May and Can Constructions in Spoken Corpus: A Constructionist Approach

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Abstract

This study investigates partially filled may and can constructions in the Spoken British National Corpus (Spoken BNC2014). A constructionist 2014 perspective is taken to examine the structure and distribution of *may* and *can* constructions. It is assumed that associative relations between the modal verbs and the contextual elements in the constructions designate the expressions of may and can. Adopting the collostructional analytical procedure, we identified the major [it+may+be+*]constructions, from which we generalized its function on enhancing the informativeness of the utterance. This function is distinct from that of [it+can+be+*], which is used to highlight common human capability, feelings or experience. The analysis confirms the status of modal construction and successfully distinguishes may and can constructions, which exhibit distinct features and express dynamic meanings. The findings also provide empirical evidence to a theoretical perspective that sees language as a result of use.

1. Introduction

The English language features a set of modal verbs which are central to the expression of modality-the speaker's attitudes or opinions toward the proposition of the utterance (Hoye, 1997). While identification of the syntactic features of modal verbs is quite a straightforward matter, modal semantics has been subject to heated debate for decades. There has been no consensus among linguists regarding the types or number of modality and there has been no agreement on an analytical approach toward the elucidation of the notion (Nuyts, 2005). For ease of discussion, we begin Huei-Ling Lai

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with three of the most recognized; epistemic, deontic and dynamic modality. Epistemic modality involves the estimation, by the speaker, of the possibility that the state of affairs is real. On the other hand, deontic modality is related to social norms or personal ethical criteria. Finally, dynamic modality describes the capacity or needs of the controlling-participant or similar potentials determined by the local circumstances. In Quirk et al. (1985), the former is referred to as 'intrinsic' while the latter is called 'extrinsic'. The above introduction suggests that modality may vary in degree and it is subject to different interpretations and sensitive to the sources of potential where it is generated. Since a majority of modal verbs may convey epistemic, deontic or dynamic meanings simultaneously, the study of modality continues to challenge linguists to come out with a clearer description not just within individual modals but distinction among different modals.

Recently, the topic has been approached from a constructionist perspective, which examines modality in terms of a network of constructions rather than sense relationship (Boogaart, 2009). Empowered by corpus linguistics, studies taken a constructionist approach have yielded fruitful results to provide a more comprehensive account of modality (Anthonissen & Mortelmans, 2016; Cappelle & Depraetere, 2016; De Haan, 2012; Deshors & Gries, 2014; Hilpert, 2013, 2016). Nonetheless, while the foci of most corpus studies have been on examining the verb groups associated with modal verbs, less attention has been given to some other important components of modal constructions, namely the grammatical subject and copular structure. Taking the partially filled may

and *can* constructions as examples, this paper attempts to demonstrate the usefulness of a constructionist approach in combination with corpus linguistics to provide a more precise and detailed description of modality. Particularly, we compare and contrast (1) the central elements in [it+may+be+*] and [it+can+be+*] constructions in spoken corpus, and explicate (2) their generalized meanings or functions. The rest of the paper is organized as follows. Section two provides a brief review of some previous reports on *may* and *can*. Section three introduces the methodology. Sections four and five present the result, and section six concludes the study.

2. The meanings of *may* and *can*

May and *can* have been recognized as polysemy as well as near-synonyms not just by the multiple senses they each possess but by the much overlapping of their senses. The significance of the pair can be observed in the extensive literature devoted to their identification (Coates, 1983; Collins, 2007; Dirven, 1981; Duffley *et al.*, 1981; Groefsema, 1995; Quirk et al., 1985). The following sections briefly summarize some of the major conceptions.

2.1 *May* and *can* as polysemy

It is common to see *may* and *can* juxtaposed in the discussion of modality. For instance, they were grouped in a category to express permission, possibility, and ability (Quirk et al., 1985, p. 221). The conception is presented in Figure 1.

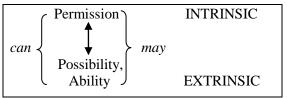


Figure 1: Meanings of may and can

The representation shows that the two modal verbs are semantically interchangeable and the variance in senses mainly results from the different enabling sources labeled 'intrinsic' and 'extrinsic'. In fact, the various senses seem to form a continuum rather than distinct categories. As Quirk et al. put it, "The ability meaning of *can* is considered extrinsic, even though ability typically involves human control over an action. Ability is best considered a special case of possibility" (p. 221). In contrast to Quirk et al., who collapsed the multiple modal meanings, Coates (1983) believed that may and can held distinct interpretations. In her investigation of approximately 200 instances of modal verbs in written and spoken corpora of British English, Coates came to the conclusion that *may* primarily denoted epistemic sense, which appeared equally frequent in both spoken and written genres and was found to co-occur with hedges like I suppose or adverbs such as perhaps. On the other hand, can mostly communicated non-epistemic sense which in its definition appears to correspond to Quirk et al.'s extrinsic possibility. As Coates explained, "CAN can be seen as implying a universe of possible worlds, ranging from the most restricted (where human laws and rules are in force) to the least restricted (where everything is permitted except what is contrary to so-called natural laws)" (p. 88).

Coates also used the term 'merger' to refer to instances where modal meanings became ambiguous and *may* and *can* were interchangeable. In those cases, she believed that the two modals may be distinguished in terms of degree of formality with *may* indicating a higher level of formality. Elsewhere, Wärnsby (2006) believed that the ability sense may be subsumed under weak epistemic possibility (it is possible for...) as opposed to strong epistemic sense (it is possible that...) shown in the following examples (p. 16).

- (a) The window *can* be broken. (weak possibility) <u>It is possible for</u> the window to be broken.
- (b) The window *may* be broken. (strong possibility) It is possible that the window is broken.

Wärnsby added that the two senses also differ in the way they refer to the time when the utterance may be verified. The weak sense indicates that the speaker makes reference to non-linguistic circumstances that can only be verified after the time of the utterance while the strong sense suggests that the speaker's belief can be verified at the time of the utterance. In any case, Wärnsby's argument reminisces Quirk et al.'s grossing of *may* and *can* presented in Figure 1. In sum, despite exhaustive categorization and sense analysis, issues regarding the boundary of modal senses as well as their overlap remain unresolved.

2.2 A constructionist approach toward polysemy

Boogaart (2009) pointed out the inadequacy of a notional explanation of modality, which interprets modal verbs in terms of a network of senses. He urged for a shift of attention from generating abstract meanings in isolated modals to identifying specific and concrete constructions which have modals as part of their composition. Unlike sense analysis, the constructionist approach sees human knowledge of language as a conglomeration of conventional, learned form-meaning pairings known as constructions or the building blocks of language. Goldberg (2003) provided the following definition:

... constructions which are stored pairings of form and function, including morphemes, words, idioms, partially lexically filled and fully general linguistic patterns (p. 219).

The definition highlights the major principle of the constructionist perspective in which all linguistic items however small or abstract are learned pairings of form and function. By treating constructions as symbolic units, the constructionist approach disregards the distinction traditionally made between lexicon and syntax. With its emphasis on form-function mapping, the constructionist approach is especially suitable for the analysis of polysemy like *may* and *can*. As Goldberg (2013, p. 19) put it:

... if a single phrasal pattern were truly associated with unrelated functions, then their distributional behavior is not likely to be identical. When behavior diverges, we generally decide that the syntax involved is not the same.

Conversely, any change in syntactic form may lead to a difference in meaning (Bolinger, 1968). By postulating an interconnected network of constructions, the constructionist approach regards polysemy as a result of a cognitive organizing principle shared by all areas of language, such as morphology, lexicon, and syntax. Moreover, it is believed that the meanings of polysemy are related in a systematic way to form radial categories where the more frequent and prototypical sense is related to less frequent and more peripheral ones (Kovács, 2011).

2.3 Corpus studies on *may* and *can* constructions

Supported by rich empirical data and computational power, corpus linguistics has gained prominence over the past several decades. Collin (2007) investigated may and can in three parallel English corpora based on the tripartite taxonomy of modality: deontic, epistemic, and dynamic. However, by limiting his analysis to frequency count and sense analysis, his findings were not very informative. For instance, he concluded that may primarily conveyed epistemic possibility whereas *can* denoted dynamic possibility with the ability sense subsumed under the category. The finding is not illuminative because it seems to reiterate the existing literature, which has already failed to distinguish may and can. In general, Collins's observation only manifests the complexity of the issue.

To better understand modality, Hilpert (2016) argued intensively for the incorporation of corpus linguistics with a constructionist perspective. He stressed that the notion of construction or formfunction pairing can be better captured through the collostructional analysis, which measures the attraction or repulsion of various linguistic forms toward each other. Results from corpus analysis may highlight significant associative relations between modal verbs and other lexical elements as well as their interaction with the schematic construction, namely [NP+Modal Verb+Verb]. To demonstrate, Hilpert studied may construction in the Corpus of Historical American English (COHA) where he identified important verb groups that were responsible for the diachronic semantic shift of may. From co-occurrence frequencies, he observed that over the past two centuries may has come to be used more often with verbs that are abstract, stative, and unrelated to animate subjects, such as *depend*, exist, involve, or indicate, which are predominantly linked to informational types of text. The analysis allowed Hilpert to specify elements that have caused the change in may from deontic sense towards epistemic meaning. Crucially, the result explained the confounding polysemy observed in modal verbs and brought to light the reason why may in modern English tends to be associated with informativeness.

Encouraged by Hilpert's finding, Cappelle and Depraetere (2016) proposed that a wider scope of attention be given to associations between the modal verb and linguistic elements other than the following lexical verbs. To testify the model. conducted Deshors and Gries (2014)а multifactorial assessment to investigate the structures of may and can in written French-English interlanguage. They researched 22 morphosyntactic and semantic features as well as their interaction to identify their effects on the native and non-native use of may and can. The result showed great variation between native speakers' and learners' modal constructions. In terms of form, the learners used fewer may in subordinate clauses and negated clauses and they were more likely to associate can with animate and singular subjects. As for the verb groups, the learners preferred abstract verbs with can and they favored time or place verbs with may. Nevertheless, Deshors and Gries did not distinguish copular structure used in conjunction with may and can despite its prominent presence in both the native and non-native corpora. In general, their study attested the effectiveness of the collostructional analysis, which has shed light on the effect of the linguistic context on the use of may and can.

At present, there are few studies on modality taking a constructionist perspective and there is even less attention to modal representation in spoken data. While Hilpert highlighted the importance of entrenched patterns, he set aside such 'highly frequent' (p. 76) features as [may+ be+*] or [can+be+*] to future research. Similarly, by focusing their attention on major co-occurring verb groups, Deshors and Gries left the details of the above two prevalent constructions undiscussed. On the other hand, where Collins noted ambiguous instances like 'it can/may be cold in Stockholm,' (p. 490) he simply assigned the meaning as a merger, still leaving the controversy unresolved. Following Cappelle and Depraetere's advice, this study aims at uncovering the meanings of these partially filled constructions. We believe the combination of a constructionist perspective and a corpus analytical approach may provide more detailed information and help distinguish may and can.

3. Methodology

The data for this study were collected from the free online Spoken British National Corpus 2014 (Spoken BNC2014). The corpus contains 11.5 million words of transcribed content featuring reallife, informal British English conversations (Love, Dembry, Hardie, Brezina, & McEnery, 2017). This study adopted the collostructional analysis to observe an alternating pair of partially filled modal constructions. The term collostructional (a blend of construction and collocational) refers to equal attention paid to syntactic and semantic structures where the modal verbs are found. We made use of the built-in functions provided by the annotated Spoken BNC2014 to identify the collocates of the pair constructions. The primary function used for the investigation was Loglikelihood score (Log), which measures the strength of association among collocations: the higher the score, the more significant the association. Take may as an example. We began by typing the target word may as [may_VM] in the query box in Spoken BNC2014 to extract instances of may used as a modal verb. The initial results showed that there were 119 instances of may and 3298 occurrences of can in per million words.

3.1 Schematic *may* and *can* constructions

We identified the schematic may and can constructions by setting the window span as R1 to R1 (to the right of the modal) and by selecting the part-of-speech tag in the collocation function. The result showed that while the most significant of [*may*+be] structure may was (Freq: 240/Log:1286), [*can*+be] (Freq:1163/Log:2327) was ranked fifth as can's favorite collocate (Freq to frequency). The frequency and refers distribution of collocated part of speech retrieved from the corpus suggests that can (198 types) is a far more productive construction than may (139 types) and it can be predicted that the semantics of can construction will be more dynamic. In the next step, we conducted part-of-speech search on the L1 to L1 of [may+be] and [can+be] constructions, which produced a list of [NP+may/can+be] candidates. Tables 1 and 2 present the occurrences of the top three exemplars of schematic may and can constructions (Log score is presented in parenthesis).

May construction	Freq (Log)
There <i>may</i> +be	43 (212.46)
It may+be	59 (153.56)
They may+be	16 (31.69)
Table 1. Cabamatia	

Table 1: Schematic *may* constructions

	Can construction	Freq (Log)
	It can+be	271 (676.12)
	You <i>can</i> +be	177 (337.7)
	They <i>can</i> +be	110 (287.39)
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Table 2: Schematic can constructions

3.2 Partially filled may and can constructions

We administered another collocation search on the R2 to R2 of our target constructions [it+ may/can+be] (the most significant construction for may and the second most significant for can) and identified the top three most frequent collocates for each construction. These items were the central members of the categories that filled in the schematic slots of may and can constructions and they represented the semantics of the categories (Bybee & Eddington, 2006). The result showed that [it+may+be+that+clause] (7 tokens), [it+may+ be+a+Noun] (7 tokens), and [it+may+be+Adv.+ clause/Noun] (8 tokens) were the central members of *may* construction while [it+*can*+be+Adv.+Adj.] (44 tokens) and [it+can+be+passive PP] (29 tokens) were important can constructions. To validate our findings, we queried constructions with the pronoun *it* as subject and found that while [it+lemma be] was prominent, [it+Modal Verb] was not. Meanwhile, [it+*+be] was only mildly related to modal constructions since the occurrence of modals in the slot was relatively insignificant. The result confirmed the status of may and can constructions because they are not random composition of elements but their occurrences reflect the probability of natural language use.

4. [It+*may*+be+*] construction

In this section, the functions of the three partially filled *may* constructions will be discussed in accordance with the definition of construction provided by the literature. Each construction is seen as a linguistic sign that represents a form pertaining to the phonology or morphosyntax and is equipped with its own semantic and discoursepragmatic characteristics. Following Cappelle and Depraetere's (2016) advice, we take into consideration the linguistic context where the construction is located to give a more comprehensive understanding of its use.

4.1 The evaluating [it+*may*+be+that+clause]

This construction most frequently occurs as an evaluation to a situation. It serves as a support to the speaker's observation about an on-going event. In all the instances, the construction is always followed by a statement of fact with reference to common knowledge. That is, the construction is meant to bolster a personal claim based on a shared assumption with the other interlocutors. Examples (1) and (2) demonstrate the function.

 A: it's funny that they're always louder though aren't they?
 B: yes yeah
 A: they're always loud
 B: >> <u>it may be that he's slightly deaf as well</u>
 A: yeah (SHTW)
 A: we don't want it back er the only things that I'll want back
 B: or at the end we'll decide if you want it back or not
 A: okay yeah <u>it may be that</u> --<u>ANONnameM</u> <u>might want some stuff</u> if he's moving into a house (SAA3)

In example (1), speaker B employs the construction to introduce his appraisal of an event. He reasons that the crowd's tendency to be loud might have something to do with an unnamed individual's poor hearing. His claim is based on the common sense that people with poor hearing tend to speak louder or need to be spoken to loudly. Further evidence to the construction's evaluating role comes from the fact that all the statements following the construction are in the present tense and they primarily refer to events that are in the past or are evolving. For instance, in example (2), the speakers seem to be discussing the allocation of certain objects. After several turns of negotiation, speaker A conceded to speaker B's argument by starting his turn with 'okay' and 'yeah'. However, these positive markers appear to be mere polite recognition instead of submission to B's proposal. In fact, speaker A stands his ground by introducing [it+may+be+that+clause] with shared knowledge that there are other candidates to accept speaker

B's offer. This use of the construction reduces possible awkwardness caused by a conflict of opinion between the speakers. The finding is validated by hedges like *I think* or *you know*, adverbs such as *slightly* or other modals used in the clause following *that*. These devices suggest that [it+*may*+be+that+clause] concerns the speaker's evaluation about an event, a situation or a proposal he intends to comment on.

4.2 The specifying [it+*may*+be+a+Noun]

Similar to [it+*may*+be+that+clause], [it+*may*+be+ a+Noun] was used to relate to the focus of a conversation. However, the latter functioned to specify an object of attention rather than an event. Moreover, little constraint was placed on the time when the event occurred. The object of focus may be located at present, in the past, or in the future. Examples (3) and (4) represent the use.

(3) A: I think I think you wind it and then once the record 's finished I think you wi- I don't know I think you wind it again
B: because <u>it may be a thing</u> th- the right getting the right speed on that for the records -- UNCLEARWORD
A: yeah there is yeah yeah (.) (S3SA)
(4) A: yes
B: by instinct

A: they say a lot of it was well someone said to me once and I tend to agree with them and <u>it</u> <u>may be a column</u> I'm sure (S7K2)

In example (3), the speakers appear to be working on a task at hand. They seem to encounter a technical issue where speaker B employs the construction to orient the conversation. The construction contributes to the identification of the target and facilitates the flow of exchange as well as problem solving. Likewise, example (4) shows how the construction is used to situate the item of interest in the past. By the contextual element I am sure that follows the construction, we learn that the speaker is searching in his memory for the source of evidence to support his claim. In some other instances, the construction is used to postulate an object of attention in the future. For example, in reference to an egg hunt, one speaker used the construction to make prediction about the item which would be used for the hunt in *or well it* *may be a chocolate bunny*, which attested the specifying function of the construction.

4.3 The focusing [it+*may*+be+Adv.+clause/N]

This construction occurs with adverbs that indicate degree of speaker attitude on the event or the object he or she is commenting on. These adverbs range from those that signify the speaker's affirmation of truth such as *actually* or *apparently* to those that give value judgment like *right*. This use highlights the role of the construction as a focusing device illustrated in example (5).

(5) A: but it's something she likes doing a lot of the the crafting stuff
B: mm
A: so it may be actually she'd think oh actually <u>I could make some</u>- when it's a birthday we always get a nice handmade birthday card
B: yeah lovely (S64H)

In example (5), speaker A utilizes the construction to reinforce a point he has made in the previous turn about an unnamed individual's desire or preference. The construction introduces a similar concern with added information related to the selection of an ideal birthday gift for the individual. The co-occurrence of the construction with an emphasizer *actually* demonstrates the speaker's confidence on the truth of his or her remark. Although downtoners such as *probably* or *partly* also appear in the construction, we found their function to be similar in drawing focus to the speaker's point.

5. [It+*can*+be+*] construction

This section discusses the three partially filled *can* constructions. The slot of the constructions was filled with a variety of items, which were first categorized before we proceeded to explain the functions of the constructions. Since [it+can+be+

Adv.+*] has two daughter constructions, their characteristics are expounded in two separate sections.

5.1 The representing [it+*can*+be+very/quite+ Adj.]

The slot which designates adverbs in the construction was primarily dominated by two adverbs which modified adjectives, namely *quite*

(15 tokens) and *very* (9 tokens). However, the adjectives that were modified by the two adverbs were comprised of miscellaneous semantic groups, which can be roughly categorized in terms of their association with perceptual (e.g., *bright, bland*), physical (e.g., *painful, hurtful*), psychological (e.g., *miserable, boring*), intellectual (e.g., *hard, tricky*) or circumstantial (e.g., *dangerous, bleak*) conditions. Meanwhile, it was noted that the primary referents of the construction often entail human experience. Examples (6) and (7) exhibit instances of the use.

(6) A: it might have been a child and they weren't wearing a seatB: yeah

A: I think we're here now

B: although on children in general <u>it can be</u> <u>quite dangerous</u> to have a seatbelt cos it can crus- crush like your ribs and stuff (S9V8)

(7) A: I suppose that it's got I'm not like really massively interested in um economics
B: yeah I know well it it can be ver- <u>it can be</u> <u>very boring</u> I understand why people find it boring because they it's quite technical and (.) (SF2F)

Example (6) depicts a scenario where the speakers were discussing the usage of seatbelts and example (7) is a conversation about a school subject. Close examination reveals that a majority of the adjectives that filled in the slots of the construction tend to carry negative prosody and make the utterance sound distressing, annoying or alarming. That is, [it+can+be+very/quite+Adj.] imposes its effect by bringing out common experience or unpleasant images residing in the mind of a fellow humankind. Moreover, we found that when the adjectives describe human potential or when the construction is followed by an infinitive to phrase, the utterance supplies an agency sense to the subject pronoun *it* to entail the ability sense of modality.

5.2 The acknowledging [it+*can*+be+a bit+Adj.]

[It+*can*+be+a bit+Adj.] (15 tokens) constitutes a highly frequent and significant category. While *a bit* may be regarded as an adverb or modifier, we found the objects that are modified by *a bit* to comprise of a distinct semantic category. Example (8) exemplifies the use.

(8) A: the daughters but I mean she wasn't mentioned anywhere so whether she had made all this up or

B: <u>it can be a bit weird</u> when people don't check this er a woman I used to work with (.) (S68F)

In example (8), speaker A raised an issue regarding his suspicion about the authenticity of the personal information reported by an individual. In response, speaker B employs the construction to recognize speaker A's thought. The adjective that follows a bit is used to sum up the interlocutor's feeling or thought in a single word. That is, the construction performs an acknowledging function by resonating the interlocutor's concern. Close observation shows that the adjectives that follow a bit tend to portray negative or unpleasant experiences such as delusional, boring, tough, or greasy. In some cases, the construction introduces some kind of flaw about the activity under discussion. The recognition of certain exceptions to what is agreed by the interlocutors ensures that there is no misunderstanding and that the conversation can proceed without any hurdles.

5.3 The instructive [it+*can*+be+passive PP]

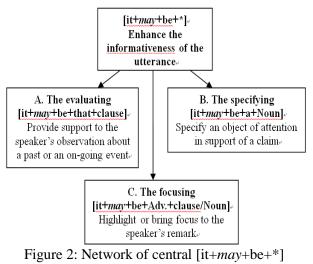
This construction is distinct in the way that it allows verbs with strong transitivity to enter the slot after the *be* verb and in doing so constrains the referent to the subject pronoun *it*. The semantics of these verbs is diverse to include alteration (e.g., *extend*, *repair*), allocation (e.g., *put*, *include*), perception (e.g., *see*), manipulation (e.g., *use*, *abuse*), or hindrance (e.g., *close*, *block*) etc. The following is one example.

(9)A: erm (.)I swear actually pretty much never around my dad (.) I don't know I think swearing it's interesting <u>it can be used</u> for emphasis or to add colour to a
B: mm hm
A: or depth or texture to a conversation (S94U)

By and large, most of these verbs seem to concern human adjustment to or effect on their environment. As such, the referents to the subject pronoun *it* are related to objects that may be subject to human manipulation or resistance. In example (9), the construction introduces the focus of the conversation, *swearing*, whose function is to highlight or enrich the content of an argument. Swearing is of course a human activity and is only possible through human language. Elsewhere, the construction conveys human-only capability in managing certain objects or tasks. In sum, despite the diverse semantics depicted by the verbs, the construction primarily performs an instructive function addressing possible human effect on their environment.

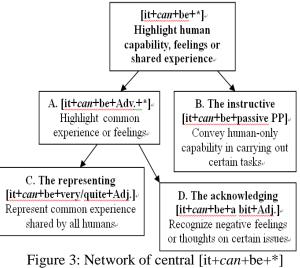
6. Concluding remarks

Our analysis uncovered the central members of [it+may+be+*] and [it+can+be+*] constructions, which exhibit distinct features and express dynamic meanings. These meanings were arrived at by taking into account the constructions as a whole rather than postulating a set of abstract features that describe the modal only. These constructions were found to connect to each other in a systematical way to form a hierarchical network of constructions. The relationship between the various levels of constructions has been recognized as a process of generalization. As Goldberg (2003) explained, "Broad generalizations are captured by constructions that are inherited by many other constructions; more limited patterns are captured by positing constructions at various midpoints of the hierarchical network. Low level constructions represent exceptional patterns" (p. 221-222). Through generalizations, the meaning of partially filled [it+may+be+*] can be captured by studying the lower-level constructions that are related to it as shown in Figure 2.



constructions

Likewise, the meaning of [it+*can*+be+*] can be generalized in a similar manner illustrated in Figure 3.



constructions

Compared with sense analysis which focuses on individual modals, the constructionist perspective provides more detailed information and allows us to arrive at a more precise and accurate description of modality. For instance, although structurally, [it+may+be+*] and [it+can+be+*] are alike, our analysis revealed that the former was associated with statements of fact while the latter was related to human potential or experience. The result explains why there is an intuitive association of may with epistemic sense and can with nonepistemic meaning. This is because as the elements on the top of the modal hierarchy, may and can are inherited by many other constructions and have come to realize the generalized meanings of all their daughter constructions. The constructionist approach captures this dynamic relationship among related constructions and by doing so, it not only infuses analytical power to the distinction of may and can but also adds empirical evidence to untie a theoretical deadlock on modal polysemy. We believe with more research endeavor, the connectivity and systematicity of modal constructions or language construction in general can be more fully explicated. The findings also bear important implications for lexicography and language pedagogy, which rely heavily on attested data to present a more complete picture of our language.

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