Encoding Prefixation in Southern Min

Yishan Huang The University of Sydney yishan.huang@sydney.edu.au

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, morphosyntactic 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 continuingly 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 2v33 can be attached to kinship terms (2v33-kon35 'grandfather') or the first name of personal names (?v33-kun22 'address a girl whose last syllable of first name is kun 22) to express closeness and affection. The infix 2e51 can be inserted into disyllabic bases and serve as a modifying marker (kjø35-2e51-thew22 'bridge-*Pe51-head: a place name'*), or a coordinative marker (di35-?e51-tse41 'vear-?e51-festival: traditional festivals'). The suffix 2v51 can serve as

100

a purely nominal marker (*kem35-2v51 'orange-2v51: orange'*), a nominaliser to some verbs (*dɛ̃55-2v51 'to clamp-2v51: plier'*) and adjectives (*pwi35-2v51 'fat-2v51: fat person'*) or a diminutive marker to kinship terms to deliver feeling of smallness, closeness, and affection (*tsvw55-2v51 'daughter-2v51: 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-culturallylinguistically-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 covey. The monosemantic 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 literarily means 'potato', while the derived word hwen33-tsi22 particularly refers '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-po22 'hwen33-lady: foreign lady' hwen33-tsi22 'hwen33-potato: sweet potato'

- te33 (ordinal order) te32-?ik41 'te32-one: the first' te32-zi33 'te32-two: the second'
- kɛ63.pɛk41 (internal relation)
 kɛ63.pɛk65-ħjữ35 'kɛ63.pɛk41-elder brother'
 'to address the elder son of father's brother'
 kɛ63.pɛk65-tsik41 'kɛ63.pɛk41-younger uncle'
- the younger son of grandfather's brother'
 pjtw51 (external relation) pjtw35-hjt25 'pjtw35-elder brother'
 - 'the elder son of father's sister or mother's sibling'pjæw35-tsik41'pjæw35-younger uncle:'son of grandpa's sister or grandma's sibling'

The mono-semantic property can also be seen from the prefixes $k\epsilon 63.pek41$ and pjew51 which can be attached to the same kinship terms but reveal different semantic readings. The prefix $k\epsilon 63.pek41$, which literarily 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 $k\epsilon 63.pek65-hj\tilde{e}35$, in which the base $hj\tilde{e}35$ 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 pjew51, meaning 'surface', expresses an external relation to a family or a clan. For example, the derived word $pjew35-hj\tilde{e}35$ 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 2v35 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 2e33-hjë35 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 ts^hju33 morpheme that means 'tree', it is a common way to address him as 2e33-tshju33 that transfers a sense of closeness and affection. Likewise, the prefix *drw33* 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 $(dw32-p\varepsilon33)$ 'dw32-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 (djok32 $2i35.su35 \rightarrow dvw32-su35$ '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 dew32-tshju33 refers to 'an old tree'.

(2) Poly-semantics of prefixation

```
• Prefix ?e35
```

Before kinship term (closeness and respect) ?v33-koŋ35 'grandfather' ?v33-bv51 'grandmother' ?v33-bv35 'father' ?v33-bv35 'father' Before first name (closeness and affection) tvn33. ge32.kun22 → ?v33-kun22 'Qun' hwĩ22 k^hvj33.ts^hju33 → ?v33-ts^hju33 'Shu' • dew33

```
Before a kinship term (respect and closeness)
dw32-pe35 'dw32-father: introduce one's dad'
dw32-bu51 'dw32-mum: introduce one's mum'
Before person name (affection and closeness)
djok32 ?i35.su35 \rightarrow dw32-su35 'Su35; Si'
ten33 kok65.kjen22 \rightarrow dw32-kjen22 'Kjen22'
Before an entity (long history)
dw32-tjem41 'dw32-store: an old store'
dw32-ts<sup>h</sup>ju33 'dw32-tree: an old tree'
```

Before number (ordering)

dw35-zi33 'dw35-two: second eldest sibling' dw35-sw35'dw35-three: third eldest sibling' **Before family name (closeness and respect)** ?on33 tsu35.zin22 \rightarrow dw35-?on22 '?on22' ?wi33 ts^hin33.tsui51 \rightarrow dw35-?wi22 '?wi22'

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 abovementioned prefixes (*hwen35, te33, ke63.pek41, pjew51, te33, 2e35, dew33, dew51*) 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 $k^{h} \Theta 51$, a cognate of Mandarin $ke214 \overline{PJ}$, 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 $k^{h} \Theta 35$ -2ej41, the base 2ej41 is a verb meaning 'to like, love', while the derived word refers to 'likable'. In the word $k^{h} \Theta 35$ - $k^{h} ew 51$, the base $k^{h} ew 51$ is a noun meaning 'mouth', with this prefix, the derived word is used to describe something which is delicious.

(3) Categorical-changing prefixation

• k^h051

verbal base

 $k^{h}\Theta 35$ -2vj41 ' $k^{h}\Theta 35$ -like: likeable' $k^{h}\Theta 35$ - $k^{h}\Theta 41$ ' $k^{h}\Theta 35$ -rely: reliable'

nominal base

 $k^h \Theta 35 \text{-} k^h \upsilon w 51$ 'k^h $\Theta 35 \text{-} mouth:$ delicious' k^h $\Theta 35 \text{-} zin 22$ 'k^h $\Theta 35 \text{-} people:$ lovable'

• dew51

• ħø51

verbal base

he35-t^hjữ35 'ħe35-listen: sound-good' he35-tsjv221 'ħe35-to eat: taste-good; delicious' ħe35-sjv51 'ħe35-to write: good-writing'

• 6ej41

verbal base

bej35-t^hjữ35 '6ɐj35-to listen: sound-unpleasant' bej35-tsjɐ221 '6ɐj35-to eat: bad-tasting bej35-k^hwữ41 '6ɐj35-to look: bad-looking; ugly'

The prefixes $\hbar o51$ and bej51, 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 $\hbar o35$ -tsje221, with the verbal base tsje22 'to eat', is used to describe something that tastes good. Similarly, the derived word $\delta e j35$ -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 consider resulting from the operating effect of a right-dominant tone sandhi system in Zhangzhou (Huang, 2018; 2020; 2022). All tones at the nonright-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
dew33	dew32-6u51 'to introduce one's mother'
dew51	dew35-se35 'the third (of the siblings)'
?e35	?e33-ħjē35 'elder brother'
pjew51	pjæw35-hjë35 'the elder son of father's sister or mother's sibling'
ke63.pek41	kɛ63.pɛk65- hjẽ35 'the elder son of father's brother'
2ŋ51	?ŋ35- kɔ35 'father's sister'
ħwen35	hwen33-kj335 'foreign chilli'
te33	te32-zi33 'the second'
twe33	twe32-tsi51 'the elder sister'
se41	se63-ko35 'husband's younger sister'
sjø51	sjø35-bēj33 'younger sister'
k ^h e51	k ^h 035-?ej41 'likeable; adorable'
6ej51	bej35- k ^h wẽ41 'ugly'
ħө51	ho35-tsjv221 'delicious'

As seen, the tonal pitch of all prefixes has been changed phonetically and phonologically. Such as the prefix dew51 has a high-falling [51] contour in citation, but when attached to lexical bases, the pitch is changed to a rising [35] contour (dew35-se35 'the third (of the siblings)'). Similarly, the prefix $\hbar wen35$ 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 ($\hbar wen33$ -kj335 '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 *pjew51*, *ke63.pek41* and

 $2\eta 51$. They can be attached to the same kinship terms but reveal different social relationships. As illustrated in (4), the prefix pjew51 indicates an external relation to a family or a clan; the derived words are particularly used to address the descendant of (grand-) father's sisters or (grand-) mother's siblings. Such as the term *pjew35-ħjẽ35*, in which the base $\hbar i \tilde{v} 35$ refers to the elder brother, is specifically used to address the son of father's sister or mother's sibling who is elder than the addresser. The prefix $k \in 63.pek41$ indicates an internal relation to one's family or clan; the derived terms are limited to address the descendant of (grand-) father's brothers. Such as the term kɛ63.pɛk65-ħjɛ̃35 specifically refers to the son of father's brother who is elder than the addresser. Similarly, the prefix $2\eta 51$ expresses the core blood relationship on the paternal side. Such as the term 2n35-hjë35 refers to one's blood-related elder brother who has the same parents.

(4) Pragmatics of prefixation

• pjew51

pjew35-ħjẽ35 'pjew35-elder brother'

'the elder son of father's sister or mother's sibling' pjew35-tsik41'pjew35-younger uncle'

'son of grandfather's sister or grandma's sibling'

• kɛ63.pɐk41

kɛ63.pɛk65-ħjɛ̃35 'kɛ63.pɛk41-elder brother' 'the elder son of father's brother' kɛ63.pɛk65-tsik41 'kɛ63.pɛk41-younger uncle'

'the younger son of grandfather's brother'

• ?ŋ51

?ŋ35-ħjữ35 '?ŋ35-elder brother' 'the blood-related elder brother' ?ŋ35-tsik41 '?ŋ35-younger uncle' 'father's younger brother (s)'

• twe33

twe32-pe41'twe32-uncle'

'to address father (or husband)'s eldest brother' twe32-ko35 'twe32-parental aunty'

'to address father (or husband)'s elder sister'

• se41

se63-ko35 'se63-father's sister' 'to address husband's younger sister' se63-tsik41 'se63-father's younger brother' 'to address husband's younger brother' se63-kim35-?v51 'se63-mother's brother's wife'

The pragmatic function can also be illustrated by the usage of the prefixes *twe33* and *se41* before kinship terms. The prefix *twe33*, lexically meaning 'big', is often used to indicate the elder (not necessarily needs to be the eldest) member of a group, especially within a family or a clan. On the contrary, the prefix *se41*, lexically meaning '*small*', indicates the younger member. However, in Southern Min, housewives are discovered using exactly the same kinship words as their children to address their husband's siblings.

For example, as illustrated in (4), the word twp32-ko35, in which the base ko35 means 'aunty on the parental side', can be used to refer to either father's elder sister or husband's elder sister. On the contrary, the words se63-ko35 and se63-tsik41, which literarily mean 'younger aunty (father's younger sister)' and 'younger uncle (father's *younger brother*)', respectively, are exclusively used by housewives to address their husband's younger siblings. The reason for existing such a special addressing is because, in the old society of Southern Min, married women are given a lower status within a family and a clan. Thus, they step down their seniority and address their husband's siblings in the same way as their children do. Such an addressing has been customized over time and is still adopted by the married women in the modern society. Therefore, as seen, the application of certain prefixation is pragmatically related by the local social culture and custom.

6 OCCURRENCE CONSTRAINT

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

6.1 Semantic constraint

The occurrence of certain prefixes is strictly limited to a particular semantic domain. For example, the prefixes *pjew51* (*pjew35-twe32-tsi51* 'to address the daughter of father's sister or mother's sibling who is elder than the addresser'), kc63.pek41(kc63.pek65-twe32-tsi51 'to address the daughter of father's brother who is elder than the addresser') and $2\eta51$ ($2\eta35-ks\eta35$ 'to address the blood-related grandfather') can only occur before kinship terms to deliver the blood relation or the affinity by marriage to a family or a clan. On the contrary, the prefix te33 ($te32-s\tilde{v}35$ 'te32-three: the third') can 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 dew33, dew51, 2e35 and sjo51 can all be attached to person names, but the prefixes dew51 and sjo51 are typically attached to the family names, while the prefixes dew33 and 2e35 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**
- dew51 (seniority and respect)
 ?oŋ33 tsu35.zin22 → dew35-?oŋ22 '?oŋ22; Wang' ten33 kek65.kẽ35 → dew35-ten22 'Ten22; Chen'
- sjø51 (diminution and affection) ten33. ge32.kun22 → sjø35-ten22 'Chen' ħwĩ22 sjok65.kwan35 → sjø35-ħwĩ22 'Huang' Before first name
- dew33 (seniority and respect)
 djok32 ?i35.su35 → dew32-su35 'Su35; Si'
 ten33 kok65.kjeŋ22 → dew32-kjeŋ22 'Kjeŋ22'
- ?e35 (diminution and affection) ħwĩ22 de32.kjeŋ22 → ?e33-kjeŋ22 'Qiang' lim33 sjok65.kwan → ?e33-kwen35 'Juan'

For example, given a person is called $25\eta 33$ tsu35.zin22, in which $25\eta 22$ is the family name and tsu35.zin22 is his first name, it is grammatically well-formed to address him as dew35- $25\eta 22$ with a sense of respect and seniority. Similarly, the prefix $sj\theta 51$ can also be attached to family names to convey a sense of diminution and affection, such as $sj\theta 35$ -ten22 'Chen' given a person's family name is ten22. 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 *dew33* 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 *djok32 ?i35.su35* in which *djok32* is the family name, it is grammatically well-formed and colloquially respectful to address him as *dew32-su35*, but ill-formed to call him as **dew32-djok32* or **dew32-?i35.su35*. Likewise, the prefix *?e35* can only be attached to the last syllables of the first names to

convey a sense of closeness and diminution, such as *?v33-kwvn35* given a person is called *lim33 sjok65.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 pjpw51 are exclusively used to address descendants of (grand-) father's sisters; and/or (grand-) mother's siblings. The derived words with the prefix kɛ63.pɛk41 are dominantly used to address descendants of (grand-)father's brother(s), whereas the derived words with the prefix 2n51 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 twp32-ko35 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 *dew51*, *dew33*, and *2e35*, while some prefixes are shown to be monosemantic whose derived items can only cover one single semantic domain, such as *ħwen35* 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 $k^h 051$, h 051, and bej41 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 *pjew51*,

kɛ63.pɛk41, *?ŋ51*, *twɛ33* and *sɛ41*, can reveal some particular social culture and custom of Southern Min. As seen, the prefixing can substantially affect the semantic, morpho-syntactic, and prosodic structures of this dialect. However, the encoding also subjects to several constraints from semantics, morpho-syntactics, phonology and pragmatics, reflecting a close interface between different linguistic levels in this dialect.

This study is the first to discuss the prefixation in Zhangzhou, which directly fills in the research gap of this under-described Southern Min variety. The exploration substantially stretches and advances our knowledge of how prefixation is encoded and contributes to the word formation in southern Chinese dialect, shedding an important light on the generalization of areal characteristics of prefixation within the Sino-Tibetan language family. The innovative description also contributes vital empirical data to the typology of prefixation in world's natural languages. The discussion also challenges the conventional assumption of regarding Sinitic languages as being isolating without significant affixation, while enlightening the theoretical discussion on how Sinitic languages should be better defined from the morpho-syntactic perspective, given their existing rich prefixing system in the synchronic speech.

8 REFERENCE

- Andrew Carstairs McCarthy. 2002. An Introduction to English Morphology: Words and Their Structure. Scotland, UK: Edinburgh University Press.
- Huang. 2018. *Tones in Zhangzhou: Pitch and Beyond*. Doctoral Dissertation: Australian National University.
- Huang. 2022. Right-Dominant Tones in Zhangzhou: On and Through Phonetic Surface. In *d*, 21-22 November 2022, Taipei Medical University, Taiwan, China.
- Huang. 2023. Suffix ?v51 in Zhangzhou: An Interdisciplinary Exploration. In Proceedings of The 24th Chinese Lexical Semantics Workshop (CLSW 2023). 29-31 May. Singapore.
- Huang. *Tones in Zhangzhou: Pitch and Beyond. 2020.* Cambridge, UK: Cambridge Scholar Publishing.
- Bianca Basciano. Morphology. 2017. In Rint Sybesma, Wolfgang Behr, Yueguo Gu, Zev Handel, James Huang and James Myers, *Encyclopedia of Chinese Language and Linguistics*, pp.104-118. Leiden, Netherlands: Brill.

- Christopher J. Hall. 2008. Prefixation, Suffixation and Circumfixation. In Geert Booij, Christian Lehmann, Joachim, Kesselheim Mugdan, Wolfgang and Stavros Skopeteas (eds.) Morphology, An International Handbook on Inflection and Word Formation. Handbooks of Linguistics and Communication Science, 17 (1): 535-545. Berlin, Germany: De Gruyter.
- Emanuele Banfi and Giorgio Francesco Arcodia. 2007. The 生 shēng/sheng Complex Words in Chinese between Morphology and Semantics. In Proceedings of the Sixth Mediterranean Morphology Meeting. Morphology and Dialectology, 6:190-204.
- Giorgio Francesco Arcodia and Bianca Basciano. 2012. On the Productivity of the Chinese Affixes – 兒 -r, 一化 -huà and -頭 -tou. *Taiwan Journal of Linguistics*, 10(2): 89-118.
- Giorgio Francesco Arcodia and Bianca Basciano. 2022. *Chinese Linguistics: An Introduction*. Oxford, UK: Oxford University Press.
- Hillary Chappell. 2019. A Sketch of Southern Min Grammar. In Alice Vittrant and Justin Watkins (eds). *The Mainland Southeast Asia Linguistic Area*, pp.176-233, Berlin, Germany: De Gruyter Mouton.
- Huei Ling Lin. 2001. The Interface between Syntax and Morphology: Taiwanese Verbal Complexes. In *Proceedings of the 16th Pacific Asia Conference on Language, Information and Computation*, pp.308– 319, Jeju, Korea. The Korean Society for Language and Information.
- Joan. L. Bybee, William Pagliuca, and Revere D Perkins. 1990. On the Asymmetries in the Affixation of Grammatical Material. In William Croft, Keith Denning and Suzanne Kemmer (eds), *Studies in Typology and Diachrony: Papers Presented to Joseph H. Greenberg on his 75th Birthday*, pp.1-42. Amsterdam, Netherland: John Benjamins.
- John A. Hawkins and Gary. Gilligan. 1988. Prefixing and Suffixing Universals in Relation to Basic Word Order. *Lingua*, 74 (2-3): 219-259.
- Oládiípò Jacob Ajiboye. 2005. *Topics on Yoruba Nominal Expression*. Doctoral thesis: The University of British Columbia.
- Stephen Marlett. 1985. Some Aspects of Zapotecan Clausal Syntax. Work papers of the summer institute of linguistics, University of North Dakota Session, 29, Article 6.
- Wei-wen Roger Liao. 2014. Morphology. In C.-T. James Huang, Y.-H. Audrey Li and Andrew Simpson (eds). *The Handbook of Chinese Linguistics*, pp.3-25, Hoboken, New Jersey, United States: John Wiley & Sons.