SOCIAL DEVELOPMENT OF GENDER MARKER AND MANDARIN CHINESE AFFIXOID

Shelley Ching-yu Depner
Department of Foreign Languages and Literature, National Cheng Kung University, Tainan City, Taiwan, Republic of China
shelley@mail.ncku.edu.tw

Abstract
This study focuses on the recent morphological development -jie ‘sister’ in Mandarin Chinese. For example, in zhùpǎo-jie 助跑姐 ‘a woman who ran up to pretend something’ -jie is an affixoid. Our data are taken from Taiwan News Smart Web (2019) and are examined within a semantic and morphological framework. The goal of the study is to investigate the semantic and morphological attributes of [X + jie] nominals and to find out social development the nominals revealed. The findings show that, semantically, [X + jie] refers to the outer appearance, emotion, and behavior of the targeted female. Morphologically, the nominals could be in sentential form and undergo omission, reversion, modification, etc. before reaching suffixation formatting with the affixoid. The high productivity of the gender marker -jie brings the social development of this Chinese speaking society to light. [X + jie] nominals demonstrate social activity, cultural organization, political event, and language contact in Taiwan.

Keywords
[X + jie] Construction, Affixoid, Quasi-suffix, Collocation, Social Change
1. Introduction

*Jie*姐́  ‘elder sister’ is a kinship term and gender indicator with high frequency of use nowadays. We collect the data from newspaper corpus and the paper aims to study the semantic and word formation of [X + jie] construction in the Mandarin Chinese speaking society Taiwan.

Many researchers concern about affixoïds (inter alia, Mohanan, 1986; Artstein, 2002; Hsieh and Hsu, 2003; Meesters, 2004; Ascoop and Leuschner, 2006; Decroos and Leuschner, 2008; Tang, 2009; Leuschner, 2010; Van Goethem, 2010; Cao, 2017). Tang (2009) studies the person suffixes ‘-tsiá者’ and ‘-uân員’ in Taiwanese Southern Min and expresses that they lack of independency but can be attached to stems like verbs, nouns and adjectives to form nominals. Take ‘-yuan員’ as an example. Attaching to the verb teach, then it is *jiaoyuan教員* ‘teach-person; teacher’ and suffîxing to certain post, it can be *yinhanghangyuan銀行行員* ‘bank clerk’, etc.

Cao (2017) observes *jun君* in [X + jun] ‘person; someone’ in online language use and identified that *jun* is developed from a honorific address term to carrying evaluative connotation. It may evaluate person, object, even abstract object, and finally developed into an affixoid highlighting the given prototypical feature. Piayura, Sorthip, Unthanon & Tularak (2018) also focus on online language use.

The pragmatic concerns of affixoïds have gained much attention and examined in compound construction. Hoeksema (2012:97) found that compounds could add subjective flavor to our speech “in a colorful and stylistically sensitive manner” where the right-hand element of the compounds are responsible for the task. Potts (2011) investigates pragmatic level of word use in movie reviews and suggests an emergent negative polarity in that he claims that deriving from the word meaning of negation as well as from pragmatic concerns and expectation of the hearer, negation opens up expressivity. In the same vain, Booij (2010) observes Dutch affixoïd *ere-* and indicates that the original form of *ere-* carries *honorary* meaning to its NN compounds. Depner (2018) claims the negativity bias of using person affixoïds. She explains that the language users apply thinking in metonymy and carry out cognitive economy contribute to the developing process of affixoïds. Concentrating on adverbial clauses in Romance languages, Bodoc (2019) asks whether language contact or Latin inheritance play a role in the related morphosyntactic features. Examining Aivaliot, a dialect spoken in Greece, Ralli (2019) concentrates on prefixoids *plaku-* and *sa-* . She believes that affixoïds may appear in languages of stem-based, such as
Greek. Furthermore, Vounchev (2019) deals with the affixoids in the Greek gay argot Kaliardà and comes to the conclusion that Kaliardà uses mainly domestic affixoids for the reason of differing its vocabulary from Standard Modern Greek.

Despite the attention that has been directed on affixoids, there are a number of areas where further research is warranted. The present paper delves into the semantic and morphological features of the affixoid -jie in Mandarin Chinese. Our research questions ask: (1) What are the morphological and semantic attributes of the affixoid -jie? (2) What social development do [X + jie] nominals revealed in the Mandarin speaking society Taiwan?

This paper is organized as follows: introduction section presents the previous studies and rationale of the present study, section 2 introduces data source and theoretical tenets of the study. Section 3 gives exemplary interpretation of the data. After examining the data, a further discussion is provided in section 4 to demonstrate the productivity of the affixoid and the social development that it expresses. Finally, conclusion about -jie affixoid is drawn in section 5.

2. Research Framework

This morphological process works explicitly in daily conversation as well as in news reports, we thus collect the linguistic materials from Taiwan News Smart Web (www.tbmc.com.tw). This newspaper corpus collects more than 18,600,000 pieces of news dated from 1951 and it is updated every day by about 2,000 pieces. The corpus compiles politics, society, business, arts, sports, and supplement pages. The newspapers collected are e.g., United Daily News since 1951, Commercial Times since 1996, Apple Daily since 2004, Central Daily News from 2001 to 2006, The Merit Times from 2000 to 2009.

In total 82,333 [X-jie] data were retrieved from the corpus (see Table 1). After examining them, 657 are organized in our Excel database. The following data are collected: Name of the newspaper, collocations, headlines, news contents, and edition. The analytic columns are (a). part of speech, (b). semantic feature, (c). metaphor, (d). evaluation, (e). pragmatic type, etc. The two fields (a) and (b) are for the analysis of the overall structure of the [X + jie], and the other fields are for further linguistic assessment.
Table 1: \([X + jie]\) and Its Distributions in the Newspaper Corpus

| Newspapers                      | Tokens |
|---------------------------------|--------|
| United Daily News               | 17,533 |
| United Daily News (Local Pages) | 13,188 |
| United Evening News             | 4,956  |
| Economic Daily News             | 5,461  |
| China Times                     | 15,188 |
| China Times                     | 4,341  |
| Commercial Times                | 1,441  |
| Liberty Times                   | 2,825  |
| Apple Daily                     | 2,813  |
| China Daily News                | 1,436  |
| Central Daily News              | 923    |
| Minsheng Bao                    | 9,029  |
| The Merit Times                 | 402    |
| Journal (Estrela) Seng Pou      | 2,797  |
| Total tokens                    | 82,333 |

* retrieved on 12.12.2019

The research framework is grounded on semantic and morphological analysis where collocation is an important notion. Collocation (Halliday 1966, Dunning 1993) is fundamental in Corpus Linguistics. It refers to the frequent co-occur words before and after the target word. For example, a search of the target word `day`, one finds *every day, week day, sunning day, day trip* etc., *every, week, sunning, trip* are thus collocations of *day*. In our database, collocations such as *fà 髮 ‘hair’* and *shīkòng 失控 ‘out of control’* are often combined with *-jie*, thus *fà-jìè 髮姐 ‘hair-sister, female hairdresser in barbershop’* and *shīkòng-jìè失控姐 ‘out-of-control woman’*. These collocations not only provide semantic and morphological contexts but also convey messages about the Chinese speaking society together with the *-jie* affixoid.

Next section begins with an analysis of the structure of \([X + jie]\) with such research framework.
3. Analysis and Findings

Common collocations of *jie* long before Modern Mandarin are like examples (1) and (2).

(1) **Wǒ yǒu yīgè jiě-jiě liǎng gè dì-di**
 我有一個姐姐兩個弟弟.
 ‘I have a sister and two brothers.’

(2) **Lǎo dàjiě**
老大姐
 ‘big sister’

To mention family member, as in example (1), [number + jie] is a typical construction. The *jie* is the female sibling who is older than the speaker. When "sister" collocates with adjectives, it is often the corresponding combination [X sister] where X indicates the order or characteristics of the sibling as in (2). After this stage, *jie* ‘sister’ gains its semantic autonomy through reanalysis. (Note that “14” in example 3 and “A16” in example 5 refers to the page in the respective newspaper.)

(3) **Zhǎngtuǐ-jiě wáng xiùzhēn nèixīn jiāozhàn: Yīdù xiǎng tuì xuǎn**
長腿姐王秀真 内心交戰：一度想退選 (08.10.1996, 14, China Times)
 ‘Long-legged sister Wang Xiuzhen’s inner war: once wanted to withdraw from the election.’

(4) **Tí dào tián-jiě zhǔbō hóupèicén, zhōu dǒng tǎnshuài huíyīng**
提到甜姐主播侯佩岑, 周董坦率回應 (01.30.2005, Liberty Times Net)
 ‘Referring to the sweet sister anchor Hou Peiyu, Jay Chou frankly responded’

(5) **Tái-jiě zàoxíng zàn**
台姐造型讚 (07.25.2011, A16, Apple Daily)
 ‘Taiwanese sister has a great style.’

(6) **Liǎng wèi qián yà-jiě liǎnglì dēngchǎng**
兩位前亞姐亮麗登場 (08.10.2018, C4, United Daily News)
 ‘Two former beauties of Asia make bright debut.’

In the above examples (3) to (6), the *-jie* are to understand as ‘woman; female’, a gender marker indicating one who with no blood relation with the speaker. Example (3) describes a woman with long legs, while example (4) addresses a lady who is pleasant and likable. The
Collocations of our -jie data disclosed three major meanings that -jie usually attached to: outer appearance, emotion, and behavior. The following discusses them in turn. From sibling to outer appearance, the use of the [X + jie] structure comes to a new phase. Example (3) "Long-legged sister" appeared in 1996 in China Times. A more frequent version is zhǎngtuǐ-jìě jiě 長腿姐姐 for avoiding light-headed morphological structure. Example (4) is often attached to by the diminutive suffix er 兒, the erization or rhotacization of syllable final, to achieve a semantic embellish for describing the sweet lady. At this stage, the morphological structure of -jie is [noun / adjective + jie]. Now the "sister" expresses external traits, often the outer appearance of the targeted person or as selected beauty as examples (5) and (6) refer to. In this case, the location, or to be more specific, the country where the beauty is from is the modifier of the nominal. Jie is not a ‘sister’, but a ‘woman; female’, that is, a gender marker.

(7) Shīkòng-jìě zhǎo chá ōu diàn yuán yòu zá diàn
失控姐找茬 殴店員又砸店 (05.15.2013, B04C, Liberty Times)
‘Frantic woman made troubles, punching clerks and messing up the store.’

(8) Chē zāo zhuàng guì fù biàn bào nù-jìě
車遭撞 貴婦變暴怒姐 (12.22.2015, B3, United Daily News (Local Pages))
‘A rich lady’s car was crashed, so she turned out to be a rage lady.’

(9) Mí gē mí-jìě kàn ǒuxiàng
迷哥迷姐看偶像 (01.12.2004, B2, United Daily News (Local Pages))
‘Fan brothers and sisters look at the idol.’

(10) Dài shēnzhàng mā shàng bān péngyǒu fēng tā xiào xīn-jìě
帶身障媽上班 朋友封她孝心姐 (03.11.2012, B2, United Daily News (Local Pages))
‘Because she goes to work bringing with her ill mother, her friends called her filial woman.’

(11) Zhèngyì-jìě bān xiàofáng dài tā xué fāng zāi
正義姐扮消防大使 帶頭學防災 (01.20.2015, B1, United Daily News (Local Pages))
‘Impartial woman dressed as fire control delegate, and learned disaster prevention.’

(12) Pú jìě 30 miǎo kuài shǎn jiǎ shuāi-jìě méi piàn chéng
仆街30秒快閃 假摔姐沒騙成 (06.22.2014, United Daily News (Local Pages))
‘Falling on the street for 30 seconds, then sneaked off, a pretended to fall woman did not get her way.’

Emotion of women is targeted and often appear in news reports. In (7), the woman punched the shop clerks and messed up the store, the troubles were made because she was
hysterically upset. Example (8) mentions the crash of the rich lady’s car and she was emotionally so out of control that she turned into a rage lady. Of course not only negative emotion is given an account. Turning to the next type behavior, examples (9) to (11) report these women’s behaviors attributable to positive inner move; whereas example (9) states the fantasy and adoration to movie stars of the ladies, example (10) praises a filial daughter who brings her disabled mother along with her to work. Additionally, example (11) reports the woman as an “impartial sister” because she stood in for fire control delegate and took the initiative to learn to prevent disaster.

We see that the gender marker -jie acts as hypocorism, a kind of ‘nickname’ to denote friendliness onto a certain female social role. These social roles can be categorized into seven groups (see Table 2). In Table 2, types (a) and (b) are related to famous persons; while type (a) can be a politician, an actor or artist, e.g., Jú-jiě 菊姐 is the former mayor Chen Ju 陳菊 of Kaohsiung city, Taiwan, type (b) concerns females who are “famous” for her certain act or characteristic. Roles of these two types can be famous, guilt-ridden or people with specific trait.

| Social Role                      | Example                                                                 |
|---------------------------------|-------------------------------------------------------------------------|
| a) famous person                | Jú-jiě菊姐 ‘the politician Chen Ju’                                     |
| b) somehow famous               | guài guài-jiě 怪怪姐 ‘a weird woman’                                     |
| c) one who takes certain job    | fǎ-jiě 櫃姐 ‘sales counter dedicated to a certain kind of product (e.g. cosmetics)-sister; a female counter keeper in a department store’ |
| d) criminal tendency            | zhùpǎo-jiě助跑姐 ‘run-up-sister; a woman who ran up to pretend something’ |
| e) criminal                     | zéixiōngzèijiě 賊兄賊姐 ‘thief-brother-thief-sister; male and female thieves’ |
| f) one with specific personal trait | zhèngyì-jiě正義姐 ‘an impartial woman’                                    |
| g) one who is emotional disorder | shīkòng-jiě失控姐 ‘an out-of-control woman’                               |

The underlying morphological structure of [X + jie] in the corresponding nominal is complex. The collocation of -jie can be adjectives, noun phrases, verb phrases, or sentences.
From inner state to outer motion yield the jiāshuāi-jiě 假摔姐 ‘pretend-to-fall woman’ (12) to light. Here we are dealing with more than one stage of nominal operation (see Figure 1). Jiāshuāi 假摔 is a verb phrase (VP). The jiāshuāi-jiě has entered [verb phrase + jie] and has a morphological gain is born by the underlying sentential form jie + 假装摔倒 (S = NP + VP). After omission, the VP reached its contraction and became a multi-syllabic VP; that is, from jiāzhuāng shuāidào 假装摔倒 ‘pretending to fall’ to jiāshuāi 假摔 of the same meaning. This launched the process of suffixation, so that the next step processed with reversion in that the sentence appeared as a pseudo VP where jiāshuāi 假摔 is leading the morphological structure. Then a modification of an AP structure is necessary because the addition and ellipsis of the genitive particle de in Modern Chinese, just like its forerunner zhi did in Archaic Chinese (Hsieh and Hsu 2003, Wei 2000, He 1989), flex the entire structure and insinuate suffixation task for -jie. Consequently, the VP turned into a pseudo AP by adding a genitive label (de) to stable the morphological formation and at last calling off the de before the suffixation completed as a NP.

![Diagram](image)

**Figure 1:** *The Underlying Morphological Operation of Jiāshuāi-jiě*

At this point, any third person female individual in the head slot can be morphologically operated and transformed into a nominal, be the modifier a bi- or multi-syllabic gloss, to insinuate and make semantic expression straightforward with a sense of ingenuity, often implying acting secretly, a cheating or negative intention, so to facilitate language speaker’s cognitive processing through the working of an affixoid.

4. Discussion

The above analysis exemplifies the semantic development of [X + jie] construction with data retrieved from newspapers. We search seven sample [X + jie] and present them in Table 3 to
confirm the rapid development of the affixoid -jie. The increasing use of the nominals over the last ten years (2010-2019) is recognizable, e.g., shīkòng-jìe 失控姐 first appeared in 2010 and a google search on December 12, 2019 presents 8,490,000 indexes. The productivity indicates that jie has become a quasi-suffix marking gender to express the speaker’s attitude, understanding or interpretation.

| [X + jie]                          | First occurrence / year | current index / Dec 2019 |
|------------------------------------|-------------------------|--------------------------|
| shīkòng-jìe 失控姐 ‘out-of-control woman’ | 2010                    | 8,490,000                |
| dābāo-jìe 打包姐 ‘woman who packs (e.g., food etc.)’ | 2011                    | 9,360,000                |
| zhèngyì-jìe 正義姐 ‘an impartial woman’ | 2012                    | 12,800,000               |
| zhùpǎo-jìe 助跑姐 ‘a woman who ran up to pretend something’ | 2013                    | 161,000                  |
| jiǎshuāi-jìe 假摔姐 ‘a pretend-to-fall woman’ | 2014                    | 10,500,000               |
| bàonù-jìe 暴怒姐 ‘a rage woman’ | 2015                    | 2,260,000                |

Moreover, the -jie data imply social change in modern Chinese society in Taiwan. The changes may be discussed in terms of social activity, cultural organization, politic event, and language contact. First of all, the social activities cited in the above show that Taiwan is a democratic country and social insurance is active. For instance, the example (9) in the above portrays the fans striving to be the first and fear to lag behind for following their stars. The loud, exciting, yet happy and cheerful democratic atmosphere in Taiwan is in sight. Examples in Table 2 imply Taiwan’s casualty insurance: jiǎshuāi-jìe 假摔姐 and zhùpǎo-jìe 助跑姐, as the related events in examples (12) and (13) indicate. In (12), the jiǎshuāi-jìe is trying to fake a traffic accident in order to obtain insurance settlement claim. The singer in (13) was almost accused as having the same intention. According to Tseng (2011), the insurance system in Taiwan is instituting since 1950. The current healthcare system, also known as National Health Insurance was established in 1995.
Lóng qiān yù biāo tiěmǎ tuǐ ruǎn pū jiē qiǔ bèi dāng zhùpǎo-jiē (12.20.2013, D06, Liberty Times)

‘Lóng qiān-yù rode a bike for a long time, so she fell on the street, being seen as a run-up woman.’

Zuìjìn shīzi huì hái kàn dào māmāmen de nǔlì, lì yāo shī xiōng shěliè dìnggòu (05.31.2010, B2, United Daily News (Local Pages))

‘Lions Club also knew mothers’ devotion, then invited members of Lions Club to subscribe.’

Cultural organizations like the shī-jīē狮子姐 ‘Lions Club sister’ (14) or the shè-jīē 社姐 ‘club sister’ of Taichung Orchestral Club present musical, cultural, social service organizations. In addition, while yé dàn shī-jīē 耶誕獅姐 ‘Christmas Lions Club sister’ performs foreign influence of a religious festival and holiday, shuǐ-jīē水姐 ‘pretty sister’ indicates contact and influence of an inland dialect, Taiwanese Southern Min. Shui meaning ‘pretty’ is a transliteration from Taiwanese Southern Min to Mandarin Chinese (Hsieh and Chen 1998) and is an often used loanword also for code mixing or code switching in Mandarin. Taiwanese Southern Min is the most speaking dialect in Taiwan. It was banned at school in order to promote the official language Mandarin Chinese (Hsiau 1997, Chiung 2001, Tsai 2011, Su 2019) but the enactment was annulled and speaking the dialect, or to be more specific, speaking loanwords from this dialect became trendy in the beginning of the 21st century due to political development. Many other Taiwanese Southern Min words were and are borrowed into Mandarin to show humorous effect and solidarity, etc. (Hsieh 1994, Hsieh & Yeh 2009).

On the other hand, social activity like beauty election revealed social change in Taiwan. Whether it be Miss Taiwan (example 5), Miss Asia (6) or zhōng-jīē中姐 ‘Chinese Beauty’, shì jiē世姐 ‘Miss World’, as guó-jīē國姐 ‘National Beauty’, beauty elections are accepted and well-liked in Taiwan. In time past, in a Chinese community like Taiwan, people were conservative and had traditional Chinese mode of thinking. Yet, Taiwanese ladies today are walking on the street with miniskirts. The opening up of the Chinese people’s mind on this island is observable from other -jie nominals, e.g., fēnjú yī-jīē分局一姐 addresses a policewoman, the Jú-jīē菊姐 is a female mayor in Taiwan. The political development of this island is not overlooked. In 2016, a female scholar, Tsai Ing-wen, was elected as president of Taiwan. She became the first female president in Taiwan as well as in the Chinese history. Furthermore, since 2015 some cities in
Taiwan opened registration for same-sex couple. In May 2019, the Taiwanese government approved and took effect same-sex marriage. This made Taiwan the first nation in Asia recognizing same-sex marriage, and in the Chinese-speaking world, as The Washington Times (Jennings, 2019) reported. The social change in this Chinese speaking community is noticed, also revealed by -jie nominals.

5. Conclusion

This paper examines Mandarin Chinese -jie to demonstrate that it is reanalyzed from meaning ‘sister’ to simply mark gender therein performing as an affixoid that can further reveal social development of the speakers’ community. The collocations of -jie data disclosed four major meanings, they are: outer appearance, emotion, and behavior. Referring to the groups of people who are famous, guilt-ridden or with specific trait people. Acting as an affixoid and a gender marker, -jie enjoys high frequency. A google search displays increasing use of [X + jie] nominals over the recent ten years.

Through the morphological operation of suffixation, the nominal function made semantic expression straightforward and facilitate language speaker’s cognitive processing. The X in [X + jie] nominals can be a noun, an adjective, or can be in sentential form and undergo omission, reversion, modification, etc. before they were suffixed with the affixoid. The productivity of the gender marker -jie brings the social development of this Chinese speaking society to light. [X + jie] nominals demonstrate social activity, cultural organization, politic event, and language contact of Taiwan. By means of semantic reanalysis, morphological interface and contextual interaction, language users accelerate the growth and development of -jie as a suffix, now an affixoid.

![Figure 2: The Growth of Use of Mandarin gē ‘brother’](image)
Due to the concern of feasibility, there are a few limitations. One of the major limitations of the present study is that we could only focus on an affixoid. Other examples such as gē ‘brother’ is used even more frequently according to the survey presented by Ngram Viewer (see Figure 2, red line). Moreover, the morphosyntactic contraction and cognitive operation behind the use of the given Mandarin affixoid is given only scant attention. More related data and focused study are suggested for future research.

Acknowledgement Funding: This work was supported by the Ministry of Science and Technology [107-2410-H-006 -034 -MY2], Taiwan.

REFERENCES

Artstein, R. (2002). Parts of Words: Compositional Semantics for Prosodic Constituents. Doctoral dissertation. New Brunswick, NJ: Rutgers University.

Ascoop, K., & Leuschner, T. (2006). Affixoidhungrig? Skitbra! Comparing affixoids in Swedish and German. Sprachtypologie und Universalienforschung, 59, 241-252. https://doi.org/10.1524/stuf.2006.59.3.241

Bodoc, A. M. (2019). Morphosyntactic Features of Adverbial Clauses in Romance Languages - Consequences of Language Contact or Latin Inheritance?. PEOPLE: International Journal of Social Sciences, 5 (3), 153-176. https://doi.org/10.20319/pijss.2019.53.153176

Booij, G. (2010). Construction morphology. Oxford: Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199695720.013.0010

Cao, Y.-M. (2017). From gradual generalization to semi-affix—The development of Mandarin Chinese “Jun” 君. Sinogram Culture, 1, 79-84.

Chiung, T. W.-V. (2001). Language attitudes towards written Taiwanese. Journal of Multilingual and Multicultural Development, 22 (6), 502-523. https://doi.org/10.1080/01434630108666448

Decroos, N., & Leuschner, T. (2008). Wortbildung zwischen System und Norm: Affixoiden im Deutschen und im Niederländischen. Sprachwissenschaft, 33, 1-34.

Depner, S. C.-Y. (2018). The development of a quasi-suffix. NCUE Journal of Humanities, 17, 45-58. doi: 10.29602/XLZY

Dunning, T. (1993). Accurate methods for the statistics of surprise and coincidence.
Computational Linguistics, 19 (1), 61-74.

Halliday, M. A. K. (1966). Lexis as a linguistic level. Journal of Linguistics, 2 (1), 57-67. https://doi.org/10.1017/S0022226700001328

He, L. (1989). On Function Words in Zuo Zhuan. Peijing: Shangwu.

Hoeksema, J. (2012). Elative compounds in Dutch: Properties and developments. G. Oebed (Ed.), Intensivierungskonzepte bei Adjektiven und Adverben im Sprachenvergleich (Cross-linguistic comparison of intensified adjectives and adverbs) (pp. 97-142). Hamburg: Dr. Kovac.

Hsiau, A.-C. (1997). Language ideology in Taiwan: the KMT’s language policy, the Tai-yu language movement, and ethnic politics. Journal of Multilingual and Multicultural Development, 18, 302-315. https://doi.org/10.1080/01434639708666322

Hsien, S. C-Y., & Hsu, J.-F. (2003). A Corpus based study of “-zu”: Its grammaticalization as a quasi-affix. Tsing Hua Journal of Chinese Studies, 3 (1), 131-152.

Hsien, S. C-Y., & Yeh, J.-C. (2009). Taiwanese loanwords in Taiwan Mandarin: Mechanism of a dialect borrowing in Taiwan. Studies in International Cultures, 5 (1), 99-134.

Hsien, S. C-Y., & Chen, Y.-Y. (1998). The influence of Taiwanese loan words exert on Mandarin. Selected Papers from the Second International Symposium on Languages in Taiwan (pp.565-583.). Taipei: Crane.

Hsien, S. C-Y. (1994). A Sociolinguistic study of Taiwanese loan words in Mandarin. MA thesis. Taipei: Fu Jen Catholic University.

Jennings, Ralph. (2019, May 17). Taiwan approves same-sex marriage in first for Asia. Associated Press. The Washington Times. Retrieved from https://www.washingtontimes.com/news/2019/may/17/taiwan-approves-same-sex-marriage-in-first-for-asi/

Leuschner, T. (2010). Ausnahmepianist fettgeschreckt - inbleich! Deutsche, niederländische und schwedische präfixoide im Spanningsfeld von Genealogie, Kreativität und Norm. D. Antje, K. Sebastian, & N. Damaris (Eds.), Kontrastive Germanische Linguistik (vol. 2, pp. 863-92) Hildesheim: Georg Olms Verlag.

Meesters, G. (2004). Marginale morfologie in het Nederlands. Paradigmatische samenstellingen, neoklassieke composita en splintercomposita. Gent: Koninklijke Academie voor Nederlandse taal-en Letterkunde.
Mohanan, K. P. (1986). The Theory of Lexical Phonology. Dordrecht: Reidel. https://doi.org/10.1007/978-94-009-3719-2_2
https://doi.org/10.1007/978-94-009-3719-2_4
https://doi.org/10.1007/978-94-009-3719-2_3
https://doi.org/10.1007/978-94-009-3719-2_5
https://doi.org/10.1007/978-94-009-3719-2_6
https://doi.org/10.1007/978-94-009-3719-2_1
https://doi.org/10.1007/978-94-009-3719-2_7

Piayura O., Sorthip M., Unthanon K., TularakU. (2018). Narrator and Language in Thai Online Literature. PEOPLE: International Journal of Social Sciences, 4 (1), 105-110. https://doi.org/10.20319/pijss.2018.41.105110

Potts, C. (2011). On the negativity of negation. N. Li, & D. Lutz (Eds.), Proceedings of SALT 20: Semantics and Linguistic Theory (pp. 636-659). Vancouver: Simon Fraser University. https://doi.org/10.3765/salt.v20i0.2565

Ralli, A. (2019). Affixoids and verb borrowing in Aivaliot morphology. The Morphology of Asia Minor Greek (pp. 221-254). Leiden, Boston: Brill. https://doi.org/10.1163/9789004394506_009
https://doi.org/10.1163/9789004394506

Stubbs, M. (1996). Text and Corpus Analysis. Oxford: Blackwell.

Su, H.-L. (2019). Wandering at the crossroad between language maintenance and language shift—a survey on language attitudes toward Taigi among 3rd-9th graders in Taiwan. Journal of Taiwanese Languages and Literature, 14 (1), 81-119. doi: 10.6710/JTLL.201904_14(1).0003

Taylor News Smart Web. (2019). Taipei: Transmission Books & Microinfo Co.

Tang, T.-C. (2009). On Holo agentic noun suffixes –家(ka), –者(tsiá), –員(uân). Journal of Taiwanese Languages and Literature, 3, 1-18.

Tsai, S.-C. (2011). The upsurge of learning Mandarin and Mandarin readings in Taiwan 1945-1946. National Central Library Bulletin, 100 (2), 60-98.

Tseng M.-H. (2011). Social insurance system. Encyclopedia of Taiwan. Taipei: Ministry of Culture. Accessed 17 July 2019.

Van Goethem, K. (2010). The French construction nouveau + past participle revisited:
Arguments in favour of a prefixoid analysis of nouveau. Folia Linguistica, 44, 163-178.

https://doi.org/10.1515/flin.2010.006

Vounchev, B. (2019). The affixoids in the Greek gay argot Kaliarda. Езиков свят-Orbis Linguarum, 17 (1), 50-58.

Wei, P.-C. (2000). The particle zhi before Qin Era. Bulletin of the Institute of History and Philology Academia Sinica, 71 (3), 619-679.