

Lang as a Strong Kind Operator in Taiwanese*

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Abstract

This paper is an attempt to clarify the role of *lang* “human being” in word formation in Taiwanese. *Lang* can be suffixed to a stem already denoting a human being with respect to either gender or age, or to a stem denoting profession, place, location, or other diverse individual-level predicates. The former is termed *Type I lang-suffixation* and the latter *Type II lang-suffixation*. We argue that the apparently redundant *Type I lang-suffixation* is not trivial (as it maps a human being to a human being), but imposes a kind reading on the suffixed stem. Sentences allowing this kind reading must be constrained, in a way to be discussed in this paper. For *Type I* suffixation, bare nominals suffixed with *lang* occur freely in object-level and kind-level sentences, and also function as predicates, while modified nominals suffixed with *lang* select kind-level sentences, and function as predicates, but exclude object-level sentences. For *Type II* suffixation, *lang*-suffixation is the only way to denoting human beings, and thus both bare and modified nominals suffixed with *lang* occur freely. We define *strong kind* as regularity over individuals lexicalized in a certain language, and *weak kind* as regularity over individuals modified by individual-level predicates. *Type I lang* thus functions as a “strong kind operator” that imposes a strong kind meaning on the stem. The analysis here tries to clarify the role suffixation plays in Eastern languages like Taiwanese as compared to the role determiners play in Western languages. Different languages employ different mechanisms in expressing universally needed distinctions (e.g. stage-level vs. individual-level, and genericity vs. kind). Though *lang*-suffixation in Taiwanese is not as productive as determiners in English, the mechanism proposed by Chierchia (1998: 359) in which the shifts occur between different domains, either overtly or covertly, is similar. This shall shed light on further study of the ways kinds are expressed across languages.

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1. Introduction

This paper is an attempt to understand the properties of *lang*-suffixation in Taiwanese. We argue that a kind reading is imposed on some (but not all) *lang*-suffixed nominals. Based on the nature of the stem, two types of *lang*-suffixed nominals are distinguished, in accordance with the obligatoriness of kind reading of the nominals.

2. Theoretical Framework

2.1 Genericity

“Notionally, a generic sentence is one expressing a regularity, as opposed to an instance from which one infers a regularity.” (Carlson 1989: 167)

Genericity is a property of regularity over some domain. Two varieties of genericity are distinguished. (Krifka et al. 1995: 2)

On one hand, if the regularity is over similar objects (individuals), the relevant NP is said to be *kind-referring*, as opposed to be *object-referring*. (1a) and (1b) refer to what is likely to be the natural propensities of some animal species. Both subject NPs are kind-referring.

On the other hand, if the regularity is over similar events, the sentence is said to be *characterizing*, as opposed to be *particular*. (1c) and (1d) describe recurring events or habits and thus are characterizing.

There is no reason to object a possibility where a characterizing sentence contains a kind-referring NP, as in (1e) and (1f): (taken respectively from (3a) and (3b) in Krifka et al. (1995: 3))

- (1) a. *Bears hibernate.*
- b. *Dogs bark.*
- c. *The sun rises in the Pacific.*
- d. *John smokes.*
- e. *Potatoes are served whole or mashed as a cooked vegetable.*
- f. *The potato is highly digestible.*

As is obvious, for a nominal to have a kind reading, not only must it have some regularity, but also the regularity be over individuals. “From an intuitive, pretheoretical point of view, kinds are generally seen as regularities that occur in nature.” (Chierchia 1998: 348) We will have more to say about what makes a kind in our later discussion.

2.2 Stage-Level vs. Individual-Level Predicates

As Carlson (1989: 168) puts it, ‘individuals’ are intensional objects that can

appear at different times and places (and in different worlds). Spatially and temporally bounded instances of an individual are called ‘stages’. Stages are extensional concepts. Predicates can be dichotomized to individuals and stages (sometimes with difficulty) according to their degrees of transience.

Kratzer (1995: 126) argues that stage-level predicates and individual-level predicates differ in argument structure, with the former having an extra argument position for events or spatiotemporal locations while the latter lacking this position.

2.3 Sentence Types

“So among the particular sentences there is a distinction between stative and dynamic sentences, and among the characterizing sentences there is a distinction between habitual and lexical characterizing sentences.” (Krifka et al. 1995: 17-18)

A kind-referring NP is incompatible with the episodic (either stative or dynamic) constructions of the particular sentences. In our discussion of the kind-referring *lang*, some tests based on the particular/characterizing distinction will be carried out.

3. *Lang* as a Free Morpheme

Lang as a free morpheme means “human being” and its extended uses such as physical appearance, personality, or health condition:¹

(2) a. *Lang5 teh4 co3, thinn1 teh4 khuann3.*

“God watches what humans do.”

b. *I7 lang5 cin1 kuan5.*

“He/She is tall.”

c. *I7 lang5 cin1 khong1-khai3.*

“He/She is generous.”

d. *I7 lang5 bo5 song2-khuai3.*

“He/She doesn’t feel well.”

Though it is clear that the predicate contributes to the meanings of physical appearance, personality, and health condition, *lang* still plays an active role in providing these potential senses, one of which getting triggered by a compatible predicate that follows.

¹ The transliteration of Taiwanese here is TLPA (Taiwan Language Phonetic Alphabet). The choice here is a concern of convenience, and does not reflect personal preference of Taiwanese transliteration. Words in the text are not tonally marked. *Lang* has the fifth (rising) tone in citation form. In Li and Liu (1995), however, *lang* is marked the seventh (mid level) tone, which implies that the *lang* under their discussion has been promoted to an independent lexical item. However, since the fifth (rising) tone shifts to the seventh (mid level) tone in Taiwanese tone sandhi, the *lang* in this paper receives the fifth (rising) tone throughout.

Lang is also traditionally treated as a pronoun denoting “other(s)” (Li and Liu 1995). Nonreferential uses are possible (ibid.), making the utterance more vivid and livelier (Cheng 1989) or attracting the other party’s attention (Huang 1959). *Lang* also has other discourse functions. We will not go any further here, and focus on *lang*-suffixation.

4. Examples of *Lang*-Suffixation

Diachronically, *lang* as a suffix is a consequence of grammaticalization. Originally, it was a content word. It then evolved to a pronoun and to a nominalizer. At last, it suffixed to a noun and lost its function as a nominalizer. It is this function that is our primary concern in this paper.

Lang is a productive suffix in the formation of words denoting human beings. A taxonomic summary is shown below:²

Gender/Age: *ca1-poo1-lang5* “man”, *ca1-boo2-lang5* “woman”, *gin2-a2-lang5* “child”, *siau3-lian5-lang5* “the youth”, *lau7-hue3-a2-lang5* “the aged”, *hu7-jin5-lang5* “married woman”, *tua7-lang5* “grownup”, *tiunn7-lang5* “wife’s father”.

Profession: *hak8-sing1-lang5* “student”, *cing3-cha5-lang5* / *co3-sit4-lang5* “farmer”, *sing1-li2-lang5* “merchant”, *than3-ciah8-lang5* “the low-paid”, *kang1-lang5* “worker”, *thak8-cheh4-lang5* “scholar”, *chit4-tho5-lang5* “person who fools around”, *kiann5-cun5-lang5* “sailor”, *tho2-hai2-lang5* “fisherman”, *mue5-lang5* “matchmaker”, *cing3-chai3-lang5* “person who grows vegetable”, *puah8-kiau2-lang5* “gambler”.

Place: *au1-ciu1-lang5* “European”, *ing1-kok4-lang5* “English”, *han5-kok4-lang5* “Korean”, *huat4-kok4-lang5* “French”, *hiong1-kang2-lang5* “Hong Konger”, *ho5-lan5-lang5* “Dutch”, *tai5-uan5-lang5* “Taiwanese”, *jit8-pun2-lang5* “Japanese”, *hoh8-lo2-lang5* “Southern Min people”, *ko1-hiong5-lang5* “Kaohsiunger”.

Location: *chau2-te7-lang5* / *cng1-kha1-lang5* “rural people”, *cai7-te7-lang5* / *pun2-te7-lang5* “local people”, *gua7-te7-lang5* “nonlocal people”, *gua7-kok4-lang5* “foreigner”.

Other individual-level predicates: *san3-chiah4-lang5* “the poor”, *ho2-giah8-lang5* “the rich”, *gong7-lang5* “foolish person”, *ho2-lang5* “good person”, *phainn2-lang5* “bad person”, *ho2-mia7-lang5* “person of good fortune”, *phainn2-mia7-lang5* “person of bad fortune”, *kan1-khoo2-lang5* “person of misfortune”, *han1-ban7-lang5* “clumsy person”, *gua7-hang5-lang5* “layman”,

² Our primary sources of data are Douglas (1873), Ogawa (1931-32), and Chen (1991), as well as examples elicited from some native speakers of Taiwanese.

pin5-tuann7-lang5 “lazy person”, *choo1-lang5* “rude person”,
phoo2-thong1-lang5 “ordinary person”, *ka1-ki7-lang5* “person on one’s own
side”³, *gua7-lang5* “person on someone else’s side”, *chau2-lang5* “scarecrow”⁴.

5. Two Types of *Lang*-Suffixation

As might have been observed, stems that allow *lang*-suffixation either denote human beings (mostly in the Gender/Age group and *hak8-sing1-lang5* “student” in the Profession group as an exception) or something else (as in the other groups), which are termed *Type I lang-suffixation* and *Type II lang-suffixation*, respectively. It is Type I that we argue for a kind reading, as will be evident soon.

It is not easy to explain why some nouns enter the Type I *lang*-suffixation as shown in the previous section, while some never do. We never heard of something like **lau7-su1-lang5* “teacher” and **kang1-ting5-su1-lang5* “engineer”.

My contemplation is that only when a noun becomes a kind that has a stereotype in the society can it be Type I *lang*-suffixed. In traditional Taiwanese culture, a man is supposed to be responsible, a woman to be virtuous, a child to be well-behaved, and a student to be diligent. That might explain why most Type I *lang*-suffixed nouns belong to the Gender/Age group.

6. Type I *Lang*-Suffixation

Relevant data will be shown for Type I *lang*-suffixation in this section. We will go over two case studies, along with a refinement of the notion *kind*.

6.1 A Case Study of *Gin-a* “Child”

6.1.1 *Gin-a* as a Bare Nominal

We discuss *gin-a* as a bare nominal in this section. Quantifiers are either present or absent in the following examples and may affect the grammaticality judgment.

The predicate in (4) is kind-level, as it is embedded in an implicit deontic modality requiring that children as a kind should have some discipline. (4b) is more

³ One anonymous reviewer pointed out that this expression is purely predicative, as (3a) shows a typical predicative usage and (3b) a typical nominal usage, the latter being ungrammatical:

- (3) a. *I7 si7 ka1-ki7-lang5*.
“He/She is on our side.”
b. **cit8-e5 ka1-ki7-lang5*
“a person on the same side”

⁴ A scarecrow is by no means a human being, in the same way that counterfeit money is not legitimately valid. Adjectival modification scopes over but one of the many-faceted ‘qualia structures’ of the generative lexicon model in Pustejovsky (1995).

natural than (4a), despite the idiomatic flavor here.

- (4) a. ?*Gin2-a2 u7 hinn7 bo5 chui3*.
b. *Gin2-a2-lang5 u7 hinn7 bo5 chui3*.
“Children should not speak but listen.”

Quantified nominals (either with or without *lang*) are not allowed, with the exception of *cit-e*, which functions like the generic *a/an* in English.

- (5) a. [*?Cit8-e5/*sann1-e5/*kui2-e5/*cin1-ce7*] *gin2-a2 ai3 jin7-cin1 thak8 cheh4*.
b. [*Cit8-e5/*sann1-e5/*kui2-e5/*cin1-ce7*] *gin2-a2-lang5 ai3 jin7-cin1 thak8 cheh4*.
“[A/Three/Several/Many] child(ren) should study hard.”

The predicates in (6) and (7) are object-level, as they imply episodic and existential contexts. While (6a) is natural, (6b) is unacceptable. (7) is similar.

- (6) a. *Cang5 u7 (cin1-ce7) gin2-a2 lai5 gun2-tau1 chit4-to5*.
b. **Cang5 u7 (cin1-ce7) gin2-a2-lang5 lai5 gun2-tau1 chit4-to5*.
“(Many) kids came to my place yesterday.”
- (7) a. *Gua2 khuann3-tioh8 nng7-e5 gin2-a2 teh4 thau1 theh8 mih8-kiann7*.
b. **Gua2 khuann3-tioh8 nng7-e5 gin2-a2-lang5 teh4 thau1 theh8 mih8-kiann7*.
“I saw two kids stealing.”

There is no difference regarding to suffixation of *lang* when it comes to predication, as shown below:

- (8) a. *I7 si7 (cit8-e5) gin2-a2, mai3 kah4 i7 ke3-kau3*.
b. *I7 si7 (cit8-e5) gin2-a2-lang5, mai3 kah4 i7 ke3-kau3*.
“He/She’s only a child. Don’t make a fuss about that.”

Thus, it is evident that, while *gin-a* without *lang*-suffixation can occur as an argument of both object-level and kind-level predicates and as a predicate itself, *gin-a* with *lang* suffixation forbids object-level interpretation as in (6) and (7).

As noted in Chierchia (1998: 379), “object-level predicates cannot apply to kinds”. This contrast strongly suggests that *gin-a* suffixed with *lang* carries a kind reading. However, we will see how modification complicates this issue in the next section.

6.1.2 *Gin-a* as a Modified Nominal

The data below seem to suggest that the *lang*-suffixed forms are consistently banned in modified nominals.

- (9) a. *Sann1-hue3 gin2-a2 tioh4 e7-hiau2 kong2-ue7 a7.*
b. **Sann1-hue3 gin2-a2-lang5 tioh4 e7-hiau2 kong2-ue7 a7.*
“A three-year-old child can speak.”
- (10) a. *Oh8-kng3-khim5 e7 gin2-a2 be7 pinn3-phainn2.*
b. **Oh8-kng3-khim5 e7 gin2-a2-lang5 be7 pinn3-phainn2.*
“Children who learn to play piano won’t be led astray.”
- (11) a. *Chi7-lai7 e7 gin2-a2 ciann1 ho2-mia7.*
b. **Chi7-lai7 e7 gin2-a2-lang5 ciann1 ho2-mia7.*
“Children living in urban areas are fortunate.”
- (12) a. *I7 si7 (cit8-e5) oh8 kng3-khim5 e7 gin2-a2.*
b. **I7 si7 (cit8-e5) oh8 kng3-khim5 e7 gin2-a2-lang5.*
“He/She is a kid who learns piano.”
- (13) a. *I7 si7 (cit8-e5) cin1 khiau2 e7 gin2-a2.*
b. **I7 si7 (cit8-e5) cin1 khiau2 e7 gin2-a2-lang5.*
“He is a smart kid.”

This contrasts with what we have observed in the bare forms of *gin-a/gin-a-lang*, where both the suffixed form and the unsuffixed form are allowed.

As reminded by an anonymous reviewer, most cases in this section do not refer to natural kinds. Also, a noun phrase modified by a relative clause can not form a property, since a relative clause *per se* refers to a property, which with the original NP’s property must compositionally form a new, non-primitive property that is no longer to be regarded as a kind. This leads to the question of what counts as a kind, as is the topic in the next section.

6.2 What Is a Kind?

Our first approximation: the kind nature of modified nominals is canceled. For human cognition, natural kinds on a biological basis (e.g. lions, bears) and artificial kinds on a conceptual basis (e.g. chairs, computers) are treated similarly. They are both perceived by human beings as kinds.

As Plato puts it, the philosopher’s sight is “in-sight” into the eternal, unchangeable ideal forms that exist within each person’s “soul”. What appears in the “real” world is but an imprecise imitation of an ideal form created by God, residing in each person’s memory. An ideal form already exists in one’s mind before a real object imitating that form comes to him or her.

Our notion of kinds here resembles that of ideal forms. Forms such as lions, bears, chairs, and computers are inherently viewed as kinds. Regularity over individuals is a necessary (but not sufficient) condition of kindhood.

Like bare nominals, modified nominals can refer to kinds, though not the basic kind. It is likely that *books with red hard cover* can be a kind. It is also likely that *books published before 1990* can be a kind, but what about *the books I borrowed from the library*?

If we maintain the definition of kinds as regularity over individuals, we might need to add the requirement that the regularity be individual-level. Chierchia (1995) argues that individual-level predicates are inherent generics. Thus a kind-denoting element always presupposes a generic reading. That genericity covers a wider range of data than kinds is demonstrated below.

- (14) a. *Books with red hard cover are expensive.*
b. *Books published before 1990 are expensive.*
c. *The books I borrowed from the library are expensive.*

Even though the subject of (14c) is not a kind according to our newly-added requirement, it nevertheless receives a generic reading owing to the individual-level predicate *expensive*.

The notion of kind has not been well-defined. From the observation above, modified nominals are likely to be degraded in their kindhood, depending on the property of the modifiers. Similar argument appears in Chierchia (1998: 348):

What counts as kind is not set by grammar, but by the shared knowledge of a community of speakers. It thus varies, to a certain degree, with the context, and remains somewhat vague. Lexical nouns identify kinds. Complex nouns may or may not.

It follows that what counts as kind also depends on what language a person speaks, since the way a concept is lexicalized varies across languages. In the study of *gin-a* above, it seems that all modified nominals reject *lang*-suffixation. There is a conflict in kindhood between the modified nominals and *lang*.

However, some examples above contain individual-level predicates, enabling the modified nominals to acquire kindhood. The kindhood of *lang* must be stronger than that defined and refined above to exclude those examples. Following Chierchia (1998: 348), I distinguish what I term *strong kind* and *weak kind*:

- ✓ Lexical nouns identify *strong kinds*.⁵
- ✓ Complex nouns may identify *weak kinds*, given that the modifiers are individual-level.

Therefore, *lang* imposes a strong kind reading on the stem it suffixes to.

It is subtle to determine the grammaticality of *ca-poo-gin-a-lang* “boys” and *ca-boo-gin-a-lang* “girls”. There seems to be inconsistency among native speakers. This inconsistency may be from the difference in perspective. On perspective regards *ca-boo-gin-a* as a bare nominal, allowing *lang*-suffixation. The other regards *ca-boo-gin-a* as a modified nominal, blocking *lang*-suffixation.

Since *ca-poo* “male” and *ca-boo* “female” contrasts in gender, a natural kind, their combination with *gin-a* also yield natural kinds. As expected, *ca-boo-gin-a-lang* can only be used in kind-level, but not object-level, contexts:

- (15) a. *Ca1-boo2-gin2-a2 khah4 ai3 lang5 the2-thiap4.*
 b. *Ca1-boo2-gin2-a2-lang5 khah4 ai3 lang5 the2-thiap4.*
 “Girls need more consideration (than boys do).”
- (16) a. *U7 cit8-e5 ca1-boo2-gin2-a2 lai5 ah4.*
 b. **U7 cit8-e5 ca1-boo2-gin2-a2-lang5 lai5 ah4.*
 “Here comes a girl.”

In English, “male child” is lexicalized as *boy* and “female child” as *girl*. It is unlikely, if not impossible, that “three-year-old child” or “smart child” ever get lexicalized.

6.3 A Case Study of *Ca-boo* “Woman”

In kind-level contexts, *ca-boo* and *ca-boo-lang* are equally acceptable (for both bare and modified nominals):

- (17) a. *Ai3 sui2 si7 lang5 e5 pun2-sing3. Ca1-boo2 ai3 sui2, ca1-poo1 ma7 ai3 sui2.*
 “It is human nature to be sensitive to one’s appearance. This applies not only to women, but also to men.”
- b. *Tui3 kam2-cing5 e5 cu7-su1 tok8-ciam3 lai5 khuann3, ca1-poo1-lang5 pi2 ca1-boo2-lang5 sit8-cai7 khah4 iong5-i7 ciah8-choo3.*
 “Truely, from the viewpoint of selfishness and monopoly of love, men become jealous easier than women.”

⁵ An anonymous reviewer suggests the term *natural kinds*. Since what counts as a kind is closely related to how a language user categorizes objects, some natural but others artificial, I retain the term here to emphasize the discrepancy between naturalness and human cognition.

c. *Phainn2 kue1 kau7 ci2, phainn2 ca1-boo2 kau7 gian5-gi2.*

“Bad melons are seedy; bad women are talkative.”

d. *Gau5 senn1 kiann2 e5 ca1-boo2-lang5 it4-ting7 tua7 khal-chng1.*

“A women who gives birth to a child easily must have a big butt.”

This is also true for object-level contexts and predication. We can interpolate deictic terms in between to make the whole NP object-referring. For example, *ai3 kong2-ue7 e7 hit8-e5 ca1-boo2-lang5* “that woman who is talkative” and *li2 cit8-e5 ca1-boo2-lang5* “you this woman”. The loss of kindhood may be attributed to the demonstrative pronouns.

There seems to be no difference between *ca-boo* and *ca-boo-lang*. This differs from the results found in *gin-a*. How can this be explained?

So far, we do not have satisfactory explanation concerning this distribution. We hypothesize that the kind reading for Type I *lang*-suffixation of *gin-a* is only a residual phenomenon. Language use prefers least effort (in distinguishing kindhood), because the relevant information is recoverable. Although there is no difference between *ca-boo* and *ca-boo-lang*, the kind sense is still stronger in *ca-boo-lang* than that in *ca-boo*, as reported by some native speakers.

7. Type II *Lang*-Suffixation

Relevant data will be shown for Type II *lang*-suffixation in this section. We will go over one case study, since the distribution is simple and similar for other words.

7.1 A Case Study of *Co-sit-lang* “Farmer”

Type II *lang*-suffixation is obligatory in forming human-denoting nouns. The *lang*-suffixed words occur in both kind-level and object-level contexts, as well as in predication. They also allow modification since this is the only form available.

(18) a. *Co3-sit4-lang5 cin1 sin2-khoo2.*

“Farmers work hard.”

b. *U7 cit8 kang1, cit8-e5 co3-sit4-lang5 lai5 kau3 i7 chi7 ke1 e5 liau5-a2.*

“One day, a farmer came to his chicken canopy.”

c. *A1-pa1 si7 co3-sit4-lang5, mui2-jit8 thau3-ca2 tioh8 ai3 loh8 chan5 cue3 kang1-kue3.*

“My father is a farmer. He works in the field early every morning.”

Even though Type II *lang*-suffixation is productive, we will not discuss other examples, since they exhibit the same distribution as the examples here.

8. Conclusion

We conclude this paper with a summary below:

1. There are two types of *lang*-suffixation in Taiwanese.
2. Lexical nouns identify *strong kinds*, while complex nouns may identify *weak kinds*, given that the modifiers are individual-level.
3. Type I *lang* is a “strong kind operator”.
4. Type I *lang* converts an object-referring NP to a kind-referring NP.
5. Type II *lang* converts a property (predicate) to an object-referring NP, which acquires its kindhood via covert type shift.⁶

The notion of kind, though closely related to genericity and individual-level predicates, should be independently exploited and studied by observing overt or covert type-shifting mechanisms involved.

Adapted from the model in Chierchia (1998: 359), we define three domains: (i) Pred (for property/predicate); (ii) Kind; (iii) Object. Type shifting is achieved either overtly or covertly. Type I *lang* and Type II *lang* are overt type-shifter. Type I *lang* shifts Object to Kind, whereas Type II *lang* shifts Pred to Object, which covertly gets *kindified*.

We also note that different morphological strategies affect the overall design of type-shifting mechanisms crosslinguistically. It is the interaction of morpho-syntax and semantics that is at work.

Language reflects human cognition. It is a mirror that shows how we perceive the world outside. In Plato’s term, there is a ‘perfect world’ where ideal models for all things exist: plants, animals, mountains, and rivers... Real-world entities are no more than imperfections deviating from the ideal models. For example, the ideal model of a ‘horse’ exists in our mind, *before* we see a real horse for the first time. It is the ideal model that helps the categorization of real-world entities.

As a linguistic practice, we might ask whether this perfect world is universal. If we equate a (strong) ‘kind’ (a variety of the notion ‘genericity’) to an ideal model in the perfect world, then it certainly cannot be universal. Kinds are culturally shaped. What counts as a kind in one culture is not necessarily a kind in another culture. The function of Type I *lang*-suffixation is like a litmus paper that qualifies strong kinds in Taiwanese. Kinds in other languages are different and may need other litmus papers.

References

⁶ This is simply a hypothesis. We may also assume that Type II *lang* converts a predicate directly to an kind-referring NP.

- Carlson, Greg N. 1977. A unified analysis of the English bare plural. *Linguistics and Philosophy* 1: 413-57.
- Carlson, Greg N. 1989. On the semantic composition of English generic sentences. In Gennaro Chierchia, Barbara H. Partee, and Raymond Turner (eds.) *Properties, Types and Meaning, II*, 167-92. Dordrecht: Kluwer Academic Publishers.
- Chen, Hsiu. 1991. *Taiwanhua Dacidian* [A Comprehensive Dictionary of Taiwanese]. Taipei: Yuanliu Publishing Company.
- Cheng, Robert L. 1989. *Mandarin Function Words and their Taiwanese Equivalents*. Taipei: Crane Publishing Company.
- Chierchia, Gennaro. 1995. Individual-level predicates as inherent generics. In Gregory N. Carlson and Francis Jeffry Pelletier (eds.) *The Generic Book*, 176-223. Chicago: The University of Chicago Press.
- Chierchia, Gennaro. 1998. Reference to kinds across languages. *Natural Language Semantics* 6: 339-405.
- Douglas, Rev. Carstairs. 1873. *Chinese-English Dictionary of the Vernacular or Spoken Language of Amoy: With the Principal Variations of the Chang-chew and Chin-chew Dialects*. London: Trübner.
- Huang, Ding-hua. 1959. Minnan fangyan li de rencheng daimingci [Personal pronouns in Southern Min dialect]. *Zhongguo Yuwen* 90: 571-74.
- Kratzer, Angelika. 1995. Stage-level and individual-level predicates. In Gregory N. Carlson and Francis Jeffry Pelletier (eds.) *The Generic Book*, 125-75. Chicago: The University of Chicago Press.
- Krifka, Manfred, Francis Jeffry Pelletier, Gregory N. Carlson, Alice ter Meulen, Godehard Link, and Gennaro Chierchia. 1995. Genericity: An introduction. In Gregory N. Carlson and Francis Jeffry Pelletier (eds.) *The Generic Book*, 1-124. Chicago: The University of Chicago Press.
- Li, Ing Cherry, and S. Ivy Liu. 1995. Lang in Taiwanese spoken discourse. In Feng-Fu Tsao and Mei-Hui Tsai (eds.) *Papers from the 1994 Conference on Language Teaching and Linguistics in Taiwan, Vol. I: Southern Min*, 167-202. Taipei: Crane Publishing Company.
- Ogawa, Naoyoshi et al. 1931-32. *Tai-Nichi Dai Jiten* [A Comprehensive Taiwanese-Japanese Dictionary], 2 Vols. Taihoku: Taiwan Sootokufu.
- Partee, Barbara H. 1987. Noun phrase interpretation and type-shifting principles. In Jeroen Groenendijk, Dick de Jongh, and Martin Stokhof (eds.) *Studies in Discourse Representation Theory and the Theory of Generalized Quantifiers*, 115-43. Dordrecht: Foris.
- Pustejovsky, James. 1995. *The Generative Lexicon*. Cambridge, Mass.: The MIT Press.