Implicit Negative Adverbs and Their Semantic Features
in Mandarin:
Using *Gan* as an Example

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Abstract

This paper studies the synchronic meaning, semantic features and evolution of the implicit negative adverbial *gan*. First, the differences between implicit negative adverbs and normal negative adverbs is studied. *Gan* is used as an example to distinguish specific meanings in Proto-Mandarin and Mandarin. Second, the negation feature and negative parts of the implicit negative adverbial *gan* are explored. This shows the negation as a type of pragmatic negation. Third, the origin of *gan* and its evolution are explored. This predominantly follows the trace of noun-adjective-adverb, with the negative feature during the process of diachronic evolution.

Keywords

implicit negation, *gan*, synchronic meaning, diachronic evolution

1. Introduction

Negation exists in all languages and all languages have a different way to express negation. The most common way to express negation is by adding negative words into a sentence, as shown in (1–2):

(1)　a. I will go there.
　　　b. I will <u>not</u> go there.
(2)　a. 我　想　　去　　學校。
　　　　I　want　go　school
　　　　'I want to go to school.'
　　　b. 我　不　　想　　去　　學校。
　　　　I　Neg.　want　go　school
　　　　'I don't want to go to school.'

The underlined portion of (1b–2b) is added before or after the verb in English and Mandarin, being used to form negative structures and negate assertive sentences in (1a–2a). Thus, the

words *not* in English and 不 'not/no' in Mandarin are known as negative markers. However, some sentences do not contain negative words, yet still have negative meanings, as with (3)–(4):

(3) 我們　原來　　做夢　　都　　想　　　抱　　金娃娃，
　　 we　　originally　dream　Adv.　want-Aux　hold　golden dolls
　　 但　缺　信息，　沒　項目，　乾　著急，　無　門路。
　　 but　lack　message　Neg.　project　<u>gan</u>　worry　Neg.　way
　　 'We all dreamt of holding the golden doll firstly, but we lacked messages and projects, and worried but cannot do anything and cannot find any ways out.'

乾著急 in (3) is not a negative structure, yet it has an implicit meaning, which is *worried but cannot do anything*. Hence, it seems that 乾 (*gan*) contains certain negative meanings, making *gan*+VP seem to imply a negative sentence. In dictionaries, this sense of *gan* is described by the term *vainly*. It appears that *gan*+VP can best be defined by the description of *doing something vainly*. However, this definition cannot distinguish *gan* from other adverbs containing implicit meanings, such as *bai* (as in *bai-pao-yi-tang*), *xia* (as in *xia-mang-yi-chang*) , etc. Also, the definition of *gan* is useless in semantic recognition, especially for machine translations. For example, *gan-deng-yi-tian* means *wait for the whole day but get no expected result*, while the Google machine translation result was *waited for a day*. Hence, *gan*'s translation is skipped. Therefore, the semantic meaning and function of *gan* require further study. Most studies about such adverbs focus on members' similarities, that is, *doing something vainly*, as in the case in Zhang (1993, 1994), Cai (2013) and Liu (2011). Yuan (2014), Zeng & Yuan (2015, 2017, 2019) studied the adverb *bai*, and conclude that *bai* is an implicit negative adverb and *bai*+VP can imply negative structures. However, this leaves room for questions: Does *gan* have the same implicit negative function and why? Where does the negative feature of *gan* come from? In the following discussion, we will analyze the adverbial *gan* from the perspectives of synchronic and diachronic and discuss the semantic feature and evolution path of *gan*.

2. The synchronic meaning of *gan*

The *Modern Chinese Dictionary* (6th edition) defined *gan* as follows:

> *Gan*: vainly, *bai*. e.g., *gan-zhaoji* 'worried but cannot take measures'.

However, the senses of *gan* in natural languages are more intricate than that. After searching through CCL (Center for Chinese Linguistics PKU) corpus, *gan* has 3 senses when used as adverbs:

(4)　坐　　在　　場　　　外的　　　法國　　　女隊　　　　　教練、　原
　　　sit　prep.　field　outside　French　women-team　coach　old
　　　中國名將　　　　　　　　胡玉蘭　只有　乾　著急，　卻　　無可奈何。
　　　Chinese-famous player　hu-yu-lan　only　gan　anxious　but　helpless
　　　'Hu Yulan, the coach of the French women's team and ex-pingpong star of China,
　　　sitting outside the field, is very anxious but unable to do anything, helpless.'

(5)　田貴　　　急於　　擺脫　　這種窮追，　站起身，　虛偽地
　　　Tian-gui　busy　rid　this chase　stand　hypocrisy
　　　乾　　笑　　　道：　　"好，好，　　我　　檢討。"
　　　gan　laugh　say　okay okay　I　self-criticism
　　　'Tian Gui was anxious to get rid of this kind of chasing, stood up and laughed
　　　hypocritically: "Okay, okay, I will review my fault.'

(6)　他妻子　　也是　　　黨員，　　　　也　　　和　　　大家　　　一樣，
　　　he wife　either be　party-member　either　with　others　same
　　　在禮堂　　　　　乾　　等了　他　　一個來小時。
　　　in-auditorium　gan　wait　him　one hour
　　　'His wife is also a party member, and like everyone else, she waited for him for an
　　　hour in the auditorium.'

Gan 著急 in (4) means the subject can be anxious but thereafter it is unable to do anything else. *Gan* means *doing something with no desired result*, which is *doing something vainly*. This sense is defined similarly by *Modern Chinese Dictionary*. *Gan* 笑 in (5) means a fake smile performed by an unhappy person, gan_2+VP means *doing something superficially and falsely*. The second sense of *gan* is *superficially/falsely*. Gan_3+VP in (6) means *keep doing something and with no change*. *Gan* 等 in (6) means that the subject waits for her husband for an hour, during which period the subject's state is always in waiting and unchanged. The third sense of *gan* is *monotonously*.

In addition, after studying *gan* from Tang Dynasty to Qing Dynasty, we found that it had two more senses in Pre-Modern Chinese and Modern Chinese, as depicted in (7–8):

(7)　官司　　　檢了　屍，　　正賊捉　　不住，　　乾　　把　　　地主
　　　officer　check　body　thief catch　Neg.　gan　prep.　landlord
　　　並側近平　人　　　涉疑　　　打拷。
　　　side　person　suspect　beat
　　　'After checking the body, the officer could not catch the thief, only tortured the
　　　suspects who were close to the landlord.' (《老乞大》 *Lao Qi Da*)

(8)　秦檜　　沒　功勞　　　請　　俸，　乾　吃了　堂食御酒。
　　　Qin Hui　Neg.　contribution　ask-for　raise　<u>gan</u>　eat　royal-food
　　　'Qin Hui asked for a raise without any contribution, this is like eating free royal food.'
　　　(《金元曲》 *Jin Yuan Qu*)

Gan+VP in (7) predicates a lower-level event, being the torturing of certain suspects who had no major suspicions, that is, people who are around the landlord usually. Other higher-level events can include the torturing of main suspects. *Gan* means *only/no high-level event*. Another sense of *gan* in (8) is *getting something for free or without paying for it*. *Gan*+VP predicates an event where the subject received his salary from his country but did not make any contribution. This is like eating a free meal from the royal family.[1]

Thus, the senses of *gan* in Pre-Modern Chinese and Modern Chinese and Mandarin can be summarized as follows:

Table 1 The senses of *gan*

Sense	Examples	Time
no result/vainly	*gan* 著急 'worry' *gan-zhao-ji* [2]	Mandarin
no change	*gan* 等 'wait' *gan-deng*	Mandarin
falsely/superficially	*gan* 笑 'laugh' *gan-xiao*	Mandarin/ Pre-Modern Chinese and Modern Chinese
only/**no** higher-level event	*gan* 打 'beat' *gan-da*	Mandarin/ Pre-Modern Chinese and Modern Chinese
no pay/freely	*gan* 吃 'eat' *gan-chi*	Mandarin/ Pre-Modern Chinese and Modern Chinese

Another table depicting the meaning of *bai*, *kong* and *xia* will show the characteristics of *gan* more clearly, as explored in Table 2.[3]

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[1]　*Gan* can also mean superficially/falsely in Pre-Modern Chinese and Modern Chinese, which has the same meaning as that of Mandarin.

[2]　The inclined letters in this table are *pin-yin* in Mandarin.

[3]　The study of *bai* and *xia* can be found in Zeng & Yuan (2015, 2017, 2019) and Wang (2012).

Table 2　The senses of *bai*, *kong* and *xia*

Sense	*bai* (白)	*kong* (空)	*xia* (瞎)
no result/vainly	*bai* 著急 'worry' *bai-zhao-ji*	*kong* 等 'wait' *kong-deng*	*xia* 忙 'busy with' *xia-mang*
no practical action		*kong* 急 'worry' *kong* 講 'talk' *kong-ji / kong-jiang*	
no reason/groundless			*xia* 說 / 講 'talk' *xia-shuo*
no purpose/blindly			*xia* 吵吵 'clamour' *xia* 喊 'shout' *xia-chao-chao* *xia-han*
no pay/freely	*bai* 吃 'eat' *bai-chi*		

In addition, there are some verb phrases that *gan* cannot modify, as in (9).

(9)　a. * 他　　乾　　認為　　李四　　來不了。
　　　　　he　　<u>gan</u>　　think　　Lisi　　cannot come
　　b.　* 他　　　白　　　認為　　李四　　來不了。
　　　　　he　　bai　　think　　Lisi　　cannot come
(10) a. * 他　　乾　　來了。
　　　　　he　　<u>gan</u>　　come
　　　　Intended: 'He comes here but gets nothing.'
　　b. 他　　白　　來了。
　　　　he　　bai　　come
　　　　'He comes here but gets nothing.'

Neither *bai* nor *gan* can modify 認為 'think' in (9a) and (9b). This is because the verb 認為 'think' expresses subjective meanings, and both *gan* and *bai* have evaluative function, emphasizing the speaker's subjective thoughts, too (Zeng & Yuan 2018). In this way, the evaluative function of *bai* and *gan* seem to be redundant in (9a) and (9b). The core meaning of *gan* emphasizes the unicity and unchangeable status of an action or an event. Thus *bai* can modify 來 'come' while *gan* cannot in (10a) and (10b), as 來 'come' must relate to the change of position.

As discussed above, *gan* has different senses in Mandarin and Pre-Modern Chinese and Modern Chinese, when modifying different verbs. In the *Modern Chinese Dictionary* (6th

edition), *gan* has only one sense, which is *vainly*. Admittedly, setting up too many senses will not fit the economy and efficiency principle of language. Having only one sense for *gan* is obviously not enough to fully cover *gan*+VP in natural languages. We are not denying the definition of *gan* in the *Modern Chinese Dictionary*, but it certainly requires additional content.

3. The semantic feature of *gan*

As with what has been studied in Section 1 and Section 2, most of the semantic explanations of *gan* have negative connotations, which are depicted as no. This is partly why it is called implicit negation. One may ask what the difference between an implicit negation and normal negation like the terms no/not is. Firstly, according to what is negated, negation can be classified into two classes: semantic negation and pragmatic negation (Shen 1993). Semantic negation negates the truth condition of the proposition. Pragmatic negation only negates felicity conditions, which does not change the truth value of the proposition, as with (11–12):

(11) a. Today is warm.
   b. Today is not warm.
(12) a. Today is warm.
   b. Today is not warm, it's super hot!

(11b) negates the semantic meaning of the word *warm*, which is also the truth value of the proposition in (11a). Thus, the semantic negation of *today is warm* would actually mean *today is cold*. While (12b) only negates the felicity condition of *today is warm*, which is *today is not hot*. Thus, the pragmatic negation of *today is warm* is to emphasize *today is super hot*.

From the negated portion in *gan*+VP, it can be concluded that negative feature of *gan* is pragmatic negation. When *gan* modifies a verb phrase, the negated portion is not the truth value of VP, but the felicity conditions VP should have when it occurs, such as prerequisites, results, or manners of the proposition. For example, *gan* 等 'wait' means *wait and stay unchanged but do not get the wanted results*, which is pragmatic negation. 沒 等 'not wait' means *the event of waiting is not occurring*. This is semantic negation.

When *gan*+VP negates the prerequisites, results, or manners of a proposition, it can imply the normal negative sentences, as in (13–15):

(13) a. 乾　　言　　強　　　語，　千　　祈　萬　　　求。
   gan　speak　make-effort　speak　thousand　pray　ten-thousand　beg
   '(She) keeps speaking and begs for a long time.' (《敦煌變文集》 *Dunhuang Bianwen Ji*)

b.（她）　一直　　言語　　沒有　　停止。
　　she　always　speak　Neg.　stop
'She keeps speaking and doesn't stop.'

(14) a. 打二百文　　長錢　　　　　酒　　來，　　我不　　這般　　乾
get 200 wen　enough-money　wine　come　I Neg.　this　　gan
吃　　你的。
eat　　yours
'Come to get wine enough for 200 wen, I will not have free food from you.' (《金元曲》 *Jin Yuan Qu*)

b. 我不　　這般　　不　　付錢　　吃　　你的。
I Neg.　this　　Neg.　pay　　eat　　yours
'I will not have food from you without paying money.'

(15) a. 幹部　　看著　　這種　　情況，　　也是　　乾　　著急，
cadre　look　　this　　situation　either　gan　worry
沒　　有　　好　　辦法。
Neg.　have　good　idea
'The cadres look at this situation, also worry about it but can't do anything, having no good ideas.' (2000 年《人民日報》 *People's Daily* in 2000)

b. 幹部　也是　著急　卻　不　　能　　解決問題。
cadre　either　worry　but　Neg.　can　solve problem
'The cadres worry about it but can't solve the problem.'

(13b–15b) are normal negative sentences, implied by the underlined portions, *gan+VP*, in (13a–15a). *Gan* in (13a) negates the manner of VP, *speak*, with the sense of *no change*. In (14a), VP is *have food from others*. The prerequisite of VP is *paying before getting*, which is negated by *gan*. *Gan* 吃 'eat' means *having food without pay*. *Gan* in (15a) means *doing something with no results*. It negates the result of the VP.

The negation of *gan* is implicit, and what it negates is not the truth value of a proposition. Hence, when it co-occurs with some aspect and tense markers, like 了 (*le*), the sentences have different syntactic representations than normal negative markers, like 不 and 沒 'no /not' as in (16–17):

(16) a. 我　沒　　吃　　午飯。
I　　Neg.　eat　　lunch
'I didn't have lunch.'

b. 我吃　了　　　午飯。
I eat　le-tense　lunch
'I have already had lunch.'

      c. * 我　　沒　　吃　　了　　　　飯。
          I　　Neg.　eat　　le-tense　　lunch

(17) 小王　　　　乾　　坐　　了　　　　一個　上午。
    Xiao-wang　gan　sit　le-tense　　one　morning
    'Xiao-wang sat there motionlessly the whole morning.'

(16a) is a sentence with general negative word 沒. It negates the truth value of VP 吃午飯 'have lunch' and means the event of 吃午飯 'have lunch' has not occurred. When 了 (*le*) appears after the verb 吃 'eat', it means VP has already happened, as in (16b). Therefore, general negative words cannot co-occur with *le* in Mandarin, as in (16c). Nevertheless, *gan* is an implicit and pragmatic negative marker, not negating the truth value of an event. It is free to co-occur with *le*, as in (17).

4. The semantic evolution of *gan*

As discussed above, *gan* is an implicit negative adverb with the function of pragmatic negation. We may ask: If this is so, where does the negative feature come from? To answer this question, the semantic evolutive trace of *gan* needs to be studied.

    According to ancient books and literature, the part of speech of *gan* is originally a noun, denoting the sky as follows:

① 乾，上出也。從乙；乙，物之達也。
   ' 乾 *gan*, means objects protrude upward. The meaning of *gan* relates to 乙, and 乙 means things that reach the vertex.' (《說文解字》 *Shuo Wen Jie Zi*)

② 達於上者，謂之乾。
   'Things that reach the vertex are called as *gan*.' (《說文通訓定聲》 *Shuo Wen Tong Xun Ding Sheng*)

③ 古寒切，平寒見。……乾，本音虔，今借為乾濕字。
   '*Gu han qie, ping han jian.…gan*, the original pronunciation is *qian*, now loaned as *gan* with the meaning of dry.' (《廣韻‧寒韻》 *Guang Yun*)

④ 上出也。此乾字之本義也。自有文字以後，乃用為卦名，而孔子釋之曰健也，健之義生於上出。上出為乾，下注則為濕，故乾與濕相對。……從乙。乙、物之達也。
   'The original meaning of *gan* is protruding upward. After the characters were created, *gan* is used as one of the eight trigrams. Confucius noted this as 健, meaning protruding upward. Protruding upward is 乾 (*gan*), and injecting downward is the meaning of wet. This is why *gan* has the opposite meaning of wet, in other words,

dry. The meaning relates to 乙 , and 乙 means things that reach the vertex.' (《說文解字注》 *Shuo Wen Jie Zi Zhu*)

From ① , ② and ③ , we can find clues towards studying the original meaning and pronunciation of *gan*. The definition in *Shuo Wen Jie Zi* has great significance in the etymology study of *gan*, and shows that *gan* means *reaching the vertex*. *Guang Yun* illustrated the pronunciation of *gan*, and its connection with the meaning of *dry*. From ④ , the method by which the meaning of *reaching the vertex* evolved towards the opposite meaning of *wet* is studied. Precisely, *gan* is used as one of the eight trigrams originally, meaning *protruding upward or reaching the vertex*. Since this has the opposite meaning *of injecting downward*, *wet*, *gan* can express the meaning of *lacking water*. In other literatures, *gan* is defined as *exhausted*, which is studied in *Wang Li Gu Han Yu Zi Dian*, as it has the opposite meaning of *wet*. Therefore *exhausted* is used as an extended sense of *dry*. When used as an adjective, *gan* predominantly has these two senses, as in (18–19):

(18) 始食肉者，先食乾肉。(*Gan*: dry)
　　 'People who started to eat meat firstly ate <u>dried meat</u>.' (《禮記・間傳》 *Rites*)
(19) 張脈償興，外彊中乾。(*Gan*: superficial, exhausted)
　　 'Blood vessels and blue veins swell, <u>outwardly strong and inwardly weak</u>.' (《左傳・僖公十五年》 *Zuozhuan*)

Gan in (18) is used to modify 肉 'meat', 乾肉 means *dried meat*, and the meaning of *gan* is *dry/ lacking of water*. In (19), *gan* is used as a predicate, and 外彊中乾 means *not as strong as it looks*. The sense of *gan* can be defined as *superficial*.

Until the period of the Southern and Northern Dynasties, *gan* was first used as an adverb. An earlier sense of *gan* was falsely/superficially, which has similar semantic features to the adjective *gan*, *superficial*, as in (20–21):

(20) 曄乾笑云罪至而已。(*Gan*: falsely, superficially)
　　 'Ye <u>laughed sadly</u> and said that the crime was coming.' (《宋書・範曄傳》 *Book of Song*)
(21) 乾施含宥，未加治考。(*Gan*: falsely, superficially)
　　 '<u>On the surface, pretending to punish</u> but actually implies forgiveness, and didn't interrogate with torture.' (《宋書・徐湛之傳》 *Book of Song*)

From the evolution of *gan*, it can be seen that the sense of *gan* could be divided as Neg.+XX. For example, <u>*no result*</u>, <u>*no change*</u>, and *falsely* mean *the outside part and the inside part are <u>not</u> the same*. From noun to adverb, the negative semantic feature is always carried by

gan during the process of its evolution. Therefore, *gan* is not a negative word, but it implies negative meanings.

5. Conclusion

This paper uses the adverbial *gan* as an example, to show implicit negation in Mandarin. Firstly, *gan* has different senses, including *no result*, *no change* and *superficially*, which contain implicit negative portions as Neg.+XX. Further, when *gan* modifies a verb phrase at the formal level, *gan*+VP can imply a negative sentence with *no or not* in it. At the semantic level, *gan* only negates the felicity condition of VP, but not the truth value of it. Lastly, the special implicit negation of the adverbial *gan* comes from the nominal *gan* in ancient Chinese. The evolutional path of *gan* can be described as noun-adjective-adverb, making *gan* an implicit negative adverb in Mandarin. The study of *gan* will be helpful for a deeper understanding of the negative phenomenon in Mandarin. Further study is needed to expand on the implicit negative family using different languages.

Acknowledgments

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中國語文通訊
CURRENT RESEARCH IN CHINESE LINGUISTICS

漢語的隱性否定副詞及其語義特徵
——以"乾"為例

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提要

本文以副詞"乾"為例考察漢語中一類具有隱性否定意義的副詞的共時語義、語義特徵及歷時演變。首先以"乾"為例說明它們在近代漢語和現代漢語中的語義分布，然後分析隱性否定副詞與一般的否定副詞的差異，並討論隱性否定副詞的否定性特徵和語義中被否定的內容，並指出這種否定屬於語用否定。最後探討"乾"的否定特徵來源和語義演變路徑，發現它經由名詞 - 形容詞 - 副詞這樣的路徑發展而來，其否定性語義貫穿始終。

關鍵詞

隱性否定，"乾"，共時語義，歷時演變

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