Directionality of Change:
Grammatical Variation and *Do*-Constructions in Taiwan Mandarin*

Kawai Chui

National Chengchi University

The present study investigated sets of spoken and written data from different corpora to understand the directionality of grammatical change of *do*-constructions in Taiwan Mandarin. The variation takes place in two different ways: The 'modifying-v variant' modifies the head noun *dòngzuò* 'action' in a VP starting with *zuò* 'do'; the 'nominalized-v variant' is the head of the direct object. The nominalized-v variant with modification occurs when language users engage in reportages to increase informational content, whether oral or written. The modifying-v variant with modification occurs in written reportages to deliver more information. In speech, however, the modifying-v *do*-constructions mostly lack modification, forming an individualistic linguistic style. The findings demonstrate that written language has affected spoken language, the same variant could develop distinct structural patterns to meet different communicative needs, and some structural development of the two variants could converge, break the conventional distinction between speech and writing and reveal language specificity.

Key words: *do*-constructions, grammatical variation, directionality of change, speech and
　　　　　writing

1. Introduction

Linguistic variation is ubiquitous, whether people are aware of it or not. Recently, a particular grammatical construction has drawn the attention of the media in Taiwan due to severe criticism of its novelty. Great public attention and discussion was initiated by a famous chef named *Ajishi*, who had a good public image in Taiwan because of his skillful cooking and lack of negative media coverage. However, a magazine spotted him entering a motel with a woman who was not his wife on November 20th and December 2nd, 2014. He thus held a press conference live on television a few days later. During this press conference, instead of using the common lexical *yǒngbào* 'embrace', *xiézhù* 'help', *bāoróng* 'tolerate', *bàobèi* 'inform' as the main verbs in his utterances, the chef incorporated each of them in a VP construction starting with *zuò* 'do' as the main verb and *dòngzuò* 'action' as the head noun of the direct object for the expression of the same meaning. Variation thus arises as there are different ways of saying the same thing (Labov 1972). For instance, to report the fact

that he and the woman embraced at the motel, the chef produced a *do*-construction in (1).[1] See the abbreviations of linguistic terms in the appendix.

(1) Yǒu **zuò** yi-ge **yǒngbào** de **dòngzuò.**
    PRF do one-CL embrace DE action
    '(We) did an embracing action.'
    (Source: *Ajishi* press conference)

On December 19th, a news article in the United Daily News (UDN) commented on the unusual constructions, and provided more examples from different sources, such as the case of a government spokesman who described what a former CEO did on his first day in jail in (2). A more common VP consisting of the transitive verb *yuèdú* 'read' and the direct object of *fójīng* 'Buddhist scriptures' could have been used, but the official used a 'do-a-Buddhist-scripture-reading' structure instead. In fact, (2) is structurally different from (1), in that *yuèdú* takes the place of *dòngzuò* as the nominal head in the object position, but the news article did not make this distinction.

(2) Yǒu **zuò** yī-ge **fójīng** de **yuèdú.**
    PRF do one-CL Buddhist.scriptures DE reading
    '(He) did a reading of Buddhist scriptures.'
    (Source: UDN)

The article also claimed that the *do*-constructions were mainly produced by particular persons or communities of people, such as the chef, government officials, news anchors on TV, and live news reporters.[2] In addition, the usage was further metaphorized as a 'cancer', growing and spreading malignantly from speech to writing. Evidence in support of this claim about the direction of spread came from a written notice at a small restaurant which informed diners that the owner would not ask customers about their choice of vegetables, as expressed by the *do*-phrase *zuò* 'do' *xúnwèn* 'inquire' *de* 'DE' *dòngzuò* 'action' in (3).

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[1] See https://www.youtube.com/watch?v=lTIyg9Z2ch0.
[2] Wang Steak had requested its staff to use special constructions including the 'do–modifying-v–action' usage. Chinatimes.com on Aug. 25, 2015 reported that Wang Steak would soon require its servers to cease using such constructions. Because the usage is mainly prescriptive, the present study does not discuss the *do*-constructions from Wang Steak or other work contexts. See http://www.chinatimes.com/realtimenews/20150825004256-260405.

(3) Bù zài **zuò xúnwèn** de **dòngzuò**.
    NEG again do   inquire DE action
    '(We) won't do the inquiring action again.'
    (Source: UDN)

The chef's production of the *do*-constructions at the press conference and the publication of the UDN article gave rise to public discussion. The linguistic variation was harshly criticized as verbose, imprecise, and erroneous. It was further regarded as hindering communication, as evidence of the degeneration of Chinese language education, and even of weak and illogical thinking. The criticism and low social acceptance of the two types of constructions suggest that they are not yet completely accepted, at least in spoken discourse.

In brief, Mandarin Chinese in Taiwan is undergoing a grammatical variation where a lexical verb commonly used as the main verb is incorporated in a *do*-construction in two different ways for the expression of a very similar, if not identical, meaning, and that the variation in speech has not been entirely accepted. However, we know little about the variant usages in speech and writing, let alone the direction of the linguistic spread.

In the current study, two grammatical variants of *do*-constructions were distinguished, namely the 'modifying-v variant' and 'nominalized-v variant'. For the former, a lexical verb, such as *yǒngbào* 'embrace' in (1), is used to modify the following head noun *dòngzuò* 'action' in the VP. The main verb *zuò* 'do' and the head noun bear little semantic content so the meaning of the whole construction centers on the meaning of the modifying verb, in that the subject matter in (1) is specifically 'embracing' rather than the generic 'doing an action'. For the nominalized-v variant, a lexical verb, such as *yuèdú* 'read' in (2), becomes the nominal head of the direct object. Semantically, the meaning of the VP also rests on the meaning of the nominalized head rather than on the main verb *zuò*; thus, the main subject matter in (2) is specifically 'reading', not the generic 'doing'. Constructions of this type are similar to light-verb structures in English (Jespersen 1965, Leech 2006), such as *do the cleaning* and *have a drink*. Huang & Lin (2012) discussed the co-occurrence and ordering of two or more light verbs in Taiwan and Mainland Mandarin Chinese. Here, the focus is rather on the whole construction comprising the verb *zuò* and its direct object in linguistic variation. In short, the two variants are alternative ways of expressing the same thing. They are structurally similar, a lexical verb being incorporated in a *do*-construction; semantically, the incorporated verb determines the subject matter of the whole VP. The structural patterning and occurrence of the modifying-v and nominalized-v *do*-constructions in different types of spoken and

written texts will be investigated for understanding the directionality of the grammatical change.

The issue about the spread of the linguistic variation arises as both the modifying-v and nominalized-v variants appear in spoken and written discourse. The UDN article, without evidence of any kind, took it for granted that the influence was from speech and affected the writing of slogans, notices, and news, as illustrated by the written notice at a restaurant in (3). The initiation of variation from speech and the typical path of influence from spoken to written discourse have been attested to by a large body of studies (Fowler 1988, Fairclough 1994, Croft 2000, Bybee & Hopper 2001, Biber 2003, Bybee 2006, Kuo 2007, Good 2008, Hruschka et al. 2009, Biber & Gray 2011). Conversationalization in English media discourse (Fowler 1988, Biber 2003), for instance, uses speech-like features such as pronouns, contractions and incomplete sentences in news writing. Conversationalization in Mandarin has also been found in news headlines, and the use of slang and of a mix of local dialects increased in the news headlines from 1895 to 2005 (Kuo 2007). However, there is a lack of evidence for a reverse direction of influence. For the initiation of variation from writing, Biber & Gray (2011:226) proved with evidence from the 18th to 20th centuries that English complex noun phrases emerged from academic writing, a style "characterized by an extremely dense use of non-clausal phrases and extremely complex noun phrase structure," such as *blood glucose level*, *his learning in all sciences*, or *a sudden increase in the circulating medium*. "[T]hese innovations were all initiated in writing and have subsequently developed in informational written discourse, with little transfer to spoken conversational discourse at all" (Biber & Gray 2011:247). In the case of the innovation of *do*-constructions, transfer did take place. The remaining question is: Has speech affected writing, or vice versa?

To answer this question, the present study investigates a range of text varieties in both spoken and written modes to understand the directionality of grammatical change of *do*-constructions across speech and writing. "[W]riting is an important and influential mode of expression, a legitimate linguistic channel supporting important registers in a community's linguistic repertoire" (Finegan & Biber 2001:239). Written and spoken data together will then present a more complete and comprehensive range of the usage and development of the variants in Taiwan Mandarin. Specifically, the study investigates the structural patterns and the occurrence of the modifying-v and nominalized-v variants of *do*-constructions in different types of spoken and written texts to understand whether spoken language has influenced written language or vice versa, whether the two variants undergo different paths of grammatical change, and whether the development of the same variant would diverge in different situations. The findings will show that the UDN claim about the spread of the modifying-v and

nominalized-v *do*-constructions from speech to writing is incorrect. Written language can influence spoken language. In linguistic change, the same variant could develop distinct structural patterns. On the other hand, despite the conventional distinction between speech and writing (Fowler 1988, Fairclough 1994, Croft 2000, Biber & Conrad 2001, Bybee & Hopper 2001, Finegan & Biber 2001, Biber 2003, Ni 2003, Kuo 2007, Biber 2009, Biber & Gray 2011, Biber 2012), some structural developments of the two variants could converge, break the convention, and reveal language specificity.

The next section introduces the methodology and data collection of the present study. The analysis of the structural patterns and rates of occurrence of the variants in spoken and written discourse is presented in Section 3. The quantitative and qualitative findings are discussed in relation to the linguistic spread of the variants across speech and writing in Section 4. The conclusion is given in Section 5.

2. The corpora and methods

Biber (2009, 2012) and Biber & Conrad (2001) emphasized the importance of the use of both spoken and written data in the study of language use and language variation. For instance, the use of 3-word and 4-word lexical bundles was found dominant in spoken discourse, but a different combination of invariable function words and an intervening content word was common in written academic discourse (Biber 2009); the collocates for the verbs *have*, *make*, and *take* in conversation and informational writing did not overlap (Conrad & Biber 2009). Thus, the potential difference between these two modes in language variation is acknowledged here. The present study includes sets of spoken and written data from different corpora for the study of *do*-constructions. The spoken data consists of face-to-face conversations, live broadcast news reports, the chef *Ajishi*'s cooking program on television, and interviews with the chef taken from chat shows. The conversational data came from two sources: One was from the NCCU Corpus of Spoken Mandarin (Chui & Lai 2008, Chui, Lai & Chan 2017),[3] which has been collecting daily face-to-face conversations since 1996 between participants who know each other well. Twenty-seven excerpts yielded 83,263 words. Another source was the Mandarin Conversational Dialogue Corpus (MCDC) which comprises eight free conversations collected in 2001 between people who had not met before. All of these naturally-occurring conversational data are essential to examine whether the variation

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[3] The data of the NCCU Corpus of Spoken Mandarin are available at TalkBank at http://talkbank.org/access/CABank/TaiwanMandarin.html.

prevails in vernacular speech. The second type of spoken data was live broadcast news reports posted on YouTube. According to the UDN article and related blog discussions, the *do*-constructions were used a lot in broadcast news. Last, to understand the speech style of the chef *Ajishi* in public situations, two kinds of data were collected from YouTube: one from the chef's unscripted cooking program, *Stylish Man – The Chef*, and the other from interviews on television in 2011 and 2014. The spoken data totaled about 52 hours of speech. Apart from the data from the NCCU Corpus of Spoken Mandarin that contain transcripts, word counts were not available. There were not any written transcripts for the YouTube videos. The *do*-constructions were retrieved by way of the Chinese subtitles on the videos and further checked and confirmed by two analysts.

The written data came from two sources. One was the Academia Sinica Balanced Corpus of Modern Chinese 4.0 (Sinica Corpus) consisting of 11-million words. It includes written data from newspapers, magazines, books, academic journals, textbooks, reference books and other academic works, and includes a wide range of genres including reportage, commentaries, essays, novels, stories, fables, handbooks, letters, announcements, advertisements, illustrations, biographies and poems. The other source of data was the Chinese GigaWord 2 Corpus consisting of 382-million words from Taiwan's Central News Agency (CNA). All of the CNA data were categorized as reportage writing. The details of the different sets of data are shown in Table 1.[4] Altogether, the spoken and written data represent various genres (Ochs 1979, Celce-Murcia & Olshtain 2000). First, daily conversations are unplanned, whereas written texts are planned discourse. In between are the live broadcast news reports, the chef *Ajishi*'s TV cooking program, and his TV interviews. Second, data from the broadcast news and the cooking program are mainly transactional, while the TV interviews are interactional. Finally, the distinction between the former two lies in the different content of speech.

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[4] A similar study of *do*-constructions was published in Chui (2016). As a piece of popular science work, it mainly provided a general linguistic perspective to grammatical change without a detailed investigation of the potential paths of development. The types of data included in the previous work also differed from those of the current study.

Table 1. Details of the data

	Years of data collection	Types of spoken data	Length of recording
I	1996 - 2012	Conversations	1190 minutes
II	2007 - 2015	Live broadcast news reports	946 minutes
III	2012 - 2015	*Stylish Man - The Chef*	909 minutes
IV	2011; 2014	*Ajishi*'s interviews on television	100 minutes
	Years of data collection	Types of written data	Corpus size
V	1981 - 2007	Sinica Corpus 4.0	11-million words
VI	1991 - 2002	Chinese GigaWord 2 Corpus	382-million words

There were criteria for selecting modifying-v and nominalized-v *do*-constructions for inclusion in the study. First, the UDN news article mentioned lexical constituents other than *zuò* 'do' and *dòngzuò* 'action', including the more literary verb *jìnxíng* 'carry something out' and other nominals like *chǔlǐ* 'handling' and *bùfèn* 'part'. These can be used to form structures similar to *do*-constructions, such as (4) with *jìnxíng* being the main verb, and (5) with *chǔlǐ* taking the place of *dòngzuò* as the head of the direct object. The current study, however, focuses on *do*-constructions comprising the more frequently-used *zuò* and *dòngzuò*.

(4) **Jìnxíng**   yī-ge   xiàjià   de   **dòngzuò.**
carry.something.out one-CL take.down.from.the.shelves DE action
'(The shop) carried out a taking-(problematic-food)-down-from-the-shelves action.'
(Source: UDN)

(5) Yào **zuò** yī-ge   shuākǎ   de   **chǔlǐ.**
need do one-CL use.the.credit.card DE handling
'(They) need to do a paying-with-the-credit-card handling.'
(Source: UDN)

Structurally, each construction starts with *zuò* 'do' as the transitive main verb, and ends with *dòngzuò* 'action' or a nominalized verb as the head of the direct object. Semantically, the main verb *zuò* and the nominal head *dòngzuò* contribute little content to the whole construction, the modifying verb or nominalized verb expressing the main subject matter. Finally, to ascertain that the two types of *do*-constructions are different ways of saying the same thing, the meaning of the two variants has to be closely similar, if not identical, to the meaning of the corresponding full-fledged verbs. In (1), for instance, the *do*-construction is mainly about an embracing event, as conveyed by the modifying-v variant *yǒngbào* 'embrace'; the same meaning can as

well be conveyed by *yǒngbào* as the main verb in (6). Similarly, in (2) the meaning of the *do*-phrase centers on the meaning of the nominalized-v variant *yuèdú* 'read', which can also be expressed by the same form *yuèdú* in the main verb position in (7).

(6) Yǒu **yǒngbào.**
    PRF embrace
    '(We) embraced.'
    (Source: Author)
(7) Yǒu **yuèdú** fójīng.
    PRF read Buddhist.scriptures
    '(He) read Buddhist scriptures.'
    (Source: Author)

Two analysts followed the above selection criteria and searched for instances of modifying-v and nominalized-v *do*-constructions in different datasets separately. The inter-analyst reliability for the identification of the two types of constructions with regard to transitivity, the head of the direct object, and meaning was above 90% on average. In cases of disagreement, re-analysis was done. Data without consensus were not used in the study. Agreement was reached on 191 instances of the modifying-v *do*-construction from the spoken and written data (I–VI), and on 3,262 instances of the nominalized-v *do*-construction from the spoken data and Sinica Corpus (I –V). The nominalized-v instances outnumbered the modifying-v counterparts by seventeen to one. Aside from the quantitative difference, the structural analysis of the constructions and usages in different situations of use are crucial to understanding the development and spread of the variants. Altogether, 3,453 instances of modifying-v and nominalized-v *do*-constructions were included in the data base for the study.

3. Variants of *do*-constructions

This section investigates the structural patterns typical of the two variants of *do*-constructions and their frequency of use in different types of texts. It will be shown that the same variant develops distinct structural patterns in different situations of use, and that a similar structural pattern is found in the two types of *do*-constructions. Altogether, the quantitative and qualitative analyses will be essential to understand the paths and the directionality of the grammatical change across the two modes of communication.

3.1 The modifying-v variant

Of the 191 instances of the modifying-v variant, 81.2% appeared in written discourse and 18.2% were from spoken discourse. The *do*-constructions with the modifying-v variant start with the main verb *zuò* 'do' and end with the head of the direct object *dòngzuò* 'action'; in between is the variant which functions to modify the nominal head. The UDN news article also regarded the classifier phrase *yī-ge* 'one-CL', which can simply be *yī* or *ge*, as obligatory in the constructions, as exemplified in (1) and (8). Huang (1999) proposed that *yī-ge* is an emerging indefinite article, just like *a(n)* in English. However, since it has not been grammaticalized, its occurrence is optional. In our corpus of data, *yī-ge* was rarely used, with just three instances in speech and two in writing. See Table 2. Like the demonstratives and classifier phrases, *yī-ge* was considered as a type of nominal modification in the present analysis.

(1) Yǒu **zuò** yi-ge **yǒngbào** de **dòngzuò.**
    PRF do one-CL embrace DE action
    '(We) did an embracing action.'
    (Source: *Ajishi* press conference)

(8) Zuò **yī-ge** yīnyìng de dòngzuò.
    do one-CL respond.accordingly DE action
    '(They) did a responding-accordingly action.'
    (Source: CNA)

Table 2. The modifying-v *do*-constructions and *yi-ge*

	Speech		Writing	
Use of *yī-ge*	3	8.3%	2	1.3%
Lack of *yī-ge*	33	91.7%	153	98.7%
Total	36	100.0%	155	100.0%

Besides *yī-ge*, other constituents could occur along with the modifying-v variant in the VP, such as the quantifier *yīxiē* 'some' and adjectival *ānwěn* 'stable' in (9), and the adverbial *fēnpī* 'in batches' in (10). With modification, the direct objects in the three instances became complex NPs. "A complex noun phrase with various kinds of modifiers can package a relatively large amount of information, which would otherwise have required several clauses with less elaborately modified NPs" (Ni 2003:160).

(9) Zuò **yīxiē ānwěn wěndìng** tāmen rénxīn   de   dòngzuò.

    do   some steady stabilize 3PL   human.heart DE   action

    '(They) did some stable, stabilizing-human-heart actions.'

    (Source: Broadcast news reports)

(10) Zuò **fēnpī**   chūtuō   de   dòngzuò.

     do   in.batches sell (the stocks) DE   action

     '(They) did a selling-(the-stocks)-in-batches action.'

     (Source: Sinica Corpus)

Two distinct patterns of packaging information in the object NP by modification were found. As shown in Table 3, nearly 80% of the spoken data did not have modifying elements other than the variant, but in the written data, at least one additional modifying constituent was included almost 60% of the time. The chi-square value indicates a significant difference between the two patterns (χ^2 (1) = 16.149, p < .0001). In other words, more information tends to be delivered in writing than in speech. In English, complex NPs are also more abundant in writing than in conversation (Biber 2003, Ni 2003). The remaining question is whether the two distinct structural patterns of the same variant are associated with particular situations within the same mode of discourse. This will be taken up in Section 3.3.

Table 3. Modification in modifying-v *do*-constructions

	Speech		Writing	
Use of other modifying constituents	8	22.2%	92	59.4%
Lack of other modifying constituents	28	77.8%	63	40.6%
Total	36	100.0%	155	100.0%

3.2 The nominalized-v variant

The nominalized-v *do*-constructions were much more frequently used, totaling 3,262 instances in the data base: 145 instances in spoken discourse and 3,117 in written discourse. *Do*-constructions of this type also start with *zuò* 'do' as the main verb but the head of the direct object is a nominalized verb rather than *dòngzuò* 'action'. The classifier phrase *yī-ge* 'one-CL' (including the simplified *yī* or *ge*), as in (11), only occurred 3.9% of the time. See Table 4.

(11) Bǎ   dāngxià   fāshēng de zhòngdà shìjiàn zuò **yī**   chéngxiàn.
   BA   immediate happen DE big   incident do   one presentation
   '(They) did a presentation about the big incidents that had just happened.'
   (Source: Sinica Corpus)

Table 4. The nominalized-v *do*-constructions and *yi-ge*

	Speech		Writing	
Use of *yī-ge*	43	29.7%	122	3.9%
Lack of *yī-ge*	102	70.3%	2995	96.1%
Total	145	100.0%	3117	100.0%

In speech, however, *yī-ge* was used almost 30% of the time, as in the instances produced by the government spokesman in (2), a news reporter in (12) and a conversational participant in (13). This difference between the use of *yī-ge* across the two modes is statistically significant ($\chi^2(1) = 191.170$, $p < .0001$). Whether the higher proportion is associated with communicative situations will be discussed in Section 3.3.

(12) Jǐnxiāo-rényuǎn zhèngzài zuò **yī-ge**   rénmìng   de   sōujiù.
   firefighters   PROG   do   one-CL human.life DE   search.and.rescue
   'The fire fighters are doing a human-life search and rescue.'
   (Source: Broadcast news reports)
(13) Xiànzài de   tāmen méiyǒu zuò **yī-ge**   zhēnzhèng   de   guīhuà.
   now   DE 3PL   NEG   do   one-CL real   DE   plan
   'For now, they haven't done a real plan.'
   (Source: MCDC)

In contrast to the classifier phrase, the rates of the use of modification in *do*-constructions, as shown in Table 5, are similar between speech and writing, and show no statistically significant difference ($\chi^2(1) = 2.635$, $p = .105$). In general, there is a higher proportion of complex NPs in nominalized-v *do*-constructions, as exemplified by the nominal modifier *rénmìng* 'human life' narrowing the scope of the head *sōujiù* 'search and rescue' in (12), and by the adjectival modifier *zhēnzhèng* 'real' characterizing the head *guīhuà* 'plan' in (13).

Table 5. Modification in nominalized-v *do*-constructions

	Speech		Writing	
Use of other modifying constituents	88	60.7%	2094	67.2%
Lack of other modifying constituents	57	39.3%	1023	32.8%
Total	145	100.0%	3117	100.0%

Thus far, it is clear that the variants do not align in development. First, the tokens of occurrence of the two variants differ markedly, in that the nominalized-v variant is the dominant form in the variation. The uncommon use of the modifying-v variant suggests that it could either be a recent development or a low-frequency structure. Second, the structural patterns of the two variants of *do*-constructions also differ. The patterning of the nominalized-v variant is consistent across speech and writing, in that the classifier phrase is uncommon but modification is preferred. Such consistency does not support the claim that "the patterns of use in speech are dramatically different from the patterns in writing" (Biber 2012:11). Most importantly, the consistent structural development of the nominalized-v variant breaks the conventional distinction between spoken and written language.

In the case of the modifying-v variant, *yī-ge* is also a rarity, but the occurrence of the modification forms two opposite patterns. In spoken discourse, modification occurs in a small minority; in written discourse, it occurs in the majority. Thus, the structural patterning of a grammatical variant is not necessarily uniform; distinct structural patterns of the same variant can evolve in variation. The relation between the various structural patterns and situations of use will be discussed in the next section.

3.3 Situations of use

In Sinica Corpus, the written data from newspapers, magazines, books, academic journals, textbooks, reference books and other academic works can be categorized into various genres (see Section 2). While the language users in the corpus were writers of various kinds, those in the two spoken texts played diverse roles in different social situations. First, daily face-to-face conversations are the most fundamental type of talk-in-interaction (Sacks, Schegloff & Jefferson 1974, Clark 1996, Stivers et al. 2009). The participants in the spoken texts from the NCCU Corpus of Spoken Mandarin and Mandarin Conversational Dialogue Corpus were friends, schoolmates, family members, colleagues, or new acquaintances. They were free to find and develop topics of common interest. The second type of data was from spoken broadcast news produced by reporters. Third, *Ajishi* was a chef in the cooking

program *Stylish Man–The Chef* on television. Finally, the chef was in the position of an interviewee on TV in his two personal interviews. The variants in occurrence and usages in different situations are discussed here.

First, of the 3,117 instances of the nominalized-v *do*-constructions in written discourse, Table 6 indicates a high proportion of reportage (71.3%); the articles were mainly published in newspapers (52.2%, 1159 out of 2,222) or magazines (40%, 888 out of 2,222). Of the 2,094 instances including modification (see Table 5), 71.1% also appeared in reportage. Altogether, it can be claimed that the nominalized-v *do*-constructions with complex NPs are a structural pattern typical of reportage writing.

Table 6. The nominalized-v variant in written discourse

Types of text	Token	Proportion	Types of text	Token	Proportion
Reportage	2222	71.3%	Letters	38	1.2%
Commentaries	382	12.3%	Announcements	3	0.1%
Essays	250	8.0%	Advertisements/illustrations	7	0.2%
Novels/stories/fables	149	4.8%	Biographies	2	0.1%
Handbooks	63	2.0%	Poems	1	0.0%
Total	3117	100.0%			

Table 7 indicates the occurrence of the nominalized-v variant across the four communicative situations in spoken discourse. Most of the instances were produced in broadcast news (62.8%). In other words, when news reporters engaged in activities similar to reportage writing, the same structural pattern was, again, preferred: Modification was added to the constructions 72.5% of the time (66 out of 91 instances), like the modifier *yùjǐngxìng* 'the kind of early warning' that restricts the referent of the head noun *chèlí* 'evacuation' in (14). Evidence from written and spoken data leads to the claim that the nominalized-v *do*-constructions including complex NPs are dominant in reportage, whether oral or written. This structural pattern conforms to Fowler's (1988) claim that the boundary between speech and writing is not clear-cut. Additionally, since the result is not in alignment with the almost exclusive occurrence of the nominal structural elaboration in English, Korean, and Somali written texts (Biber & Conrad 2001), the pattern further demonstrates language specificity. It is possible that the internal syntactic and semantic complexity within the NPs could differ across the two modes of discourse, which remains to be seen, but with regard to the presence or absence of further modification, the preferred presence is consistent across speech and writing in Mandarin Chinese.

Table 7. The nominalized-v variant in spoken discourse

Types of spoken data	Token	Proportion
Conversations	35	24.1%
Live broadcast news reports	91	62.8%
Stylish Man - The Chef	17	11.7%
Ajishi's personal TV interviews	2	1.4%
Total	145	100.0%

(14) Cóng zǎoshàng kāishǐ zuò **yùjǐngxìng**   de   **chèlí**.

since   morning start   do   early.warning DE   evacuation

'(They) have started doing (the) early-warning evacuation since morning.'

(Source: Broadcast news reports)

Concerning the modifying-v *do*-constructions, 155 instances were found in written discourse. The overwhelming majority (133 instances, 85.8%) occurred in news articles in the Chinese GigaWord 2 Corpus. As to the remaining 22 instances in Sinica Corpus, again, most of them also appeared in reportage (81.8%, 18 out of 22). What is more, 96.7% of the 92 instances including modification (89 out of 92 in Table 3) were also from reportage. These statistics show strongly that modifying-v *do*-constructions with more informational content are largely used in reportage writing.

In spoken discourse, 80.6% of the modifying-v *do*-constructions were produced by *Ajishi* in his TV cooking programs and personal interviews (29 out of 36 in Table 8). In these social situations, the chef wore his chef outfit to maintain his social identity and produce *do*-constructions. Moreover, while it was not his primary goal to deliver a large amount of information in a short time, the chef used the variant without increasing the content of the information in the *do*-constructions. Most of the VPs merely consisted of *zuò* 'do', *dòngzuò* 'action' and a modifying verb (25 out of 36), as exemplified in (15). Thus, the information provided by the construction rests wholly on the meaning of the variant *tiáowèi* 'season'. Intriguingly, when *Ajishi* held a press conference to clarify the details of his extramarital affair, he wore the same outfit and used the '*zuò* – modifying verb – *dòngzuò*' pattern again, as in (16), probably to convince people of his innocence in the affair with his utilization of the positive public image and his use of *do*-constructions.

In brief, there are two structural patterns for the modifying-v variant: The one with modification is mostly used in reportage writing; the one without modification is favored by the chef in speech. The common linguistic style in writing and the individualistic style in speaking demonstrate diversity in the development of the same grammatical variant in linguistic variation.

Table 8. The modifying-v variant

Types of spoken data	Token	Proportion
Conversations	0	0.0%
Live broadcast news reports	7	19.4%
Stylish Man - The Chef	24	66.7%
Ajishi's personal TV interviews	5	13.9%
Total	36	100.0%

(15) Wǒ bù   zuò **tiǎowèi** de dòngzuò.

    1SG NEG do   season DE action

    'I don't do (the) seasoning action.'

    (Source: *Stylish Man – The Chef*)

(16) Wǒ dōu yǒu gēn wǒ tàitai qù zuò **bàobèi** de   dòngzuò.

    1SG all PRF with 1SG wife go do   inform DE action

    'I did (the) informing-my-wife action.'

    (Source: *Ajishi*'s press conference)

In summary, the findings in this section are recapitulated in Table 9 which presents the tokens and rates of occurrence of the two variants. In terms of tokens, the nominalized-v *do*-constructions are much more commonly used in both spoken and written texts. However, in terms of proportions, the modifying-v counterparts are more preferred in speech (18.8%) than in writing (4.4%), and the difference is statistically significant (χ^2 (1) = 75.358, *p* < .0001). The modifying-v variant of *do*-constructions could be developing into a spoken linguistic feature used in particular social situations.

Table 9. The two variants across speech and writing

	modifying-v		nominalized-v		Total
Speech	36	18.8%	145	4.4%	181
Writing	155	81.2%	3117	95.6%	3272
Total	191	100.0%	3262	100.0%	3453

It is noteworthy that the modifying-v variant was not found in conversations and the nominalized-v variant was far from prevailing. The statistics suggest that the two types of *do*-constructions are not typically used in people's daily communication, and are not part of vernacular speech in Taiwan Mandarin. Instead, the two types of *do*-constructions are used in particular communicative situations, and specific structural patterns have evolved in different ways. The nominalized-v variant, a

structural pattern with a higher density of informational content is specifically used when language users engage in reporting news or events, whether in speech or in writing. Not only does the pattern not conform to the speech-writing distinction, but the frequent use of the structure in live news broadcasts is not in alignment with the general finding that "information is packaged more densely in printed reports than in either editorials or broadcast news" (Ni 2003:161). Speakers can manage to utter more complex forms to fulfill a specific communicative goal. The modifying-v variant, on the other hand, has evolved two structural patterns in different situations of use: The one with further modification largely occurs in reportage writing; the one without further informational content is often used by *Ajishi*. All of these diverse structures and usages are the empirical foundation for the discussion of the directionality of change across the two modes of discourse in the next section.

4. Directionality of grammatical change in variation

The UDN news article claimed that the variation of *do*-constructions had originated in speech and spread to writing. Such a claim conforms to the general direction of spread, since a large body of cross-linguistic studies show that the typical influence is from spoken to written discourse (Fowler 1988, Fairclough 1994, Croft 2000, Bybee & Hopper 2001, Biber 2003, Kuo 2007, Biber & Gray 2011). To the best of our knowledge, there is a lack of evidence for influence in the reverse direction. Biber & Gray (2011) showed that English complex noun phrases started in academic writing, but the structures did not spread to conversation. If the two grammatical variants in Taiwan Mandarin also originated in the written mode, as in the innovation of English complex NP structures, their contemporary use in the spoken mode would be strong evidence in support of the uncommon direction of linguistic spread from written to spoken language.

The statistical evidence in the previous section does support the uncommon yet plausible direction of the spread. First, if the influence of the two variants had conformed to the usual trend, the occurrence of the two *do*-constructions would have been more prevalent in spoken discourse. However, the figures in Table 9 manifest the contrary. Both the modifying-v and nominalized-v variants of *do*-constructions appear overwhelmingly in writing, 94.8% on average.

Second, if it were true that the variation started in speech, the variants would have been frequently used in the most fundamental type of discourse – face-to-face daily conversations. However, the absence of the modifying-v *do*-constructions (see Table 8) and the low occurrence rate of the nominalized-v counterparts (see Table 7), again, manifest the contrary, showing that they are by no means ordinary linguistic features

habitually used by people in daily conversation. The negative attitude of the general public toward the variation in speech also provides supplementary evidence against initiation from spoken discourse. Last, the development of complex NPs in English to increase informational content in informational, academic, and news writing supports the emergence of *do*-constructions in Mandarin written discourse, as reportage writing also demands more information, and the grammatical object in the *do*-constructions readily meets this demand by forming a complex NP with modification of various types.

Furthermore, the emergence of grammatical variation from written language in Mandarin Chinese happened in 1961, when the renowned Taiwanese poet *Yu Kwang-chung* used the proper name *xīlà* 'Greece' as a predicate being further modified by the degree adverb *fēicháng* 'very much' in his poem *Visiting Dadu Mountain Again* (重上大度山). The line is in (17):

(17) Xīngkōng **fēicháng   xīlà**.
     starry.sky   very.much   Greece
     'The starry sky is very much Greece-like.'
     (Source: *Visiting Dadu Mountain Again*)

Unsurprisingly, the novelty was criticized in 1961. Yet, more than half a century later, the proper noun-as-predicate structure is accepted and used in both speech and writing. On February 12th, 2015 in Chinatimes.com, the usage appeared in a news headline about *Chou Li-fang*, the Deputy Mayor of Taipei City who had just been appointed by the mayor *Ko Wen-je*, commonly called *Ko-P* by the media and the public.[5] In the headline, the proper name *Ko-P* was a predicate and further modified by the degree adverb *hěn* 'very' in (18) so as to characterize *Chou* as being *Ko-P*-like**.** This usage was accepted and not commented on by the media. The 'proper noun-as-predicate' structure is also used in ordinary conversation, demonstrating that the initiation of variation from written language is not implausible.

(18) Zhōulìfāng   tèzhí   **hěn   kē-pī**.
     Chou.Li-fang characteristic very   Ko-P
     'The characteristic of *Chou Li-fang* is (that she is) very *Ko-P*-like.'
     (Source: Chinatimes.com)

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5   See http://www.chinatimes.com/newspapers/20150212000435-260102.

The grammatical change of the proper noun-as-predicate structure can be clearly dated from the publication of a poem in 1961. The modifying-v and nominalized-v variants lack this kind of direct evidence to prove that the innovation first occurred in writing. Yet, our findings showing their dominant use in the written mode suggest that the two variants of *do*-constructions were written linguistic features originating in reportage in newspapers and magazines, as the constructions readily allow for an increase in informational content to form complex NPs in the direct object position for delivering more information in reporting news and events. Such a development is not idiosyncratic; a similar cross-linguistic development of complex NP structures with pre- or post-modification in English written discourse has been found (Biber & Conrad 2001, Biber 2003, Ni 2003, Biber & Gray 2011). The consistent cross-linguistic development evidences that "grammar emerges in natural communicative situations…new grammatical uses and functions can emerge in any register – spoken or written – associated with the distinctive situational and communicative characteristics of that register" (Biber & Gray 2011:248).

In Taiwan Mandarin, the modifying-v and nominalized-v *do*-constructions are expanding to spoken discourse and developing in different ways. At the present stage of variation, the nominalized-v variant is highly preferred in both speech and writing, showing that *do*-constructions of this type are more recognized. As for the low occurrence of the modifying-v *do*-constructions, one interpretation is that constructions of this type are a recent development. Another is that they are established but just not frequently used. Then, the direction of change might not be from writing to speech. Despite such a possibility, the development is believed to be recent and still at its initial stage because of the negative public response to the use of the modifying-v *do*-constructions in the spoken mode. In daily face-to-face conversations, the rare or uncommon occurrence of the variants attest that the two types of *do*-constructions are not vernacular forms of speaking.

Besides the rates of occurrence, the two variants have also undergone distinct paths of structural development to meet communicative needs in different situations. This development does not necessarily conform to the conventional distinction between speech and writing. In English, conversation and information writing have important lexical, grammatical, and lexico-grammatical differences (Biber 2012), as exemplified by the use of downtoners, collocations with *have*, *make*, and *take*, frequent lexical sequences, and grammatical variation in Table 10.

Table 10. The linguistic distinction across speech and writing (adapted from Biber 2012:18-22)

	Conversation	Informational writing
Use of downtoners	*pretty*	*relatively, rather, fairly, slightly*
Collocations with *have/make/take*	*have lunch, make a phone call, take a break*	*have implications for, make assumptions about, take precedence over*
Frequent lexical sequences	*I don't know if, I don't know what, do you want to, I don't want to, I was going to, are you going to*	*on the other hand, in the case of, one of the most, as a result of, on the basis of, in the form of*
Grammatical variation	verb + *that*	verb + *0*

In Taiwan Mandarin, however, the nominalized-v variant with modification in *do*-constructions is specifically used when language users engage in reporting news or events in transactional discourse, whether during live news broadcasts or in reportage writing. The potential formation of complex NPs in the constructions is suitable for increasing the amount of content, as is demanded in reportage in which the primary goal is to deliver information. Thus, the development of this particular structural pattern of the nominalized-v variant breaks the distinction between reportage writing and live news broadcasts to meet the same communicative demand. Furthermore, the development is language-specific. Biber & Conrad (2001) have studied the use of the complex NPs in English, Korean, and Somali. The predominance of the nominal structure in written language was found the same across the three typologically different languages. Only in Mandarin is the complex nominalized-v *do*-constructions readily used in live news broadcasts.

Instead of the one-variant-one-structure pattern, the modifying-v variant has evolved two patterns: In written discourse, the modifying-v *do*-constructions with modification, just like the nominalized-v counterparts, mainly appear in reportage for conveying more information. In speech, most constructions of this type lack further modification. They are particularly favored by the chef *Ajishi* in social situations where providing dense information is not the primary concern. Since this structural pattern is not ordinary usage in the culinary profession, the 'do-modifying-v-action' pattern, accompanied by the sight of *Ajishi* in his chef outfit, manifests *Ajishi*'s individualistic speech style which is associated with his generally positive public image. In short, such a two-track development of the use of the modifying-v variant is strong evidence that the grammatical change of a variant is not necessarily unvarying;

the same grammatical variant can evolve distinct structural patterns to meet communicative needs in different situations.

5. Conclusion

The variation of *do*-constructions in Mandarin Chinese attests to the plausible initiation of linguistic variation from written discourse. The spread of the writing-like features toward speaking is as possible as the drift of speech-like features toward writing. In variation, two different variants could develop a similar structural pattern to meet the same communicative need. On the other hand, the same variant could evolve different structural patterns to accomplish different communicative goals.

The development of this variation is still in progress. Recently, it was noticed that even the docents at a city public zoo spontaneously used the 'do - modifying-v - action' pattern, uttering *zuò* 'do' *wèishí* 'feed' *de* 'DE' *dòngzuò* 'action', to explain the behavior of animals shown in video broadcasts. Its development and usage, especially in speech situations, are worth pursuing. Second, while the current study focused on the presence and absence of modification in the NP objects in *do*-constructions, the syntactic and semantic complexity of the NPs with respect to quantity, type, meaning and function await research. Finally, when diachronic data are available, the ways in which the development of the two types of *do*-constructions may be related can be investigated.

Appendix. Abbreviations of linguistic terms

1SG	first person singular
2SG	second person singular
3PL	third person plural
3SG	third person singular
BA	the morpheme BA
CL	classifier
DE	the morpheme DE
NEG	negative morpheme
PRF	perfective aspect
PROG	progressive aspect
PRT	discourse particle

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Department of English
Research Center for Mind, Brain and Learning
Research Center for Chinese Cultural Subjectivity
National Chengchi University
Taipei, TAIWAN
Kawai Chui: kawai@nccu.edu.tw

國語「*做─結構*」與語言變異

徐嘉慧

國立政治大學

關鍵詞：「*做─結構*」、結構變異、變異方向、口語與書寫語

國語「*做─結構*」與語言變異