a coordinative marker (*dʔ35-ʔv51-tse41* ‘year-*ʔv51*-festival: traditional festivals’). The suffix *ʔv51* can serve as

a purely nominal marker (*kem35-pe51* ‘orange-*pe51*: orange’), a nominaliser to some verbs (*gẽ55-pe51* ‘to clamp-*pe51*: plier’) and adjectives (*pwi35-pe51* ‘fat-*pe51*: fat person’) or a diminutive marker to kinship terms to deliver feeling of smallness, closeness, and affection (*tsẽw55-pe51* ‘daughter-*pe51*: daughter’). Given an increasingly high ratio of morphemes per word, it has become questionable to define these languages as being morphologically isolating.

Triggered by its intriguing affixational phenomenon, this study is devoted to exploring how prefixation is encoded and contributes to word formation in Zhangzhou Southern Min. This Sinitic dialect is under-described, because no systematic work has described its prefixing system. Fives specific research questions will be addressed, including (a) what semantic information can be encoded in the process of prefixation? (b) What morpho-syntactic consequences are induced? (c) What prosodic consequence can be evoked? (d) What pragmatic information can be conveyed by the prefixation, and (e) What linguistic factors can constrain the application of prefixation in this Sinitic dialect?

The exploration directly fills in the research gap and advances our knowledge of the encoding of prefixation in this Southern Min variety, while contributing vital linguistic data to the typology of affixation as an important morphological event not only in Sino-Tibetan language family but in human languages at the general level. The description also enlightens the discussion on how human beings employ different linguistic levels to encode and decode a particular language phenomenon in their mental grammar and language practice, while shedding light on the discussion of how Sinitic languages should be better defined.

The materials used in this study are collected from the field site by the author in 2019, and also from online consultation with native speakers over these years. The research locality is strictly limited to Xiangcheng and Longwen districts, the inner urban area of Zhangzhou, which are conventionally considered to be historically-socially-culturally-linguistically-geographically representative of Zhangzhou (Huang, 2022).

## 2 SEMANTICS OF PREFIXATION

Semantically, the prefixes in this dialect can be classified into either mono-semantic or polysemantic, depending on the range of lexical

information that they can convey. The mono-semantic prefixes refer to those prefixes whose derived words can only cover one semantic domain. For example, as illustrated in (1), the prefix *hwen35* exclusively indicates the foreign origin of the related object. For example, the lexical base *tsi22* literally means ‘potato’, while the derived word *hwen33-tsi22* particularly refers to ‘sweet potato’. Because sweet potatoes historically are imported from other countries, rather than being produced domestically. The prefix *hwen33* indicates the foreign origin of sweet potatoes. Likewise, when attached to numbers, the prefix *te33* exclusively indicates an ordinal order of the base. For example, the lexical base *zi33* means ‘two’, while the derived word *te32-zi33* with the prefix particularly refers to ‘the second’.

### (1) Mono-semantics of prefixation

#### • *hwen35* (foreign origin)

*hwen33-pe22* ‘*hwen33*-lady: foreign lady’  
*hwen33-tsi22* ‘*hwen33*-potato: sweet potato’

#### • *te33* (ordinal order)

*te32-ɿik41* ‘*te32*-one: the first’  
*te32-zi33* ‘*te32*-two: the second’

#### • *ke63.pək41* (internal relation)

*ke63.pək65-hjẽ35* ‘*ke63.pək41*-elder brother’  
‘to address the elder son of father’s brother’  
*ke63.pək65-tsik41* ‘*ke63.pək41*-younger uncle’  
‘the younger son of grandfather’s brother’

#### • *pjẽw51* (external relation)

*pjẽw35-hjẽ35* ‘*pjẽw35*-elder brother’  
‘the elder son of father’s sister or mother’s sibling’  
*pjẽw35-tsik41* ‘*pjẽw35*-younger uncle’  
‘son of grandpa’s sister or grandma’s sibling’

The mono-semantic property can also be seen from the prefixes *ke63.pək41* and *pjẽw51* which can be attached to the same kinship terms but reveal different semantic readings. The prefix *ke63.pək41*, which literally means ‘next belly’, is exclusively created in Southern Min to indicate an internal relation to one’s family or clan. Such as the derived word *ke63.pək65-hjẽ35*, in which the base *hjẽ35* means ‘elder brother’, is used to address the son of one’s father’s brother who is elder than the addresser. On the contrary, the prefix *pjẽw51*, meaning ‘surface’, expresses an external relation to a family or a clan. For example, the derived word *pjẽw35-hjẽ35* exclusively refers to the elder son of one’s father’s sister or mother’s sibling.

On the contrary, the poly-semantic prefixes refer to those prefixes whose attachment can cover two or more semantic domains. This property is illustrated in (2). The prefix *ʔɐ35* can be attached to lexical bases of different types to transfer different semantics. Such as it can be attached to kinship terms to address one's family members who are senior in terms of age or generation with a sense of respect and closeness. For example, the derived word *ʔɐ33-ɦjɛ35* is colloquially used to address one's elder brother. It can be attached to person names of those family members who are at the same generation to deliver a feeling of closeness and affection. For example, given a person's first name contains *tsʰju33* morpheme that means 'tree', it is a common way to address him as *ʔɐ33-tsʰju33* that transfers a sense of closeness and affection. Likewise, the prefix *dɛw33* can be attached to kinship terms to address family members who are senior than the addresser with respect to age and/or generation with a sense of respect and closeness (*dɛw32-pe33* 'dɛw32-father: to introduce one's father'). It can also be attached to person names of those people at the same generation to convey a feeling of closeness and affection (*dʒək32 ʔi35.su35* → *dɛw32-su35* 'Su35; Si'). Apart from these, this prefix can also be attached to an entity to express a sense of a long history 'old'. Such as, the term *tsʰju33* itself means 'tree', while the derived word *dɛw32-tsʰju33* refers to 'an old tree'.

## (2) Poly-semantics of prefixation

### • Prefix *ʔɐ35*

#### Before kinship term (closeness and respect)

*ʔɐ33-kəŋ35* 'grandfather'

*ʔɐ33-βɛ51* 'grandmother'

*ʔɐ33-pɐ35* 'father'

*ʔɐ33-βɛ35* 'mother'

#### Before first name (closeness and affection)

*tən33. ɟɛ32.kun22* → *ʔɐ33-kun22* 'Qun'

*ɦwɪ22 kʰɛj33.tsʰju33* → *ʔɐ33-tsʰju33* 'Shu'

### • *dɛw33*

#### Before a kinship term (respect and closeness)

*dɛw32-pe35* 'dɛw32-father: introduce one's dad'

*dɛw32-βu51* 'dɛw32-mum: introduce one's mum'

#### Before person name (affection and closeness)

*dʒək32 ʔi35.su35* → *dɛw32-su35* 'Su35; Si'

*tən33 kək65.kjɛŋ22* → *dɛw32-kjɛŋ22* 'Kjɛŋ22'

#### Before an entity (long history)

*dɛw32-tjɛm41* 'dɛw32-store: an old store'

*dɛw32-tsʰju33* 'dɛw32-tree: an old tree'

### • *dɛw51*

### Before number (ordering)

*dɛw35-zi33* 'dɛw35-two: second eldest sibling'

*dɛw35-sɛ35* 'dɛw35-three: third eldest sibling'

### Before family name (closeness and respect)

*ʔəŋ33 tsu35.zin22* → *dɛw35-ʔəŋ22* 'ʔəŋ22'

*ʔwɪ33 tsʰiŋ33.tsui51* → *dɛw35-ʔwɪ22* 'ʔwɪ22'

As seen, the prefixation is productive to modify the lexical meanings of existing bases and create new lexemes across several semantic domains. The process substantially enriches the inventory of local vocabulary that native speakers can choose and use in their conversations, while expanding the lexicon in their mental grammar.

## 3 MORPHO-SYNTAX OF PREFIXATION

Morpho-syntactically, the prefixing process seldom changes the part of speech of related item in Zhangzhou Southern Min. In most cases, the derived words are categorically the same as their corresponding bases being attached. For example, the bases that can be attached by the above-mentioned prefixes (*ɦwɛn35, te33, kɛ63.pək41, pɟɐw51, te33, ʔɐ35, dɛw33, dɛw51*) in (1) and (2) are all nominal, so are their derived lexemes. Therefore, the prefixation process presents a categorical-preserving characteristics.

Apart from this, most of lexical bases that can undergo prefixation are dominantly nominal. Only few non-nominal bases can be prefixed to derive words of a different part of speech. This can be seen in (3), for example, the prefix *kʰɐ51*, a cognate of Mandarin *ke214 可*, can transfer verbal or nominal bases to lexemes of an adjective category to deliver a semantics of 'do-able', equivalent to the English suffix '-able'. Such as in the word *kʰɐ35-ʔɛj41*, the base *ʔɛj41* is a verb meaning 'to like, love', while the derived word refers to 'likable'. In the word *kʰɐ35-kʰɐw51*, the base *kʰɐw51* is a noun meaning 'mouth', with this prefix, the derived word is used to describe something which is *delicious*.

## (3) Categorical-changing prefixation

### • *kʰɐ51*

#### verbal base

*kʰɐ35-ʔɛj41* 'kʰɐ35-like: likeable'

*kʰɐ35-kʰɐ41* 'kʰɐ35-rely: reliable'

#### nominal base

*kʰɐ35-kʰɐw51* 'kʰɐ35-mouth: delicious'

*kʰɐ35-zin22* 'kʰɐ35-people: lovable'

### • *hɐ51*

## verbal base

hə35-tʰjɛ35 ‘hə35-listen: sound-good’

hə35-tsje221 ‘hə35-to eat: taste-good; delicious’

hə35-sje51 ‘hə35-to write: good-writing’

## • bɛj41

## verbal base

bɛj35-tʰjɛ35 ‘bɛj35-to listen: sound-unpleasant’

bɛj35-tsje221 ‘bɛj35-to eat: bad-tasting’

bɛj35-kʰwɛ41 ‘bɛj35-to look: bad-looking; ugly’

The prefixes *hə51* and *bɛj51*, which separately mean ‘good’ and ‘bad’, are commonly attached to verbal bases to derive new lexemes of an adjective category that expresses the positive or negative characteristics of related verbal actions. For example, the derived word *hə35-tsje221*, with the verbal base *tsje22* ‘to eat’, is used to describe something that tastes good. Similarly, the derived word *bɛj35-tsje221* describes something that tastes bad. As seen, the attachment of these prefixes not only changes the semantics but also the word class. However, not so many cases involve such a categorical change, instead, in most cases, the grammatical category of nominal lexical bases is maintained over the prefixation in this dialect.

## 4 PROSODY OF PREFIXATION

The prefixing process in Zhangzhou Southern Min does not cause any phonological alternation on their subsequent lexical bases, but all prefixes themselves are seen changing their tonal profiles to be entirely different from their corresponding forms in citation. Such a tonal alternation can be considered resulting from the operating effect of a right-dominant tone sandhi system in Zhangzhou (Huang, 2018; 2020; 2022). All tones at the non-right-most position, referred to as sandhi position, alter their realizations phonologically and phonetically, while tones at the rightmost position maintain their realization categorically similar to their citation forms, but may subject to certain variation at the phonetic level because of their sensitivity to occurring environments (Huang, 2018; 2020; 2022). So that, all prefixes are supposed to change their tonal profiles if they are attached to lexical bases to fulfil their semantics and/or morpho-syntactic functions.

What needs a further mention is that no special tone sandhi pattern is evoked over the prefixing process. But rather, all prefixes follow the general sandhi tendency to change their tonal forms. For

example, tone 1 is realised as a rising [35] contour in citation but is altered to be a mid-level [33] contour in the sandhi context. Tone 3 changes its contour shape to a rising [35] from a high falling contour in citation. All tones within general morpho-syntactic phrases XP in which X may be adjective, verbal, nominal among others, are expected to change in this way (Huang, 2018; 2020). Table 1 summaries tonal changes of individual prefixes, in which the forms in bold show their corresponding sandhi forms.

Table 1. Tonal changes of individual prefixes.

Citation	Sandhi Form
dɛw33	<b>dɛw32</b> -fu51 ‘to introduce one’s mother’
dɛw51	<b>dɛw35</b> -sɛ35 ‘the third (of the siblings)’
ʔɛ35	<b>ʔɛ33</b> -hjɛ35 ‘elder brother’
pjɛw51	<b>pjɛw35</b> -hjɛ35 ‘the elder son of father’s sister or mother’s sibling’
kɛ63.pɛk41	<b>kɛ63.pɛk65</b> -hjɛ35 ‘the elder son of father’s brother’
ʔɛ51	<b>ʔɛ35</b> -kɔ35 ‘father’s sister’
hwen35	<b>hwen33</b> -kjɛ35 ‘foreign <u>chilli</u> ’
te33	<b>te32</b> -zi33 ‘the second’
twɛ33	<b>twɛ32</b> -tsi51 ‘the elder sister’
se41	<b>se63</b> -kɔ35 ‘husband’s younger sister’
sje51	<b>sje35</b> -bɛj33 ‘younger sister’
kʰɛ51	<b>kʰɛ35</b> -ʔɛj41 ‘likeable; adorable’
bɛj51	<b>bɛj35</b> -kʰwɛ41 ‘ugly’
hə51	<b>hə35</b> -tsje221 ‘delicious’

As seen, the tonal pitch of all prefixes has been changed phonetically and phonologically. Such as the prefix *dɛw51* has a high-falling [51] contour in citation, but when attached to lexical bases, the pitch is changed to a rising [35] contour (*dɛw35-sɛ35* ‘the third (of the siblings)’). Similarly, the prefix *hwen35* has a rising contour [35] in citation but the pitch is changed to a mid-level [33] when attached to lexical bases to denote their foreign origin (*hwen33-kjɛ35* ‘foreign chilli’). The tone sandhi pattern in the prefixing context is different from that occurs in other affixational environment in which tones are changed to either a rising or high-level contour, depending on their contour shape in citation (Huang, 2023).

## 5 Pragmatics of Prefixation

Certain prefixes are pragmatically significant to reveal certain relation within the social-cultural setting of Southern Min. This can be demonstrated by the usage of prefixes *pjɛw51*, *kɛ63.pɛk41* and

354 ʔɿ51. They can be attached to the same kinship  
 355 terms but reveal different social relationships. As  
 356 illustrated in (4), the prefix *pjɿw51* indicates an  
 357 external relation to a family or a clan; the derived  
 358 words are particularly used to address the  
 359 descendant of (grand-) father's sisters or (grand-)  
 360 mother's siblings. Such as the term *pjɿw35-hjɿ35*,  
 361 in which the base *hjɿ35* refers to the elder brother,  
 362 is specifically used to address the son of father's  
 363 sister or mother's sibling who is elder than the  
 364 addresser. The prefix *ke63.pɿk41* indicates an  
 365 internal relation to one's family or clan; the derived  
 366 terms are limited to address the descendant of  
 367 (grand-) father's brothers. Such as the term  
 368 *ke63.pɿk65-hjɿ35* specifically refers to the son of  
 369 father's brother who is elder than the addresser.  
 370 Similarly, the prefix *ʔɿ51* expresses the core blood  
 371 relationship on the paternal side. Such as the term  
 372 *ʔɿ35-hjɿ35* refers to one's blood-related elder  
 373 brother who has the same parents.

#### 374 (4) Pragmatics of prefixation

##### 375 • *pjɿw51*

376 *pjɿw35-hjɿ35* 'pjɿw35-elder brother'  
 377 'the elder son of father's sister or mother's sibling'  
 378 *pjɿw35-tsik41* 'pjɿw35-younger uncle'  
 379 'son of grandfather's sister or grandma's sibling'

##### 380 • *ke63.pɿk41*

381 *ke63.pɿk65-hjɿ35* 'ke63.pɿk41-elder brother'  
 382 'the elder son of father's brother'  
 383 *ke63.pɿk65-tsik41* 'ke63.pɿk41-younger uncle'  
 384 'the younger son of grandfather's brother'

##### 385 • *ʔɿ51*

386 *ʔɿ35-hjɿ35* 'ʔɿ35-elder brother'  
 387 'the blood-related elder brother'  
 388 *ʔɿ35-tsik41* 'ʔɿ35-younger uncle'  
 389 'father's younger brother (s)'

##### 390 • *twɿ33*

391 *twɿ32-pɿ41* 'twɿ32-uncle'  
 392 'to address father (or husband)'s eldest brother'  
 393 *twɿ32-kɔ35* 'twɿ32-parental aunty'  
 394 'to address father (or husband)'s elder sister'

##### 395 • *se41*

396 *se63-kɔ35* 'se63-father's sister'  
 397 'to address husband's younger sister'  
 398 *se63-tsik41* 'se63-father's younger brother'  
 399 'to address husband's younger brother'  
 400 *se63-kim35-ʔɿ51* 'se63-mother's brother's wife'

401 The pragmatic function can also be illustrated  
 402 by the usage of the prefixes *twɿ33* and *se41* before  
 403 kinship terms. The prefix *twɿ33*, lexically meaning

404 'big', is often used to indicate the elder (not  
 405 necessarily needs to be the eldest) member of a  
 406 group, especially within a family or a clan. On the  
 407 contrary, the prefix *se41*, lexically meaning  
 408 'small', indicates the younger member. However,  
 409 in Southern Min, housewives are discovered using  
 410 exactly the same kinship words as their children to  
 411 address their husband's siblings.

412 For example, as illustrated in (4), the word  
 413 *twɿ32-kɔ35*, in which the base *kɔ35* means 'aunty  
 414 on the parental side', can be used to refer to either  
 415 father's elder sister or husband's elder sister. On the  
 416 contrary, the words *se63-kɔ35* and *se63-tsik41*,  
 417 which literarily mean 'younger aunty (father's  
 418 younger sister)' and 'younger uncle (father's  
 419 younger brother)', respectively, are exclusively  
 420 used by housewives to address their husband's  
 421 younger siblings. The reason for existing such a  
 422 special addressing is because, in the old society of  
 423 Southern Min, married women are given a lower  
 424 status within a family and a clan. Thus, they step  
 425 down their seniority and address their husband's  
 426 siblings in the same way as their children do. Such  
 427 an addressing has been customized over time and  
 428 is still adopted by the married women in the  
 429 modern society. Therefore, as seen, the application  
 430 of certain prefixation is pragmatically related by  
 431 the local social culture and custom.

## 432 6 OCCURRENCE CONSTRAINT

433 The prefixation is productive in this dialect to  
 434 expand its lexicon; however, several different  
 435 constraints can be seen governing what prefixes  
 436 can be used; what lexical bases can be attached,  
 437 and/or what new lexemes can be generated.

### 438 6.1 Semantic constraint

439 The occurrence of certain prefixes is strictly limited  
 440 to a particular semantic domain. For example, the  
 441 prefixes *pjɿw51* (*pjɿw35-twɿ32-tsi51* 'to address  
 442 the daughter of father's sister or mother's sibling  
 443 who is elder than the addresser'), *ke63.pɿk41*  
 444 (*ke63.pɿk65-twɿ32-tsi51* 'to address the daughter  
 445 of father's brother who is elder than the addresser')  
 446 and *ʔɿ51* (*ʔɿ35-kɔɿ35* 'to address the blood-related  
 447 grandfather') can only occur before kinship terms  
 448 to deliver the blood relation or the affinity by  
 449 marriage to a family or a clan. On the contrary, the  
 450 prefix *te33* (*te32-sɿ35* 'te32-three: the third') can  
 451 occur before numbers to indicate ordering.

## 6.2 Phonological constraint

The prefixing process in Southern Min can be constrained phonologically because there exist some cases in which only parts of the lexical bases, rather than the entire bases, can be prefixed to fulfil a particular semantic function. For example, as illustrated in (5), the prefixes *dɛw33*, *dɛw51*, *ɲɛ35* and *sjɔ51* can all be attached to person names, but the prefixes *dɛw51* and *sjɔ51* are typically attached to the family names, while the prefixes *dɛw33* and *ɲɛ35* are exclusively attached to the last syllables of the first names. If they are attached to other part of the lexical bases, the derived forms are considered to be colloquially ill-formed.

### (5) Phonological constraint on prefixation

#### Before family name

##### • *dɛw51* (seniority and respect)

*ɲɔŋ33 tsu35.zin22* → *dɛw35-ɲɔŋ22* ‘*ɲɔŋ22*; Wang’

*tɛn33 kək65.kɛ35* → *dɛw35-tɛn22* ‘*Tɛn22*; Chen’

##### • *sjɔ51* (diminution and affection)

*tɛn33. ɟɛ32.kun22* → *sjɔ35-tɛn22* ‘Chen’

*hwi22 sjək65.kwan35* → *sjɔ35-hwi22* ‘Huang’

#### Before first name

##### • *dɛw33* (seniority and respect)

*djək32 ɲi35.su35* → *dɛw32-su35* ‘*Su35*; Si’

*tɛn33 kək65.kjɛŋ22* → *dɛw32-kjɛŋ22* ‘*Kjɛŋ22*’

##### • *ɲɛ35* (diminution and affection)

*hwi22 ɟɛ32.kjɛŋ22* → *ɲɛ33-kjɛŋ22* ‘*Qiang*’

*lim33 sjək65.kwan* → *ɲɛ33-kwɛn35* ‘*Juan*’

For example, given a person is called *ɲɔŋ33 tsu35.zin22*, in which *ɲɔŋ22* is the family name and *tsu35.zin22* is his first name, it is grammatically well-formed to address him as *dɛw35-ɲɔŋ22* with a sense of respect and seniority. Similarly, the prefix *sjɔ51* can also be attached to family names to convey a sense of diminution and affection, such as *sjɔ35-tɛn22* ‘*Chen*’ given a person’s family name is *tɛn22*. The two prefixes can only be attached to family names, and it is grammatically ill-formed to attach them to other position of the person names.

On the contrary, the prefixes *dɛw33* can only be attached to the last syllables of the first names to deliver a semantics of seniority and respect. Such as, given a person is called *djək32 ɲi35.su35* in which *djək32* is the family name, it is grammatically well-formed and colloquially respectful to address him as *dɛw32-su35*, but ill-formed to call him as *\*dɛw32-djək32* or *\*dɛw32-ɲi35.su35*. Likewise, the prefix *ɲɛ35* can only be attached to the last syllables of the first names to

convey a sense of closeness and diminution, such as *ɲɛ33-kwɛn35* given a person is called *lim33 sjək65.kwan35*. As seen, the occurrence of certain prefixes is phonologically limited to certain syllables, and this has become an important part of the mental grammar of native speakers.

## 6.3. Pragmatic constraint

The occurrence and usage of certain prefixes can also be constrained by the pragmatic factor. For example, as discussed in Section 5, the derived words with the prefix *pjɛw51* are exclusively used to address descendants of (grand-) father’s sisters; and/or (grand-) mother’s siblings. The derived words with the prefix *kɛ63.pək41* are dominantly used to address descendants of (grand-)father’s brother(s), whereas the derived words with the prefix *ɲɛ51* only refer to those core family members who hold a blood relationship on the parental side. As well as this, the married women in Southern Min address their husband’s siblings in the same way as their children. Such as the derived word *twɛ32-kɔ35* can be used to address one’s father’s eldest sister, but also one’s husbands’ elder sister(s). These reflects the constraints from the social culture and custom in Southern Min.

## 7 Discussion

As discussed in this paper, the prefixing process has been developed as an important device in the word formation in Zhangzhou Southern Min. Semantically, the prefixation is constructive to create new lexemes and substantially enlarge the local vocabulary. Some prefixes are polysemantic to derive words that can cover different semantic domains, like the prefixes *dɛw51*, *dɛw33*, and *ɲɛ35*, while some prefixes are shown to be mono-semantic whose derived items can only cover one single semantic domain, such as *hwen35* and *te33*.

Morpho-syntactically, the prefixing process, in general, presents a categorical-preserving property, because both the lexical bases and their derived words are largely nominal, the process of which does not evoke a new word class. But some prefixes in few cases, like *kʰɔ51*, *hɔ51*, and *bɛj41* can change the category of the bases from a non-adjective category to adjective. Phonologically, the tonal forms of all prefixes are changed categorically over the process, because of the forcing factor of the right-dominant tone sandhi system in this Southern Min variety. Pragmatically, the usage of certain prefixes, like *pjɛw51*,

- 553 *ke63.pək41, ʔɿ51, twɐ33* and *se41*, can reveal some  
 554 particular social culture and custom of Southern  
 555 Min. As seen, the prefixing can substantially affect  
 556 the semantic, morpho-syntactic, and prosodic  
 557 structures of this dialect. However, the encoding  
 558 also subjects to several constraints from semantics,  
 559 morpho-syntactics, phonology and pragmatics,  
 560 reflecting a close interface between different  
 561 linguistic levels in this dialect.
- 562 This study is the first to discuss the prefixation  
 563 in Zhangzhou, which directly fills in the research  
 564 gap of this under-described Southern Min variety.  
 565 The exploration substantially stretches and  
 566 advances our knowledge of how prefixation is  
 567 encoded and contributes to the word formation in  
 568 southern Chinese dialect, shedding an important  
 569 light on the generalization of areal characteristics  
 570 of prefixation within the Sino-Tibetan language  
 571 family. The innovative description also contributes  
 572 vital empirical data to the typology of prefixation  
 573 in world's natural languages. The discussion also  
 574 challenges the conventional assumption of  
 575 regarding Sinitic languages as being isolating  
 576 without significant affixation, while enlightening  
 577 the theoretical discussion on how Sinitic languages  
 578 should be better defined from the morpho-syntactic  
 579 perspective, given their existing rich prefixing  
 580 system in the synchronic speech.
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