

Is Chinese a Negative Concord Language?

Hui-Ling Yang
Arizona State University

This study attempts to account for the apparent negative concord phenomena in Southern Min where two negatives (*m* and *bian*) co-occur without canceling each other out. I argue that this is not an instance of NEGATIVE CONCORD.

1. Introduction

Like Standard English, Chinese¹ is well known as a DOUBLE NEGATIVE language, yet there are occasions where two negatives co-occur such as in (1). The two negatives in Southern Min, namely *m* and *bian*, do not yield a positive reading, however.

- (1) tsit.si sit tsi **m** **bian** uan.than²
temporarily lose hope M need.not sadden
'You need not feel saddened due to your temporary loss of hope.'

Lien (2008) briefly notes cases like this as an instance of NEGATIVE CONCORD. This is linguistically marked as Southern Min mirrors Mandarin Chinese in terms of its syntactic behaviors. Is the negation in (1) by definition negative concord? A basic inquiry of this study is: Does the Chinese language permit negative concord at all?

This paper is organized as follows. In Section Two, I compare double negation with negative concord before diagnosing Southern Min data in Section Three. Section Four provides further evidence from contemporary corpora, followed by possible accounts in Section Five for the particular phenomenon summarized in 1. Section Six is the conclusion.

2. Double Negation vs. Negative Concord

This section characterizes double negation (DN) vs. negative concord (NC), particularly focusing on the latter type of negation. The discussion is for a later section where I argue that Southern Min does not exhibit negative concord.

2.1 Double Negation

¹ Chinese is used here in a more general sense.

² 一時失志毋免怨嘆, a line taken from a Taiwanese Southern Min popular song

DOUBLE NEGATION (DN) is by definition when two negatives cancel each other out (Haegeman 1995: 78). Modern Standard English and Mandarin are typical double negative languages; see examples (2)-(4) and (5)-(7), respectively for each language.

- (2) I can't **not** invite a colleague of whom I'm not a big fan.
 (3) I didn't eat **nothing**.
 (4) She can't believe that there is **nothing** he can do about it.

The English examples illustrate that negative constituents are not necessarily of the same type or form. For instance, the contraction *n't* in (2) is often considered a clitic; *nothing* in (3) is an indefinite pronoun, and the two negatives in 4 are in different clauses.

- (5) **mei**.you ren **bu** ai qian de. Mandarin
 NEG.have person NEG love money DE
 'We all love money.'
 (6) ta **bu**.hui **mei**(you) dai qian lai. Mandarin
 3sg NEG.will NEG carry money come
 'He will bring money with him.'
 (7) ni **bu**.yinggai **bu** qu. Mandarin
 2sg NEG.should NEG go
 'It is obligatory that you go.'
 (8) ni **fei** qu (**bu** ke). Mandarin
 2sg NEG go NEG allow
 'You must go.'

Sentences (5) and (6) exhibit the two commonly used negatives, *bu* and *mei*, in one sentence with different word order. *bu* is used twice in (7); (8) is a strong demand and in some cases, *bu ke* may be omitted, leaving the double negative sentence with one negative marker *fei*.

2.2 Negative Concord

NEGATIVE CONCORD (NC), on the other hand, represents cases where only a single negation out of multiple negative constituents gets interpreted (Crystal 2003: 94). As such, negative concord is also known as multiple negation. Languages documented as NC include the so-called "non-standard" English, French, Spanish, Greek, Arabic, Romanian, Polish, and so on.

Two concepts are essential in defining NC: the N-ELEMENTS and N-WORDS (e.g., Hergurger 2001). For example, *n-* in (9) is the N-element that licenses the N-words following it—*rien* and *personne*, the two of which express negation in independent contexts, as shown in the word-by-word transcription.

- (9) *Personne n'a rien dit à personne.* French
 No one NEG-has nothing said to nobody
 'No one said anything to anyone.' (Déprez 1997: 107)

The so-call N-words³ (Laka 1990) are typically negative indefinite items in NC languages, such as 'nobody' and 'nothing' in English. However, the equivalent 'nobody' in concord constructions cannot be interpreted as 'nobody'. For example, the second *personne* in (9) can't read as 'nobody'. Briefly, the negation in *rien* and *personne* is overridden due to the concordance effect (Déprez 1997: 106).

Nonetheless, English also has negative concord to verbs, aside from indefinites; see (10). Again, an indefinite such as *none* participates in such a sentence.

- (10) None of 'em **can't** fight. (Labov 1972: 786)
 'None of them can fight.'

There are two types of NC, namely negative doubling and negative spread (Ionescu 1999: 25). (11a) exemplifies the former and (11b) the latter (Ionescu 1999: 25-26).

- (11) a. Ion ***(nu)** mai vizitează pe **nimeni.** Romanian
 John **not** any more visits PE **nobody**
 'John visits nobody anymore.'
 b. Ion ***(n)-a** călătorit **nicăieri,** **niciodată.** Romanian
 John **not -has** travelled **nowhere** **never**
 'John has never travelled anywhere.'

As shown in (11a), negative doubling involves one instance of N-element and N-word each, whereas there is one N-element *n-* together with two occurrences of N-words in negative spread, as in (11b). Either type expresses one semantic negation only. As seen in 11, two or more negative words do not cancel each other out.

Note that one language may utilize both types of negation, such as English and French; see examples (12) and (13). Therefore, to discuss whether or not Chinese uses negative concord does not dismiss the fact that it has a system of double negation, as demonstrated in sentences (5)-(8).

- (12) I **didn't** eat **nothing.** English
 a. 'I did eat something.' DN reading
 b. 'I didn't eat anything.' NC reading

³ Other similar terms are negative words or negative concord items, as opposed to negative polarity items (NPIs).

- (13) **Personne** (n')a **rien** fait. French
 No one NEG-has nothing done
 a. 'No one has done nothing.' DN reading
 b. 'No one has done anything.' NC reading (de Swart & Sag 2002: 373)

Negative concord is nothing new in English as Chaucer in Middle English had made use of it; see (14).

- (14) **Nolde** **nevere** write in **none** of his sermons...(Chaucer)
 'He wouldn't ever want to write any of his sermons.' (Barry 2002: 178)

In fact, scholars such as Herburger (2001) have associated the co-existence of DN and NC in the same language with its historical development, known as the Jespersen Cycle. This shows that a language can change from NC to DN, or vice versa.

The mechanism behind double negation and negative concord is complex, which has caught intensive attention in the literature, particularly for Romance and Slavic languages (e.g., de Swart & Sag 2002 and Tsuska 2010). I leave this for future research.

3. Southern Min as a NC language?

Based on the criteria addressed in the previous section, I then diagnose Southern Min sentences to see if this language is qualified as a NC language.

Scholars such as Lien (2008) have observed apparent negative concord in Southern Min although he does not provide any account for such as phenomenon, however. An example is 1, repeated below as (15), where two negatives *m* and *bian* co-occur.

- (15) tsit.si sit tsi **m-bian** uan.than.
 temporarily lose hope M-need.not sadden
 'You need not feel sadden due to your temporary loss of hope.'

Interestingly, the negative morpheme *m* and *bian* 'need.not' are used together without canceling each other out in semantics⁴. This may have led Lien to conclude that Southern Min has NC.

This conclusion, however, cannot be held true. Southern Min does not have equivalent N-words/negative indefinites nor does it utilize the N-element. My first point here is that there is no negative indefinite; see (16), which is ungrammatical⁵.

- (16) *li m-bian tso **bo.tai.tsi.**

⁴ I do not transcribe *m* as NEG in that it does not contribute to negation in (15). It is underspecified here.

⁵ Southern Min negative *bo* is not a D(eterminer); see Gillon & Yang (2010).

2sg M -need.not do nothing.
 Intended: ‘you don’t need to do anything.’

3.1 The N-word diagnostic

A skeptical reader may argue that Chinese does utilize *WH-INDEFINITES*. This still does not provide evidence that Southern Min has negative indefinites. For instance, *siann-mih* ‘anything’ is a typical indefinite in Southern Min. The *wh*-indefinite pronoun *siann-mi* is, however, restricted in its use.

With appropriate contexts, (17) can be read in two ways, depending on how *siann-mih* is interpreted: (17a) shows that it is an indefinite, whereas it is an interrogative pronoun ‘what’ in (17b). As a matter of fact, when the *wh*-word *siann-mih* stays-in-situ, the interrogative reading is preferred over the indefinite one.

- (17) i m-bian tso **siann-mih**.
 3sg M -not.need do what-thing
 a. ‘He doesn’t have to do anything.’
 b. ‘What does he not have to do?’

In (18), the indefinite reading assures when the same element *siann-mih* is fronted, and, meanwhile, bounded by the operator *long*. The object raising of *siann-mi* together with the occurrence of the operator *long* such as in (18) prevents the ambiguity. This is how *wh*-indefinites function in Southern Min.

- (18) li **siann-mih** **long** m-bian tso.
 2sg what-thing LONG M-not.need do
 ‘You don’t have to do anything.’

One may argue that the *wh*-indefinite *siann-mih* in (17) appears c-commanded by *m* or *bian*. However, this *wh*-word is by no means a negative indefinite, thus not an N-word. On one hand, *siann-mih* cannot be an answer to a question like (19), which is a resemblance of the French sentence (20).

- (19) li khuann tioh **siann-mih?** Southern Min
 2sg see attach what
 ‘What have you seen?’
 ***Siann-mih**./ Bo siann(-mih).
 what not.have what
 ‘Nothing.’
- (20) Qu’est-ce que tu as vu? French
 What-is-it that you have seen
 ‘What have you seen?’

Rien.

‘Nothing.’ (de Swart & Sag 2002: 375)

On the other hand, *bo* in the answer in (19) indicates that *siann-mih* carries no negation and that it is by definition not equivalent to an N-word like French *rien* in 20.

A possible counterexample may be (21), where there appear multiple occurrences of negation and *siann-mih* is interpreted as ‘anything’.

- (21) i **m-si** **siann-mih** long **m-bian** tso.
 3sg M-COP what LONG M-need.not do
 ‘It’s not the case that he didn’t need to do anything.’

However, *siann-mih* can appear in affirmative environments too; see (22).

- (22) i **m-si** **siann-mih** long **tioh(-ai)** tso.
 3sg M-COP what LONG need do
 ‘It’s not the case that he needed to do everything.’

In brief, *siann-mih* is never a negative indefinite⁶. Examples (21) and (22) show that *siann-mih* may be merely a variable. It sometimes gets interpreted as ‘anything’ (INDEFINITE PRONOUN) and other times ‘everything’ (UNIVERSAL PRONOUN).

3.2 The N-element diagnostic

Turning to the second major point: there is no N-element in Southern Min. As previously stated, an additional N-element is required for a language to be characterized as an NC language. One may then suspect that *m* is “that N-element” since the (modal) verb *bian* denotes ‘need not’.

To be qualified as an N-element, the negative particle *m* would have to appear with all negatives in Southern Min. As seen, none of the combinations in (23) is possible, except for the combination of *m* and *bian*; one such example is (15).

- (23) M +NEG intended reading
 **m bo* ‘not have’
 **m be* ‘not able’
 **m m* ‘not want’
 **m bue* ‘not yet’
 m bian ‘not need’

⁶ The Japanese *nani-mo* ‘what thing’ is a negative indefinite, however (see Watanabe 2004).

To conclude, with the data in sections 3.1 and 3.2, it is evident that Southern Min does not meet the criteria of NC.

3.3 An exceptional case

Let's now examine an exceptional case with an occurrence of *m* together with *tioh*.

Not only is *m* disqualified for an N-element, but it may not carry any concrete semantics at all. Consider the following sentence.

- (24) li (m) tioh tshing khah kau e.
 2sg M need wear more heavy PAR
 'You need to dress warm.'

Despite the fact that the negative *m* can be absent, the presence of *m* does not give rise to a negative reading in (24). This is relevant to this study on *m* and *bian*, in that *tioh* is the affirmative counterpart of *bian*. We may conclude that *m* is not a negative in (24) and (25).

- (25) li (m) bian tshing siunn kau.
 2sg M not.need wear too heavy
 'You need not dress too much.'

Again, the phenomenon only exists in the affirmative *tioh*; it does not spread to other SM negatives and form a paradigm; see (26).

- | | | |
|------|-----------------|------------------|
| (26) | M + AFFIRMATIVE | intended reading |
| | * <i>m-u</i> | 'have' |
| | * <i>m-e</i> | 'able' |
| | * <i>m-beh</i> | 'want' |
| | <i>m-tioh</i> | 'need' |

To conclude, the example in (25) is atypical for Chinese, which is well-known to characterize double negation. Scholars have noticed such phenomena but with no further explanation provided. On the other hand, no research has pointed out the incident as in 24. Are these two instances related? The issue at hand is how to account for the non-negative reading of *m* in the two sentences. The puzzle may be whether there is a paradigm within the necessity *tioh-bian* (modal) verb pair. The following section examines contemporary Southern Min corpus data, attempting to find some patterned syntactic distributions between *tioh* and *bian*.

4. The *tioh-bian* paradigm

Data under investigation are from the conversational lines of two Taiwanese Southern Min soap operas and story series⁷. I first show instances of two negatives: *m* and *bian* ‘not.need’ with one negation getting interpreted⁸. I then examine corpus data for the occurrences of *m* ‘not’ and *tioh* ‘need’ that does not yield a negative reading.

4.1 *m* and *bian*

Corpus data show that cases where *m* and *bian* co-occur with a verb are usually for persuasive and deontic purposes; see (27)-(29), respectively. The negative *bian* is a modal verb in such cases.

- (27) 你毋免煩惱啦!
 Li **m-bian** huan.lo la.
 2sg M-not.need worry PAR
 ‘You don’t have to worry about it.’
- (28) 叫阮阿兄毋免去趁錢囉
 Kio guan a.hiann **m-bian** khi than tsinn lo.
 ask my brother M-not.need go make money PAR
 ‘telling my brother that there is no need to make money.’
- (29) 你安怎樣仔煮飯毋免煮菜湯
 li an.tsuann-iunn-a tsu png **m-bian** tsu tshai-thng.
 2sg why cook rice M-not.need cook soup
 ‘Why did you cook rice without having to make soup?’

The other occasion with the co-occurrence of *m* and *bian* in the corpora is when both proceed a nominal phrase; see (30), where *bian* serves as a verb.

- (30) 我食麵麼毋免錢啊
 gua tsiah mi ma **m-bian** tsinn a.
 1sg eat noodle also M-need money PAR
 ‘I can have noodles without having to pay.’

4.2 *m* and *tioh*

Corpus analysis reveals that the appearance of *m* together and *tioh* shows impatience, as in (31). The English *why-not* transliteration may also provide us with a hint that negative morphemes may not yield negation.

⁷ Sentences are modern Southern Min from the corpora (The Collection of Taiwanese Southern Min Stories, edited by Wan-chuan Hu), except when the source is mentioned.

⁸

- (31) u siann-mih tai.tsi **m** **tioh** kin kong. SM soap opera
 have what-thing matter M need quicklysay
 ‘You need to spit it out if you have something in mind.’/
 ‘Why don’t you speak up?’

What is more interesting is that most cases of *m-tioh* are in CONDITIONALS, as in (32).

- (32) na an.ne gua **m** **tioh** ai tan paipai
 if so 1sg M need need wait god.worship
 tsiah e-tang kah (...) -in sng.
 then can with (people)-PL play
 ‘If this is so, I would have to wait until god-worshipping when I can play with them.’ SM soap opera

Examples (31) and (32) demonstrate that the previously negative morpheme *m* is used to denote IRREALIS rather than negation.

5. Possible Accounts

A skeptical reader may argue for de-nasalization in *m*, thus leading to *bian* appearing alone in some cases. Then, this hypothesizes that *m* and *bian* occurred before the stage where there was only single negative word *bian*. This needs further research on how the morpheme 免 is used in historical texts. If this is the case, the phenomenon where *m* co-occurs with *tioh* will be viewed as an independent case. We then need to account for the *m-tioh* instance described in section 4.2, where *m* that does not participate in semantics.

Below I provide one of the possible theoretical accounts.

5.1 Negation cycles

This subsection discusses a cyclical change in negation, with a focus on Mandarin and Southern Min. It is to show that a lexical negative can lose its semantic features, thus becoming reanalyzed as a functional head in another position.

The literature has intensively addressed the issue of NEGATION CYCLES across languages (e.g., van Gelderen 2008 & 2011, among others). Two grammaticalization paths are often identified in the negation cycle: one is concerned with an indefinite phrase, such as English, and the other has to do with a verbal head, such as Chinese (van Gelderen 2011: 292, 299). According to van Gelderen, a loss of semantic features as shown in (33) accounts for the reanalysis of a lexical head to a higher head (to another higher head and to disappearance, when a RENEWAL⁹ is observed).

- (33) lexical head > (higher) head > (higher head) > zero

⁹ A renewal doubling may not exist in Chinese, however.

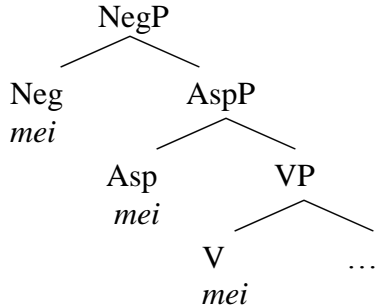
[NEG]

[i- NEG]/[u-F]

[u-F]/[u-F]

The mechanism for the latter path is illustrated in (34).

(34) The negative head cycle (van Gelderen 2011: 298)



The Chinese case involves a grammaticalization path: V > T > C; see van Gelderen (2011) for a discussion of Mandarin data. In other words, a negative derives from a full-fledged verb, gets reanalyzed as in T (as an aspect or modality marker), and/or in C (as an interrogative or discourse marker)¹⁰.

Southern Min also demonstrates such a grammaticalization path (Yang 2009). Take *bo* as an example. One observes such a path from the synchronic Southern Min data (35)-(38).

(35) gua **bo** tsinn. (*bo* as a verb)
 1sg not.have money
 ‘I have no money.’

(36) gua **bo** khi hakhau. (*bo* as negative aspect)
 1sg NEG. ASP go school
 ‘I didn’t go to school.’

(37) gua **bo** beh khi hakhau. (*bo* as an negative)
 1sg NEG will go school
 ‘I won’t go to school.’

(38) li u khi hakhau **bo?** (*bo* as an interrogative)
 2sg U go school Q
 ‘Did you go to school?’

5.2 Loss of semantic features

The verbal head grammaticalization discussed in 5.1 also applies to *m*; see (39)-(41)¹¹.

¹⁰ T is where tense, aspect, and modality are accommodated. Some may argue that Chinese is a tenseless language; I used T only for conventions. I adopt Kayne (1994) for the interrogative C where anything below TP moves to the spec of CP. Note that some scholars may use IP for TP.

¹¹ The other negatives (*m*, *be*, *bue*) also follow a similar path (for details see Yang 2009).

- (39) i **m** tsiah png. (*m* as a modal verb)
 3sg not.want eat rice
 'He doesn't want to eat.'
- (40) gua **m** si gua.kok.lang. (*m* as a negative)
 1sg NEG be foreigner
 'I am not a foreigner.'
- (41) 伊有講啥話毋? (example from corpus)
 I **u** kong siann ue **m**? (*m* as an interrogative)
 He U say what words Q
 'Did you say any words?'

Although *m* is used across categories in synchronic data, *m* is more productive in its functional than its lexical usage. For instance, in my previous work, I concluded that *m* as a verb, meaning 'want', is rarely in use in modern Taiwanese Southern Min any longer (Yang 2009). Additionally, the same morpheme *m* is reanalyzed as an interrogative marker sitting in the C despite the fact that *m* as a question marker is decreasing in its use. According to my recent fieldwork, *m* has also become the least preferred interrogative marker. It also poses more restrictions on such usage. In most cases, *m* appears in tag questions; the verbs are limited to some, as shown in (42)-(46). A shift of category in *m* is undergoing.

- (42) li beh khi khuann i, **si** **m**? 是毋
 You want go see he, be Q
 'You want to see him, don't you?'
- (43) lan **mai** koh sio.tsenn, **ho** **m**? 好毋
 We not-want again flight all-right Q
 'Let's not flight any more, all right?'
- (44) li si tiam tsia tua.han e, **tioh** **m**? 著毋
 You be at here grow-up PRT right Q
 'You grew up here, right?'
- (45) li **ai** lai, **tsai** **m**? 知毋
 You must come know Q
 'You must come. Do you understand?'
- (46) *i beh lai, **lai** **m**? *來毋
 He want come, come Q
 'He wants to come, doesn't he?'

With a better understanding of negative cycles in general and Chinese negation in particular, we now proceed to the use of *m* in non-negative contexts.

5.3 Irrealis marking

I tentatively analyze the morpheme *m* as marking irrealis mood. Negation, interrogative and subjunctives are irrealis. Let's look into three sets of data below.

First, like *bian* 'need.not', *tioh* 'need' is compatible with the *wh*-indefinite *siann-mi*; compare (47) and (48). It is likely that *m* is to mark mood onto *tioh* or *bian*.

- (47) li (m)-**tioh** siann-mih long ai kong tsut lai.
 2sg M-need what-indef LONG need say out come
 'It is mandatory that you say everything/spill the beans.'
- (48) li (m)-**bian** siann-mih long ka i kong.
 2sg M-need.not what-indef LONG KA 3sg say
 'It is essential that not tell him everything.'

Next, I show that a clause is apparently an island for mood *m*; compare (49) and (50).

- (49) li (m)-**tioh** ai¹² khi.
 2sg M-need need go
 'You should go.'
- (50) gua kio i (*m)-**tioh** ai khi.
 1sg ask 3sg M-need need go
 'I ask that he should go.'

The last case is when the double modals, *m-tioh* and *bian*, appear in one sentence, as in (51). The speaker utters this sentence with a doubt but possibly assumes, in the embedded clause, someone not having to pay. Again, *m* expresses irrealis mood.

- (51) li m-**tioh** (m)-**bian** lap tsinn (a)?
 2sg M-need M-not.need pay money PAR
 'Is it the case that you don't have to pay?'

When we switch the order of the modal verbs, the sentence (52) becomes ungrammatical. Again, *m-tioh* can only be in a matrix clause.

- (52) *li (m)-**bian** m-**tioh** lap tsinn (a)?
 2sg M-not.need M-need pay money PAR
 Intended: 'Isn't it the case that you need pay?'

¹² The extra word *ai* is the doubling of *tioh*; this is not unusual in grammaticalization, as *tioh* 'need' has gradually lost its semantic features.

When *bian* and *tioh* appears independently with *m* as in (53) and (54), the sentences are grammatical; see below.

- (53) li **(m-)bian** lap tsinn.
 2sg M-not.need pay money
 ‘You need not pay.’
- (54) li **(m-)tioh** ai lap tsinn.
 2sg M-not.need need pay money
 ‘You need to pay.’

6. Conclusion

This study begins with two sentences with *m* where *m* does not participate in semantics; 1 and (24) are repeated as (55) and (56) below.

- (55) tsit.si sit tsi **m-bian** uan.than
 temporarily lose hope M-need.not sadden
 ‘You need not feel saddened due to your temporary loss of hope.’
- (56) li **(m-)tioh** tshing khah kau e.
 2sg M-need wear more heavy PAR
 ‘You need to dress warm.’

Scholars analyze this construction in Southern Min as negative concord. I however argue that there is only one negative at work in these sentences. Based on the corpus data in this study, my tentative analysis is to treat *m* as marking the speaker’s mood.

The advantage of this analysis is that it accounts for the interpretations of both (57) and (58). In (57), two negatives co-occur with only one semantic negation. In (58), when *m* ‘not’ stands alone, there is however no negative interpretation. Examples (57) and (58) further show that *m* is mood sensitive.

- (57) **m-tioh** kin seh to.sia.
 M-tioh hurry express thank
 ‘Why don’t you express your gratitude now?’
- (58) a **m** kin seh to.sia.
 or M hurry express thank
 ‘You should express your gratitude now.’

Along the same lines, the other negatives in Southern Min, such as *bo* ‘not.have’ in (59) and *be* ‘cannot’ in (60), also serves a discourse function. Future research may also include these negative markers.

- (59) a **bo** gua lai khi a.

YANG: NEGATIVE CONCORD

- or BO 1sg come go PAR
'Otherwise, see you later then.'
- (60) **be** tshin tshiunn huat.sing siann.mih tua tai.tsi le.
BE like like happen what big matter PAR
'It looks like something big really happened.'

This study is not yet prepared to supply a thorough theoretical account. A better postulation for now is to analyze *m* as mood. Further research certainly needs to continue.

YANG: NEGATIVE CONCORD

ABBREVIATIONS

1sg	first person singular
ASP	aspect marker
COP	copula verb
NC	negative concord
DN	double negation
NEG	negative
PAR	final particle
PL	plural
Q	question marker
SM	Southern Min

REFERENCES

- Barry, Anita K. 2002. *English grammar: Language as human behavior*, 2nd edn. New Jersey: Pearson Education Inc.
- Crystal, David. 2003. *A dictionary of linguistics and phonetics*, 5th edn. UK: Blackwell Publishing.
- Déprez, Viviane. 1997. Two types of negative concord. *Probus* 9(2). 103-43.
- Gelderen, Elly van. 2008. Negative cycles. *Linguistic Typology* 12(2). 195-243.
- Gelderen, Elly van. 2011. *The linguistic cycle: Language change and the language faculty*. New York: Oxford University Press.
- Gillon, Carrie & Hui-Ling Yang. 2010. Poster presented at the annual meeting of the Linguistic Society of America, Baltimore.
- Haegeman, Liliane. 1995. *The syntax of negation*. Cambridge: CUP.
- Herburger, Elena. 2001. The negative concord puzzle revisited. *Natural Language Semantics* 9. 289-333.
- Howe, Darin. 2005. Negation in African American Vernacular English. In Yoko Iyeiri (ed.), *Aspects of English negation*, 171-201. Philadelphia: John Benjamins.
- Ionescu, Emil. 1999. A quantification-based approach to negative concord in Romanian. In Geert Jan M. Kruijff & Richard T. Oehrle (ed.), *the Proceedings of Formal Grammar*, 25-35.
- Labov, William. 1972. Negative attraction and negative concord in English grammar. *Language* 48. 773-18.
- Laka, tziar. 1990. *Negation in syntax: On the nature of functional categories and projections*. Cambridge, MA: Massachusetts Institute of Technology dissertation.
- Lien, Chinfa (連金發). 2008. 〈台灣閩南語欲求情態和否定的動態分析：競爭和演變〉，〈歷史演變與語言接觸：中國東南方言國際研討會〉，香港中文大學中國語言及文學系，15-17。
- Swart, Henriëtte de, & Ivan A. Sag. 2002. Negation and negative concord in Romance. *Linguistics and Philosophy* 25(4). 373-417.
- Tsurska, Olena. 2010. *Clausal Architecture and Sentential Negation in Slavic*. Tempe, AZ: Arizona State University dissertation.
- Watanabe, Akira. 2004. The genesis of negative concord: Syntax and morphology negative doubling. *Linguistic Inquiry* 35. 559-612.
- Yang, Hui-Ling. 2009. The loss of negative features in interrogatives. Tempe, AZ: Arizona State University, MS.