國立政治大學英國語文學系博士班博士論文

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# 口語語料庫中弱情態動詞構式的語意及功能

# The Meanings and Functions of Weak-Modal Constructions in a British Spoken Corpus

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# The Meanings and Functions of Weak-Modal Constructions in a British Spoken Corpus

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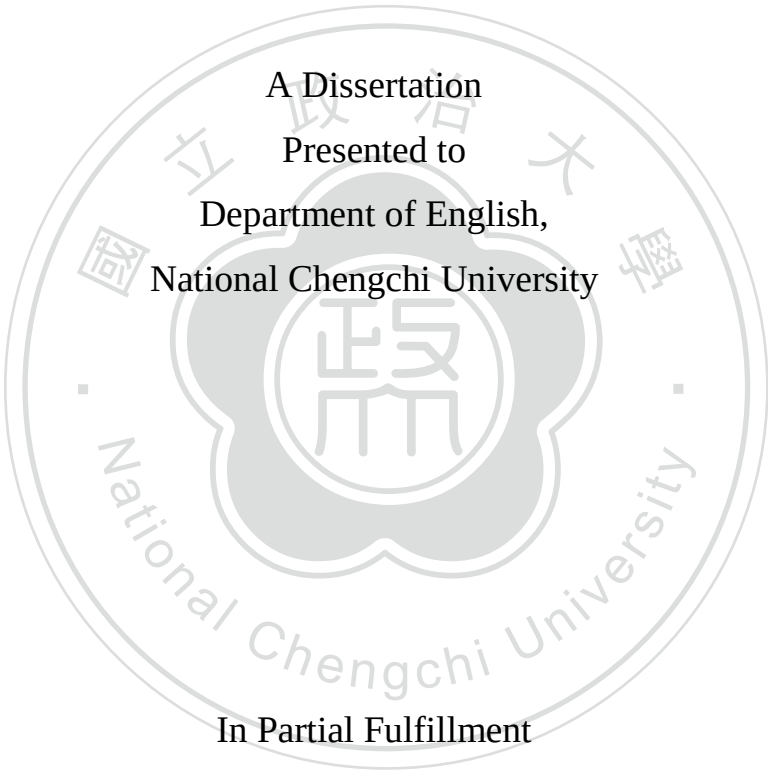


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DOI:10.6814/NCCU202101439

## TABLE OF CONTENTS





DOI:10.6814/NCCU202101439

DOI:10.6814/NCCU202101439

DOI:10.6814/NCCU202101439

## List of Figures







DOI:10.6814/NCCU202101439

## List of Tables





DOI:10.6814/NCCU202101439

DOI:10.6814/NCCU202101439

# 中文摘要

國立政治大學英國語文學系博士班

博士論文提要

論文名稱：口語語料庫中弱情態動詞構式的語意及功能

指導教授：賴惠玲博士

研究生：蔡慈娟

論文提要內容：

本文探討The Spoken BNC2014口語語料庫中弱情態動詞構式的語意及功能，我們採取構式語法的角度來分析can, could, may, might構式主要成員的結構及語意。傳統中對情態動詞的語意分析習慣沿用特定的類別稱呼像是epistemic或是deontic，這些類別常被認為太抽象或太籠統，無法反映出情態詞彙真實的使用狀況。再者，這些類別的意思界線模糊，採用這些類別來區隔弱情態動詞can, could, may, might很困難也很不實際。本研究採用構式語法的角度來看待這個議題，我們研究的對象是情態動詞構式，每個情態動詞構式被當成是形意合一的單位，這個單位具備個別的語音、語法並搭配自有的語意、話語及語用的特徵。

我們採取使用基礎模型(usage-based model)的觀點，將弱情態動詞構式的表現及組成視為是語言使用的結果，我們透過觀察弱情態動詞及其重要搭配詞的關係來了解弱情態動詞構式的組成及網路。我們的搭配詞分析顯示can, could, may, might不但各自擁有許多種類的搭配詞，他們也共享許多相同的搭配詞。然而，Log Ratio統計也顯示這些弱情態動詞構式對不同搭配詞有各自的偏好，這包括對於緊接著弱情態動詞之後的謂詞



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的偏好以及銜接弱情態動詞的主詞選擇。結果顯示弱情態動詞構式與詞彙是互依的關係而非任意的搭配。

我們選擇八個重要的弱情態動詞構式來進行後續的質性會話分析(conversation analysis)。我們針對語境內容像是模糊限制語(hedge)，語用標記(discourse marker)，連接詞，參與會話的人數以及話題接續性來了解弱情態動詞構式的語意及功能。結果顯示這八個弱情態動詞構式具備多樣及獨特的語意，包括主要的出現頻率較高的語意以及較邊陲出現頻率較低的語意。我們發現[we can do this]最常出現於艱困的情境，用來提振對話者的士氣，[we can do it]表達說話者對於完成任務的信心，[we could have had+*]描述回憶中的或想像中的未發生的事件，[we could have done+*]敘述對話者或大眾所認知的但未發生的理想事件，[there might be some+*]引導對話者去注意某物體或事件，[there might be something+*]幫助對話者指認某物體的位置或澄清某想法，[he/she may have PP+*]提出對於特定人物狀況的預測或八卦的假設，[they may have PP+*]則是依據背景知識提供對於熟人近況的了解及推測。

研究結果證實從構式語法的角度分析情態語意的實用性。我們透過構式所提供的詳細資料得以比傳統分類法更清楚也更準確地解析弱情態動詞構式的語意。並且，這個方法也讓我們了解相關弱情態動詞構式之間的連動關係。這個研究從實際的語料出發，結合了質性的會話分析，得到的研究成果給予仰賴實際語料以供辭典編撰或呈現語言真實面貌的語言教學領域重要參考。

關鍵字: 情態動詞構式、弱情態語意、使用基礎模型、口語語料庫、搭配詞、
會話分析



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## English Abstract

This study investigates the meanings and functions of weak-modal constructions in the Spoken British National Corpus 2014 (The Spoken BNC2014). A constructionist perspective is taken to examine the organization and meanings of central *can*, *could*, *may* and *might* constructions. In the traditional approach, modal semantics was interpreted in terms of a set of prescribed notions such as epistemic or deontic sense, which were often criticized as too abstract or too coarse to capture the meanings of modal expressions in real use. Moreover, because the boundary between these notions often becomes blurred, it is impractical and difficult to use them for the distinction of a group of modals that all express weak modality: *can*, *could*, *may*, and *might*. By taking a constructionist approach, we identified modal constructions as form-function pairings. Each modal construction is represented by its phonology or morphosyntax and is equipped with its own semantic and discourse-pragmatic characteristics.

By subscribing to the usage-based model of language, which sees constructions as the result of language use, we identified weak-modal constructions and their networks by examining the associative relations between weak modals and their important collocates. Our collocational analysis showed that *can*, *could*, *might*, and *may* were associated with a variety of collocates and they shared many common collocates. Nevertheless, Log Ratio statistics suggested that weak-modal constructions were also distinct in terms of their preferred types of items that may fill the slots of the constructions, which included not just elements or predicates on the modal's right but also the grammatical subject that was linked to the construction. The findings showed that modal constructions and lexical items are mutually selected and that the makeup of modal constructions is not in free variation.



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Eight central weak-modal constructions were selected and subject to the qualitative conversation analysis, which enabled us to interpret weak-modal constructions in terms of discoursal characteristics such as hedges, discourse markers, and clausal connectives, or interactional features like the number of interlocutors or topic continuity. We found that these constructions displayed unique and dynamic meanings ranging from core and more frequent ones to peripheral and rare meanings. The result showed that [we can do this] is often used in time of uncertainty to boost morale, and [we can do it] is used to set an upbeat mood for the completion of tasks. Meanwhile, [we could have had+*] describes unreal events that could only be afforded by circumstantial factors in retrospect or by imagination while [we could have done+*] depicts a past unrealized cause or idea presumably shared by most members in the conversation or the public. On the other hand, [there might be some+*] directs the interlocutor's attention to the expectation of certain objects or affairs, and [there might be something+*] orients the interlocutor's attention to the location or identification of an unspecified object or intention. Finally, [he/she may have PP+*] conveys a range of possibility senses from prediction to gossip, and [they may have PP+*] supplies information regarding the condition of acquaintances or certain groups of people.

The results confirmed the usefulness of the constructionist perspective on modality, which has provided more detailed information for a more precise and accurate description of weak-modal constructions. Moreover, it captures the dynamic relationship among related weak-modal constructions. The combination of a corpus-based approach and a qualitative conversation analysis bears important implications for lexicography and language pedagogy, which rely heavily on attested data to present a more complete picture of our language.

*Keywords*: *Modal Constructions, Weak Modality, Usage-based Model, Spoken Corpus, Collocation, Conversation Analysis*



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# CHAPTER 1

# INTRODUCTION

## Background of the Study

The notion of constructions as the basic units of human language has taken the linguistic study by storm in the late 20th century. As form-function pairings of symbolic units, constructions pervade all levels of language structure. However, with a focus on the nature and structure of these symbolic units, construction grammarians have been less concerned with quantifying their findings. This shortcoming has been overcome by the development of corpus linguistics, an empirical approach which examines naturally occurring language examples stored and accessed on a computer with an aim to analyzing and describing language use as realized in texts. That is, while corpus linguistics presents patterns of language and describes what language does, construction grammar studies the nature of language and explains what language is (Groom, 2019). At the same time, with a similar focus on empirical data, the approach taken by conversation analysis has a lot to offer in terms of the understanding of meanings. The collaboration of the three disciplines is bound to shed light on the study of modality, one of the most complicated and discussed notions in modern linguistics.

## Motivation of the Study

The complexity of modal semantics has puzzled the linguists for decades. The literature is inundated with different terminology or criteria to refer to similar phenomena (Nuyts, 2006). For ease of discussion, we begin with three kinds of modality that are most recognized. Dynamic modality describes the capacity or needs of the controlling-participant or similar potentials determined by the local



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circumstances. Deontic modality presents a degree of moral desirability through permission, obligation, and volition. Finally, epistemic modality expresses the degree of probability including the logical possibility, necessity, hypothetical meaning, and predictability (Biber, Johansson, Leech, Conrad, & Finegan, 1999). Some scholars, however, argue that dynamic and deontic senses should be grouped to form a category called root modality since the two senses are both related to directive or getting things done and are distinguishable from epistemic modality (Coates, 1983; Sweetser, 1990; Traugott, 1989). Some others insist that deontic and volitional modality should be put together because they both refer to "some kind of intrinsic human control over events" whereas epistemic and ability modality go to the same category as they are concerned with "human judgment of what is or is not likely to happen" (Quirk, Greenbaum, Leech, & Svartvik, 1985, p. 219)

Semantics division aside, the literature also abounds with debates regarding the source of modal meanings in terms of semantic or pragmatic contribution to modality (Groefsema, 1995). For instance, some scholars assign modals a unitary semantics and they believe that epistemic or root interpretations are developed pragmatically in the process of exchange (Klinge, 1993; Kratzer, 1991; Groefsema, 1995; Papafragou, 1998a, 1998b; Perkins, 1983). Others, however, deem modal meanings as motivated polysemy consisting of related senses (Bybee & Fleischman, 1995; Coates, 1983; Huddleston & Pullum, 2002; Palmer, 2001; Sweetser, 1990; Traugott, 1989). Given the attention it has received, though, there has been little consensus among linguists on the topic of modality; instead, the study of modality has been so notoriously known for its diverse terminology and conceptualization that Bybee, Perkins, and Pagliuca (1994) confess that "it may be impossible to come up with a succinct characterization of the notional domain of modality" (p. 176). This is especially true with English modal



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auxiliary verbs because as a unique category the modals exhibit an array of overlapping meanings within and between themselves. The bewildering assortment of discussions and debates surrounding the identification of modal meanings and distinction between modal verbs have earned them the name "messy category" by Trousdale (2016) or "test-bed" for semantic and pragmatic interface by Papafragou (1998a).

At the center of the controversy is a group of modals which express weak modality or meanings that may lie anywhere on the cline of permission to possibility. These modals including *can*, *could*, *may*, and *might* were said to have received far more attention and research than other modals (Bolinger, 1989). With a high degree of semantic overlap, these modals occupied a large portion of literature devoted to their identification and distinction (Coates, 1983; Collins, 2007; Dirven, 1981; Duffley, Clarke, & Hirtle, 1981; Groefsema, 1995; Quirk et al., 1985). Some scholars have attempted to differentiate the modals in terms of their modal strength (Biber et al., 1999; Coates, 1980; Leech, 2004). Others have resorted to the notions of subjectivity and objectivity for their distinction (Coates, 1980; Collins, 2009; Duffley et al., 1981). Still others have sought solutions by studying the various grammatical categories that co-occur with these modals (Biber, et al., 1999; Kennedy, 2002). Nevertheless, few studies have succeeded in putting an end to the debate; instead, they only invited more intense arguments and had to produce more papers in their own defense. Currently, the only agreement seems to be that modal meanings tend to become blurred not only at the junction of category division but also indistinguishable between themselves. At the same time, there is also concern about whether certain meanings can be strictly ascribed to semantic or pragmatic input (Collin, 2007; Leech, 2004). This is perhaps the most troubling issue regarding the study of modality because it suggests that scholars may



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not be on the same page and there is little hope to clear the bad names such as “messy category” (Trousdale, 2016) or “test-bed” (Papafragou, 1998a) assigned to modals.

Recently, the issue has been approached from a constructionist perspective, which examines modality in terms of a network of constructions rather than sense relationship. The conceptualization of constructions or form-function pairings of our knowledge of language is a possible way out of the deadlock surrounding the study of modality and modal verbs in particular (Boogaart, 2009). Constructions are said to vary in size and degree of schematicity, and their interconnectivity and operation are subject to general cognitive mechanism. Moreover, constructions are learned from the input and the aim of the constructionist approach is to uncover the hierarchy of constructions that reflects the psychological reality of the speakers’ language (Goldberg, 1995; 2009). In this approach, the focus of attention is switched to modal constructions rather than individual modals, and to understand modality is to identify the network of modal constructions, their formation, and their relationship. Various studies with a constructionist perspective have identified meanings of modal constructions far more diverse than what were described by the monosemous or the polysemous account (Cappelle & Depraetere, 2016b; De Haan, 2012; Hilpert, 2013a, 2013b, 2016; Tsai & Lai, 2018, 2019). It seems that the notion of construction may serve as a better perspective and direction for the analysis of modality.

Meanwhile, there are consequences for taking a constructionist approach toward the study of modality. As theoretical entities, modal constructions need to be defined and materialized for the purpose of study. With a shared commitment to the cognitive underpinning of our language with the usage-based model, constructions are believed to be the result of cognitive processing of language. Through repetition in language use, contiguous experiences such as meaning and acoustic shape are recorded as links to one



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another (Bybee, 2013) and it is cognitive mechanism that has given rise to such an array of associations from idiosyncratic expressions to general schema that we observe with our language (Bybee, 2010; Diessel, 2015). This recognition brought about the possibility of representing modal constructions in the mind, which can be accessed and examined in the corpus. With a built function for various statistics of co-occurrence effect, modern corpora allow the identification of constructions with much more efficiency and precision. Various corpus-based studies have proven the effectiveness of a constructionist approach toward the identification of various senses of polysemous words or constructions (Cappelle & Depraetere, 2016b; De Haan, 2012; Hilpert, 2013a, 2013b, 2016; Tsai & Lai, 2018, 2019).

With regard to genre for modal study, Coates (1983) proposed the utterance-based approach to the analysis of modality as opposed to the sentence-based method. The former gives emphasis on the nature of spoken interaction while the latter focuses more on the writers or speakers only. Halliday (1994) also highlighted the interpersonal function of modality with which the speakers express points of view or construct interpersonal relations. Since modality is strongly linked to self expression, the meanings of modal constructions may be best captured in conversations (Coates, 1983). Various scholars working in dialogical study have called for more collaboration of construction grammar and conversation analysis (CA) to provide meanings that are contributed by the interactional context, which is believed to constitute some aspects of constructions (Fischer, 2001, 2010, 2015; Fried & Ö stman, 2005; Wide, 2009).

The conceptualization of constructions provides a possibility for resolving the long debated issue regarding modals and their meanings. The constructionist approach allows modal constructions to be identified and represented in the corpus. Moreover, by observing modal constructions in language use, meanings and functions of *can*, *could*,



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*may*, and *might* constructions can be better understood and distinguished. Because of the complexity of the subject and the richness of literature covering modal expressions, solutions to the problem may prove illuminating for related and often crucial issues in linguistics such as synonymy, polysemy, prototypicality or more general topics like language comprehension or production.

## Definition of Terms

### Construction

The notion of construction in the constructionist approach is to be distinguished from the one referred to in the linguistic tradition. While traditionally the term mainly applies to structural patterns such as imperative sentences, relative clauses, or complex noun phrases, construction grammar interprets all linguistic phenomena from morphemes and words to idioms and grammatical frames in terms of constructions or symbolic units of language.

In its genesis, the concept of construction was proposed as an alternative to generative grammar, which imposed rigid division between grammar and lexicon or productive rules and total idiosyncrasy. In contrast, constructions in construction grammar are form-function pairings in the sense that their morphological, syntactic, and lexical form are mapped directly with their semantic, pragmatic, and discourse functions without intermediate structures (Goldberg 1995, 2003, 2006). That is, not only the boundary between lexis and syntax in construction grammar is blurred but the meaning of construction is intended to include all of the conventionalized aspects of its function such as properties of the situation described by the utterance, properties of the discourse where the utterance is found and properties of the pragmatic situation of the interlocutors (Croft & Cruse, 2004).



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In the present study, it is the constructionist notion of construction that is adopted. Moreover, given the wide range of constructional types, for the purpose of our study, we restrict our unit of study to include a modal verb and linguistic elements on the modal's right and left (e.g., lexeme or category), which is represented as [*+Modal Verb+*].

**Construction in Usage-based Model**

As an alternative to generative grammar, construction grammar in its early development focused more on units that exhibited both some degree of productivity and idiosyncratic syntactic, semantic or pragmatic properties that could not be derived from general syntactic-semantic rules or pragmatic principles. Recently, the scope of constructional analysis has extended to include all conventional patterns, regardless of their degree of internal predictability (Nikiforidou, 2009). This is most evident in the usage-based model to the study of constructions, which sees constructions as conventionalized in the speech community and entrenched in the user's mind as a result of experience from language use.

The usage-based model highlights the process that gives rise to constructions, which are viewed as processing units or chunks—sequences of words (or morphemes) that are accessed together. In this approach, word sequences that are used frequently can be seen as constructions even if they do not have idiosyncrasies of meaning or form (Bybee, 2013; Goldberg, 2006). The usage-based interpretation of construction is recognized and incorporated in the represent study, so the target of our study includes sequences of words with modal verbs as necessary components, which may be represented as [lexical item+Modal Verb+lexical item].



DOI:10.6814/NCCU202101439

## Construction in Corpus Linguistics

There is much overlap in the units studied by construction grammar and corpus linguistics. With a statistical emphasis, corpus linguistics investigates collocation or high-frequent combination of words, which is defined as the co-occurrence of a lexical item and one or more additional linguistic elements which functions as one semantic unit in a clause or sentence (Gries, 2008). Thus, the potential object of study in corpus linguistics may include multi-word expressions with varying degrees of structural complexity and semantic cohesion, which are recognized as constructions especially by construction grammarians who no longer adhere to the early parameter of non-compositionality or non-predictability (Goldberg, 2006).

There is, however, one parameter that sets phraseological study apart from construction grammar. While the former requires at least the inclusion of a lexical item in its unit of study, it is not a requirement for the notion of construction, which may assign lexically unspecified patterns such as argument structures or clause patterns constructional status (Gries, 2008). Because the target of the present study, [*+Modal Verb+*], is identified through collocational analysis and the unit primarily consists of a sequence of words with the modal verb as a necessary component, our use of the term modal construction may be understood as collocation or phrasal units from the perspective of corpus linguistics or phraseologism.

## Purpose of the Study and Research Questions

In the study of modal semantics, *can*, *could*, *may*, and *might* which often express weak modality pose a particularly challenging area of study for linguists because of their high degree of semantic overlap. Although much research has been devoted to their identification and distinction, little agreement has been achieved about their exact



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nature. The conceptualization of constructions as form-function pairings or units of our language provides a useful theoretical ground for the identification of modal constructions and possibility for their distinction. Infused with analytical tools provided by annotated corpora, modal constructions can be identified and retrieved with more efficiency and accuracy. Since the expression of modality is manifested in natural communication, the present study aims to investigate the meanings and functions of *can*, *could*, *may* and *might* constructions in the Spoken BNC2014 and derive our findings from their usage in conversations. We believe the combination of a constructionist perspective with the methodological approach of conversation analysis may provide more detailed information and help shed light on the meanings and functions of modal constructions and their distinction. The specific aims of the study are as follows:

a. To identify weak-modal constructions in the Spoken BNC2014.
b. To generalize meanings and functions of *can*, *could*, *may*, and *might* constructions in the Spoken BNC2014.

To address the issue and fill the gaps of the previous research, the following questions are asked.

**Question 1**: How can weak-modal constructions be represented in the Spoken BNC2014?

**Question 2**: What are the meanings and functions of *can*, *could*, *may* and *might* constructions in the Spoken BNC2014?



DOI:10.6814/NCCU202101439

## Significance of the Study

The present study aims to identify and generalize the meanings and functions of weak-modal constructions in the Spoken British National Corpus 2014 (the Spoken BNC2014) through a constructionist approach. The results may enrich the study of modality and shed light on the theoretical ground and analytical approach toward modal constructions. Specifically, the study will make the following contributions.

First, the corpus-based study of modal constructions may allow a richer, more detailed and comprehensive examination of naturally occurring linguistic data. Second, the theoretical ground taken by the present study will enable the identification of the contingency of form-function mappings and their use in natural context. Finally, the combination of the corpus-based study and the qualitative conversation analysis of modal constructions may address the complexity of modality in a more systematic and comprehensive way.

## Organization of the Study

The dissertation is organized as follows. Chapter 2 reviews the literature on modal verbs and modal semantics with a focus on *can*, *could*, *may*, and *might* and discussions about their distinction from traditional semantics, corpus linguistics, and usage-based constructionist perspective. Chapter 3 describes the methodology adopted by the present study, which includes a detailed description of the corpus, statistical tools, annotation categories and procedures for the qualitative analysis. Chapter 4 reports and discusses the findings of the study, which contains a corpus-based account of the frequency, distribution, and partial taxonomy of major *can*, *could*, *may* and *might* constructions in the Spoken BNC2014. The meanings and functions of central *can*, *could*, *may* and *might* constructions will then be elucidated through a qualitative



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conversation analysis. Finally, Chapter 5 summarizes the results and concludes the study. Implications based on a constructionist approach to modal meanings will be drawn and pedagogical suggestions will be provided.






DOI:10.6814/NCCU202101439

DOI:10.6814/NCCU202101439

# CHAPTER 2

# LITERATURE REVIEW

This chapter reviews literature related to the studies of modality with a focus on modal verbs including approaches toward their identification and explanations of their meanings. A constructionist perspective and current state of research on modal constructions are discussed. The cognitive underpinning of constructions is illustrated in terms of the usage-based model and exemplar representation of linguistic knowledge. Relationships between construction grammar and other disciplines such as corpus linguistics and conversation analysis are also examined.

## English Modal Auxiliaries

English modal verbs as a formal category of linguistic devices expressing modality have been widely studied. Modal semantics in particular has received much discussion in the literature. A majority of the debates concern classification of modal semantics while others involve the source of modal meanings.

### The Syntax of Modal Auxiliaries

The English modal auxiliaries or modal verbs along with other linguistic items such as lexical verbs (*suggest, allow, guess*, etc.), adjectives (*probable, likely*, etc.), adverbs (*probably, necessarily, obviously*, etc.), nominal expressions (*necessity, chance*, etc.), some fixed idiomatic phrases (*be supposed to, (have) got to*, etc.) and certain types of intonation are used to express modality, the speaker's attitudes or



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opinions (Downing & Locke, 1992). As part of auxiliary verbs, the English modal verbs, which include *must, shall, should, will, would, can, could, may, might* share similar morpho-syntactic characteristics with their tense and *do* auxiliary counterparts. These features were reviewed by Quirk et al. (1985) and summarized by Wärnsby (2006, p. 23-24) in the following examples[1].

(a) Modal verbs are followed by the negative particle *not* without the need for *do*-support (e.g., John **can**not play the piano).

(b) Modal verbs are inverted with the subject in interrogative sentences (e.g., **Can** John play the piano?).

(c) Modal verbs encode the proposition in various elliptic constructions (e.g., John **can** play the piano, and so **can** Mary).

Moreover, modal verbs can further be distinguished from periphrastic modal auxiliary idioms or so called semi-modal verbs such as *have to* or *need to* by the following criteria:

(d) Modal verbs can only be followed by bare infinitives (e.g., John **can** (*[2]to) play the piano).

(e) Modal verbs have only finite forms (e.g., John has ***musted** play the piano).

(f) Modal verbs do not inflect for 3rd person singular (e.g., John ***cans** play the piano).

[1] Modal verbs or modal constructions in all examples are boldfaced. Elsewhere, instances of lexical items, modal verbs, or utterances referred to are marked in italic whereas constructions or the researchers' comments or emphases are placed in square brackets or single quotation marks.
[2] The star sign * indicates erroneous usage.



DOI:10.6814/NCCU202101439

(g) Both the past and present forms of modal verbs, formally preterite and present, can be used in utterances with present, past, and future time reference (e.g., John **could** give his concert tomorrow, if he is asked.)

Hence, modal verbs are distinct in terms of their grammatical roles and are "more integrated within the structure of the clause than other modal expressions" (Perkins, 1983, p. 104).

**The Semantics of Modal Auxiliaries**

Despite the clear grammatical status of most modal verbs, discussion of modal semantics has been filled with controversy because of its complexity and abstraction. Much effort has been devoted to the identification and delineation of modal meanings. In his review of current literature, Nuyts (2006) identified three semantic dimensions most frequently used to represent modality: dynamic, deontic, and epistemic. Dynamic modality describes the capacity or needs of the controlling-participant or similar potentials determined by the local circumstances as demosntrated in (2.1) and (2.2) (Nuyts, 2006, p. 3).

(2.1) That kid **can** sing like Frank Sinatra.(subject-participant)

(2.2) I've locked the back door, so you **can** enter the house there. (local circumstances)

In (2.1), modal verb *can* refers to the the subject-participant's ability while in (2.2), the same modal verb ascribes capacity potential to external factors.

Deontic modality presents a degree of moral desirability through permission, obligation, and volition (Biber et al., 1999). The notion of morality is related to social



DOI:10.6814/NCCU202101439

norms or personal ethical criteria as the following examples show (Nuyts, 2006, p. 4).

(2.3) We **should** be thankful for what he has done for us.

(2.4) You **may** come in now.

Modal verb *should* in (2.3) descirbes a social expectation or acceptability of the state of affairs, which requries the subject-participant to be grateful whereas *may* in (2.4) suggests submission to a superior social power which gives the permissioin for the intended action.

Finally, epistemic modality expresses the degree of probability including the logical possibility, necessity, hypothetical meaning, and predictability (Biber et al, 1999). This notion involves the estimation, by the speaker, of the possibility that the state of affairs is real. The following examples demonstrate the use (Papafragou, 1998b, p. 370).

(2.5) You **must** be John's wife.

(2.6) That **may** be the postman. (on hearing the doorbell)

Example (2.5) indicates a strong projection that the entity is John's wife while (2.6) suggests a weaker confidence in predicting the person at the door to be the postman.

Linguists subscribing to the three-fold division of modality of epistemic, deontic, and dynamic meanings believed that modal verbs such as *can* and *will* do not seem to play a role in modality when they are used to refer to ability and volition in which the modal meanings involve the characteristics of the subject rather than the opinion or attitude of the speaker (Palmer, 1990; Perkins, 1983). Palmer (2003) explained that in



DOI:10.6814/NCCU202101439

the case of deontic modality the control was external to the subject of the sentence whereas with dynamic modality, the control was internal to the subject. Still, this division does not seem to disambiguate the two senses because the attribution of the source of control is largely determined by the view point taken by the speaker. Take (2.2) (see page 15) for instance. The modal *can* may be read as control from the local circumstances when used in the dynamic sense, but it can also be taken as volition rendered by the speaker or imposer to express deontic meaning. Similar observation has led some scholars to subscribe to a bipartite division of modality. Some of them grouped dynamic and deontic senses to form a category called root modality because they believed the two senses are both related to directive or getting things done and are distinguishable from epistemic modality, which is primarily concerned with the speaker's attitude or judgment of the proposition (Coates, 1983; Sweetser, 1990; Traugott, 1989). Others divided dynamic sense and placed volitional sense and ability sense in two different categories in terms of intrinsic modality, which involves obligation, permission, and volition and extrinsic modality, which concerns necessity, possibility, or ability. The former is said to indicate "some kind of intrinsic human control over events" while the latter suggests "human judgment of what is or is not likely to happen" (Quirk et al., 1985, p. 219). Elsewhere, different scholars have also come up with their own categorization and terminology of modal semantics. Depraetere and Reed (2006) conducted a review of cross-linguistic works on modality. The diverse perspectives and classification of modality by different scholars were organized and presented in Table 2.1.



DOI:10.6814/NCCU202101439

Table 2.1

*Classification of (Analytical) Modal Meanings*

<table>
<tr><td colspan="2">epistemic modality</td><td>root necessity</td><td>root possibility</td><td>ability</td><td>obligation</td><td>permission</td><td>willingness or volition</td><td></td></tr>
<tr><td colspan="2">epistemic</td><td colspan="6">root modality</td><td>Coates (1983)</td></tr>
<tr><td colspan="5">extrinsic</td><td colspan="3">intrinsic</td><td>Quirk et al. (1985)</td></tr>
<tr><td colspan="2">epistemic</td><td colspan="2">n/a</td><td colspan="5">agent-oriented</td><td>Bybee and Fleischmann (1985)</td></tr>
<tr><td colspan="2">propositional modality</td><td rowspan="2">n/a</td><td rowspan="2">n/a</td><td colspan="4">event modality</td><td rowspan="2">Palmer (2001)</td></tr>
<tr><td>evidential</td><td>epistemic</td><td>dynamic</td><td>deontic</td><td colspan="2">dynamic</td></tr>
<tr><td colspan="2">epistemic</td><td colspan="3">dynamic</td><td colspan="3">deontic</td><td>dynamic</td><td>Huddleston and Pullum (2002)</td></tr>
<tr><td colspan="2">epistemic</td><td colspan="6">non-epistemic</td><td>n/a</td><td rowspan="2">Van der Auwera and Plungian (1998)</td></tr>
<tr><td colspan="2" rowspan="2">epistemic</td><td rowspan="2">participant-internal</td><td colspan="2">participant-external</td><td rowspan="2">participant-internal</td><td>participant-external</td><td rowspan="2">n/a</td></tr>
<tr><td colspan="2">non-deontic</td><td>deontic</td></tr>
</table>

*Note*. From Mood and modality in English, by I. Depraetere and S. Reed, 2006, in B. Aarts and A. McMahon (Eds.), *The handbook of English linguistics* (p. 280). MA: Blackwell Publishers.



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It can be seen that previous research in general agreed on the division of epistemic and non-epistemic modality. What caused the researchers to disagree with each other largely concerned the boundaries between these two interpretations of modality. In sum, there has been no agreement about the exact nature of modal semantics. Various classifications such as the bipartite or the tripartite division as well as the profusion of diverse terminology are attestations to the complexity of the issue.

**The Source of Modal Meanings**

Many semantic studies have showed that the meanings of modal verbs often become ambiguous and that a majority of modal verbs may express more than one meaning. To elucidate the source of this meaning division, two notions have been proposed: monosemy versus polysemy. In the monosemous analysis, modals are assigned a unitary semantics and it is believed that certain modal interpretations are developed pragmatically in the process of exchange (Groefsema, 1995; Papafragou, 1998a, 1998b). For instance, the semantics of *can* may be conceptualized as 'X enables Y' where Y refers to the propositional content of the clause and X is a pragmatic variable which may determine the kind of modality involved (Boogaart, 2009). Under this notion, if X is an authority, we may derive deontic *can.* On the other hand, when X refers to a body of knowledge or evidence, we are dealing with epistemic *can*. By treating modal semantics as ambiguous, the monosemous notion provides a common ground for the interpretation of different senses. However, such an abstract notion tended to stretch the unitary semantics so much that it failed to capture modal meanings in real use and it did not distinguish the differences or explain the relationships between the different modal readings.



DOI:10.6814/NCCU202101439

On the other hand, the polysemy account held that modal semantics was comprised of multiple related senses (Goossens, 1992; Sweetser, 1990). Goossens believed that these meanings were organized around a number of prototypical cores. For instance, the dynamic sense of *can* is deemed as the most central while other senses are more peripheral and are derived from the central sense. This conceptualization, however, was questioned to lack in empirical support and ran a risk of sense proliferation because there was no constraint for any possible senses that could be envisaged with modals (Sandra, 1998). Elsewhere, Sweetser (1990) regarded polysemy as motivated by a metaphorical mapping in which senses acquired from external concrete socio-physical experiences were projected to describe internal abstract reasoning or mental processes. Her notion was largely attributed to Talmy's (1988) force-dynamic framework, which conceptualized the modals as the grammaticalized encodings of entities involved in different ways of interaction in terms of forces and barriers. For instance, root *may* encodes the existence of a potential but absent barrier and root *can* describes a positive ability on the part of the doer, or some potential force. These notions are extended metaphorically into the mental domain to convey epistemic meanings. In fact, there were studies attesting Sweetser's claim that root meanings emerged earlier than epistemic ones in language acquisition (Kuczaj & Daly, 1979) and in the diachronic development of modality (Shepherd, 1981). However, Bybee et al. (1994) found exceptions in their cross-linguistic data where verbs denoting befalling or becoming became epistemic without going through obligation or ability stage. They argued that metaphorical mechanism might only apply to concrete lexical meaning whereas for more abstract meaning it was the working of inference that had resulted in the different interpretations. In reviewing the examples provided by Bybee et al. (1994), Traugott and Dasher (2002) also questioned Talmy's (1988) notion of force-dynamic



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as playing a role in motivated modal polysemy because they found no such instances that suggested a barrier as the source of obligation modals. In any case, it has been found that senses identified by this account do not always correspond to our knowledge of real modal usage and may even appear arbitrary. Hence, the polysemy notion suffered similar criticism as the monosemous view since it did not offer clear criteria for the identification or distinction of modal meanings, and nor did it provide valid explanation of their relationships (Boogaart, 2009; Papafragou, 1998a).

## Modal Verbs Can, Could, May, and Might

In the study of modal semantics, pairs or clusters of modals are often teamed up under prescribed notions related to modal categories. Modals *can, could, may,* and *might* are often grouped together to express weak modality such as permission, possibility, and ability, which reflect the dimensions of deontic, epistemic or dynamic modality. Nevertheless, since it is a common practice to posit the distinction of modal categories as a gradient or a scale, scholars do not always agree on where to place *can*, *could*, *may*, and *might* on the continuum of weak modality. The literature abounds with not only opinions on the grouping of these modal verbs but proposals on their further differentiation on those dimensions.

### Weak vs Strong Modality

Scholars who analyze modality as gradient characterize all modal categories in terms of the opposition of possibility and necessity or modal logics, a conceptualization that is widely adopted in linguistics (Leech, 2004; Quirk et al., 1985). In this approach, all modal categories constitute discrete values from strong to weak as represented by Table 2.2.



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Table 2.2

*Weak vs Strong Modality*

| | WEAK MODALITY | STRONG MODALITY | |
|---|---|---|---|
| ROOT { permission ↕ possibility | CAN, MAY | MUST, HAVE TO | obligation ↕ necessity } ROOT |
| EPISTEMIC — possibility | MAY | MUST, HAVE TO | necessity — EPISTEMIC |

*Note*. From *Meaning and the English verb* (3rd Ed.) (p. 84), by G. Leech, 2004, London: Pearson Education Limited.

This categorization places *can* and *may* under weak modality as opposed to strong modality which subsumes *must* and *have to*. Modals *can* and *may* thereby come to express permission and possibility modality, which are in an inverse relation with obligation and necessity. Moreover, the gradient also underlies the distinction between permission and possibility or between obligation and necessity. Most debates about the equivalence of *can* and *may* revolve around where to place their senses on the continuum of weak modality. Finally, the table showed that the ability sense was subsumed under root possibility because Leech (2004) believed that the ability sense implied possibility in "if someone has the ability to do X, then X is possible" (p. 75).

In general, the gradient structure allows the comparison of *may* and *can* but also blurs their distinction. For instance, although it is possible to distinguish *may* and *can* in terms of stronger and weaker possibility, Leech (2004) admitted the tendency for these two senses to become indistinguishable in formal English. The same difficulty also applied to the distinction of the two modals in terms of permission sense as suggested in the comment "in asking and giving permission, *can* and *may* are almost



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interchangeable" (p. 75). As for *could* and *might*, they may express hypothetical meanings in addition to being the past equivalents of *can* and *may*. The hypothetical *could* and *might* are said to be softer in meaning and are considered more polite alternatives to *can* and *may*. Nevertheless, Leech found it difficult to tell the difference between *could* and *might* in such sentences as *There could be trouble at the Springboks match tomorrow* or *The door might be locked already*. The discussion suggests that *can*, *could*, *may*, and *might* express similar meanings and substitution of any modal over another only matters in terms of degree rather than a change in meaning.

Biber et al. (1999) also recognized the commonality of *can*, *could*, *may*, and *might* by grouping them under the functional category of permission/possibility/ability. The result was based on the examination of different uses of individual modals in the 40-million-word Longman Spoken and Written English corpus (LSWE) comprised of conversations, fictions, news and academic prose. Using the labels 'intrinsic' and 'extrinsic' in place of 'deontic' or 'epistemic', Biber et al. assigned the four modals to the same category. It was believed that the manifestation of individual modals in certain functions was determined by their frequency of use in those functions. Their study showed that *could*, *might*, *may* more often expressed possibility while *can* was frequent in permission, ability, and possibility senses. Nevertheless, they also admitted that it was not a straight forward task when it came to the recognition of senses because they tended to be blurred on multiple occasions.

Collin (2009) drew a similar conclusion in his analysis of *can*, *could*, *may* and *might* in a 1.2 million-word corpus comprised of three parallel corpora of British English, Australian English, and American English. Based on the tripartite taxonomy of modality: deontic, epistemic, and dynamic, he found that *may* primarily conveyed epistemic possibility whereas *can* denoted dynamic possibility with the ability sense



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subsumed under the category. Nevertheless, he also called for attention to a high level of semantic overlap between *may* and *can* despite their differences in frequency of occurrence and degrees of formality. Moreover, he noticed no apparent difference between epistemic *could*, *may*, and *might* because these modals may alternate freely without changing their meanings or the level of likelihood expressed.

Contrary to the above authors, Coates (1980) distinguished *may* and *can* by assigning them distinct meanings: "*may* is primarily used to express epistemic possibility, while *can* primarily expresses root possibility" (p. 218). The argument was confirmed in her study of a 545,000-word corpus that included both written and spoken material from Lancaster corpus and London-Lund corpus respectively (Coates, 1983). Although indeterminancy was taken to be a characteristic feature of modal semantics in Coates's study, her approach to the categorization of modals was not far away from that of Biber et al. (1999). Her clustering of the modals was based on their frequency of use in several prescribed functions or meanings. In her analysis, *can*, *could*, *may* and *might* were segregated in two clusters to express different semantic concepts as shown in Table 2.3.

Table 2.3
*Summary of Coates's (1983) Clusters of Modal Semantics*

| Clusters | Semantic concepts | Modals |
|---|---|---|
| 1 | obligation, necessity | *must, should* |
| 2 | intention, prediction, futurity | *will, shall* |
| 3 | possibility, ability, permission | *can, could* |
| 4 | epistemic possibility | *may, might* |

*Note*. Adapted from *A multifactorial study of the uses of may and can in French-English interlanguage* (p. 33), by S. C. Deshors, 2012, Doctoral thesis, University of Sussex, UK.



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Coates (1983) also concluded that epistemic *may* and *might* expressed similar degrees of likelihood: “MIGHT, in my data at least, does not seem to express a more tentative meaning than MAY” (p. 152). With regard to *could*, Coates argued that it expressed more tentative possibility than *might.* Paradoxically, without any support in her data, she suggested that *could* was replacing *might* as “the new exponent of tentative epistemic possibility” (p. 167).

Tyler (2012) aptly pointed out the problem with the gradient approach by stating that most of them introduced modal verbs by focusing on shared senses where the modal verbs occurred. Such an approach does not distinguish individual modal verbs from other members in the same category. Moreover, the grouping fails to illustrate the relationship between the juxtaposed semantics or functions in each category. For instance, it is not clear how possibility, ability or permission functions may be related and why they should be placed in the same category. In sum, current findings adopting the scalar view are not illuminative because other than proposing finer categorization, they mostly reiterate what has been known in the existing literature, which has already failed to distinguish the four modals.





DOI:10.6814/NCCU202101439

Table 2.4

*Overview of Main Studies and Issues on the Strength of Modality*

| **Weak vs Strong Modality** | |
|---|---|
| Selected Publications | Main findings and issues |
| Leech (2004) | **Findings:** *May* expresses stronger while *can* conveys weaker possibility. Hypothetical *could* and *might* are more polite alternatives to *can* and *may.*<br><br>**Issues:** *May* and *can* are indistinguishable in formal English and in their permission sense. *Could* and *might* express similar meanings. |
| Biber et al. (1999) | **Findings:** *Could*, *might*, *may* expressed possibility while *can* was frequent in permission, ability, and possibility senses.<br><br>**Issues:** The senses tended to be blurred on multiple occasions. |
| Collins (2009) | **Findings:** *May* primarily conveyed epistemic possibility whereas *can* denoted dynamic possibility with the ability sense subsumed under the category.<br><br>**Issues:** There is a high level of semantic overlap between *may* and *can*. Also, *could*, *may*, and *might* may alternate freely without changing their meanings. |
| Coates (1980, 1983) | **Findings:** *Can* and *could* express the concepts of possibility, ability, and permission and *may* and *might* denote epistemic possibility.<br><br>**Issues:** The approach does not distinguish individual modal verbs from other members in the same category or explain the relationship between concepts in the same category. |

**Subjective vs Objective Modality**

Another dimension that is often adopted to distinguish modal verbs is the division of subjective and objective modal categories (Coates, 1983; Lyons, 1977). Lyons defined the notions as follows: "objective epistemic modality expresses an objectively measurable chance that the state of affairs under consideration is true or not, while subjective epistemic modality involves a purely subjective guess regarding its truth" (p. 797). Nuyts (2006) provided an example to demonstrate the operation of the two



DOI:10.6814/NCCU202101439

notions for epistemic modality. In the sentence *Alfred may be married*, the speaker may indicate his or her uncertainty about the hypothetical fact, which is a demonstration of subjectivity modality. On the other hand, the speaker may suggest that there is computable chance that Alfred is unmarried based on some known facts, which is an interpretation of objective modality. Alternatively, the same notions may be applied to differentiate deontic sense in terms of the speaker's view point over the situation. Collins (2009) called a deontic modal subjective when it "indicates what the speaker considers desirable, appropriate or right" or when "the speaker is giving advice authoritatively to the addressee" and objective when "the appropriateness or desirability of the course of action described stands independently of the speaker's endorsement" (p. 45).

The notions of subjectivity and objectivity have been employed to differentiate *may* and *can*. In terms of epistemic sense, Collins (2009) showed that there was a higher tendency for *may* to express subjectivity and for *can* to denote objectivity. Nevertheless, he also admitted that "instances of objective *may* do occur, where the estimation is one that is entertained more generally" (p. 93). On the other hand, distinction between *may* and *can* in terms of deontic sense was widely recognized by many scholars (Collins, 2007, 2009; Duffley et al., 1981; Groefsema, 1995). According to Duffley et al., *may* expressed the virtual giving of permission, involving some external permitter, while for *can* the permission is intrinsically possessed by the permittee. Groefsema likewise commented that, "when I ask you May I smoke in here, I make my smoking solely dependent on your permission, whereas when I ask Can I smoke in here, I communicate that your permission is only one factor under consideration" (p. 68).



DOI:10.6814/NCCU202101439

However, similar to the argument over strong versus weak modality, there is no shortage of uncertainty on deciding a subjective or objective sense when it comes to the analysis of real examples (Cappelle & De Sutter, 2010; Collin, 2007). For instance, Cappelle and De Sutter found it difficult to identify the source of modality and determine whether it was grounded in the speaker or in some speaker-external source. Collins agreed that the various distinctions are probabilistic rather than absolute. In many cases, he found deontic *can* and *may* semantically parallel. That is to say that the two modals are indistinguishable by the notions. As for *could* and *might*, Collins confirmed that deontic *might* were subjective while deontic *could* expressed both subjective and objective modality. The discussion showed that similar to the categorization of strong versus weak modality, the division between subjective and objective modality is also too coarse a dimension for the distinction between *can, may, could,* and *might*.

Table 2.5
*Overview of Main Studies and Issues on Subjective and Objective Modality*

| **Subjective vs Objective Modality** | |
|---|---|
| Selected Publications | Main findings and issues |
| Collins (2007, 2009) | **Findings:** In their epistemic sense, there is a higher tendency for *may* to express subjective modality and for *can* to denote objective sense. Deontic *might* is subjective while deontic *could* expressed both subjective and objective modality.<br><br>**Issues:** Instances of epistemic objective *may* do occur. Deontic *can* and *may* are semantically parallel. |
| Duffley et al. (1981) | **Findings:** In their deontic sense, *may* expressed the virtual giving of permission (subjective) while for *can* the permission is intrinsically possessed by the permittee (objective).<br><br>**Issues:** It is difficult to identify the source of modality and determine whether it is grounded in the speaker or in some speaker-external source. |



DOI:10.6814/NCCU202101439

**Co-occurrence with Grammatical Category**

There is much literature on the associations between semantic features of modals and their syntactic environments. Referring to such terminology as intrinsic (deontic) or extrinsic (epistemic) modality, Biber et al. (1999) identified the characteristic syntactic environments of modals. With regard to intrinsic modality, they found that "(a) the subject of the verb phrase usually refers to a human being (as agent of the main verb), and (b) the main verb is usually a dynamic verb, describing an activity or event that can be controlled" (p. 485). As for the extrinsic sense, they noted its higher correlation with non-human subjects and/or with main verbs with stative meanings. Nevertheless, they also admitted that there were plenty of instances where the rules did not apply. For example, extrinsic *might* often occurred with an animate subject and dynamic main verb, which was contrary to prediction.

In her study of *can*, Coates (1983) found that root *can* frequently occurred with stative verbs, passive voice, and inanimate subjects. Biber et al. (1999) also noted the association of *can* and *could* with the passive to express logical possibility. The use of *can* was believed to allow the speaker to avoid overt identification of the human agent of the main verb as a means to make the reported action or situation logically possible. On the other hand, Coates (1983) found (a) perfect aspect, (b) progressive aspect, (c) existential subject, (d) state verb, (e) quasi-modal, and (f) inanimate subject to be strong correlates of epistemic *may* (p. 136). Biber et al. (1999) confirmed that possibility *might* and *may* were common with the perfect aspect to express certain degree of doubt about past events or situations. Meanwhile, negation and sentence types are also widely known to be correlated with modal semantics. For instance, Leech (2004) noted that "only the permission sense, for instance, is found in questions (…) and the negation of the possibility sense is different in kind from the negation of



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the permission sense" (p. 77). The observation accounts for the fact that *may* is hardly found in its possibility sense in those questions where *can* or *could* are more appropriate. For instance, the question *May they be asleep?* is not possible in the epistemic sense whereas *Can*/*Could they be asleep?* is more likely to occur. Following Coates (1983) and Biber et al. (1999), much effort has been devoted to the identification of such correlation between modals and grammatical categories (Mindt, 1995; Kennedy, 2002). Table 2.6 is a partial recreation of Kennedy's finding on the distribution of *can* (234,386 tokens), *could* (168,397 tokens), *may* (113,025 tokens) and *might* (61,446 tokens) in verb phrase structures in the BNC.

Table 2.6
*Distribution of Weak Modals in Verb Phrase Structures in The BNC*

| Modal structure | *Can %* | *Could %* | *May %* | *Might %* |
|---|---|---|---|---|
| Modal alone | 2.8 | 2.4 | 0.5 | 1.5 |
| Modal + infinitive | 74.6 | 75.7 | 72.4 | 70.9 |
| Modal + be + past participle | 21.9 | 13.6 | 17.3 | 11.3 |
| Modal + be + present participle | 0.3 | 0.6 | 1.5 | 1.8 |
| Modal + have + past participle | 0.3 | 6.6 | 7.0 | 12.4 |
| Modal + be + being + past participle | 0 | 0 | 0 | 0 |
| Modal +have + been + past participle | 0.1 | 1.1 | 1.3 | 1.8 |
| Modal + have + been + present participle | 0 | 0.1 | 0.1 | 0.3 |
| Total | 100% | 100% | 100% | 100% |

*Note*. From Variation in distribution of modal verbs in the British National Corpus (p. 85), by G. Kennedy, 2002, in R. Reppen, S. M. Fitzmaurice, & D. Biber (Eds.), *Using corpora to explore linguistic variation,* Amsterdam: John Benjamin.

In general, the table shows the variation of modal verbs in different structures. However, it is less clear how the frequency may suggest about modal meanings. For



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instance, it is not clear how the similar distribution of the four modals on the structure [Modal + infinitive] may tell us about what the structure means or how it may help us distinguish the four modals. Moreover, since the percentages of different structures were established based on their relative occurrence with individual modals compared with other structures, this raises the question of whether the information is useful for the distinction of different modals. Clearly, more rigorous statistical measures are required to evaluate the significance of these structures to individual modals and across different modals. Analytical issues aside, Kennedy (2002) interpreted the results in terms of a set of coarse semantic categories of ability, possibility or intention applied to all modals, which further complicated the issue and made the distinction of these modals more difficult. Overall, studies on the co-occurrence of modals and syntactic structures have further illustrated the complexity of modal meanings. Since these studies tend to rely on linguistically pre-defined notions and general observations of idiosyncratic behavior of modals, they failed to provide a systematic account of the distinction of *can*, *could*, *may* and *might* and their meanings.





DOI:10.6814/NCCU202101439

Table 2.7

*Overview of Main Studies and Issues on Co-occurrence of Modal Verbs with Grammatical Category*

| **Co-occurrence with Grammatical Category** | |
|---|---|
| Selected Publications | Main findings and issues |
| Biber et al. (1999) | **Findings:** Intrinsic modality and extrinsic modality differ in terms of the subject and main verbs they are associated with.<br><br>**Issues:** There were plenty of instances where the rules did not apply. Extrinsic *might* often occurred with an animate subject and dynamic main verb, which was contrary to prediction. |
| Coates (1983) | **Findings:** Coates found (a) perfect aspect, (b) progressive aspect, (c) existential subject, (d) state verb, (e) quasi-modal, and (f) inanimate subject to be strong correlates of epistemic *may* while root *can* is associated with stative verbs, passive voice and inanimate subjects. |
| Kennedy (2002) | **Findings:** The researcher identified variation in occurrence of modal verbs in different structures. |
| **Common issues:** It is not clear how the frequency of association between modals and various structures may suggest about modal meanings. It is also difficult to distinguish modals which share the same structures. | |

**Conventional Implication and Modality**

A unique aspect that is often observed about modals is that on occasion they do not really communicate modal semantics but instead convey meanings that can only be arrived at through implication or pragmatic reasoning as demonstrated by Collins (2007, p. 485) in the following examples.

(2.7) You **can** bloody well keep your hands off.

(2.8) Perhaps we **can** talk about that on another occasion.

(2.9) I **can** make one of those up for you show you how to put that together.



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These examples do not communicate possibility or ability sense but suggest by implication: command in (2.7), suggestion in (2.8), and offer in (2.9), which are commonly known as speech acts expressing illocutionary force in the study of pragmatics. Moreover, similar effects are not limited to *can* but almost all modals are possible for pragmatic implication. In fact, there is no shortage of variation in meanings that may be expressed by different modals. For instance, in the examples provided by Leech (2004), *could* and *might* were more than polite alternatives to *can* and *may*. When they are used in such remarks as *You could try and be a bit more civilised!* or *You might stop grumbling at me for a change!*, modal verbs *could* and *might* express a tone of rebuke (p. 129). Elsewhere, *could* and *might* were used to communicate complaints about past omissions: *You might have let me know the boss was in a foul temper!* or *You could have given me some notice!* (p. 131). In numerous cases, the meanings of the modals were said to be superseded by a characterization in terms of the illocutionary force of the utterance in which they occur. However, this process of meaning generation is different from that of other speech acts. Some researchers have referred to such instances as conventional illocutionary force since there is a combination of a specific form with a specific interpretation which differs from implication that is arrived at through stepwise pragmatic reasoning (Aijmer, 2002; Leech, 2014). Moreover, conventional illocutionary force has been found to be most noticeable in fixed phrases where modals are not interchangeable such as *I'll leave my car in the garage, if I may* or *Not if I can help it* as discussed by Leech (2004) or Cappelle and Depraetere (2016a). In both cases, substituting the modal may completely change the meaning or render the utterance incomprehensible. In general, it is still an ongoing debate whether conventional illocutionary force should be assigned semantic or



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pragmatic value, let alone the distinction of modals whose interpretation depends on those values.

The discussion so far has clearly shown two major issues with the study of modal verbs and their characterization. The first problem concerns the adoption of such notions as deontic, dynamic, epistemic or any other prescribed labels. This is because these notions are operating at such an abstract level that they do not allow for a detailed description of modal expressions in real use (Boogaart, 2009). Instead, the notion of modality is better viewed as a supercategory or conceptual content possessing a wider and higher abstraction of semantic scope than categories of time and aspect rather than criteria for the distinction of modal meanings (Nuyts, 2006). The other problem has to do with the unit of study. As highly grammatical items, modal verbs code a variety of both modal and non-modal meanings with subtle semantic distinctions. The current practice of mapping modals to an assortment of idiosyncratic structures or functions has constituted the major obstacle and source of disagreement with the study of modality. The study of modal verbs must go beyond such abstract notions and take into account other influences or factors that have contributed to modal meanings. As Boogaart (2009) noted, what is needed is a change of focus both on the way meaning is arrived at and the unit of study that is selected, which is a topic to be expounded in the next section.



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Table 2.8

*Overview of Main Studies and Issues on Conventional Implication and Modality*

| **Conventional Implication** | |
|---|---|
| Selected Publications | Main findings and issues |
| Collins (2007) | **Findings:** Examples of *can* do not communicate possibility or ability sense but suggest by implication other meanings such as command, suggestion, or offer. |
| Leech (2004) | **Findings:** *Could* and *might* were more than polite alternatives to *can* and *may*. They may express rebuke or complaint. In some fixed phrases, modals are not interchangeable such as *if I may* in *I'll leave my car in the garage, if I may.* |
| **Common issues:** It is still an ongoing debate whether conventional illocutionary force should be assigned semantic or pragmatic value. | |

## Construction Grammar

The constructionist approach subscribes to the non-modularism and non-objectivist tenets underscored by cognitive linguistics (Barcelona & Valenzuela, 2011). Contrary to the traditional belief that language operates independently of human cognition, cognitive linguistics gives primacy to the role of human experience on the study of meaning. Theorizing the construction as the unit of language, the constructionist approach aims to uncover "the psychological reality of constructions in the native speakers' language" (Ellis & Cadierno, 2009, p. 116).

### The Notion and Hierarchy of Constructions

An important perspective taken by the constructionist approach is to see human's knowledge of language as a collection of conventional, learned form-meaning pairings known as constructions or the building blocks of language. Goldberg (2003) provided the following definition:



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> ... 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 approach in which all linguistic items however small or abstract are learned pairings of form and function. Constructions are better captured by the notion of signs or symbolic units, which do not differentiate lexis and syntax but are distinguished in terms of their degree of complexity and schematicity. In terms of complexity, morphemes and words can be seen as simple constructions, which are related to more concrete objects or concepts whereas idioms and grammatical frames are increasingly complex to refer to more abstract concepts such as events. In terms of schematicity, specific constructions such as words or filled idioms are relatively fixed with little room for variation. On the other hand, fully schematic constructions are grammatical patterns whose interpretation is in terms of the relation between their constituents' distribution. In between are partially filled constructions which possess both specific and schematic features. The different types of constructions are illustrated in Table 2.9.





DOI:10.6814/NCCU202101439

Table 2.9

*Examples of Constructions*

| Constructions | Examples |
|---|---|
| Morpheme | *pre-, -ing* |
| Word | *avocado, anaconda, and* |
| Complex word | *daredevil, shoo-in* |
| Complex word (partially filled) | [N-s] (for regular plurals) |
| Idiom (filled) | *going great guns, give the Devil his due* |
| Idiom (partially filled) | *jog* <someone's> *memory, send* <someone> *to the cleaners* |
| Covariational Conditional | The Xer the Yer (e.g., *the more you think about it, the less your understand*) |
| Ditransitive (double object) | Subj V $Obj^1$ $Obj^2$ (e.g., *he gave her a fish taco; he baked her a muffin*) |
| Passive | Subj aux $VP_{pp}$ ($PP_{by}$) (e.g., *the armadillo was hit by a car*) |

*Note.* From *Constructions at work: The nature of generalization in language* (p. 5), by A. E. Goldberg, 2006, Oxford: Oxford University Press.

In the constructionist approach, a sentence is seen as a combination of constructions rather than the application of grammatical rules or the arrangement of a number of words in order. Goldberg (1995, p. 29) demonstrated the operation of constructions with the following examples:

(2.10) Sam *sneezed*.

(2.11) Sam *sneezed* the napkin off the table.

In (2.10), the verb *sneeze* functions as a typical intransitive verb. In (2.11), we see the normally intransitive verb *sneeze* takes on a transitive quality to take a direct object. The structure suggests that a sneeze has led to the displacement of a napkin. Since considering the verb alone, which is an intransitive verb, would not predict the semantic notion of motion, the meaning must have come from the argument structure



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construction itself, which is a cause motion construction or [V-NP-PP]. In terms of its structure, (2.11) is composed of the lexical constructions (Sam, sneeze, napkin, table, off), phrasal constructions (VP, NP, PP), cause motion construction (VP-NP-PP), and clause construction (Subject-Verb-Object). In this respect, the boundary between lexis and syntax is blurred; they are simply different constructions that are attracted to each other. Goldberg (2006, p. 5) provided the following criteria for the identification of constructions:

> Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency.

This principle states that each construction is represented by its phonology or morphosyntax and is equipped with its own semantic and discourse-pragmatic characteristics. Example (2.11) shows that the meaning of the cause motion construction is determined not so much by the verb but by a general constructional schema (Diessel, 2015). This is what Goldberg (2003) refers to as "what you see is what you get" principle of construction grammar (p. 219). That is, the meaning of the construction is construed by taking into account the use of the construction rather than a set of abstract features that describe individual components alone. In the constructionist approach, the term 'meaning' is often used interchangeably with 'function' to encompass all of the conventionalized aspects of a construction's use, which may include properties of the situation of the utterance, properties of the discourse in which the utterance occurs and the pragmatic situation of the interlocutors. By considering



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domain-general cognitive processes, the constructionist approach allows us to capture universally similar conceptualization of events across various languages. On the other hand, because different cultures may construe events differently, cross-linguistic variability may be observed (Goldberg, 2013).

Constructions form a systematically related network of association. The relation of constructions can be captured in terms of an inheritance hierarchy along a continuum of categoriality. Using the idiom *kick the bucket* as an example, Croft and Cruse (2004) illustrated the taxonomic hierarchy of constructions in Figure 2.1.

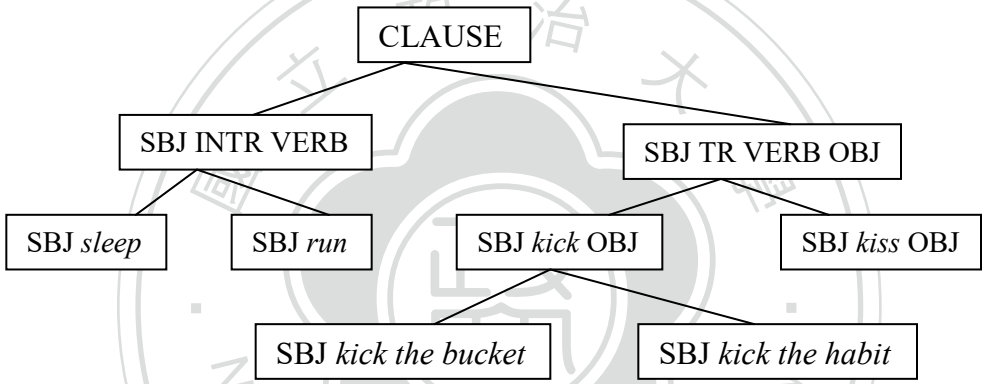


*Figure 2.1* An Example of the Taxonomic Hierarchy of Constructions
From *Cognitive linguistics* (p. 264), by W. Croft and D. A. Cruse, 2004, Cambridge: Cambridge University Press.

At the bottom of the hierarchy are two filled idiomatic constructions, [kick the bucket] and [kick the habit]. They are said to inherit such properties as verb inflection, phonological realization, or specifications of the subject from its mother construction [SBJ *kick* OBJ], which is one level up on the hierarchy. Lexical verb *kick*, in turn, inherits its argument structure pattern from the more schematic transitive verb phrase, which in turn inherits properties from the more general clause construction (Boas, 2013). The other way is to see each construction as simply an instance of the more schematic construction(s) in the chain [kick the habit]-[kick Obj]-[TrVerb Obj]. It



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should be noted that these constructions are only related in terms of schematicity because each exhibits its individual features and must be represented as an independent node in the hierarchy. For instance, [kick the bucket] expresses a particular meaning whereas [kick Obj] specifies the verb's argument structure, so they are represented separately.

Goldberg (1995) calls for the recognition of constructions as "theoretical entities" (p. 2) because they are better predictors of the overall meaning of sentences. Numerous studies have been carried out and proven the validity of the constructionist claims. For instance, Landau and Gleitman (1985), Naigles (1990, 1995) and her colleagues (Naigles et al., 1993) demonstrated that children were able to acquire verb meanings through syntactic frames. Goldberg and her associates (Bencini & Goldberg, 2000; Goldberg, Casenhiser, & Sethuraman, 2004) also provided experimental evidence that testified constructions as psychological entities in the mind of the speakers. Most importantly to the purpose of semantic study, the recognition of constructions is a way out of the implausible proliferation of word senses.

**The Usage-based Model to Constructions**

The constructionist approach captures the fact that instances of language use are recorded along with generalized patterns and that grammar is better seen as the cognitive organization of one's experience with language. As form-meaning pairing, the notion of construction is recognized and widely integrated into the usage-based model, which attributes the knowledge of language to experience in use (Bybee, 2013; Langacker, 1987, 2000). Langacker (1987) defined the usage-based model as follows:



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> Substantial importance is given to the actual use of the linguistic system and a speaker's knowledge of this use; the grammar is held responsible for a speaker's knowledge of the full range of linguistic conventions, regardless of whether these conventions can be subsumed under more general statements. (p. 494)

While in the constructionist approach, the aim is to uncover the representations of our language and constructions are primarily identified by their idiosyncratic behavior[3], the usage-based model focuses on cognitive processes and their impacts on the representations of language, which is described as an activation network subject to such effects as entrenchment or decay brought about by language use. It is believed that repetition in language use may lead to conventionalization of categories and the automation of sequences, so the observation of frequency effects may reveal the properties of cognitive representations of our language (Bybee, 2013). Consequently, in this model, word sequences that are used frequently enough are seen as constructions even if they do not have idiosyncrasies of meaning or form (Bybee, 2006; Goldberg, 1995, 2006). This view also implies that linguistic structure is emergent because it is governed by cognitive processes which are subject to language use by individuals in specific situations.

Based on the above premises, the usage-based model proposes a number of general hypotheses about the relationship between grammatical representation and processes of use. First, productivity emerges as a result of a high type frequency or discrete instances in the construction. Second, generalization or abstractness is defined

[3] This early definition of construction was modified by Goldberg as she explained in an interview, "insofar as I now explicitly allow for fully compositional constructions. In 1995, I focused on non-compositionality for purely methodological reasons: we know we need a construction when it's not strictly predictable. Since then psycholinguistics has provided evidence that we store forms, even if they are compositional. Exactly how much exposure is required before we can say something is stored is a topic I'm very interested in." (Gonzálvez-García , 2008, pp.352-353)



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as schemas rather than rule guiding principles that derive an output structure from an input structure. Third, the organization of constructions is subject to their relative semantic distance from each other, which relates the taxonomic network of constructions to multiple parents. Finally, it is believed that language is acquired in a gradual, piecemeal, and inductive manner (Croft & Cruse, 2004). In sum, the usage-based model highlights the fact that the acquisition, representation, and processing of language are all shaped by usage. With authentic language data as its target of study, the usage-based model reflects an empirical turn in linguistics (Wulff, 2013).

**The Exemplar Representation of Constructions**

In the usage-based model, the emergence or acquisition of constructions is explained in terms of exemplars—instances of language use stored in memory. As units of memory, tokens of exemplars record detailed information of linguistic experience such as the forms and the contexts in which they appear. In particular, contiguous experiences such as meaning and acoustic shape are recorded as links to one another (Bybee, 2013). When exemplars are accessed in either encoding or decoding, they bring in an impact on the representation of language and results in changes in the system. Through such cognitive mechanism as automatization, analogy, categorization, or inference, the processing of exemplars results in an array of associations from idiosyncratic expressions to general schema (Bybee, 2010; Diessel, 2015). Using a common idiom as an example, Hilpert (2013b, p. 471) explained how the mechanism works:



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> ...an idiom such as *not give a damn*, may sprout offshoots such as *not give a hoot* or *not give a monkey's*, in which speakers replace one part of the idiom with an analogous element. Repeated analogical extensions may over time lead to the emergence of a general schema not *give a NP*, which invites further additions to the range of expressions occurring in this now partly schematic idiom.

The mechanism automatization explains how the previously independent units such as *not give a damn* have come to be processed as a single unit while analogy refers to how similar exemplars like *not give a hoot* or *not give a monkey's* are stored in close relation to the existent instance *not give a damn*. On the other hand, categorization describes the process where the variable slot is open to semantically defined nouns in *not give a NP* while inference is responsible for the negative sense of annoyance the construction acquires from the semantics of its components and contexts of use. It should be noted however that components of the idiom such as the verb *give* or the noun *damn* also have their individual links to other constructions. Therefore, although *not give a damn* may develop into an autonomous chunk to express a unique meaning, individual components may still be related to other constructions to express a variety of meanings. We see that the strength binds the components of a construction in sequential order. Meanwhile, the strength also applies to relationship between items that share the same slot of a particular construction.

The characterization of the exemplar provides an ideal model for the representation of construction, which is the pairing of form and meaning. This is done by observing two kinds of frequency. Token frequency refers to the occurrence of a particular construction or the constant parts that make up a construction. Those parts that receive higher token frequency such as *damn* in the above example usually serve as



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the central members or seeds of development for the categories in the schematic slots of the construction (Bybee & Eddington, 2006). However, high token frequency does not guarantee productivity because if the strength between components within the construction is too strong, it can form an autonomous chunk, which is processed as a unit and fails to activate related items. On the other hand, type frequency is measured by counting the number of different items which occur in the schematic slots of a construction (Bybee, 2013). In the above Hilpert's example (2013b, p. 471), the number of different nouns that occur in *not give a NP* construction in a corpus constitutes its type frequency. It is said that the higher the type frequency, the more likely it is for the slot in the construction to develop a general schema and become productive because it is more open to new items. The study of token and type frequency suggests that linguistic structure is not only systematic but also efficient by following Zipf's (Zipf, 1935) law distribution. The law describes how the occurrence of words follows a power function of their rank in the frequency table, with the most frequent word accounts for approximately twice as many as the second most frequent word, three times as many as the third most frequent word, etc. (Ellis, Römer, O'Donnell, 2016). It is observed that the most frequent slot-filler is usually the most semantically prototypical and generic and often serves as the anchor point for linguistic generalization. It is the coming together of the Zipfian-like distribution that accounts for the possibility and efficiency of language learning. In sum, the study of token and type frequency, their distribution, and characteristics of exemplars is crucial for the understanding of the development and representation of constructions.



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## Modal Constructions and Corpus-based Studies

Boogaart (2009) pointed out the inadequacy of the traditional semantic account which placed a strong focus on identifying a network of senses associated with one particular modal verb instead of recognizing the crucial role that constructions or form-meaning pairings played in modal interpretation. Referring to the principles of the constructionist perspective, he highlighted the need to shift attention from generating abstract meaning in isolated modals to identifying specific and concrete constructions which had the modals as part of their composition. Recently, with the assistance of various statistical tools, annotated corpora have enabled the identification of modal constructions more effectively.

### Identifying Modal Constructions

With its emphasis on form-function mapping, the constructionist approach is especially suitable for the analysis of modal constructions, which exhibit diverse meanings. 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. This is perhaps why purely syntactic generalizations are so hard to find. What is typical is neither ambiguity nor functional identity, but rather polysemy: the same form often has different but related functions.



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What Goldberg described as polysemy can be observed when modal verbs occur in specific contexts where modal meaning is strengthened or weakened as demonstrated in (2.12) and (2.13) provided by Depraetere (2017, p. 15-16).

(2.12) In these days of widespread family planning, you **might well** think the number of unwanted pregnancies is on the decline. You would be wrong. (The BNC)

Depraetere explained that *might well* in (2.12) was a case of pragmatic strengthening where *might* did not express possibility but carried a certain degree of inevitability or necessity. Moreover, she observed that sometimes modal verbs may even develop a formulaic status as shown in (2.13).

(2.13) Let me develop the point **if I may** Jonathan. (ICE-GB)

In (2.13), modal verb *may* in *if I may* is not strengthened or weakened to express permission or possibility, but to indicate the speaker's intention to hold the floor and continue his/her talk. These examples show that modality involves more than the input of individual components or modals alone but is instead contributed by the composition or construction as a whole to express more than a sum of their meanings (Hilpert, 2013b). Nevertheless, instances like the above are relatively few and a majority of modal expressions do not seem to meet the criteria of constructionhood proposed by Goldberg (1995, 2006) because most modals do not seem to bear non-compositional meanings, possess unpredictable formal properties, or exhibit unexpected constraints (Hilpert, 2016). For instance, in almost all modal expressions, the meanings of modals and the following lexical verbs appear to add up compositionally. In terms of their



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morpho-syntactic behavior, the combination of a modal with a lexical verb in the infinitive form is a regular grammatical pattern. Finally, there are no apparent restrictions on modals with regard to the kinds of subject pronouns or lexical verbs that they can take. By far, the most rigorous attempt on modal constructions comes from corpus studies of modal collocation based on the frequency effect (Cappelle & Depraetere, 2016b; De Haan, 2012; Hilpert, 2013a, 2013b, 2016; Tsai & Lai, 2018, 2019), which is a new criterion introduced by Goldberg (2006, p. 5) in her latest description of construction, "In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency." With this new criterion, Hilpert (2016, p. 69; emphasis added) defined modal constructions as follows.

> Even though [modal verb] may be combined with virtually any lexical verb of the English language, some combinations are used much more often than would be expected, whereas others are used much less often than expected. In other words, [modal verb] has a collocational profile that reflects an attraction towards certain types of lexical verbs, and repulsion of other types of verbs.

Since these collocational preferences are not predictable from what the speakers are assumed to have, Hilpert (2019) argued that these patterns can be seen as an integral part of the speaker's linguistic knowledge or constructions. The description of various links of association between modal verbs and lexical items gives rise to the conceptualization of modal constructions as an interconnected network where the more frequent and prototypical use is related to less frequent and more peripheral ones (Kovács, 2011).



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**Modal Constructions in Corpora**

Hilpert (2016) argued intensively for the incorporation of corpus linguistics in the study of modal constructions, which he believed can be captured through the collocational analysis based on the measurement of the attraction or repulsion of various linguistic forms toward each other. In his study of *may* construction in the Corpus of Historical American English (COHA), Hilpert 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 and stative such as *depend, exist, involve,* or *indicate*, which are primarily related 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. Using the same technique and corpus, Hilpert (2013a) compared and contrasted *may* and *might* and found that they shared many common collocation such as *do, make, give* or *call,* but the strength of these associations differs. For instance, throughout time *may* has come to be strongly associated with *seem* while *might* tend to collocate with *say*. He also identified *have* as a more frequent collocate of *could* than *can.* Moreover, he found *could* and *might* to be closer to each other while *can* is closer to *may* in terms of the collocation they shared in general.

With an aim to uncovering the lexis-syntax continuum of modal constructions, De Haan (2012) analyzed *must* constructions in the spoken Switchboard Corpus and in the written Brown Corpus. On the lower-level constructions involving specific lexical items, he identified such structures as [*must* admit] or [*must* confess], which were used



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to express deontic modality. On the schematic-level or constructions comprising grammatical categories, he found [*must* perfect] and [*must* progressive] to be associated with epistemic sense in both corpora. He also uncovered the association of subject with certain expressions. For instance, [I *must* Verb] conveyed a concessive sense and [there *must* be Noun/Adjective] or [it *must* be Noun/Adjective] involved evidential meaning. The result attested the usefulness of a constructionist approach as it allowed access to contextual and specific information for disambiguating the various meanings of modal constructions. In reviewing De Haan's (2012) examples, Cappelle and Depraetere (2016b) drew attention to specific verb groups that were involved in the schematic constructions. For instance, the epistemic [*must* perfect] construction was found to contain verbs of cognition, perception, or sensation whereas the deontic [*must* be passive] construction was associated with verbs of remembering or observing and was used to stress a particular point. Besides lexical verbs, they also found the use of subject to be crucial to the distinction of various modal meanings. For example, they pointed out that although *may say* and *may thank* are two-word constructions characterized by verbs of saying, the two constructions prefer different subjects with *may say* predominantly used with subject *I* and *may thank* primarily accompanied by *you.* The inclusion of subject in the analysis yielded a significant difference in interpretation of the two constructions. This observation led them to conclude that a wider scope of attention should be given to associations between the modal verb and linguistic elements other than the following lexical verbs. In general, the above findings showed that the modal meanings as identified with a constructionist approach are far more diverse than what could be captured in terms of deontic or epistemic sense.

Following Cappelle and Depraetere's advice (2016b) and responding to Boogaart's (2009) call for more research effort on lower-level or specific modal



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constructions, Tsai and Lai (2018) conducted a study to identify core *must* constructions in the Spoken BNC2014. Among those constructions that enjoyed high type and token frequency, they identified three partially filled constructions, namely [must've/have+*], [must be+*] and [must Verb+*] and three lower-level constructions, [she must've/have been+*], [there must be some+*], and [I must Verb I+*], which expressed related but distinct meanings. Incorporating a conversation analysis, they found [she must've/have been+*] depicting assessment of a certain event in the past or the development of the event up to the present. On the other hand, [there must be some+*] described a sense of urgency by the speaker to find the solution to a specific problem while [I must Verb I+*] arose from the speaker's intention to assume responsibility for the potential negative impact produced by the utterance.

Encouraged by the result, Tsai and Lai (2019) conducted a similar study to compare and contrast *may* and *can* constructions in the Spoken BNC2014. The target of their study was a merger, [it may/can be+*], which has been considered one of the most challenging constructions because it may express both epistemic and dynamic senses or ambiguity between paraphrases 'it is possible that…will' and 'it is possible for…to' (Coates, 1983; Collin, 2007; Leech, 2004). The constructional analysis allowed Tsai and Lai (2019) to successfully distinguish the partially filled *may* and *can* constructions. The result showed that the meanings of *may* and *can* constructions were greatly influenced by their collocates and the conversational contexts of their occurrence. For instance, the three core *may* constructions [it may be+that Clause], [it may be a+Noun], and [it may be Adverb/Clause/Noun] expressed evaluating, specifying, and focusing meaning respectively. On the other hand, central members of *can* construction [it can be+degree Adverb+Adjective], [it can be+general Adverb+Adjective], and [it can be+passive PP] served the purposes of representing, acknowledging, and instructive.



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That is, although structurally [it may be+*] and [it can be+*] are alike, the analysis revealed that the former was associated with statements of fact while the latter was related to human potential or experience.

## Construction Grammar and Conversation Analysis

It's been recognized that construction grammar shares much common ground with the conversation analysis (Fischer, 2001, 2010, 2015; Fried & Ö stman, 2005; Wide, 2009, 2014). Both approaches are usage-based and regard all chunks of language as equally important for a comprehensive understanding of language and both perceive patterns as organized networks of relationship. Both value the contribution of form and meaning and disregard the division of core versus peripheral utterances, and neither approach views meanings or structures as strictly compositional (Fried & Ö stman, 2005). Among constructionists, Boogaart (2009) noted the need to look at linguistic information across clause boundaries when the intended reading of the modal construction was not explicitly indicated. Most recently, various scholars working in dialogical study have called for more collaboration of construction grammar and conversation analysis (CA) (Fischer, 2001, 2010, 2015; Fried & Ö stman, 2005; Wide, 2009, 2014). Together, these researchers argued that information from the interactional contexts should be included in the analysis of constructions because it constitutes some aspects of the constructions that also "emerge via the progressive entrenchment of configurations that recur in a sufficient number of events to be established as cognitive routines" (Langacker, 2008, p. 220). That is, as a crucial part of constructions, the interactional contexts embody the dynamics of human communication.

Nevertheless, with its root in the sociological framework of ethnomethodology, conversation analysis aims at identifying participants' social practices. Therefore,



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despite the common ground, conversation analysis differs from construction grammar in its focus and principle. The focus of conversation analysis is talk-in-interaction or attested conversation in real-life social action by interactionalists and the principle adopted is the turn-taking system, which examines the organization of units larger than individual utterances in interaction (Sacks, Schegloff, & Jefferson, 1974). These units are seen as the result of communication partners' contributions as they engage in re-evaluation and elaboration of their production (Hopper, 2011). Hence, from the perspective of conversation analysis, the meaning of an expression is interactively construed and is considered to be a social, rather than cognitive, product (Schegloff, 2005). That is, while conversation analysis studies context-changing or construing entities employed in the exchange of meaning, construction grammar examines the outcome of such processes in terms of the conceptualization of language use. Fried and Ö stman (2005) argued that the difference is a matter of degree with conversation analysis emphasizing the process while construction grammar stressing the conventionalized abstraction. They believed that a collaboration between the two approaches may provide a more comprehensive understanding of language, grammar, and communication.

Fischer (2010) demonstrated with examples the potential meanings which can be contributed by the interactional contexts such as the turn where a certain construction occurs, its relation with its prior or the subsequent utterances, the relationship between the interlocutors, or the socio-physical background of the context. For illustration, we reproduce Fischer's (2010, p. 195) example from the BNC in (2.14) and (2.15).



DOI:10.6814/NCCU202101439

(2.14)

<PS1SD>: put the K down right away so we'll keep that there. Now we're only bothered about the X. I differentiated something and I finished up with X what did I start from? What would you differentiate that would give you X? …

<PS1SE>: Erm … X squared.

<PS1SD>: **Okay** but that will give us too much

The conversation was conducted in a math tutoring session. The target of Fischer's study was pragmatic markers, and she highlighted how the functions of these markers may be better understood by referencing to their structured interactional contexts. In (2.14), we notice how the pragmatic marker *okay* is used to take up what has been said and to relate the speaker's own utterance, the *but*-clause, to the interlocutor's to indicate the continuity of the topic. Moreover, the marker signalled the speaker's recognition and acceptance of the interlocutor's message, which also fulfilled a politeness function in saving the student's face for producing an incorrect answer. That is, *okay* mitigates a possible face-threatening situation introduced by *but*-clause. Fischer pointed out similar functions performed by a range of pragmatic markers in similar structural positions (e.g., turn-initial positions plus a *but*-clause) and confirmed the value of taking interactional contexts seriously in the study of constructions. She used several contrastive examples to show how without an uptake particle, turn-initial *but*-clauses behave very differently. (2.15) is an example.

(2.15)

<PS5M2>: What time of year do you cut the peats?

<K6NPS001>: Well er the best time is the month of May.

<PS5M2>: Aha.

<K6NPS001>: **But** this year you couldn't, the weather was so



DOI:10.6814/NCCU202101439

In (2.15), the *but*-clause without a marker does not relate to the interlocutor's utterance but concerns the speaker's own earlier claim. Moreover, there is no indication of the speaker's acknowledgement and acceptance of the interlocutor's message, and neither is there any sign of the speaker's intention to continue the topic brought forward by the interlocutor.

Fox (2007) summed up the effects of conversational practices on grammar in terms of seven principles which include frequency, collocations, turns, sequences, unidirectionality, interaction, and embodiment of action:

> …grammar is organized by dynamic and emergent practices; it is a publicly available embodiment of unfolding actions situated in turns and sequences; it is contingent, providing for extendability and reconstruction. In this view, grammar is strongly shaped by interaction, which is its birthplace and its natural home. (p. 314)

Among the seven principles, Fox (2007) highlighted in particular how conversational features such as turns, sequences, unidirectionality, interaction and embodiment of action shape the organization of grammar. First, because talk occurs in turns, grammar is shaped by the need of turn-taking to signal the beginnings or endings of a spate of talk. Second, grammar is shaped by occurrence of turns in sequences. The sequential locations where the turns occur also have an impact on the formation of grammar, which is flexibly adapted to the need of communication. For instance, Curl (2006) found that offers in different sequential environments exhibit different grammatical formats. For instance, offers that are used in response to a reduced and more distant complaint show the format *Do you want (me) to X*, whereas offers that are done in



DOI:10.6814/NCCU202101439

direct response to an immediately preceding complaint tend to display the form *I can X*. Third, unidirectionality describes how utterances in talk-in-interaction begin and move towards completion. Although speakers may use various devices to repair or repeat what has been said, the process proceeds and grammar is constrained by the force of unidirectionality. Unidirectionality allows linguistic items to connect back and project forward, which explains such phenomena as the particle-like uses of prepositions in *throw them out the window* and *throw them out.* The former projects an up-coming noun phrase while the latter connects to the immediately prior verb. Next, the organization of grammar is interactionally achieved, which allows repair, extension, and retroactive construction of utterances. Finally, grammar is seen as embodiment of action in which every moment in an utterance-in-progress provides new possibilities for understanding and co-participation.

To sum up, the characterization of conversational practices resonates with the constructionist view of grammar as emerging from language use. Many scholars have agreed that it is in the process of communication when the speakers and addressees are negotiating common ground that we see their intention or what they intend to mean surface (Bybee, 2006; Verschueren, 2008).





DOI:10.6814/NCCU202101439

DOI:10.6814/NCCU202101439

# CHAPTER 3

# METHODOLOGY

This chapter illustrates the data source and procedures of analysis taken by the present study. First, we will introduce the corpus for the study. Next, we will explain how we generate concordance lines of the modal verbs, identify modal constructions in terms of their frequency, structures and discourse contexts. Finally, based on the result, we will present qualitative procedures for identifying the meanings and functions of weak-modal constructions.

## The Corpus in the Present Study

The Spoken British National Corpus 2014 (The Spoken BNC2014) is a fully part-of-speech-tagged corpus which was a major project led by Lancaster University and was established between the year 2012 and 2016. The corpus contains 11.5 million words of transcribed content featuring real-life, informal British English conversations. The 1251 recordings which comprise the corpus were made by 668 respondents who were recruited through a national participation campaign and were meant to represent the demographic make-up of the population in the United Kingdom (Love, Dembry, Hardie, Brezina, & McEnery, 2017).

### Retrieval and Annotation

Weak-modal constructions were generated by the Spoken BNC2014. The simple query and collocation function were utilized to extract data from the corpus. The query helped specify the search term and its part of speech while the collocation function enabled the identification of co-occurrence of modal verbs with linguistic elements in



DOI:10.6814/NCCU202101439

their immediate context. In the following, we demonstrate how we retrieve the data step by step, using *may* as an example.

**Step 1**: The target modal verb *may* was typed as [may_VM] using C6 tagset which identified the word form as a modal verb (See Figure 3.1).

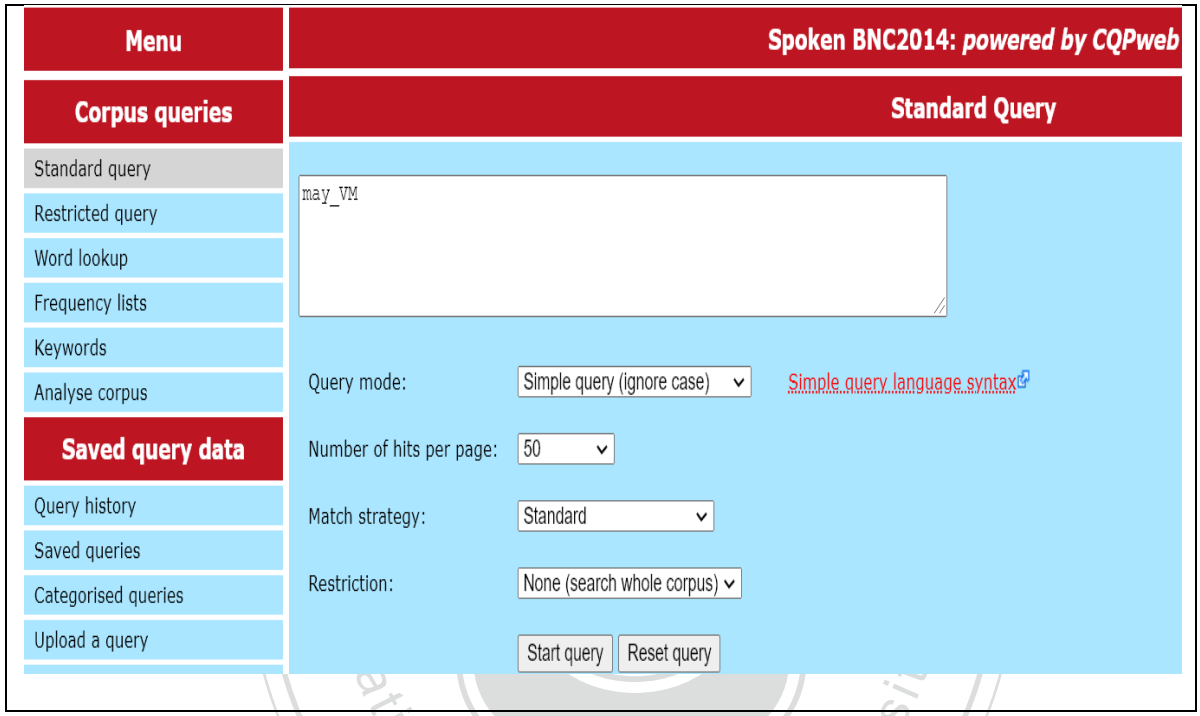


*Figure 3.1* The Simple Query Page of The Spoken BNC2014

**Step 2**: By pressing the Start Query button, the search generated the concordance lines of *may* (See Figure 3.2).



DOI:10.6814/NCCU202101439

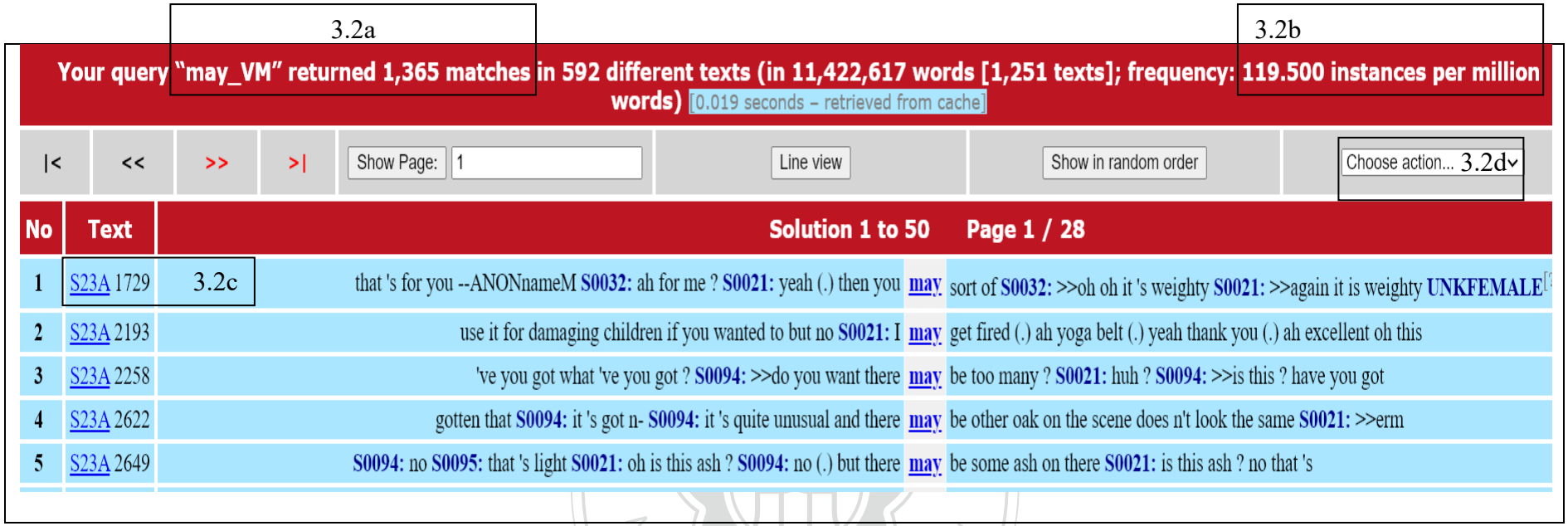


*Figure 3.2* Concordance Lines of *May* Generated by Simple Query





DOI:10.6814/NCCU202101439

In the upper left corner, Figure 3.2a shows the query term as well as its frequency (1365 occurrences of *may* as a modal verb) while Figure 3.2b on the right displays the occurrences of *may* in per million, which is 119.5 words per million. Also on the left is Figure 3.2c, which indicates the data source of the concordance line. The concordance line presents a wider context where the target word *may* occurs. A click on *may* of any concordance line will lead to the conversation where the concordance line is located. In addition to frequency count, the collocation function is available in the dropdown list as indicated by Figure 3.2d, which allows the researchers to identify collocates of the query term.

**Step 3**: The schematic modal constructions was identified by selecting the part-of-speech tag in the collocation function. Figure 3.3 and 3.4 are snapshots of the collocation settings of *may*. Figure 3.5 displays the collocates of *may* generated by the collocation search.





DOI:10.6814/NCCU202101439

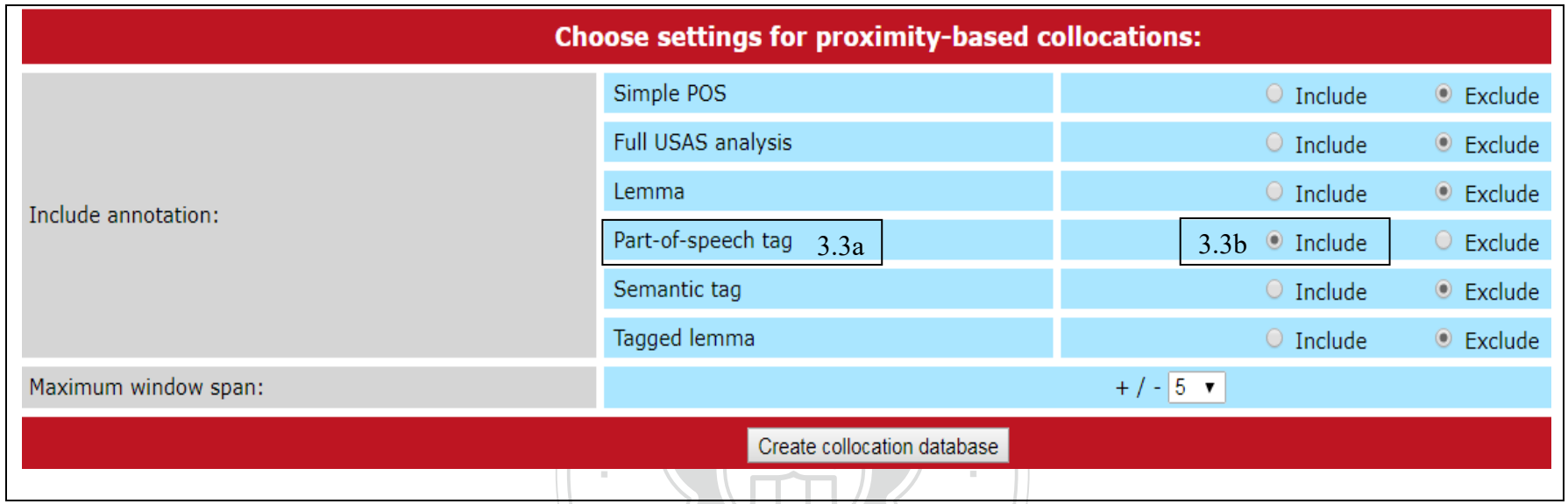


*Figure 3.3* Sample Page for Assigning the Annotation of *May* Collocates

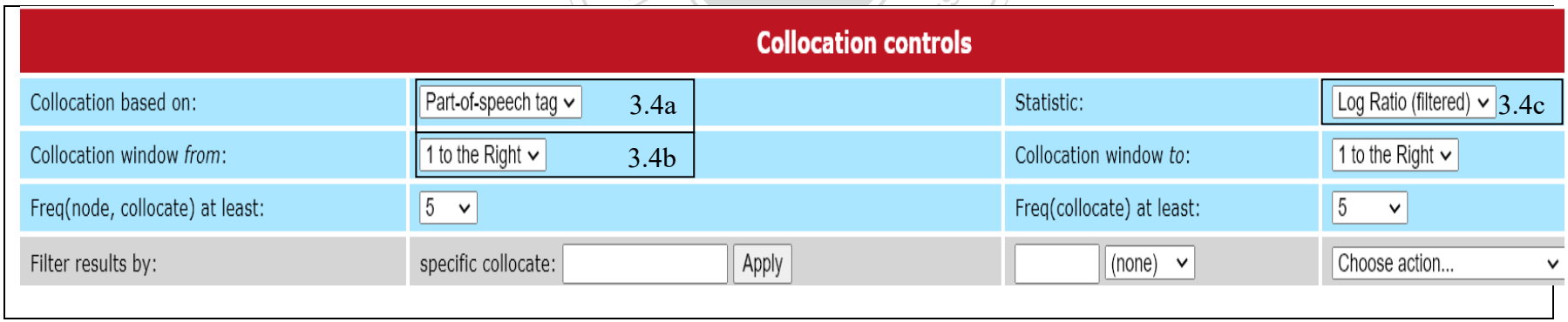


*Figure 3.4* Sample Page for the Search of *May* Collocates (Window: R1 to R1)



DOI:10.6814/NCCU202101439

**There are 139 different part-of-speech tag types in the collocation database for this query (Query "may_VM" returned 1,365 matches in 592 different texts)** [0.182 seconds – retrieved from cache]

| No. | Part-of-speech tag | Total no. in whole corpus | Expected collocate frequency | Observed collocate frequency | In no. of texts | Log Ratio (filtered) |
|---|---|---|---|---|---|---|
| 1 | VHI 3.5a | 42,510 | 5.080 | 222 3.5b | 157 | 5.457 |
| 2 | VBI | 57,104 | 6.824 | 240 | 178 | 5.142 |
| 3 | RR21 | 43,599 | 5.210 | 146 | 108 | 4.813 |
| 4 | XX | 246,065 | 29.405 | 161 | 125 | 2.454 |

*Figure 3.5* Sample Search Result of *May* Collocates





DOI:10.6814/NCCU202101439

Figure 3.3a shows the annotation option for *may* collocates. By choosing the desired annotation option as indicated by Figure 3.3b, the function will create the collocates of *may*. Figure 3.4a displays the annotation chosen for our search of *may* collocates. Figure 3.4b exhibits functional boxes for the selection of context. By specifying the search range to the right or left of the query item, we may uncover entrenched constructions. Figure 3.4c shows the desired statistical measure for the search. The present study takes the binary log of the ratio of relative frequencies or the abbreviated Log Ratio statistic as our criteria, which measures the strength of association between a node and its collcoates: the higher the score, the more significant the association. Log Ratio is a statistic for keywords, collocations, or lockwords suggested by Hardie (2014), who defined Log Ratio Score used in collocation measure as:

> …every extra point of Log Ratio Score represents a doubling in size of the difference between the collocate's frequency near the node and its frequency elsewhere.

One benefit of Log Ratio is that it measures how big the difference is between the relative frequency of the collocate alongside the node and its relative frequency in the rest of the corpus, so it can effectively and efficiently identify highly correlated items without requiring the setting of high minimum values for the node and its collocates (Hardie, 2014).

The abbreviations in Figure 3.5a indicate part-of- speech collocates with *may* and Figure 3.5b shows their co-occurrence tokens in the corpus. VHI is the abbreviation for infinitive *have* and VBI refers to the infinitive *be* etc.. The part-of-speech search allowed us to identify both lexical and schematic modal constructions efficiently.



DOI:10.6814/NCCU202101439

Table 3.1 shows the frequency and Log Ratio scores of major *can*, *could*, *may*, and *might* constructions from which we selected those receiving the highest scores for further analysis. The next step is to identify the construction's interaction with the grammatical subject. Take [may have] as an example. On the page where the concordance lines of [may have] are shown, we repeat step 2 to retrieve the collocates of [may have] by setting the window span from L1 to L1. The search yielded a statistically important pattern that was strongly associated with pronoun he/she (F: 32; Log Ratio: 3.21) to form [he/she may have] construction, which then became the target of our subsequent analysis. Unexpectedly, it was found that certain annotations such as VHI did not differentiate similar constructions like [may have], [may have+PP], [may have to], or [may have+N]. Further searches were administered to make the distinction. We entered the concordance page for [he/she may have] where we repeated step 3 to retrieve the collocates of VHI (collocation window from R2 to R2), which had the highest Log Ratio score. We were able to arrive at an entrenched construction [he/she may have+PP], which was the target of our analysis.





DOI:10.6814/NCCU202101439

Table 3.1

*Frequency and Log Ratio Scores of Weak-Modal Constructions (Annotation: Part-of-speech; Window span: R1 to R1)*

| Form<br>Freq (Log Ratio) | **MD + Verb** | **MD + 've/ have** | **MD + be** | **MD + do** | **MD + n't/not** | **MD + Adv.** | **MD + kind of/ sort of** | **MD + as well** | **MD + you** | **MD + I** | **MD + we** | **MD + Misce-llaneous** | **Total** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **can** | **<br>17,561<br>(4.01) | *<br>1,379<br>(3.34) | 1,163<br>(2.65) | ***<br>2,351<br>(4.54) | | 3,802<br>(0.92) | 246<br>(0.77) | | 3,961<br>(1.96) | 2,529<br>(0.82) | 757<br>(1.33) | 4909 | 37,679 |
| **could** | 6,951<br>(3.39) | ***<br>2043<br>(4.69) | *<br>1,931<br>(4.16) | **<br>1,486<br>(4.6) | 4,695<br>(3.31) | 2,191<br>(0.88) | | | 772<br>(0.34) | | | 2869 | 22,247 |
| **may** | 209<br>(2.33) | ***<br>222<br>(5.45) | **<br>240<br>(5.14) | 14<br>(1.83) | 161<br>(2.45) | 129<br>(0.82) | | *<br>146<br>(4.81) | | 89<br>(0.77) | | 229 | 1,365 |
| **might** | 2,893<br>(3.22) | **<br>1696<br>(5.52) | ***<br>2,695<br>(5.77) | *<br>322<br>(3.45) | 697<br>(1.65) | 749<br>(0.44) | | 376<br>(3.26) | | | | 1252 | 10,303 |

*Note*. MD means modal verb; The table shows the exact number of the constructions instead of the conventional annotation by per million; The Log Ratio score presented in the table and throughout the paper is rounded to an integer; Structures that do not receive a Log Ratio score are categorized under Miscellaneous; Top three structures that receive the highest Log Ratio score are highlighted in 3 stars, 2 stars, and 1 star accordingly.



DOI:10.6814/NCCU202101439

The concordance lines which contain the constructions were generated and imported into Microsoft Excel for the subsequent qualitative analysis. The above procedures allow us to identify the local contexts of modal verbs and generate lexical items (annotation: word) or structures (annotation: part of speech) that are associated with the modal verbs. These entrenched patterns are what we call modal constructions that exhibit unique characteristics and play a role in communication.

## Data Analysis

Contextual features including the predicate elements, the discourse features, and the interactional features of central weak-modal constructions were annotated to provide a more comprehensive understanding of the use of those constructions in conversations. Then, the meanings and functions of weak-modal constructions were examined holistically through a conversation analysis.

### Annotation Procedures

The concordance lines which contained central weak-modal constructions were retrieved from the Spoken BNC 2014 and were investigated mainly at three levels: (1) at the construction level, (2) at the discourse level, and (3) at the interactional level. The construction level refers to central weak-modal constructions in the form of [NP+Modal Verb+Verb+*], which consist of modal verbs, lexical items on the modals' immediate left (e.g., pronouns), and items on the modals' immediate right (e.g., verbs). By central weak-modal constructions, we refer to constructions established from our corpus analysis in the Spoken BNC2014. The annotation procedures at the construction and discourse levels mainly applied to predicate elements immediately following the verb or discourse features immediately preceding the constructions and they were



DOI:10.6814/NCCU202101439

categorized in accordance with their semantic input. Discourse features of the constructions were identified in terms of the presence of hedges, discourse markers, stance markers, and clause connectives. Finally, interactional contexts that include information about the number of speakers or topic continuity were also recorded for a more comprehensive understanding of weak-modal constructions. The annotation procedure for each level is described in details as follows.

**Annotation of Predicate Elements**

A semantic categorization of predicates elements was carried out manually by consulting the English semantic tagger provided by the Spoken BNC2014. The semantic tagger, which has a multi-tier structure with 21 major fields, is said to be loosely based on Longman Lexicon of Contemporary English (McArthur, 1981) and has been revised and updated. The lexicon contains roughly 37,000 words and offers the most appropriate thesaurus type classification of word senses (Archer, Wilson, & Rayson, 2002). The semantic tags show semantic fields which group together word senses that are related in terms of their connection in the same mental concept. These groups include not only synonyms and antonyms but also hypernyms and hyponyms. The semantic fields are further divided into 232 subdivisions and the definitions and examples provided by the tags can be exploited to facilitate the classification procedure. Nevertheless, for ease of generalization and given the limited number of constructions included in the present study, the subdivisions mainly served as reference for the categorization of predicate semantics and only the 21 major categories were annotated. Moreover, to accommodate the variety of data set in the present study, a category that was labeled Filled was added because some constructions such as [we can do it] or [we can do this] are lexically filled units and may not have any further predicates. Table 3.2



DOI:10.6814/NCCU202101439

presents the labels for the major categories of the English semantic tagger (for the full tagset, see http://ucrel.lancs.ac.uk/usas/usas_guide.pdf).

Table 3.2

*Labels for the Major Categories of the English Semantic Tagger*

| | | | |
|---|---|---|---|
| **A** general and abstract terms | **B** the body and the individual | **C** arts and crafts | **E** emotion |
| **F** food and farming | **G** government and public | **H** architecture, housing and the home | **I** money and commerce in industry |
| **K** entertainment, sports and games | **L** life and living things | **M** movement, location, travel and transport | **N** numbers and measurement |
| **O** substances, materials, objects and equipment | **P** education | **Q** language and communication | **S** social actions, states and processes |
| **T** Time | **W** world and environment | **X** psychological actions, states and processes | **Y** science and technology |
| **Z** names and grammar | | | |

*Note*. From *Introduction to the USAS category system*, by D. Archer, A. Wilson, and P. Rayson, 2002, [Electronic project report]. Retrieved from http://ucrel.lancs.ac.uk/usas/usas_guide.pdf

The annotation procedures of the semantic categories of the predicates are as follows. First, the predicates or target words were matched to the 21 semantic categories. Each assignment was accompanied by identifying the target word's sense and its paradigmatically related counterparts in the semantic categories. For example, the word *potatoes* matched the definition of subdivision F1 under the F category: relating to food and food preparation. Next, the sense of *potatoes* was validated by consulting the prototypical examples provided by the tagset such as *bacon, banana, butter, casseroled, cereal,* or *chilli*. Finally, the concordance line *we could have had the baked potatoes in all this time* that contained the construction [we could have had+*] and the target word *potatoes* that immediately followed the verb was assigned the category F for its predicate semantics. For general terms that may express various senses such as *hit,* a wider scope that included the complete verb phrase was examined



DOI:10.6814/NCCU202101439

to arrive at a more accurate description of the predicate's semantics. For example, in the concordance line *she may have hit the menopause by then*, the whole verb phrase *hit the menopause* was taken into account. Therefore, although *hit* alone belongs to the semantic category A, which describes general actions, the predicate of the concordance line was assigned category B to indicate its association with the human body and bodily processes.

**Annotation of Discourse Features**

The annotation of the discourse features was based on Carter and McCarthy's (2006, p. 207-224) definitions and examples of spoken discourse markers and connectives with minor modification to fit the present corpus data. First, each instance of the concordance line was read and linguistic elements immediately preceding the construction were annotated manually. An abbreviation was assigned to each instance where the features were located. For instance, None indicates a lack of markers or connectives, Dis means discourse markers, Hed refers to hedges, and Sta indicates stance markers. In the concordance line *I think he may have finished it already*, the phrase *I think* that precedes the construction was assigned Sta to indicate its status as a stance marker.

The connective category was further divided into subcategories that indicate different semantic relationships between the clause that contained the construction and its adjacent context (Carter & McCarthy, 2006, p. 558-564). For instance, in the concordance line *if we can do it get these out and on cards as quickly as possible*, the connective *if* was assigned the Condition category to indicate the context of the construction. However, for better illustration, only those connectives that immediately precede the construction were annotated. Finally, the number and types of discourse markers or connectives were calculated in the Excel file where the annotation was



DOI:10.6814/NCCU202101439

carried out. Table 3.3 presents the types, definitions, and examples of discourse markers and connectives.

Table 3.3
*Categories and Types of Discourse Features and Connectives*

| Categories | Definition and Types |
|---|---|
| Discourse Markers | Words and phrases outside of the clause structure, that function to link segments of the discourse to one another in ways which reflect choices of monitoring, organization and management exercised by the speaker (e.g., single words such as *anyway*, *cos*, *fine*, *good*, *great*, *like*, *now*, *oh*, *okay*, *right*, *so*, *well*, and phrasal and clausal items such as *you know*, *I mean*, *as I say*, *for a start*, *mind you)* |
| Stance Markers | Words and phrases outside of the clause structure which express speakers' attitudes and positions (e.g., *actually, admittedly, I think, in fact, indeed, really, of course*) |
| Hedges | Words and phrases outside of the clause structure which enable speakers to make their utterances less assertive (e.g., *just, like, I guess, I suppose, a bit, kind of*) |
| Connectives | Words or phrases that indicate the semantic relationship between the subordinate clause and the clause it is dependent on. The adverbial clauses specify circumstances such as manner, time, frequency, place, degree, reason, cause, or condition. The following are categories adopted in the present study:<br>Time (e.g., *before*, *while*, *once*);<br>Place (e.g., *where*, *wherever*);<br>Condition (e.g., *if*, *as long as, in case*);<br>Reason (*because*, *as*, *seeing that*);<br>Contrast (e.g., *whereas*, *while*);<br>Concession (e.g., *although, even though*, *however*) |

*Note*. Adapted from *Cambridge grammar of English: A comprehensive guide* (p. 207-224, p. 558-564), by R. Carter and M. McCarthy, 2006, Cambridge: Cambridge University Press.

**Annotation of Interactional Features**

The annotation of the interactional features was based on Fried's (2009) suggestions to consider two other types of contexts in the shaping of constructions in addition to collocational preferences: (a) the pragmatic conditions in which



DOI:10.6814/NCCU202101439

constructions are used by speakers and hearers and (b) information structuring and the roles played by discourse participants. For the purpose of the present study, we examined the number of speakers and topic continuity to gain a more complete picture of the role that weak-modal constructions play in conversations. Background information about the conversational topic and the number of speakers was collected from the dialogue page in the Spoken BNC2014 (see Figure 3.6). Table 3.4 presents the interactional categories adopted in the present study.

Table 3.4
*Categories and Types of Interactional Features*

| Categories | Definition | Examples |
|---|---|---|
| Number of Speakers | Conversations that involve two speakers | Annotation: =2 |
| | Conversations that involve more than two speakers | Annotation: >2 |
| Topic Continuity | Agree (the speaker of the construction agrees with the interlocutor on the same topic) | S0024[4]: ah right well that was a task and a half are <u>we gonna go to IKEA</u> today?<br>S0144: well **we can do it** today or tomorrow |
| | Disagree (the speaker of the construction disagrees with the interlocutor on the same topic) | S0666: I think there ought to be a bit of a showdown<br>S0665: <u>no it</u> was all talk<br>S0666: <u>no no I think</u> **we can do it** again |
| | New Topic (the speaker introduces a new topic unrelated to the current one) | S0653: if I see you using them again <u>I will take your food away</u> from you and you will have to go hungry okay?<br>S0654: yeah<br>S0653: so erm yeah so **there might be some** <u>stuff that happens in school</u> |

[4] Conversational examples are taken from the Spoken BNC2014.



DOI:10.6814/NCCU202101439

**Conversation Analysis**

Following the corpus investigation, a qualitative conversation analysis was carried out to identify the meanings and functions of modal constructions in daily conversation. By employing a conversation analysis, we decided modal functions based on the role it played in the dialogue. We also took into consideration the broader context where the dialogue took place such as the specific activities the speakers are engaged in, the setting or the relevance of the topic. With a click on any collocate shown in Figure 3.5b (see page 62), we have the Spoken BNC2014 generate concordance lines containing the construction. Then by clicking the key word *may* on a concordance line, we may retrieve the dialogue where the construction is located. Figure 3.6 is a sample of the dialogue page in the Spoken BNC2014.





DOI:10.6814/NCCU202101439

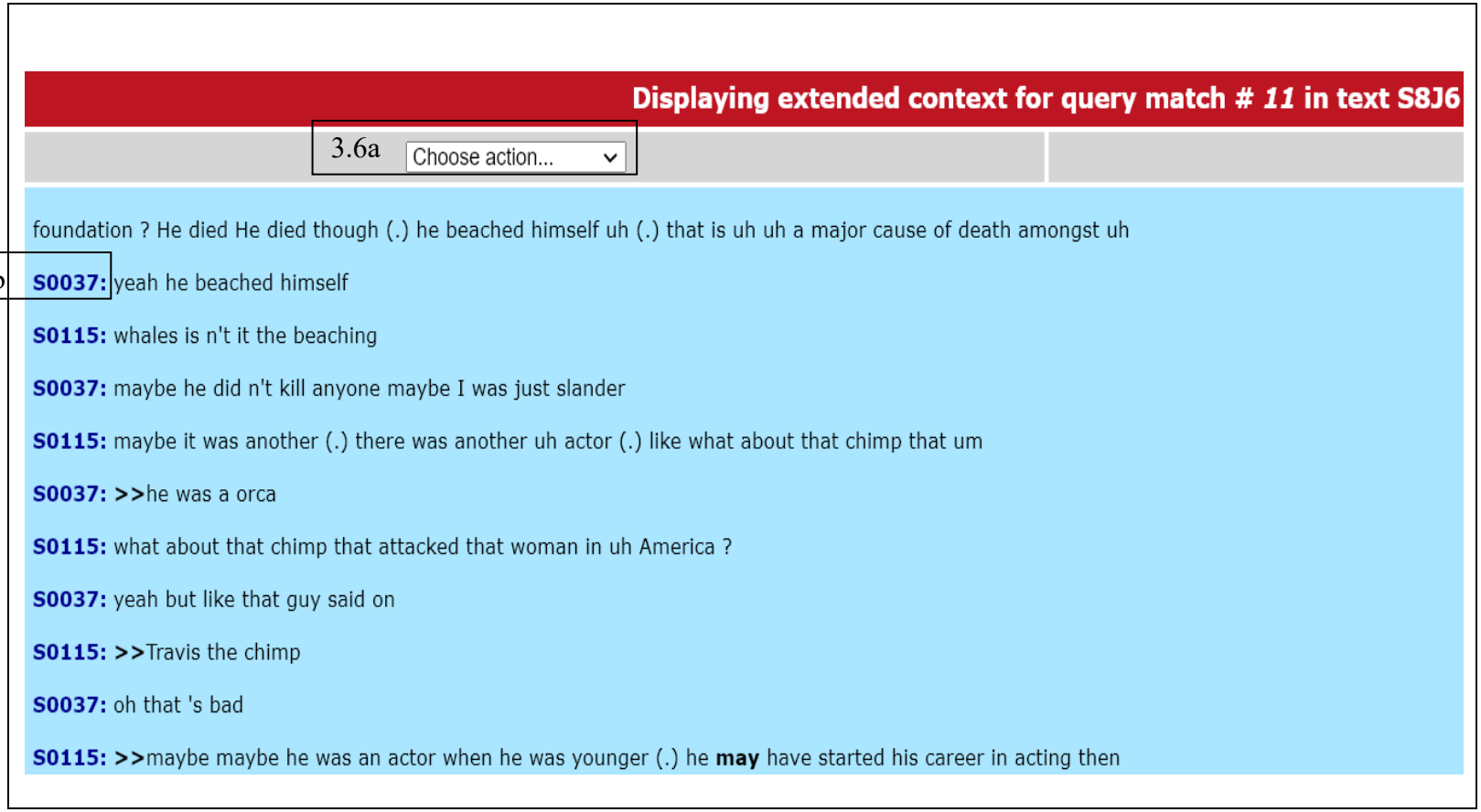


*Figure 3.6* Sample Dialogue Page in The Spoken BNC2014



DOI:10.6814/NCCU202101439

Figure 3.6a is a functional box which allows the researcher to extend the context or retrieve detailed information about the dialogue such as the topic, the relationship between the speakers, or the location where the speech was recorded. A click on the speaker ID (Figure 3.6b) will reveal detailed information about the speaker including his/her gender, age, native language, or occupation etc.. For privacy reason, all individuals mentioned in the dialogues are tagged ANONname (Anonymous).

With the conception of language use as social action, conversation analysis gives attention to categories which the participants in interaction attend to. That is, structural properties in the perspective of conversation analysis are seen as emergent in the sequential organisation of the dialogue and they are only taken into account when they can be shown that speakers really attend to them. In a conversation analysis, it is necessary for analysts to carry out detailed sequential analyses of all instances of a phenomenon in a corpus and adapt the analysis to each example until the description accounts for all instances (Fischer, 2015). Hutchby and Wooffitt (2008) identified the following steps in conducting a conversation analysis (CA) (p. 104):

Step 1: Identify a potential object.

Step 2: Produce a formal description of an empirical example.

Step 3: Return to the data collection to refine the description until it becomes a generalized account.

Linell (2009) called for attention to sequential contexts which he referred to as external contexts of grammatical constructions. These include the conditions prior to or subsequent to a specific construction and its preferred co-occurring resources because these aspects constitute part of the language user's knowledge of each grammatical

construction. In the following examples, we demonstrate how we identified the meanings and functions of weak-modal constructions. We pay special attention to the participants' understanding of prior turns' talk because it is an important proof procedure for the analysis of prior turns in conversation analysis (Sacks et al., 1974).

> But while understandings of other turns' talk are displayed to co-participants, they are available as well to professional analysts, who are thereby afforded a proof criterion (and a search procedure) for the analysis of what a turn's talk is occupied with. (p.729)

That is, the emergent linguistic categories and distinctions are attributed to the participants themselves. The categories are intrinsic to the data and do not rely solely on the analyst's intuitions (Fischer, 2001). In every example, we first discuss the components of the construction and the semantics of items that fill in the slot of the construction. Then we note the types of discourse and interactional features that are associated with the construction. In discussing the meanings and functions of the construction, we introduce some background information about the dialogue including the topic, the number and relationship of the speakers. For a better illustration, contextual features related to the discussion are underlined. Example (3.1) is our analysis of the dialogue from Figure 3.6, which contains a [he/she may have+PP].



DOI:10.6814/NCCU202101439

(3.1) (S8J6)[5]

| Pre-Sem | Ref-Tim | Dis | Con | Spe | Top |
|---|---|---|---|---|---|
| Movement | Past | None | None | =2 | Agree |

*Note.* Pre-Sem: predicate semantics; Ref-Tim: reference time; Dis: discourse features; Con: connective of the subordinate clause; Spe: number of speakers; Top: conversation topic.

S0115: what about that chimp[6] that attacked that woman in uh America?
S0037: yeah but like that guy said on
S0115: >>Travis the chimp
S0037: oh that's bad
S0115: >>maybe maybe he was an actor when he was younger (.) **he may have started** his career in acting then
S0037: >>that's bad though like all of those (.) you should- it's true like instead of Room 101 you shouldn't have a um (.) you shouldn't have an animal that's like an a- wild animal as a pet
S0115: I guess it depends on (.) we watched that on Room 101 didn't we that was that what he said
S0037: exactly yeah

The conversation happened in a home environment where two family members are chatting about murders or attacks that involved famed animal actors. Earlier in the exchange, the talk primarily concerned the beaching of a blue whale that used to star in a movie. In the middle of the conversation, the speakers seemed to lose interest or run out of new information about the whale and the focus of the talk was switched to another animal actor, a chimp. The construction [he/she may have+PP] was introduced to give some background information about the chimp. We notice the speaker of the construction was responsible for the introduction of the new focus, and he/she

[5] File name of the data in the Spoken BNC2014.

[6] The underline highlights important elements such as hedges, discourse markers, stance markers or connectives of subordinate clauses that often accompany the construction.



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continued to facilitate the talk by providing his/her personal speculation of the chimp. The lexical item for the slot of the construction is *started* which indicates movement and the construction refers to a past event. We see the speaker's effort in sustaining the talk by employing various contextual clues such as *maybe* or *I guess* in his/her turns. The organization of the turns and the use of these epistemic devices and [he/she may have+PP] constitute a schematic dialogical frame exploited by the speaker in the support of the exchange. Because the subject of the construction is a remotely related third person, the information expressed by the construction is not meant to be taken seriously. That is, the construction serves as spice of talk to mean IT WAS POSSIBLE THAT HE[7], and it is used by the speaker to sustain his/her turn and facilitate the flow of the conversation. The analysis of (3.1) allows us to specify the meaning, function, and the condition of use of [he/she may have+PP]. Following the procedure of a conversation analysis, we then return to the data collection for more examples and further evidence to determine whether the meanings or features identified for the previous example is a typical one or exceptional. Consider (3.2), which also contains a [he/she may have+PP].

(3.2) (S56S)

| Pre-Sem | Ref-Tim | Dis | Con | Spe | Top |
|---|---|---|---|---|---|
| Body | Past | Dis | None | =2 | Agr |

[7] Meanings and functions are characterized in capital letter.



DOI:10.6814/NCCU202101439

S0579: >>the ladies did yeah take it back to their house like

S0454: oh right of course cos

S0579: for the husband to drink yeah that used to be

S0454: oh it wasn't for them to drink ?

S0579: no no --UNCLEARWORD

S0454: >>oh yeah I was gonna say

S0579: well **she may've drunk** some as well

S0454: yes

S0579: >>but then that's what that's what it used to be --UNCLEARWORD the pub round there --UNCLEARWORD by grandma's

S0454: >>it shows beer must've been cheap though mustn't it in the pub in those days

Example (3.2) involves two family members chatting about a tenant for the house they rent out. Earlier in the talk, the speakers exchanged their ideas about the qualities they desired for a potential tenant. The new tenant, who is a Muslim lady, was introduced in the middle of the conversation. The discussion led one speaker to introduce [he/she may have+PP] to speculate about the new tenant based on her observation of Muslim ladies in the past. The item that filled the slot of the construction is an action verb *drunk*, which suggests bodily movement. Because none of the speaker's speculations is based on observable facts and because the construction concerns the behavior of a stranger, the construction expresses the meaning IT WAS POSSIBLE THAT SHE. Our analysis is validated by the speaker's use of the discourse marker *well* in accompany with the construction and *but then* in the next turn, which all suggest tentativeness in the speaker's comment. We see that the conversation shares a similar pattern as (3.1) in which the speaker of the construction played a leading role in providing information in his/her turns and promoting the flow of the conversation. The example confirms our analysis of [he/she may have+PP], which serves the function to



DOI:10.6814/NCCU202101439

spice up the talk by providing harmless speculated information about a stranger. We continue to refine our description of the construction as we process each example until it becomes a generalized account. Example (3.3) produces a slightly different interpretation of the construction.

(3.3) (SR7C)

| Pre-Sem | Ref-Tim | Dis | Con | Spe | Top |
|---|---|---|---|---|---|
| Movement | Future | None | None | >2 | Agree |

S0623: well I won't be here when you get back but I'll
S0622: be here later
S0623: >>be swinging back at half past five if you're if you're still in
S0525: well he may
S0622: >>yeah
S0525: **he may have gone** again by then
S0623: yeah
S0525: to collect erm
S0623: >>--UNCLEARWORD
S0622: right then

The conversation was conducted by several family members in the home environment. Unlike the previous examples, however, (3.3) primarily consists of inquiry and account of individual family members' recent activities. The subject of the construction is a family member who is present at the scene and the item *gone* that fills the slot of the construction indicates movement. The construction was introduced by one of the members almost in tandem with other members to give an estimate or prediction about the condition of the central figure or the subject of the construction.



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The future sense of the construction is supported by contextual features such as *well he may*, *by then*, or *to collect* in the speaker's turns but similar features are also contributed by other members. That is, the construction contains verified information and it is used by the speaker in synchronizing his/her own turns and in coordinating with the communicative partners' turns. The use of the construction is very different from the previous examples, we therefore postulate a second meaning or function of [he/she may have+PP] to mean IT IS POSSIBLE THAT HE based on the analysis. With the same procedures, we proceed to examine all the dialogues containing the target constructions and generalize their meanings and functions.





DOI:10.6814/NCCU202101439

## CHAPTER 4 RESULTS AND DISCUSSION

This chapter reports the results from both the corpus-based and the qualitative analyses of weak-modal constructions. Research questions raised in Chapter 1 are answered based on the findings of the analyses. The corpus-based analysis uncovers the representation as well as the distinction of central weak-modal constructions in the Spoken BNC2014. The qualitative analysis discusses the meanings and functions of central weak-modal constructions. Lastly, the findings are summarized and discussed.

### The Representation of Weak-Modal Constructions in The Spoken BNC2014

With respect to the first research question, we explored the representation and organization of weak-modal constructions in the corpus. Referring to Table 3.1 (see page 65), we found the frequency of the four modal verbs to be in great variation with *can* (37,679 tokens) being the most frequent followed by *could* (22,247 tokens) and *might* (10,303 tokens) while *may* (1,365 tokens) trailing behind with the least occurrence. In terms of the association of these modals with linguistic elements on R1, we found much overlap and some deviation. For instance, although *can* was distinct by its various collocates (e.g., degree adverb, *we*) not shared by the other modals, it agreed with the other modals on such collocates as lexical verbs, *have, be, do,* and general adverbs. On the other hand, while the other three modals occurred with the negative marker *n't/not*, the association between the negative marker and *can* was so weak that it was not recorded by Log Ratio statistics. Meanwhile, we also noticed similar collocates that were shared by *can* and *could* as opposed to *may* and *might* and vice versa. While the former pair collocated with pronoun *you* as in [can you] and [could you], the latter was associated with *as well* in [may as well] and [might as well]. It is interesting to note that the most frequent modal *can* also shared collocate *I* with the least frequent modal



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*may*. The brief observation suggests that the most frequent modal *can* has the most types of significant collocates and it shares many types of collocates with the other modal verbs. The other modal verbs, however, seem more selective in terms of their choice of collocates.

Zooming in on top three collocates that are shared by all four modal verbs, we found the distinction between the modals blurred because they share virtually the same collocates (e.g., *'ve/ have, be, do*) with the exception of *can* and *may*. *Can* is distinct in its association with lexical verbs while *may* is related to general adverb *as well*. In general, we found *could* and *may* to be most associated with *'ve/ have* while *can* with *do* and *might* with *be*. As for the second and third order collocates, the four modals show variant preferences though the difference is minor in degree. Notice that the present study used Log Ratio as our criteria for the selection of modal constructions. Therefore, although some collocates were frequent such as lexical verbs with *could* or *might* constructions, lexical verbs as a category did not receive a high Log Ratio score and was not selected. The initial search for collocation on R1 produced the most significant modal constructions: [can do], [could've/ have], [may've/ have] and [might be], which became the targets of our study.

Boogaart (2009) urged more effort on the identification of lower level constructions that include not just individual modal verbs but also their frequent collocates. Cappelle and Depraetere (2016b) considered the inclusion of subject crucial to the interpretation of modal constructions. We followed their advice and conducted collocation search on the right and left of the constructions' immediate contexts to capture as many possible strong collocates as possible. In the following, we present the partial networks of *can*, *could*, *might*, and *may* constructions in Figure 4.1, Figure 4.2, Figure 4.3, and Figure 4.4 respectively with a focus on major nodes of association.



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Discussions of the networks are conducted as follows. From left to right in the figures, we will first see the modal and its number of occurrence along with type frequency of its collocates on R1. In the second level, we will find the top three collocates and their information. Moving right to the third level, we can observe top three L1 collocates of the first order construction from the second level. Finally, on the very right, we will see top three collocates from R2 search of the first order construction from the third level. We begin with *can* construction, the most frequent modal verbs of the four modals in the Spoken BNC2014.

Figure 4.1 shows the partial network of central *can* constructions[8]. Our collocation search on R1 of *can* revealed that the modal had 198 types of collocates of which *do* was most strongly related to *can* despite the fact that *do* was far less frequent than lexical verbs, the second significant collocate of *can*. Further search on L1 of [can do] yielded 148 types of collocates and the result showed that [we can do] was the most significant, closely followed by [you can do]. From the strong correlation of first-person and second-person subjects with [can do], we learned that the construction conducts important interpersonal function in communication. Finally, on R2 of [we can do], we identified 97 types of collocates and we found [we can do that/this] and [we can do it] to be primary *can* constructions. Further word form search within [we can do that/this] identified [we can do this] as the most significant, which along with [we can do it] became the targets of our analysis. It should be noted that parsing errors occurred sometimes where a different construction was picked out. In this case, the erroneous construction was removed from the analysis. For instance, (4.1) contains [we can do this one] instead of [we can do this] whereas (4.2) includes [what we can do] rather than [we can do it]. This explained why the total number of [we can do this] subject to

[8] The occurrences and Log Ratio scores of collocates are placed in parenthesis.



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analysis was 10 rather than 15 and the number of [we can do it] was 59 rather than 60 as suggested by the search output.

(4.1) …**we can do this one** let's do this one this is…(SVBB)

(4.2) …in fact her having between us three dogs does restrict us to **what we can do** it does ye- ? and it's tricky… (SJ3S)

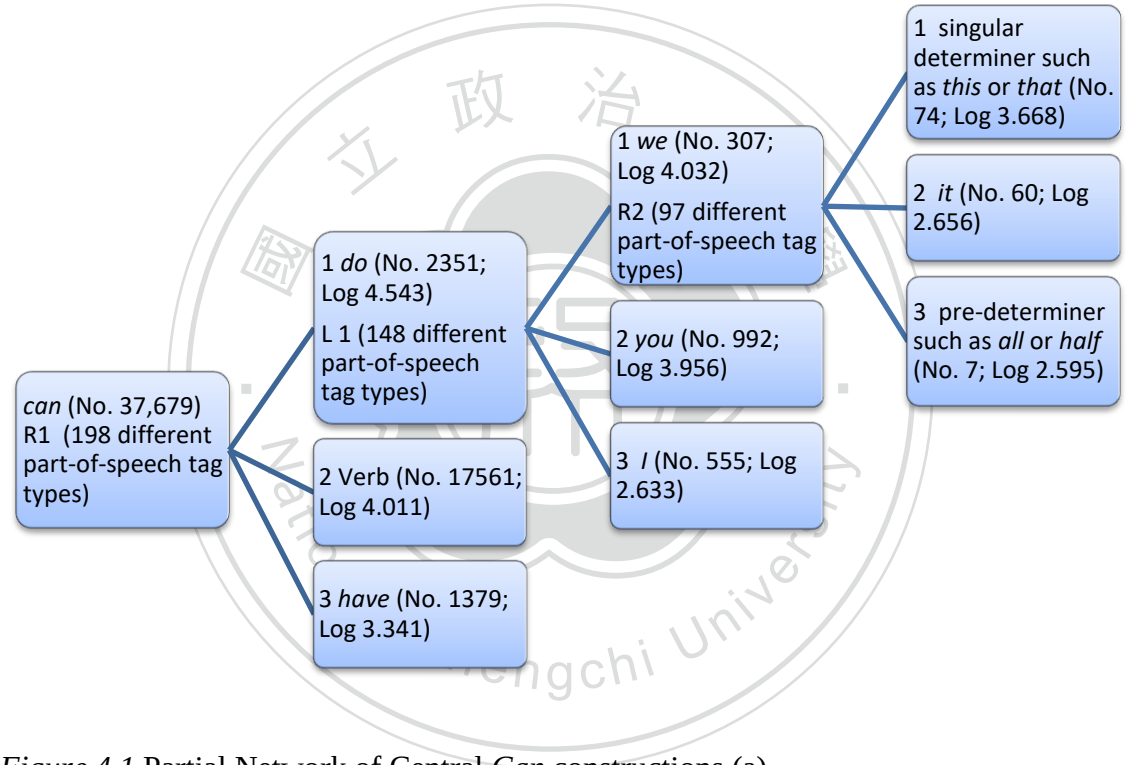


*Figure 4.1* Partial Network of Central *Can* constructions (a)

Next, we turn to *could* constructions, the second most frequent of the four modals. Figure 4.2 presents the partial network of major *could* constructions. We found 180 different types of collocates on R1, which was a similar number to that of *can* despite the fact that *could* occurred far less frequently than *can*. The result showed that [could have], [could do], and [could be] were among the most significant *could* constructions. On L1 of [could have], we uncovered 142 types of collocates with [we could have] and



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[you could have] as the most significant *could* constructions. Therefore, we can see that although *can* and *could* differ in terms of the most significant R1 collocates, they both prefer *we* and *you* as subjects for their core constructions. The findings suggest that these constructions may serve important interpersonal functions in communication. Further search on R2 of [we could have] yielded the primary *could* constructions: [we could have had+*] (11 tokens) and [we could have done+*] (15 tokens), which were the targets for further investigation. We noticed very similar number of collocate types on L1 and R2 of *can* and *could* constructions. Because there were fewer *could* constructions in the corpus compared to *can*, the observation suggests that *could* was connected to many more types and may express more general meaning than *can*.

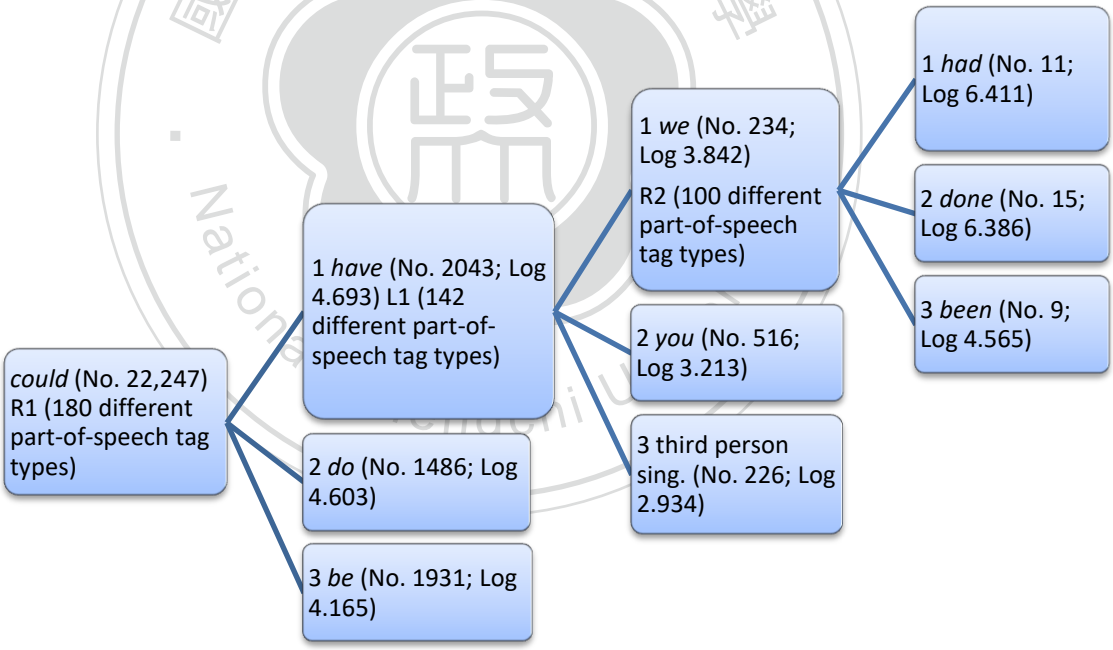


*Figure 4.2* Partial Network of Central *Could* Constructions

Now, we move to *might*, the third most frequent among the four modals in the corpus. Figure 4.3 shows the partial network of central *might* constructions. There are 166 different types of collocates on R1 of *might* construction. Although there are fewer



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*might* than *could*, we noticed that the number of different types of collocates on L1 and R2 of both constructions is very similar. It means that *might* construction may express a more general meaning than *could* construction. We then move on to identify core *might* constructions that represent the prototypical use of *might* constructions. The most significant *might* construction on R1 was [might be] from which we found [there might be] and [it might be] to be the first and second order central members on L1. The construction's association with impersonal subjects *there* and *it* suggests that it is mainly used to relate the speaker's evaluation of objects. Our assumption is confirmed as we look into the R2 of [there might be] and see three major constructions, which are connected to determiner and indefinite pronoun. Since there are too few [there might be more+*] (5 tokens), the second order construction for statistical analysis, we selected the first order [there might be some+*] (26 tokens) and from the third order [there might be something/someone/one+*] (24 tokens) we picked [there might be something+*] (14 tokens) for further examination.

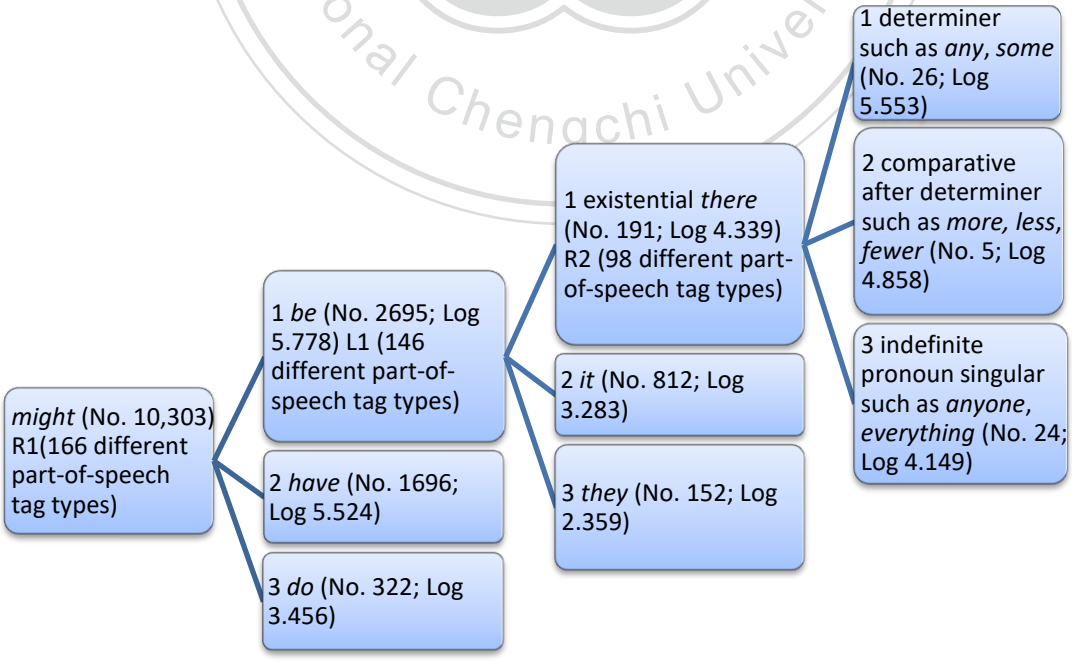


*Figure 4.3* Partial Network of Central *Might* Constructions



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Finally, we discuss the least frequent modal *may*, which was about one-seventh the size of *might*, one-sixteenth of *could*, and one in twenty-seven compared to *can* in terms of its frequency. Figure 4.4 illustrates the partial network of *may* constructions. Despite its size, *may* is not short of collocates that enter the construction. On its R1, we identified 139 different types of collocates and looking into L1 of the main construction [may have], we found core members [he/she may have] and [they may have]. Therefore, in terms of its collocates on R1, *may* is more similar to *might* in its selection of *have* and *be*; however, *may* is distinct in selecting third personal pronoun subject as L1 collocates and is used to conduct evaluation of events happening to others. Normally, the next step is for us to select from collocates of the central construction as the targets for our analysis. However, in the case of [he/she may have], there is only one construction [he/she may have+*] (32 tokens) that has reached significant level in terms of its Log Ratio scores. To give balance to our samples, we also include the core member [they may have+*] (24 tokens) from the second order construction for detailed scrutiny. Moreover, as noted earlier, the annotation *have* in the Spoken BNC2014 does not differentiate constructions like [*may* have], [*may* have PP], [*may* have to], or [*may* have Noun]. Further search on R2 of [may have] suggested that [he/she *may* have PP] (18 tokens) and [they may have PP] (13 tokens) are the most important members of *may* constructions. The initial analysis showed that *can*, *could*, *might*, and *may* were associated with many different types of collocates.



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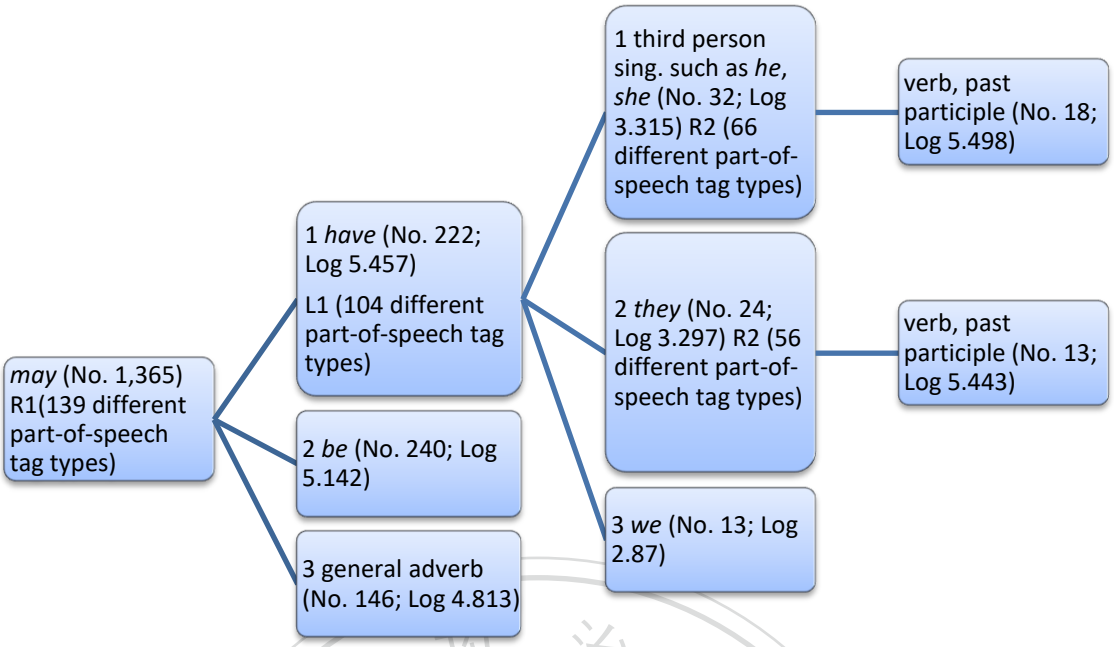


*Figure 4.4* Partial Network of Central *May* Constructions

Table 4.1 is a checklist of the significant features of the four modal constructions. It shows that *can*, *could*, *might*, and *may* are all very productive and are probably very general in meaning because of the little constraint they impose on the selection of their collocates. For example, they may go with various types of collocates including lexical verbs, *be* verb, *do* verb, adverb, or negative marker *not*. On the other hand, we found the primary modal constructions to be composed of just a few types most apparently with their association with the grammatical subject. Both [can do] and [could have+PP] prefer *we* and *you* as the grammatical subject while [might be] favors the existential *there* and [may have+PP] is associated with the third-person pronoun *he/she* or *they*. We also noted that the organization of the four modal constructions followed Zipf's (1935) law distribution in which the most frequent pattern accounted for approximately twice as many as the second most frequent pattern, three times as many as the third most frequent one. Nevertheless, it should be remembered that the types of significant



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constructions vary from modal to modal and the degree of their importance to specific modals also differ. For instance, *can* and *could* tend to assign similar degree of importance to various core constructions from R1 and L1 collocate searches, *might* shows strong preference for certain collocates while *may* has few but strongly favored constructions. A further observation is that among the core constructions, only the most frequent *can* is inherited by specific constructions or idiomatic patterns while the other modal constructions are partial in the sense that lexical items are required to fill the slots to specify their meanings.

Table 4.1
*Checklist of Significant Features of Weak-Modal Constructions*

| **Significant Features of the Four Modal Constructions** | | | | |
|---|---|---|---|---|
| Modal Construction (Cx) | *Can Cx* | *Could Cx* | *Might Cx* | *May Cx* |
| Tokens | 37,679 | 22,247 | 10,303 | 1,365 |
| R1: lexical verb, have, be, do, adv. | ✓ | ✓ | ✓ | ✓ |
| R1: n't/not | | ✓ | ✓ | ✓ |
| R1: degree adv., we | ✓ | | | |
| R1: you | ✓ | ✓ | | |
| R1: as well | | | ✓ | ✓ |
| R1: I | ✓ | | | ✓ |
| 1st R1: 've/have | | O | | O |
| 1st R1: do | O | | | |
| 1st R1: be | | | O | |
| 1st L1: we | O | O | | |
| 1st L1: he/she | | | | O |
| 1st L1: there | | | O | |
| Targets for Analysis (tokens) | We can do this (10); we can do it (59) | We could have had+* (11); we could have done+* (15) | There might be some+* (26); there might be something+* (14) | He/she may have PP+* (18); they may have PP+* (13) |

*Note*. The tick indicates positive association; The circle highlights the first order collocates.

In general, the corpus annotation and functions allowed us to arrive at eight constructions with two from individual modal constructions for further analysis. In total,



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there are 166 concordance lines with their conversational contexts that are subject to in-depth analysis.

## The Meanings and Functions of Weak-Modal Constructions

In this section, we answer the third research question by exploring the functions of the eight modal constructions through a qualitative conversation analysis. 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 discourse-pragmatic characteristics. We will first give an overview of the characteristics of central *can*, *could*, *might*, and *may* constructions. In the subsections that discuss individual constructions, we will introduce their frequency in the corpus, their frequent contextual features such as the predicates, discourse markers, reference of time, and connectives of the subordinate clauses as well as interactional attributes like the number of speakers or topic continuity[9]. We will generalize the meanings and functions of individual modal constructions by referring to the settings of their occurrences such as the background of the conversations, the topics, relationship between the speakers, or the purpose of the talk. The core or the most frequent meanings will be discussed first followed by their extended or closely related meanings. Peripheral meanings that only occur once are reviewed last. We begin with *can* constructions, followed by *could*, *might*, and *may* constructions.

[9] It was found that the majority of speakers' turns agree (149 instances of agreements versus 17 instances of disagreements or breaks) to the conversational topics, so topic continuity is assumed to be an inherent quality of weak-modal constructions. This feature is therefore not highlighted in the following sections though their use may be referred to in our discussion of modal functions.



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**The Meanings and Functions of Can Constructions**

This section discusses core *can* constructions: [we can do this+*] (10 tokens) and [we can do it+*] (59 tokens). Both [we can do this+*] and [we can do it+*] are filled constructions in the sense that no other necessary predicates are required to complete the constructions. Nevertheless, this makes the identification of the referents of the object *this* or *it* challenging. Although the objects of the construction may be traced in the context, they are comprised of a variety of different activities or events. It is often not sufficient or accurate to describe the construction based the semantics of their predicates alone but a wider context is required for a better characterization. Further confounding the issue is the reference of subject pronoun *we*, which does not always refer to the speaker or the interlocutor but needs to be discerned in the context. Moreover, compared to other modal constructions, the *can* construction is remotely related to tense, so the tense attribute used for the distinction of modal constructions is less useful when it is applied to the *can* construction. Finally, although [we can do this] and [we can do it] are related to the ability sense of modality, the former tends to be associated with some degree of uncertainty while the latter is often used to set an upbeat mood.

**[We Can Do This+*]**

Although there are few [we can do this+*] (10 tokens), its significance in the hierarchy of *can* construction is highlighted by a high Log Ratio score. This construction was selected based on a collocation search of [we can do+*] in terms of the most significant word form that filled the slot. The construction may be considered entrenched because a majority of its occurrences appear to be fixed word sequences. [We can do this+*] is unique in its reference to the present time, preferred setting of



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multiple speakers, and association with the use of markers including (i) discourse markers: *then, well* and (ii) stance markers: *they think, do you really think.* We also find specific predicates such as reference of time (e.g., *then, in ten minutes*) or emphasis (e.g., *as well)* to be common contexts of the construction. The construction is often stated as if the event is unfolding in real time, but the scene or the characters that the construction is concerned about may not be present. That is, the construction may be used in a simulated dialogue that is assumed to happen in the past or the future. Moreover, the fact that [we can do this+*] tends to express a lesser degree of confidence can be largely attributed to the types of down toners (e.g., *well, if*) or hedges[10] (e.g., *I suppose, I mean*) in its close context. In terms of its meanings, the construction can be characterized by three major functions[11], one extended function, and one peripheral function. These include WE HAVE THE ABILITY TO and its extended meaning WE ARE CAPABLE OF, the second and third function, WE CAN TRY, THIS CAN WAIT, and the peripheral WE ARE ALLOWED TO. Example (4.3) is an instance of the first function WE HAVE THE ABILITY TO.

(4.3) SP2Y
S0241: >>so if you have a go at that and send it back to us then we c- can get it changed
S0240: do you really think[12] **we can do this** in ten minutes? cos even just for them to read them it's gonna
S0241: actually it's not
S0240: >>you know
S0241: >>it's gonna take more than ten minutes isn't it

[10] These hedges may not occur immediately before or after the construction but can be found in the utterance where the construction is located.
[11] Meanings and functions are characterized in capital letter.
[12] The underline highlights important elements such as hedges, discourse markers, stance markers or connectives that often accompany the construction.



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In (4.3), several speakers were preparing some slides for a seminar. They appeared to be rehearsing and timing the delivery of their presentation. The focus of the talk concerns the organization of the slides and whether the speakers can engage the audience and complete the presentation on time. The construction was introduced in a question to challenge the group's ability over time control issue. The construction realizes the ability sense of modality as can be validated by the subsequent utterances which continue the argument about whether it is possible for the group to successfully finish their task on time. We note that although the event is taking place in the future, the evaluation is conducted in the present time. The function: WE HAVE THE ABILITY TO can be considered the core meaning of [we can do this+*] not only because the function is most frequent but the meaning may develop variation given the change of contexts. The following is an example where the construction still describes ability, but the sense is pretentiously enhanced to mean WE ARE CAPABLE OF.

(4.4) S9ER
S0518: he knew (.) because it it's what his mother had (.) and when he started with his symptoms he just thought he- (.) here we go (.) so he was not surprised when he got that diagnosis
S0517: >>really? (.) okay
S0518: but (.) it was (.) basically they said we can operate **we can do this** we can do this we can do this (.) and you know? (.) erm it it probably will kill you in the end however (.) y- it you will have (.) a (.) you know a few more years left

In (4.4), two speakers were talking about the prospect of a cancer patient. The speakers were speaking for others, so the conversation was a creation of a possible scenario a cancer patient may go through. The construction was introduced by the speaker to represent the type of assurance that medical staff would give to desperate patients. The



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fact that the construction is repeated three times shows that the ability sense is strengthened in an effort to boost the patient's confidence in recovery. This construction is pretentiously enhanced because we observe that *we* does not include the patient, but it is used by medical staff to mean 'we are with you' and a more appropriate interpretation of this construction should be WE ARE SURE WE HAVE THE ABILITY TO or WE ARE CAPABLE OF. The speakers are cognizant of the rhetoric as we can see in the following comment that they knew the truth was grimmer than what the doctor had promised. Despite the subtlety of variance, the sense is distinctive because it is reproduced in another similar instance involving a simulated dialogue between medical staff and patients. Our next function: WE CAN TRY is less concerned about the ability sense but it describes the speaker's intention to continue their effort.

(4.5) SR3K
S0604: it's it's about focal length right
S0603: shall I move this chair with me or shall I rotate --UNCLEARWORD?
S0604[??]: >>no I mean there's the two of those --UNCLEARWORD (.) **we can do this** as well the
S0605: >>no it's it's either the
S0603: is that gonna pick us is that gonna pick us up?

In (4.5), a group of people were trying to set up some film equipment. They were adjusting the focal length and the setting for a good shot when the construction happened. From the context, we see that the speakers were negotiating the positioning or the use of props, which can be seen by the number of objects they referred to in the conversation. This is a typical scene where we see people coordinate with each other in order to achieve a common goal. The construction was introduced to unite the group and it serves the function to orient the group work on the task at hand. Because there are



DOI:10.6814/NCCU202101439

numerous movements going on, the construction indicates the speaker's intention to lead the group to continue their effort. This function is attested by the construction's tendency to be followed by *as well*, an adverb that means 'in addition'. It is no coincidence that in another example involving WE CAN TRY, we find a similar scenario where the construction was used to refer to a gang activity. We note that the first two functions have their focus on the subject, but the third function: THIS CAN WAIT gives emphasis on the object of the action as shown in (4.6).

(4.6)
S0152: so we so we comes out and it was like well what we what we gonna do now? well I think we go and do the Beatles tour now
S0013: oh gosh
S0152: oh well what are we gonna do tomorrow? I says well we can do the other half of the Beatles tour and **we can do this** and it was like oh but I wanna go shopping
S0012: oh right

In (4.6), one speaker is describing his/her experience hanging out with an individual. It appears to be a negative one because the concerned parties had different opinions over the trip plan; one wanted to take a Beatles tour while the other would like to go shopping first. This is a case where we see the construction being used to demonstrate the function THIS CAN WAIT. The speaker signals his/her personal preference earlier in the conversation about how a comprehensive Beatles tour should be considered first prior to other plans. In this case, the focus of the construction is clearly the object *Beatles tour* rather than the subject *we*. The speaker used the connective *and* preceding the construction to indicate his/her intention for *this* or the shopping trip to be done later. In one single instance, we found a construction used to describe the condition where the speaker felt fortunate to be able to take a short break and run personal errands at work.



DOI:10.6814/NCCU202101439

The meaning is not related to ability sense or suggests an object of attention; instead, it indicates the potential given by the condition and expresses WE ARE ALLOWED TO. Example (4.7) illustrates the function.

(4.7) S2GC
S0024: I'm coming home and feeding her at lunch and then I don't know then people are talking
S0144: yeah
S0024: erm
S0144: >>well I suppose it's good in a way cos **we can do this**
S0024: yeah

In (4.7), a couple are talking about work. One of them raises his/her concern over other co-workers' criticism on his/her running personal errands during work hours. The construction is introduced by the interlocutor to ease the tension. It lightens the mood and unites the couple by suggesting that regardless of people's criticism, the fact that the behavior is allowed is in fact quite an advantage. The hedge *I suppose* tones down the speaker's use of the construction. The conduct is made possible not because the speaker plays an active role but because it is not inhibited.

**[We Can Do It+*]**

[We can do it+*] (59 tokens) is a dynamic construction and is used to describe a variety of experiences. Unlike its sister construction [we can do this+*], [we can do it+*] does not show a strong association with the use of markers, and nor does it indicate a strong preference for the number of participants in the conversation. Of those few markers or connectives, we noted (i) discourse markers: *then*, *well, oh, okay, yeah*; (ii) stance markers: *I think, I don't think, I'm sure, really*; (iii) condition connective: *if*; (iv)



DOI:10.6814/NCCU202101439

reason connectives: *cos, because.* Moreover, although this construction is primarily expressed in the present tense, the activities described by the object *it* cannot be uniformly characterized as an undergoing event. In fact, quite often *it* is a task to be undertaken or accomplished soon or in the near future and it is *it* that has contributed substantially to the diverse meanings of [we can do it+*]. While *it* almost always refers to an activity, *it* may describe the desire to participate in an activity or an anticipated outcome of an activity. Consequently, along the cline from start to finish, we can identify two types of [we can do it+*]; the former describes INTENTION and the latter suggests ABILITY. Moreover, within the ABILITY sense, we can further distinguish an abstract *it* in the sense that the mission is not related to specific sets of skills and concrete *it* that is more concerned about tasks involving tools or procedures; hence, the former expresses the function: LET'S MAKE IT HAPPEN and the latter LET'S GET IT DONE. Related to LET'S GET IT DONE, the construction may communicate YOU CAN TRY when it is in fact the interlocutor who desires the action and asks for the opinion of the speaker. That is, the dynamic meanings of [we can do it+*] is also related to the reference of *we* and the conditions for the realization of the activities. While a majority of *we* refers to the speaker and the interlocutors who are involved in the situation, *we* may be restricted to the interlocutor or individuals that receive the speaker's or others' assistance or advice.

As for the INTENTION sense, we may identify LET'S GO AHEAD, which is different from the previous function and is meant to refer to a desire or an agreement for certain action to take place. Depending on the constraint of the condition, we may further distinguish two functions: IT IS POSSIBLE FOR US TO and WE ARE FREE TO, which are different from constructions concerning human control or desire. Example (4.8) is an instance of LET'S MAKE IT HAPPEN.



DOI:10.6814/NCCU202101439

(4.8) S2XJ

S0666: I think there ought to be a bit of a showdown

S0665: no it was all talk

S0666: no no I think **we can do it** again

S0665: >>--UNCLEARWORD

S0493: place your bets now

In (4.8), a group of speakers were talking about the progress of a competition. The construction expresses the speaker's eagerness to confront the opponents and win the game. Contextual clues such as *showdown* or *play your bets* suggest that the outcome of the competition is unpredictable, challenging but highly desirable. At the same time, because the outcome is unforeseen and is supposed to happen in the future, the construction expresses an upbeat mood in boosting the morale of the group, which is further enhanced by the adverb *again* following the construction. It is interesting to note that this function is often featured in a game scenario possibly because the object or result is relatively abstract (e.g, *winning the game*) not only in terms of the outcome but also regarding rules or steps to follow toward its attainment. On the other hand, when the object describes more concrete tasks such as making a cake or checking the warranty period of a computer, we have LET'S GET IT DONE. Example (4.9) demonstrates the use.

(4.9) S5TE

S0024: so I'll spend a little time this time on the website I think (.) choose some pictures to upload and you'll have to show me how to upload them

S0013: mm (.) yeah you need you've got lovely ones to put up now

S0024: yeah well I don't know how to upload them (.) we've got some in the file **we can do it** quite quickly

S0013: mm



DOI:10.6814/NCCU202101439

In (4.9), a family were having tea when one speaker asked another for help with some technical problem regarding the upload of photos onto a certain website. From the interlocutor's response, he/she seemed to have the object at hand and was examining it closely. That is why the speaker introduced the construction to express his/her eagerness to get the job done because now that the issue was laid out visibly to the potential helper and because he/she was sure that the interlocutor was competent in handling the task. This is the most frequent function of [we can do it+*], which corresponds to common human activities that often require cooperation and assistance of fellow human beings. An important clue in support of the use is the temporal adverbs that often follow the construction to suggest the immediacy and practicality of the action that is required to be carried out. Moreover, although it is the speaker who benefits from and desires the outcome and it is the helper who does the job, the use of *we* gives a sense of unity and greatly reduces the tension caused by the disparity. It seems that the pronoun *we* in this construction is well adapted to the conditions of use to serve the speaker's purpose. For instance, when the construction is used in response to a request for help, it communicates YOU CAN TRY because in this case it is the help seeker that has a strong desire for the activity to be carried out. (4.10) is an example.

(4.10) S6MQ
S0110: we ought to (.) you ought to advertise it on Ebay and
S0104: >>yeah
S0110: has your phone lost its you know? **we can do it** for
S0104: well it's obviously erm sort of a recurring problem with them
S0110: mm

In (4.10), one speaker is talking about a recurring problem with his/her new phone when the construction is introduced by the interlocutor as an option in an attempt to



DOI:10.6814/NCCU202101439

help solve the problem. It is clear that the construction is directed toward the interlocutor's issue because we can see much of the speaker's utterance in the context addresses the help seeker's need. Therefore, the true subject is *you* and the construction actually conveys the meaning YOU CAN TRY. The use of *we* saves the interlocutor's face and gives the sense that the speaker is in full support as if 'we are in this together.' In fact, this is the function that often occurs in a similar scenario which involves help seeking or problem solving. In the next example, we show how the construction is used to convey LET'S GO AHEAD.

(4.11) SEPP
S0144: yeah (.) yeah (.) mm (...) mm so what are we gona do about this food?
S0424: I can do a shop on Monday
S0144: yeah Monday? well d-do you wanna do it together?
S0424: yeah **we can do it** together yeah I mean then go down the pub yeah

In (4.11), the two speakers in the conversation were planning a Christmas dinner. One speaker offers to do the shopping together and the other speaker indicates his/her agreement to the proposal by using the construction. We understand that the reply 'we can do it together' is a mirror image of the proposal 'd-do you wanna do it together' and it shows the speaker's willingness in accepting the idea. Although it is difficult to measure the strength of the speaker's enthusiasm without further information to the intonation of the utterance, there is sufficient evidence showing the speaker's intention to go along with the idea. Besides the ability and intention senses, [we can do it+*] may be used to indicate the speaker's evaluation of an activity or event. This function is related to the possibility sense of modality because the execution of the activity is not in the speaker's control but largely determined by contextual factors. The following is an example that demonstrates IT IS POSSIBLE FOR US TO.



DOI:10.6814/NCCU202101439

(4.12) S4QF

S0252: we're we are no the Dell isn't wireless

S0369: >>you just do your

S0252: >>**we can do it** though it's

S0369: your most er and that

S0252: it's

S0369: >>mm

S0251: >>mm

S0252: but when we did it on the laptop that was with wi-fi

In (4.12), a speaker is explaining to the interlocutors how he/she does assignments on the computer both at home and at work. The speaker explains that the home PC is not wireless while at work the task is made possible by wi-fi connection on the laptop. The construction is used to answer the interlocutor's question about how the work is done in different environments. The contextual clue *though* following the construction removes possible concerns that are in the mind of the interlocutor and illustrates the speaker's point that the work can still be done without the PC system. When there are no clear constraints to the activity, the construction expresses WE ARE FREE TO as demonstrated in (4.13).

(4.13) SK8T

S0204: nothing there is there is room in --UNCLEARWORD to extend we don't even need planning permission **we can do it** but erm she's --UNCLEARWORD never been up there actually --UNCLEARWORD

S0205: probably is

Example (4.13) is a conversation about the renovation of an old house. As the speakers discussed what type of work needs to be done and how it may proceed, the construction communicates the speaker's attitude about the work. Contextual clues suggest that



DOI:10.6814/NCCU202101439

there is no restriction in terms of regulations or approvals regarding the repair, so the construction indicates that the speaker's family has much freedom in making the decision. Table 4.2 is a summary of our findings with *can* constructions.

Table 4.2

*Summary of Discourse Features and Functions of Central Can Constructions*

| **Constructions** / **Features** | **[we can do this+*] (10 tokens)** | **[we can do it+*] (59 tokens)** |
|---|---|---|
| Referent of *this* or *it* | The referent of *this* is comprised of a variety of different activities or events. | The referent of *it* may refer to a desire to participate in an activity or an anticipated outcome of an activity. |
| Referent of subject pronoun *we* | *We* does not always refer to the speaker or the interlocutor but needs to be discerned in the context. | *We* may also refer to individuals that receive the speaker's or others' assistance. |
| Predicates | emphasis (e.g., *as well*); time (e.g., *then*, *in ten minutes*) | number (e.g., *in groups*, *in a yard*); time (e.g., *later*, *today*) |
| Discourse features | **Markers** (4)<br>discourse markers (e.g., *well*, *then*); stance markers (e.g., *they think*, *do you really think*) | **Markers** (17)<br>discourse markers (e.g., *then, well*, *oh*, *okay*, *yeah*); stance markers (e.g., *I think*, *I don't think*, *I'm sure, really*) |
| | **Connectives** (2)<br>condition (e.g., *if*); reason (e.g., *cos*) | **Connectives** (7)<br>condition (e.g., *if*); reason (e.g., *cos*, *because*) |
| Interactive features | **>2** speakers (6)<br>**=2** speakers (4) | **>2** speakers (34)<br>**=2** speakers (25) |
| Meanings and Functions | **Ability**<br>WE HAVE THE ABILITY TO (3)<br>WE ARE CAPABLE OF (2) | **Outcome**<br>LET'S GET IT DONE (22)<br>YOU CAN TRY (3)<br>LET'S MAKE IT HAPPEN (15) |
| | **Intention**<br>WE CAN TRY (2)<br>THIS CAN WAIT (2) | **Desire**<br>LET'S GO AHEAD (3) |
| | **Concessive**<br>●WE ARE ALLOWED TO (1) | **Concessive**<br>IT IS POSSIBLE FOR US TO (13)<br>WE ARE FREE TO (3) |
| Generalization | The construction is used in time of uncertainty to boost morale. | The construction is used to set an upbeat mood for the completion of tasks with anticipated outcomes. |

*Note*. The shaded areas indicate extended meanings; The dot ● refers to peripheral functions; The number in parenthesis shows frequency of the feature or the function.



DOI:10.6814/NCCU202101439

## The Meanings and Functions of Could Constructions

This section discusses the primary *could* constructions: [we could have had+*] (11 tokens) and [we could have done+*] (15 tokens). Both constructions commonly express hypothetical meaning in the sense that what they referred to was contrary to what had happened or what was available. Moreover, although the two constructions are similar in their frequency, their functions are different with the former expressing a more homogenous meaning related to unreal events and the latter exhibiting more diverse meanings associated with unrealized causes or desired actions.

### [We Could Have Had+*]

[We could have had+*] (11 tokens) often occurs in conversations involving more than two speakers and it tends to address basic human concerns such as food (e.g., *potatoes*, *cake*) or dwelling (e.g., *berth*, *barn*) as well as language (e.g., *discussion*) or threat (e.g., *fire*). There is also a tendency for these objects to be modified by phrases or adverbs referring to time or locations (e.g., *all this time*, *today*, *at PLACE*). Nevertheless, this construction shows a weak association with the use of markers and it is distinguished from its sister construction [we could have done+*] in terms of its high occurrence in group talk and its reference of time and person. Often the construction involves the intention of the speaker although the grammatical subject of the construction includes the interlocutors. In terms of its function, [we could have had+*] is related to desirability or evaluation of an unattainable object or unreal occurrence that could only be afforded by circumstantial factors in retrospect or by imagination. This construction can be categorized in terms of one major function and its extended meaning: IT WAS POSSIBLE FOR US TO, BUT and WE WOULD HAVE MADE IT,



DOI:10.6814/NCCU202101439

BUT. The other major function is IT WOULD BE NICE IF WE. Example (4.14) shows the weaker sense of IT WAS POSSIBLE FOR US TO, BUT.

(4.14) SKJH
S0012: we don't have fry ups
S0008: no
S0013: yeah
S0012: weird ain't it?
S0008: but (.) you know what?
S0013: >> so you **we could've had** twice this size cake really --UNCLEARWORD
S0012: mm yeah we could've done but it's enough ain't it?
S0008: but er er I du n no about these blooming doctors you know --UNCLEARWORD this all this thing about erm high blood pressure weren't there?
S0012: yeah

In (4.14), a group of friends were chatting about the dietary guidance given by the doctors to address the group's health issues. The construction occurred after several speakers expressed uncertainty about the guidance and brought to light the realization that it was possible for the speakers to enjoy not just 'less healthy' food but in bigger amount than what was suggested by the doctors. Nevertheless, the validity of the speaker's assumption appears weaker in comparison to the doctor's, so the construction implies a concessive sense to mean what is commented is not to be taken seriously. This function was attested by the degree adverb *really* following the construction, which was used to enhance the validity of the ungrounded assumption. Moreover, we notice that this construction required the support of its sister construction [we could have done+*] in the following utterance. The finding suggests that [we could have had+*] is related to possibility sense, but [we could have done+*] is more grounded in ability sense. In its



DOI:10.6814/NCCU202101439

stronger version, [we could have had+*] indicates possibility with a sense of incredulity as shown in (4.15).

(4.15) SPG4
S0454: although we have hardly seen each other in probably fifteen years but we both studied Japanese and we both went to Japan and lived and we both lived in Spain
S0579: >>oh
S0454: and we both taught English
S0579: that's very strange isn't it?
S0454: >>it is odd isn't it?
S0579: >>yeah very strange
S0454: cos I mean we've hardly met so it's not like **we could've had** a discussion about it
S0579: >>no
S0454: yeah it's very odd

Example (4.15) involves two speakers with one of them expressing his/her amazement on the correspondence of life experiences between the speaker and another individual. We notice that the subject of the construction does not include the interlocutor but the speaker and a mutual acquaintance. The construction is used to signal a sense of incredulity that the speaker felt about the possibility of a hypothetical scenario where the speaker had agreed prior to the events with the individual on their choices of residence or career. This is a typical strong version of IT WAS POSSIBLE FOR US TO, BUT where what is in fact not possible is highlighted to express WE WOULD HAVE MADE IT, BUT. Next, we turn to the construction that expresses IT WOULD BE NICE IF WE, which is the most frequent meaning of [we could have had+*] and is most frequently related to the present time. Example (4.16) demonstrates the use.



DOI:10.6814/NCCU202101439

(4.16) SC3M

S0440: uhu

S0439: they're much better (...) what are you looking at?

S0440: well **we could have had** a --ANONplace er a Kir Royale

S0439: mm

S0440: never mind I didn't even see that but don't --UNCLEARWORD I like prosecco don't you?

S0439: I do like prosecco it's very easy to drink

In (4.16), two speakers were engaged in a casual talk about life and matters when suddenly one speaker brought their attention to a type of drink that might be nice for the occasion. However, since the drink was not in sight, the construction was used to retrieve the image of the item from memory as is evident by the introduction of a named location where the drink was available. The fact that the speaker admitted the absence of the item and offered an alternative drink attested the construction's meaning in relation to the desirability of an unavailable object.

**[We Could Have Done+*]**

[We could have done+*] (15 tokens) is distinguished from its sister construction [we could have had+*] in terms of such dominant features as reference to the past time and higher tendency to go with markers such as discourse markers (e.g., *yeah, well*) and stance markers (e.g., *I don't think, of course*). This construction is often connected with general or unspecified objects such as *something, things, stuff, that* or *what*. The impression of a quantifying mass about the construction is reinforced by its inclination to appear with degree adverb or adjective (e.g., *much better*, *first class*) or number (e.g., *a*, *three*). Most frequently, the construction describes a past unrealized cause or idea presumably shared by most members in the conversation. Occasionally, the



DOI:10.6814/NCCU202101439

construction involves not just the speakers but the entire human race. There is also one construction that expresses a peripheral meaning of suggestion. In general, the construction is often used to call for attention to a group effort or an issue and it describes different degrees of human capability depending on its contexts, which can be characterized in terms of two major functions: WE HAD THE ABILITY TO, BUT and IT WAS BEETER FOR US TO, BUT and one peripheral function: WE WOULD LIKE IT TO. Example (4.17) demonstrates the function of WE HAD THE ABILITY TO, BUT when it was used in a conversation where two speakers were sharing their experience with their friends.

(4.17) S26N
S0012: a fiver fiver for a big dressed crab
S0013: last us two meals didn't it?
S0012: last us yeah last us two meals
S0013: >>easily
S0012: there was the white meat and the brown meat all together
S0013: **we could have done** three meals really we didn't get a huge one we just got one about that size
S0012: >>five quid one yeah it was big enough bigger than the -- UNCLEARWORD crabs
S0013: mm
S0012: they were massive

In (4.17), two speakers were recounting the extraordinary crabs they had at a special shop, which has a big cool washroom and freezers. In fact, they dominated a big portion of the group talk and spoke in relay when the construction occurred. The alternation of turn between the speakers bolstered and led up to the use of the construction, which described the speakers' huge appetite and ability to consume a bigger meal if they had



DOI:10.6814/NCCU202101439

the chance. At the same time, the physical sense of ability though basic is not the most frequent. Quite often, the ability sense refers to effort, willpower or mental ability to accomplish a task or make a wise choice as (4.18) shows.

(4.18) SBTC
S0192: Brighton's got some lovely houses (.) we're not in a like a chavvy area
S0198: yeah (.) we haven't seen any
S0199: >>were you pleasantly surprised?
S0198: yeah I was yeah I was
S0192: I don't think **we could ~~of~~(ve) done** much better from abroad to be honest
S0198: no yeah
S0199: you worked hard to get that place didn't you?

In (4.18), a group of speakers were commenting on the housing and living condition of Brighton. The construction expressed the speaker's contentment about the situation, which was described as being superior to a supposedly more desired option, an overseas residence. The construction conveyed a sense of accomplishment that was achieved through much effort, a fact that was supported by the other interlocutors' comments following the construction. Next, we turn to constructions that are used in referring to mental ability in communicating IT WAS BEETER FOR US TO, BUT.

(4.19) SFP5
S0144: >>oh shit it's Mothers' Day tomorrow
S0024: oh no (.) not tomorrow (.) saturday and we're too late for the postman
S0144: well it's Saturday tomorrow
S0024: ah yeah I know but we could **we could have done** first class (.) that was what we were supposed to do (.) we promised that we would do it (.) first class stamp
S0144: >>oh bollocks (.) yeah sh-



DOI:10.6814/NCCU202101439

In (4.19), a couple was engaging in a casual talk when one of them recalled a terrible blunder—forgetting to send his/her mum a Mother's Day card. The utterance expressed the speaker's remorse for the omission and the construction was used to suggest a solution to the problem, which was evident in the following utterance when the speaker said *that was what we were supposed to do*. Although the solution was only hindsight, the sense of guilt and dent in confidence was remedied by the construction, which repackaged the problem as if resolved. Also notice how the use of *we* assumed diffusion of responsibility for the blunder and boosted the strength of the construction.

(4.20) SJ3S
S0278: >>they might have moved the T out from the I a little bit
S0012: yes that's what I thought yeah
S0278: but it wouldn't have taken much to do that or or you could have adjusted the T
S0012: yeah
S0013: mm (.) yeah **we could have done** what we wanted but we
S0278: mm
S0013: yeah
S0278: I get I I'm always critical when it comes to
S0012: >>yeah

Example (4.20) illustrates a peripheral construction which involves neither ability nor solution sense but a desire to mean WE WOULD LIKE IT TO. The group of speakers were talking about how they would like certain lettering or design to be done by others. That is, the construction was used to refer to a request and a desired outcome which was roughly related to problem solving. Since the use of the construction did not really involve group effort, we see the previously active speaker, who uttered the construction, give away the floor soon after his/her turn and the current topic was dropped with the



DOI:10.6814/NCCU202101439

right of speech taken over by the other speakers. Table 4.3 is a summary of our findings with *could* constructions.

Table 4.3
*Summary of Discourse Features and Functions of Central Could Constructions*

| **Constructions** / **Features** | **[we could have had+*] (11 tokens)** | **[we could have done+*] (15 tokens)** |
|---|---|---|
| Referent of subject pronoun *we* | *We* may refer to the interlocutors but it often involves the intention of the speaker. | *We* may refer to the interlocutors or the entire human race. |
| Predicates | The object of the construction involves basic human concerns such as food (e.g., *potatoes*, *cake*) or dwelling (e.g., *berth*, *barn*) as well as language (e.g., *discussion*) and threat (e.g., *fire*) | The construction is associated with degree adverb or adjective (e.g., *much better*, *first class*) or number (e.g., *a*, *three*). The object of the construction is often connected with general or unspecified objects (e.g., *something*, *things*, *stuff*, *what*) |
| Discourse features | **Markers** (3)<br>discourse markers (e.g., *well*, *huh*, *yeah*) | **Markers** (6)<br>discourse marker (e.g., *yeah*, *well*); stance marker (e.g., *I don't think*, *of course*) |
| | | **Connectives** (1)<br>time (e.g., *by the time*) |
| Interactive features | **>2** speakers (8)<br>**=2** speakers (3) | **>2** speakers (8)<br>**=2** speakers (7) |
| Meanings and Functions | **Possibility**<br>IT WAS POSSIBLE FOR US TO, BUT (3)<br>WE WOULD HAVE MADE IT, BUT (3)<br>IT WOULD BE NICE IF WE (5) | **Ability**<br>WE HAD THE ABILITY TO, BUT (7)<br>IT WAS BEETER FOR US TO, BUT (7)<br>●WE WOULD LIKE IT TO (1) |
| Generalization | The construction expresses a more homogenous meaning related to unreal events that could only be afforded by circumstantial factors in retrospect or by imagination. | The construction describes a past unrealized cause or idea presumably shared by most members in the conversation or the public. |

**The Meanings and Functions of Might Constructions**

This section illustrates the major *might* constructions: [there might be some+*] (26 tokens) and [there might be something+*] (14 tokens). Both constructions show very



DOI:10.6814/NCCU202101439

weak associations with the use of markers. Both constructions are related to the possibility sense of modality, but their meanings are very dynamic because of their flexibility in selecting the referred objects and their sensibility to contextual clues. While the two constructions look extremely similar, the former has a slightly higher tendency to occur at the presence of multiple speakers whereas the latter does not show any preference for the number of speakers involved. Because both constructions are unfilled, their meanings may be further modulated by the objects that filled the slots to express distinctive meanings. Our analysis shows that the former primarily directs the interlocutor's attention to the expectation of certain objects or affairs while the latter tends to orient the attention to the location or identification of an unspecified object or intention.

**[There Might Be Some+*]**

As one of the core *may* constructions, [there might be some+*] (26 tokens) expresses a variety of meanings related to the possibility sense of modality. The slot of the construction may be filled with food items (e.g., *chocolate, Chinese food*), people (e.g., *crowd, people*), objects (e.g., *fireworks, photos*) or general terms (e.g., *stuff, use*). The construction is unique in its reference of time and contexts of use. Although the events that the speakers refer to may be in the past or the future, the construction is related to the present tense because the speaker's evaluation is conducted in real time. Moreover, the possibility sense expressed by the construction can be examined in its contexts in terms of two interrelated dimensions: degree of expectation and desirability of affairs. Along these two dimensions, we observe four functions and one peripheral one that describe the construction: THERE ARE POSSIBLE SURPRISES (unexpected and desired), THERE ARE POSSIBLE FOLLOW-UPS (unexpected but no desire),



DOI:10.6814/NCCU202101439

THERE ARE POSSIBLE OPPORTUNITIES (expected and desired), THERE ARE POSSIBLE EXAMPLES (expected but no desire), and ALTHOUGH THERE ARE POSSIBLE EXAMPLES. (4.21) demonstrates the first function: THERE ARE POSSIBLE SURPRISES.

(4.21) S5XL
S0655: can I have a little bit of chocolate?
S0653: no because you ate all of your Easter chocolate
S0654: --UNCLEARWORD
S0655: mm but **there might be some** chocolate in there
S0653: no there isn't
S0655: okay can I please go to the toilet?

In (4.21), a family were having fun talking about their ideal last meal when one speaker used the construction to express his/her desire for a piece of chocolate. The fact that the speaker mentioned chocolate either for the sake of the game or in its real sense of obtaining the chocolate, the desirability of the object is expressed explicitly. The construction also suggests the speaker's uncertainty regarding the availability of the item, which is assumed to have been eaten up. That is, the speaker has little hope or expectation to find any chocolate. From the interlocutor's response *no there isn't*, we found that the speaker's tentative request was denied and spirits dampened, which is a typical reaction when people have their hopes up. The second function also describes an unexpected occurrence but this time the object or event has little to do with desirability but in terms of outcomes or just some things that happen subsequent to another event. Example (4.22) illustrates THERE ARE POSSIBLE FOLLOW-UPS.



DOI:10.6814/NCCU202101439

(4.22) SWRQ

S0320: oh okay what to have it over the water?

S0443: mm

S0320: oh okay

S0443: and **there might be some** fireworks over there if --ANONnameF gets her own way

S0443: which she usually does but I think fireworks you might as well just burn a twenty pound note burn two hundred quid

In (4.22), two speakers were talking about the wedding plan of an individual when the construction was used to introduce *fireworks*, objects to be included in the wedding. Although fireworks are common items at the wedding, the speakers here do not seem to have any power over the decision or be able to expect their use in this particular wedding. The decision primarily lies with the individual who is getting married, and the construction expresses low predictability. As for its desirability, the comment about the use of fireworks as a waste of money in the following utterance suggests the speaker's negative attitude about the plan. That is, the object is not desired by the speaker. In fact, it is none of the speaker's business to be concerned about someone else's wedding budget. Other times, the construction communicates THERE ARE POSSIBLE OPPORTUNITIES when the object under discussion is sought after and anticipated as shown in (4.23).

(4.23) SFCW

S0263: yeah

S0264: (...) or **there might be some** development work to do you could offer to erm (.) write some materials or something

S0263: mm uhu I'll have a think I'll have a look at my finances

S0264: I think that's the (.) that would be the best option and the better paid option compared to (.) working behind a counter somewhere



DOI:10.6814/NCCU202101439

The conversation happened between two speakers with one of them consulting the other's opinion on a summer job to make ends meet. The construction introduced a job opportunity that is specifically inquired by the interlocutor earlier in the talk. From the speakers' exchange later in the conversation, we know the option is considered better than others to meet the inquirer's need. That is, the construction represents an anticipated answer or solution, which is welcome and sought after. It should be noted however, in most other instances where the opportunity sense is realized, the construction does not exactly describe a solution but just desired outcomes of an event such as good Chinese food expected to be introduced by an increase in Chinese immigrants or access to free internet at a local café. Elsewhere, when the object is expected but there is little or no sign of an interest, we have THERE ARE POSSIBLE EXAMPLES as shown in (4.24).

(4.24) SQ55
S0055: well er you need to show us some form of ticket or what people wore previously (.) because I don't want to turn up
S0055: in jodhs
S0139: how am I supposed to know
S0139: what people have worn
S0055: I du n no (.) **there might be some** photos about it or summat on that website (.) cos

In (4.24), two speakers were discussing about what to wear for a formal event. While the topic on dress code is the focus of the conversation, what type of clothing is appropriate for the occasion is less clear. That is why the construction is introduced to present reference for solving the problem—*photos* or *summat*, where the interlocutor may find examples of people demonstrating suitable outfits or guide on how to dress for



DOI:10.6814/NCCU202101439

the function. In contrast to the third function, this construction does not present the object as something desirable but out of necessity. This construction also differs from the second function, which describes the follow-ups of events that are still up in the air. THERE ARE POSSIBLE EXAMPLES is a case where the target of reference is specified. It should be noted in rare instances, the construction may express a concessive meaning particularly when it is followed by a contrastive connective *but.* (4.25) is an example that demonstrates ALTHOUGH THERE ARE POSSIBLE EXAMPLES.

(4.25) SJTT
S0018: isn't Club Med the kind of kind of a holiday you go on if you want to get drunk all the time?
S0033: no I don't know if no it's it it depends (.) I think **there might be some** of those ones <u>but</u> the the one of my friends is working in um Sandpiper Bay in Florida at the moment (.) and erm it's it's a real tennis academy
S0018: mm

Two speakers are having a casual talk when one of them brings up the idea of working for Club Med as a tennis coach. The interlocutor raises his/her question about the availability of a coaching job at Club Med because to his/her knowledge, Club Med is in the entertainment business. The job seeker introduces the construction to suggest that the company also provides sports programs. The construction expresses a concessive meaning because the speaker reminds the interlocutor to reserve his/her opinion on the topic.



DOI:10.6814/NCCU202101439

**[There Might Be Something+*]**

[There might be something+*] (14 tokens) is unique in the sense that the predicate is the real subject of the construction, which is usually not specified but requires reference to the context in order for it to make sense. Various modifiers such as adjectives, adverbs, prepositional phrases or clauses may be found following the construction, which have a high tendency to describe locations. [There might be something+*] has a weak association with the use of discourse markers and it is equally frequent in group talk or in pair conversation. This construction may be used to refer to events that occur in the past, present or the future, but it seems that the evaluation of the events is always conducted in real time when the speaker reconstructs the situation and brings the audience to the scene. The construction can be categorized by three functions: SOMETHING IS A POSSIBILITY, SOMETHING IS AN EXAMPLE, and SOMETHING IS POSSIBILY THE CAUSE. Example (4.26) demonstrates the first function.

(4.26) SXQU
S0192: not really is there not like a big mixing bowl somewhere? mum and --ANONnameM not have one?
S0189: I've got bigger bowls in here
S0192: hang on a minute **there might be something** in here yeah there's a mixing bowl in here --ANONnameM oh it's a salad spinner oh weird do they ever use it?
S0189: they just got they've used it yet

The conversation happened between two siblings who were preparing a meal. They seemed to be looking for a proper container for the food when the construction was used to direct the interlocutor's attention to possible desired objects at a location and hence express the function: SOMETHING IS A POSSIBILITY. This is a typical and



DOI:10.6814/NCCU202101439

core function of the construction where an object though not specified is in the mind of the speakers and attention is usually directed to a location where the object may be available. This function is distinguishable from another frequent function: SOMETHING IS AN EXAMPLE, which is illustrated in (4.27).

(4.27) SEPR
S0614: >>so erm cos he doesn't want them up there the three weeks on the trot he said so er
S0525: right
S0614: so I said well he isn't so he thinks er **there might be something** like oh I du n no I can work for him then maybe
S0525: oh I see okay but he's not fussed really or he's not

In (4.27), some family members were chatting when two of them started a talk about the progress of a contracted project. They seemed to be involved in the same project and the construction was used by a speaker to report on an ongoing negotiation with the client. Because both speakers were clearly cognizant of the project and knowledgeable of the content of the negotiation, the construction proposes an idea among possible options and expresses the function: SOMETHING IS AN EXAMPLE. Notice the construction is used to refer to the client's struggle with decision making in the past but it is reconstructed by the speaker in the present time. Further confirmation of our analysis can be found in the preposition *like* following the construction, which verified the use of the construction as a demonstration of event that may be too dynamic to put in exact words. The construction effectively achieves its purpose as can be seen in the interlocutor's acknowledgement of understanding with *oh I see okay*. Although the two functions, SOMETHING IS A POSSIBILITY and SOMETHING IS AN EXAMPLE



DOI:10.6814/NCCU202101439

are distinguishable, they both can sometimes imply a suggestion meaning as shown in (4.28).

(4.28) S8G6
S0417: I see but --UNCLEARWORD something else you might like to do do you think **there might be something** at erm --ANONplace like a laser thing or something? I think I don't know whether people might have to pay
S0416: >>--UNCLEARWORD it's just you said you said that erm can't do anything that involves money

The conversation happened between a parent and his child as they discussed possible activities for the child to do to celebrate his/her birthday. After several rounds of exchanges, the parent offered his/her idea with the introduction of the construction. The function of the construction is to present an example of a type for the child's consideration since this is the focus of the conversation and the meaning is attested by the preposition *like* following the construction. However, because the construction is situated in a context where the speaker was invited to offer an opinion, it also implies a suggestion sense. Close observation shows that the hedge *do you think* preceding the construction may have reinforced the meaning. While the first two functions are related to possibility sense in terms of the interlocutors' knowledge of the topic or objects referred to, the third function shown in (4.29): SOMETHING IS POSSIBILY THE CAUSE is associated with the speaker's evaluation of the cause of certain events.



DOI:10.6814/NCCU202101439

(4.29) SPG4

S0579: >>usually means there's something wrong with them someone holds a knife to your throat

S0454: I think **there might be something** wrong with them

S0579: yeah

S0454: I mean cos he had that do you remember when he was young he deliberately shot himself in the foot

S0579: oh with my one of my rifles wasn't it?

S0454: I mean that's not normal is it? who?

In (4.29), two speakers were engaged in a deep conversation about the strange behavior of a mutual acquaintance. Conclusion about the individual was drawn based on common knowledge of what is seen as normal versus abnormal behaviors as well as recollection of the individual's wrong doings in the past. That is, the purpose of the construction is not to suggest a possibility or provide an example like the first two functions in which referent of the subject may be found in the context. Instead, this construction is used to refer to some unknown causes of the individual's crazy behaviors. The fact that the construction is accompanied by the hedge *I think* and followed by the modifier *wrong* indicates that the speaker was performing a mental task by trying to identify possible cause that may explain the incidents. This function is verified as we see the speakers continue to reason the case by applying knowledge about the individual whose personal history involved unusual firearm use. Table 4.4 is a summary of our findings with *might* constructions.



DOI:10.6814/NCCU202101439

Table 4.4

*Summary of Discourse Features and Functions of Central Might Constructions*

| **Constructions / Features** | **[there might be some+*] (26 tokens)** | **[there might be something+*] (14 tokens)** |
|---|---|---|
| Predicates | The object of the construction may include food items (e.g., *chocolate*, *Chinese food*), people (e.g., *crowd*, *people*), objects (e.g., *fireworks*, *photos*) or general terms (e.g., *stuff*, *use*). | The predicate is the real subject of the construction, which is usually not specified but requires reference to the context in order for it to make sense. |
| Discourse features | **Markers** (8)<br>discourse marker (e.g., *oh*, *er*, *then, yeah*); stance marker (e.g., *I think*) | **Markers** (3)<br>discourse marker (e.g., *yeah*, *er*, *wow*); stance marker (e.g., *I think*) |
| | **Connectives** (2)<br>reason (e.g., *cos*) | **Connectives** (1)<br>reason (e.g., *cos*) |
| Interactive features | **>2** speakers (17)<br>**=2** speakers (9) | **>2** speakers (7)<br>**=2** speakers (7) |
| Meanings and Functions | **Unexpected-desired**<br>THERE ARE POSSIBLE SURPRISES (7)<br>**Unexpected-no desire**<br>THERE ARE POSSIBLE FOLLOW-UPS (6) | **Possibility**<br>SOMETHING IS A POSSIBILITY (6) |
| | **Expected-desired**<br>THERE ARE POSSIBLE OPPORTUNITIES (7)<br>**Expected-no desire**<br>THERE ARE POSSIBLE EXAMPLES (5) | **Example**<br>SOMETHING IS AN EXAMPLE (5) |
| | **Concessive**<br>●ALTHOUGH THERE ARE POSSIBLE EXAMPLES (1) | **Cause**<br>SOMETHING IS POSSIBILY THE CAUSE (3) |
| Generalization | The construction directs the interlocutor's attention to the expectation of certain objects or affairs. | The construction orients the interlocutor's attention to the location or identification of an unspecified object or intention. |

## The Meanings and Functions of May Constructions

This section discusses core *may* constructions: [he/she may have PP+*] (18 tokens) and [they may have PP+*] (13 tokens). *May* constructions are distinct from the other weak-modal constructions in terms of how they are used to depict human behaviors and how they are applied by the speaker to the portrayal of other individuals including family members, acquaintances, strangers or authorities. These behaviors such as



DOI:10.6814/NCCU202101439

language communication (e.g., *said*, *spoken*), social interaction (e.g., *accepted*, *retired*) or cognition (e.g, *realized*, *considered*) are unique to humans and they sometimes are encoded in very general terms such as *make*, *hit*, *take* or *get* that are difficult to characterize. Both [he/she may have PP+*] and [they may have PP+*] mainly depicts past occurrences; however, they differ in terms of the number of speakers that are involved with the former occurring equally between two or more speakers while the latter appearing significantly more frequently in a pair talk. *May* constructions also differ from *could* constructions in terms of the possibility sense that they describe. Unlike *could* constructions whose hypothetical sense is counterfactual, *may* constructions concern little fact and are primarily related to assumption or supposition. In most cases, *may* constructions involve the speaker's evaluation of certain individuals, about whom the speaker or the interlocutors have little or no direct access to their happening, especially when it involves personal decision making. Frequently, the conclusion is drawn based on some background knowledge, memory, related life experience, or just hearsay whereas in cases when the information source is lacking, the evaluation is conducted as a form of wild guess or entertainment. Based on our analysis, *may* constructions can be characterized by two major functions: IT WAS POSSIBLE THAT HE/SHE and IT WAS POSSIBLE THAT THEY, which form a homogenous group to convey hypothetical meaning. However, we observe that [he/she *may* have PP+*] develops a variety of functions while [they may have PP+*] is less dynamic.

**[He/She May Have PP+*]**

The core function of this construction is IT WAS POSSIBLE THAT HE/SHE, which addresses the speaker's evaluation or assumption about the circumstance of an individual. Although this construction primarily refers to what occurred in the past, it



DOI:10.6814/NCCU202101439

may also refer to the present or the future time. There is a relatively higher tendency for this construction to occur with markers, including (i) discourse markers: *well, then, anyway*; (ii) stance markers: *you know, I think*; (iii) reason connective: *because*. This construction is very dynamic to include the core meaning IT WAS POSSBLE THAT HE/SHE and IT IS POSSIBLE THAT HE/SHE WILL as well as several peripheral functions like IT IS POSSIBLE FOR HIM/HER TO and ALTHOUGH IT WAS POSSIBLE THAT HE/SHE. Example (4.30) shows how IT WAS POSSIBLE THAT HE/SHE is used in its weak sense in a talk by two speakers regarding a piece of news.

(4.30) S56S
S0454: so you're not really an accomplice to murder are you?
S0579: not really no
S0454: >>I thought that was a bit mean
S0579: yeah
S0454: that you know **he may've egged** him or he may not but either way the responsibility lies with the driver
S0579: >>yeah
S0454: and not with the passenger

The conversation concerns an incident where a driver and the passenger in the car were accused of murder because the car ran into and killed a pedestrian. The speakers were arguing whether the passenger in the car should also be held accountable for the crime. The talk suggests that the individual under discussion is a complete stranger to the speakers and the news report is the only possible information source. However, the speakers were able to project an imaginary scenario with the use of [he may've egged+*] when little evidence or fact is available. Evidence in the speaker's lack of confidence in the assumption comes from the following comment *or he may not.* It appears that the speaker did not mean for the statement to be taken



DOI:10.6814/NCCU202101439

seriously and the construction served as a catalyst for interesting conversation because we often see frequent exchanges between speakers when the construction is used. It is also interesting to note that when the individual referred to was a family member or a close acquaintance, the speaker who is the information source tends to dominate the talk. In this case, the construction often conveys a stronger sense of possibility because the speaker is in the know of the individual either from background knowledge or personal contact. In such an instance, the construction expresses IT IS POSSIBLE THAT HE/SHE WILL. Example (4.31) demonstrates this function.

(4.31) SNJP
S0192: and we've discussed we've said when we get to forty I think we'll have done everything we wanna do and we'll be in a good enough job and we'll be qualified enough to be able to give a child a good life but **she may have hit** the the menopause by then cos her family hit it quite young
S0227: it's not
S0192: >>her mum hit it at forty
S0227: it's not impossible

In (4.31), one speaker was talking about his family plan when the construction was introduced to address his concern about the fertility issue of his spouse. The utterance conveys the speaker's concern about not being able to have children in the future. The evaluation is made based on his knowledge of his spouse's family history. Knowing that his mother in law had an early menopause increases the speaker's confidence or gloominess in making the prediction because menopause is likely to be hereditary. From the interlocutor's attempt to ease the tension of the topic and brighten the prospect in the comment 'it's not impossible' for the couple to have kids, we know that the construction expresses a strong sense of possibility and the interlocutor is offering



DOI:10.6814/NCCU202101439

hope to counter the validity of the prediction. Indeed, we found the construction skilfully manipulated by the speaker to make various types of evaluation and a majority of [he/she may have PP+*] conveys a range of possibility senses, depending on its interaction with the contextual factors. In a rare instance, the construction is even used for making a suggestion to mean IT IS POSSIBLE FOR HIM/HER TO as shown in (4.32).

(4.32) SJBX
S0565: right which would you rather or what would your choice be?
S0565: to have a blowhole in the top of your head like a dolphin
S0565: or to have gills on each side of your neck like a fish?
S0543: I can imagine grandpa with a blowhole
S0564: --ANONnameM I think **he may have got** a blow hole in the top of his memory

The use of [he/she may have PP+*] in (4.32) is very uncommon; nonetheless, it shows the wide range of possibility sense that may be accommodated by the construction. In the conversation, a group of speakers were playing a game in which imaginary features were used to characterize people. The speaker used the construction to propose what he/she considered a fitting description of an individual, someone with a blow hole like a dolphin and hence weak in memory. In this case, the possibility sense is not so much about whether what is stated is based on fact or not, but the construction is used for pure entertainment. In the examples above, we notice the frequent use of discourse markers with [he/she may have PP+*], which we believe play an important role in relating the construction to the rest of the utterance and in modulating the meaning expressed by the construction. Finally, we observed another rare instance where the construction communicates concessive meaning ALTHOUGH IT WAS POSSIBLE THAT



DOI:10.6814/NCCU202101439

HE/SHE and the speaker was seen to reserve his/her opinion on the issue.

(4.33) SZBN

S0681: >>mm (.) well don't forget you could always contact if you would have to find the right one I know how to do it in --ANONplace the Red Cross for instance so phone them up and tell them you've got them they might well
S0679: oh I've got I've got a list of phone numbers of contacts for like furniture but specialist equipment that is used that is heavy bulky and only used in certain situations probably by a particular sort of person I'm going to see how --ANONnameF feels but erm I might well email --ANONnameF because her husband erm partner husband I think erm he I don't **he may have retired** completely now but he used to have quite a good living

In (4.33), two speakers are engaged in a lengthy conversation about finding possible helpers for a house renovation project. The project involves much moving and the installation of valuable equipment. While they are going through possible contacts, one speaker recalls a potential candidate for the work. The speaker is conservative in his/her information about the individual, who seems like a nodding acquaintance, and the construction implies the speaker's hesitance in confirming the status of the candidate. The use of contrastive *but* subsequent to the construction provides support to the concessive meaning of the construction.

**[They May Have PP+*]**

Compared with its sister construction [he/she may have PP+*], there seems less variation in the possibility sense expressed by [they may have PP+*]. In fact, this construction shows the weakest association with the use of markers among the eight weak-modal constructions under investigation. [They may have PP+*] often occurs in a pair talk and the subject of the construction often involves mutual acquaintances. The



DOI:10.6814/NCCU202101439

use of this construction gives an impression of a speaker giving information about the condition of acquaintances or certain groups of people based on sufficient background knowledge. The two major functions are IT WAS POSSIBLE THAT THEY and ALTHOUGH IT WAS POSSIBLE THAT THEY. Example (4.34) is a typical use of the construction to express IT WAS POSSIBLE THAT THEY.

(4.34) S8BQ
S0517: that was when they were playing it was like well one of us is gonna get a win this season that's the only one and they're not doing well this season are they? I don't think they've won a game
S0558: no
S0517: **they may have drawn** a couple
S0558: I was quite glad when --ANONnameM stopped

A group of speakers were engaged in a talk about their children's participation in the sport team when one speaker used the construction to report on the state of the team. It seems that the speaker already had some knowledge about the team as he/she mentioned in the previous utterance that the team had not done well. The construction was used to update information or give support to the speaker's assumption or evaluation about the current state of the team. Nevertheless, because there is no indication of the source of information, the construction conveys the speaker's lack of confidence in his/her claim. Moreover, since the construction concerns the business of other individuals, there is a gap in the speaker's knowledge of the current state of the affair, so the construction expresses a possibility sense. Elsewhere, we see that the subject the construction refers to is not limited to humans, but authorities, plants or investments are also possible. Example (4.35) is a use of the construction involving



DOI:10.6814/NCCU202101439

plants. The construction describes a result that is contrary to the speaker's expectation and expresses ALTHOUGH IT WAS POSSIBLE THAT THEY.

(4.35) SHHX
S0679: >>erm and it hasn't done anything silly like that pheasant's breast plant
S0680: no
S0679: which erm keeps putting flowers out stalks out and they seem to go at funny angles
S0680: yes
S0679: these are I don't know I'm **they may have happened** by now but they were growing up quite slowly
S0680: yes

The conversation concerns two speakers who were walking in the garden and commenting on the condition of their plants. The talk indicates the speaker's rich knowledge about gardening and particularly the plants that had been under his/her care. The construction expresses the speaker's expectation about the development of the plants based on his/her gardening experience and field observation of the plants. Nevertheless, since what the speaker actually observed in the plants, a slow growth, did not quite match up with his/her expectation, the construction carries a strong concessive sense, which is validated by the contrastive connective *but* immediately following the construction. (4.36) is another example where the construction targets members of a profession to mean ALTHOUGH IT WAS POSSIBLE THAT THEY.



DOI:10.6814/NCCU202101439

(4.36) SN7W

S0262: oh I bet the classroom management yeah (.) yeah

S0354: >>because (.) they (.) if they had survived in a secondary modern school (.) **they may have survived** on maybe a minimal amount of intellectual background and knowledge

S0262: mm mm

S0354: but they had survived on enthusiasm and charisma

S0262: >>mm (.) mm and passion for their subject yeah

Two speakers were making a comment about the workload and working environment of the secondary modern school teachers. We can see one speaker supply a contrastive *but* in his/her subsequent utterance to continue his/her pursuit of the topic. The construction indicates the speaker's empathy with teachers who are working under much pressure in the secondary modern school. However, because the experience is not first-hand, and nor is it based on observable or verifiable fact, the construction expresses the speaker's reservation about his/her remark. Table 4.5 is a summary of our findings with *may* constructions.





DOI:10.6814/NCCU202101439

Table 4.5

*Summary of Discourse Features and Functions of Central May Constructions*

| **Constructions** / **Features** | **[he/she may have PP+*] (18 tokens)** | **[they may have PP+*] (13 tokens)** |
|---|---|---|
| Predicates | The construction is associated with bodily activities (e.g., *drink*, *get a*, *hit the*), movement (e.g., *go*, *quit*, *start*), speech (e.g., *say*, *egg him*), or social activities (e.g., *accept*, *send*). | The construction is primarily associated with general terms (e.g., *make*, *get*, *happen*, *change*), and there are several instances referring to movement (e.g., *stay*, *go*), cognition (e.g., *consider*, *know*), or social activities (e.g., *test*, *get rid of*). |
| Discourse features | **Markers** (8)<br>discourse marker (e.g., *well*, *then*, *anyway*); stance marker (e.g., *you know*, *I think*) | **Markers** (2)<br>stance marker (e.g., *I think*) |
| | **Connectives** (1)<br>reason (e.g., *because*) | **Connectives** (1)<br>condition (e.g., *if*) |
| Interactive features | **>2** speakers (9)<br>**=2** speakers (9) | **>2** speakers (3)<br>**=2** speakers (10) |
| Meanings and Functions | **Possibility**<br>IT WAS POSSBLE THAT HE/SHE (14)<br>IT IS POSSIBLE THAT HE/SHE WILL (2)<br>●IT IS POSSIBLE FOR HIM/HER TO (1) | **Possibility**<br>IT WAS POSSIBLE THAT THEY (10) |
| | **Concessive**<br>●ALTHOUGH IT WAS POSSIBLE THAT HE/SHE (1) | **Concessive**<br>ALTHOUGH IT WAS POSSIBLE THAT THEY (3) |
| Generalization | The construction conveys a range of possibility senses from prediction to gossiping, depending on its interaction with the contextual factors. | The construction supplies information regarding the condition of acquaintances or certain groups of people based on sufficient background knowledge. |

## Chapter Summary and Discussion

Our analysis uncovered the central members of *can*, *could*, *might*, and *may* constructions in the Spoken BNC2014, which exhibit distinct features and express dynamic meanings. The meanings and functions of the eight constructions including [we can do this+*], [we can do it+*], [we could have had+*], [we could have done+*], [there might be some+*], [there might be something+*], [he/she may have PP+*], and [they may have PP+*] were arrived at through the constructionist perspective, which



DOI:10.6814/NCCU202101439

sees our language as a composite of form-function pairings. In the traditional approach, modal semantics was interpreted in terms of a set of prescribed notions such as epistemic, deontic, or dynamic, which were often criticized as too abstract and too coarse to capture the meanings of modal expressions in real use. Moreover, because the boundary between these notions often becomes blurred, it is impractical and difficult to use them for the distinction of a group of modals that all express weak modality: *can*, *could*, *may*, and *might*. By taking a constructionist approach, we identified modal constructions as a form-function pairing that includes at least a modal verb and another lexeme or grammatical category. Unlike the traditional semantic analysis, which focuses on individual modals alone, the constructionist approach interprets the meanings and functions of modal constructions holistically. Each modal construction is represented by its phonology or morphosyntax and is equipped with its own semantic and discourse-pragmatic characteristics. Because individual modal constructions are unique, there is no ambiguity in terms of their meanings or in comparison with other modal constructions. Moreover, the meanings of modal constructions are arrived at through the observation of their use, so there is no such thing as a mismatch between prescribed labels and the actual use of the construction. By switching our attention from individual modals to modal constructions, the current study broke new ground with the study of modal meanings.

In the earlier definition, constructions were primarily identified by their non-compositional meanings, unpredictable formal properties, or unexpected constraints (Goldberg, 2006). Most recently, in the usage-based model of language, constructions are regarded as the result of our cognitive processing of language, which is deemed to be influenced by their frequency of use (Bybee, 2013). It is believed that repetition in language use may give rise to conventionalization of categories and



DOI:10.6814/NCCU202101439

automation of sequences. By recognizing constructions as stored units in memory, also called exemplars, the current study identified modal constructions according to Hilpert's (2016) proposal by examining links of association between modal verbs and their collocates. Through Log Ratio statistics, which measures how big the difference the collocates are next to individual modals than they are elsewhere in the corpus, we identified important collocational profiles of *can*, *could*, *may* and *might*. Following Cappelle and Depraetere's (2016b) advice, we included in our collocational analysis elements on both sides of the modals to include all the possible predicates as well as the grammatical subjects of the modals. The result is a group of partially filled constructions including [we could have had+*], [we could have done+*], [there might be some+*], [there might be something+*], [he/she may have PP+*], and [they may have PP+*] and specific constructions such as [we can do this] and [we can do it] representing central members of *can*, *could*, *may* and *might* constructions.

**The First Research Question**

Our first research question asks how weak-modal constructions can be represented in corpora. We address the question by resorting to the characterization of constructions, which are form-function mappings and are theorized to form a systematically related network of association. Their organization is according to their relative semantic distance to each other, which gives rise to the hierarchical structure of constructions (see Figure 2.1 on page 39) with the most schematic constructions residing on the top of the hierarchy inherited by partially filled constructions, which in turn are inherited by specific constructions located at the bottom of the hierarchy. The modal constructions identified by the present study refer to those constructions that are located at the lower level of the hierarchy and are believed to be central members of the hierarchy as



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suggested by their Log Ratio scores. These constructions seed the development of their sister constructions and are influential to the interpretation of their mother constructions, which are a level above them on the construction taxonomy. Our collocational analysis showed that *can*, *could*, *might*, and *may* are associated with a variety of collocates and they share many common features (see Table 4.1 on page 89). Nevertheless, Log Ratio scores suggest that these modal constructions are distinct in terms of their preferred types of items that may fill the slots of the constructions, which include not just elements or predicates on the modal's right but also the grammatical subject that is linked to the construction. For instance, while *can*, *could*, *might*, and *may* accept lexical verbs, *have*, *be*, *do*, and adverbs in their immediate environment, *can*'s first choice is *do* whereas *could* and *may* prefer *have* and *might* favors *be*. At the same time, modal constructions are discreet about elements on their immediate left so that [can do], [could have], [may have] and [might be] all have preferred subjects. The findings show that modal constructions and lexical items are mutually selected and that the makeup of modal constructions is not in free variation. This is the claim made in the literature (Boogaart, 2009; Cappelle & Depraetere, 2016b; De Haan, 2012; Hilpert, 2013a, 2013b, 2016; Tsai & Lai, 2018, 2019) and the current study answers the first research question by identifying and establishing the partial networks of *can*, *could*, *might*, and *may* constructions (see Figure 4.1~Figure 4.4 ). We reproduce the partial hierarchy of *can* constructions in Figure 4.5 for detailed illustration.



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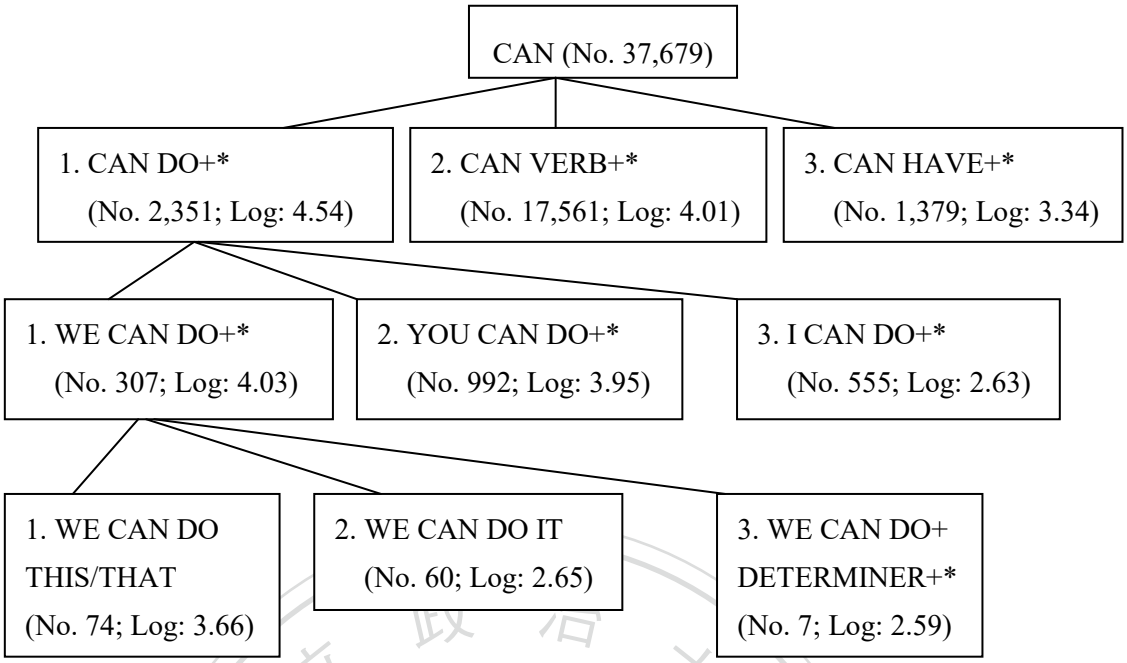


*Figure 4.5* Partial Network of Core *Can* Constructions (b)

As Figure 4.5 shows, the modal verb *can* is one element that is actively participating in a variety of constructions from partially filled constructions such as [can do+*] or [we can do+*] to specific ones like [we can do it], each of which is an independent node in the hierarchy. Recall our definition of construction as a form-function pairing. We can say that specific constructions at the bottom of the hierarchy exist independently from each other and from their mother or grandmother constructions one or two levels up. The association of these constructions is in terms of their schematicity and semantic distance. For instance, [we can do+*] and [we can do this/that] are related because [we can do this/that] is an important instance of [we can do+*] as indicated by its high Log Ratio score. On the other hand, the fact that [we can do+*] also has many other inheritors or daughters such as [we can do it] or [we can do+determiner+*] suggests that [we can do+*] has its own characteristics contributed by all its daughters. At the same time, we observe that [we can do this/that] is placed next to [we can do it], so they



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should express distinct by related meanings as predicted by construction grammar, which is exactly what we found later in the conversation analysis of these constructions. In general, the finding shows that the emergence and representation of various modal constructions is a result of their importance in communication and frequency of use.

**The Second Research Question**

The second research question addresses the theoretical issue regarding modal polysemy or the meanings and functions of *can*, *could*, *may*, and *might* constructions in the Spoken BNC2014. Unlike the traditional approach where modality is studied in terms of the semantics of individual modals, we interpret our findings in accordance with the notion of construction proposed by Goldberg (2003). In this respect, modal constructions are form-function mappings, and their meanings are directly attributed to their forms, which in our study are entities composed of at least a modal verb and another linguistic item. Moreover, in our study, these constructions are related to each other systematically to form a hierarchically ordered network. The relationship between various levels of constructions is described by Goldberg (2003, p. 221-222) as a process of generalization:

> 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.

Modal constructions as identified by our study represent those lower level constructions whose functions are captured through the conversation analysis. We recognize that constructions encompass not just linguistic elements but that



DOI:10.6814/NCCU202101439

non-linguistic meanings such as those contributed by the interactional contexts like the turn where a certain construction occurs and its relation with its prior or the subsequent utterances are all crucial to the interpretation of constructions (Fischer, 2001, 2010). To identify and describe *can*, *could*, *may*, and *might* constructions more comprehensively, we introduced the conversation analysis, which enabled us to include contextual factors such as hedges, discourse markers, clausal connectives, number of interlocutors or topic continuity in our analysis. The eight constructions that represent core members of weak-modal constructions were put under investigation.

The result showed that these constructions often exhibit dynamic meanings because some of the functions are used frequently enough to become conventional while others are relatively transient to appear very infrequently. This is because the dynamics of human communication can make these lower level constructions vulnerable to changes as can be seen by the numerous extended and peripheral meanings uncovered by our analysis. These meanings and functions are summarized in Table 4.6. We refer to meanings that are frequent as core or central meanings and those that are the extension of the central meanings as extended meanings. Those functions that only occur once are referred to as peripheral meanings.



DOI:10.6814/NCCU202101439

Table 4.6

*Overview of the Meanings and Functions of Central Weak-Modal Constructions*

| CAN | | COULD | | MIGHT | | MAY | |
|---|---|---|---|---|---|---|---|
| we can do this (10) | we can do it (59) | we could have had+* (11) | we could have done+* (15) | there might be some+* (26) | there might be something+* (14) | he/she may have PP+* (18) | they may have PP+* (13) |
| The construction is used in time of uncertainty to boost morale. | The construction is used to set an upbeat mood for the completion of tasks with anticipated outcomes. | The construction is related to unreal events that could only be afforded by circumstantial factors in retrospect or by imagination. | The construction describes a past unrealized cause or idea presumably shared by most members in the conversation or the public. | The construction directs the interlocutor's attention to the expectation of certain objects or affairs. | The construction orients the interlocutor's attention to the location or identification of an unspecified object or intention. | The construction conveys a range of possibility senses from prediction to groundless gossip, depending on its interaction with the contextual factors. | The construction supplies information regarding the condition of acquaintances or certain groups of people based on sufficient background knowledge. |
| WE HAVE THE ABILITY TO (3)<br>WE ARE CAPABLE OF (2) | LET'S MAKE IT HAPPEN (15) | IT WAS POSSIBLE FOR US TO, BUT (3)<br>WE WOULD HAVE MADE IT, BUT (3) | WE HAD THE ABILITY TO, BUT (7) | THERE ARE POSSIBLE SURPRISES (7) | SOMETHING IS A POSSIBILITY (6) | IT WAS POSSIBLE THAT HE/SHE (14) | IT WAS POSSIBLE THAT THEY (10) |
| WE CAN TRY (2) | LET'S GET IT DONE (22)<br>YOU CAN TRY (3) | IT WOULD BE NICE IF WE (5) | IT WAS BEETER FOR US TO, BUT (7) | THERE ARE POSSIBLE FOLLOW-UPS (6) | SOMETHING IS AN EXAMPLE (5) | IT IS POSSIBLE THAT HE/SHE WILL (2) | ALTHOUGH IT WAS POSSIBLE THAT THEY (3) |

(continued)



DOI:10.6814/NCCU202101439

| CAN | | COULD | | MIGHT | | MAY | |
|---|---|---|---|---|---|---|---|
| we can do this (10) | we can do it (59) | we could have had+* (11) | we could have done+* (15) | there might be some+* (26) | there might be something+* (14) | he/she may have PP+* (18) | they may have PP+* (13) |
| THIS CAN WAIT (2) | LET'S GO AHEAD (3) | | ●WE WOULD LIKE IT TO (1) | THERE ARE POSSIBLE OPPORTUNITIES (7) | SOMETHING IS POSSIBILY THE CAUSE (3) | ●IT IS POSSIBLE FOR HIM/HER TO (1) | |
| ●WE ARE ALLOWED TO (1) | IT IS POSSIBLE FOR US TO (13) | | | THERE ARE POSSIBLE EXAMPLES (5) | | ●ALTHOUGH IT WAS POSSIBLE THAT HE/SHE (1) | |
| | WE ARE FREE TO (3) | | | ●ALTHOUGH THERE ARE POSSIBLE EXAMPLES (1) | | | |

*Note*. The shaded areas indicate extended meanings; The dot ● refers to peripheral functions; The number in parenthesis shows frequency of occurrence of the function.



DOI:10.6814/NCCU202101439

Table 4.6 shows that most modal constructions can be characterized in terms of core functions, which tend to appear more often and are more important to the constructions. For example, IT WAS POSSIBLE THAT HE/SHE (14 tokens) is the core function of [he/she may have PP+*] because it is the most frequent. That is, the construction is mainly used by the speaker to describe a past activity about certain individuals. Because the validity of the description is not a concern for the communication partners, this frequent function shows that [he/she may have PP+*] is primarily used to provide materials for or promote the flow of casual talks. At the same time, there are also various extended and peripheral meanings associated with individual constructions. For instance, IT IS POSSIBLE FOR HIM/HER TO (1 token) is a peripheral meaning of [he/she may have PP+*]. This function is unique because it only occurred once and it was used in an uncommon game scenario to refer to a family member. One observation is that higher frequency constructions such as *can* and *could* constructions tend to develop extended meanings and lower frequency *might* or *may* constructions are more likely to develop peripheral meanings. The result suggests that *can* and *could* constructions are more productive and may continue to thrive in terms of the range of meanings they may express. On the other hand, *may* constructions in particular, are relatively constrained by possessing very few meanings.

Another important observation is that all these meanings are indeed related to what modal semantics refers to as epistemic (logical possibility; necessity; hypothetical meaning; predictability), deontic (permission; obligation), or dynamic (ability; volition) sense. Take the various functions of *can* constructions for example. They all seem to imply the ability sense regarding human or circumstantial potential, but they also specify the focus of this potential including the participants, conditions, and even attitude of the expression in such functions as WE ARE CAPABLE OF or YOU CAN



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TRY. That is, 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 and distinction of modality as shown in Table 4.6. As for the reason why these constructions are somewhat related to senses described by modal semantics, it is because *can*, *could*, *may* and *might* presiding over the top of the modal hierarchy are inherited by many constructions. What we have uncovered is in fact constructional polysemy with lower level modal constructions contributing their multiple meanings to more schematic constructions higher up on the hierarchy. In the process, these meanings are abstracted away and give rise to the broadly defined modal semantics.

Constructional polysemy provides us with the various functions that may be flexibly adapted to the conditions of use. Incorporating our findings from the conversation analysis, we can picture the frequent occurrence of [we can do this] in a group talk, its characteristic reference to the future time (e.g., *then*, *in ten minutes*)) and tendency to be preceded by down toners (e.g., *well*, *if*) or hedges (e.g., *they think*, *I mean*, *do you really think?*) and generate the image where the construction serves its purposes. These features paint a picture of a challenging task that calls for the will and effort of the participants and unlike its literal meaning which denotes the sense of ability, the construction is actually used to boost morale in a time when there is a lack of confidence for a bright prospect. In fact, the construction was typically found between medical staff and patients or when the speaker asks for the cooperation of group members. Moreover, the functions allow us to understand the relationship of sister modal constructions such as [we can do this] and [we can do it] by projecting them onto a shared conceptual world, with each construction triggering a related but



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different part of the concept that involves solidarity, harmony, shared aims or camaraderie.

Conversation analysis beyond the utterance also revealed meanings or functions which were not discussed by traditional semantic analysis in cases such as [we can do this] and [there might be something+*]. We found that although these two constructions were different with the former calling for the cooperation of the group and the latter orienting the group's attention to a specific object or topic, they nevertheless converged in expressing the tentativeness of a proposal or a lack of certainty of a prospect. The use of [we can do this] is strongly affected by its association with discourse markers and the diverse meanings of [there might be something+*] are largely attributed to its dynamic predicate semantics. All of these features imply a sense of complexity and unpredictability and it is in such a discourse and interactive contexts that we find overlap in modal meanings rather than some obscure areas suggested by abstract notions like epistemic or dynamic sense. Finally, the similar contextual features shared by [we could have done] and [he/she may have PP+*] such as reference to the past or tendency to be preceded by discourse markers suggest their distinction from other constructions. Both of these constructions are used to relate a hypothetical world where the speaker either lamented over an unrealized joint action as in the case with [we could have done] or formed speculation about certain individuals as in [he/she may have PP+*]. That is, the two constructions are similarly used to promote interpersonal relationship by recalling a group effort or sharing exclusive information.

In sum, we demonstrate how the constructionist perspective can be incorporated with qualitative conversation analysis in the exploration of spoken data. The combination results in fruitful findings which reveal how the meanings and functions



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of a construction can be generalized from its interaction with its discourse and interactional contexts. By incorporating the conversation analysis in our interpretation of modal constructions, we contribute to the current study of modality by seeing people's experience with language as holistic and circumstantial instead of a sum of isolated features.





DOI:10.6814/NCCU202101439

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# CHAPTER 5

# CONCLUSION

This chapter concludes the dissertation. First, we summarize key points in major chapters. Next, we draw pedagogical implications based on the results and discussion. Finally, we address limitations of the study and suggest directions for future research.

## Summary

The current study began in chapter 1 by introducing a challenging conundrum that has been under debate for decades: modality. Although in its broad definition, modality refers to the attitudinal qualifications of the speakers, there has been no agreement among linguists to its exact characterization or boundary. As a set of modal verbs that express weak modality, the distinction between *can*, *could*, *may* and *might* has been a controversy because these modals not only express multiple meanings individually but also share overlapping meanings. The current study proposes a change of focus in terms of the unit of study and the method toward the identification and distinction of modal expressions. We proposed a constructionist perspective on modality, which regards constructions or theorized entities of language as the basic units of our language. We recognized the spoken data as the primary locus of language use and incorporated the qualitative conversation analysis for the solution to the problem, which considers the interactional contexts as crucial factors in shaping grammar.

In chapter 2, we reviewed the past literature on modality, which tended to rely on prescribed semantic notions or idiosyncratic behaviors of modals and failed to explain and distinguish modal meanings. We pointed out why finer categorization of modality in terms of weak versus strong modality or subjectivity versus objectivity modality failed to distinguish the meanings of functions of modal verbs. The reason is that as an



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abstract concept, modality is better approached from the constructional perspective of language, which sees language as constructions at varying levels of complexity and abstraction. That is, modality is better captured by treating modal verbs as mere component parts of the modal constructions and the notion is better illuminated by taking the whole constructions into account instead of individual modal verbs. We then introduced the concept of constructions, which are theorized entities of language. We explained how constructions are discussed in the usage-based model of language, which has its focus on language use and frequency effect. By recognizing the concept of collocation as an important quality of constructions, we identified modal constructions as grammatical units that are composed of at least a modal verb and another collocated lexeme or category. Following the advice in the literature, we included predicate elements on the modal's right and grammatical subjects on the modal's left in our consideration of modal constructions. We discussed various studies which have taken the constructionist approach and successfully identified or distinguished modal constructions. In addition, we raised the issue of how corpus-based approach and qualitative conversation analysis may be incorporated into the investigation of *can*, *could*, *may*, and *might* constructions to provide a more comprehensive understanding of their meanings and functions.

In chapter 3, we introduced the corpus for the study, which is the British National Corpus 2014 (the Spoken BNC2014). We demonstrated how we generated concordance lines of the modal verbs and identified modal constructions in terms of their frequency, collocation, and discourse or interactional contexts. Then, we presented conversation analysis procedures for identifying the meanings and functions of modal constructions.

In chapter 4, we reported the results and discussed the findings. We presented the



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central members of *can*, *could*, *might*, and *may* constructions in the Spoken BNC2014, which exhibit distinct features and express dynamic meanings. The eight central constructions are [we can do this], [we can do it], [we could have had+*], [we could have done+*], [there might be some+*], [there might be something+*], [he/she may have PP+*], and [they may have PP+*]. We addressed our first research question by presenting the partial networks of modal constructions with the most schematic constructions such as *can*, *could*, *may*, and *might* residing on the top of the hierarchy inherited by partially filled constructions such as [can do], [could have], [may have] and [might be], which in turn are inherited by more specific constructions such as [we can do this] or [we could have had+*] located at the bottom of the hierarchy. We explained how the hierarchy is organized according to type and token frequency. We found that *can*, *could*, *may* and *might* constructions are distinct in terms of their preferred types of items that may fill the slots of the constructions, which include the predicates and grammatical subjects. We concluded that the association of members in the individual modal hierarchy is in terms of their schematicity and frequency of use.

We answered our second research question by conducting the conversation analysis, which allowed us to consider both linguistic and non-linguistic elements in conversations. These include hedges, discourse markers, clausal connectives or interactional features such as the number of speakers and relevance of the topic. We then presented the functions that were arrived at from the conversation analysis. These meanings range from core or more frequent ones to those that depict related but different experiences. We concluded that it is the constructionist perspective that has allowed us to interpret people's experience with language holistically and provided more detailed information for a more precise and accurate description and distinction of modality.



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To conclude, the constructionist perspective is effective in terms of its interpretation of modality. Moreover, it captures the dynamic relationship among related modal constructions and by doing so it not only infuses analytical power to the distinction of modal constructions but also adds empirical evidence to untie a theoretical deadlock on modal polysemy. The combination of a corpus-based approach and a qualitative conversation analysis bears important implications for lexicography and language pedagogy, which rely heavily on attested data to present a more complete picture of our language.

## Pedagogical Implications

The current study holds important implications for corpus-based study of constructions in general and the study of modality in particular. The discussion of modal semantics has been a controversy in the linguistic circle. It is not hard to image similar kinds of difficulties in presenting or instructing modality based on such abstract notions as epistemic, deontic, or dynamic sense or broadly defined functions like ability, permission, or possibility. On the other hand, the constructionist perspective of modality provides a clear framework for pedagogical implementation. In the first place, the idea of modal constructions being composed of form-function pairings equipped with its morphosyntactic features and discursive and pragmatic functions underlines one crucial argument of the usage-based constructional approach to learning. That is, construction learning is essentially form-based learning. In our study, the form refers to modal constructions with modal verbs as their components rather than individual modals. In this sense, instruction of modal constructions is compatible and even favorable to Long's (1991) focus-on-form approach, which involves "drawing students' attention to linguistic elements as they arise incidentally in lessons whose overriding



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focus is on meaning or communication" (p. 45-46). The underlying assumption of the form-based approach is that both first and second language learning are built on an exposure to comprehensible input from natural interaction. It is also assumed that learners' attention needs to be directed to grammatical features or forms in compensation for their lack of exposure to the target language. Nonetheless, the form-based approach is less clear about its notion of 'form' that should receive attention. It seems that a constructionist perspective to modal constructions provides the needed object for form-based instruction of modal meanings and related concepts.

As Littlemore (2009) pointed out, construction grammar has been very recent to the study of language, and there has been few constructions identified yet. This is unfortunate given the explanatory potential of a constructionist perspective for instructional purposes. For the pedagogical implementation to be successful, teachers may be equipped with the means to identify and interpret constructions themselves. The statistical tools introduced by the current study and our step by step instruction on the identification and interpretation of constructions in the corpus provide an ideal model for teacher training material. With access to an annotated corpus, teachers may explore individual constructions that serve their teaching purposes.

Learners should also be taught that constructions are language-specific, so there are no identical constructions across languages. There is a tendency for second or foreign language learners to find solution in their native language. As Achard and Niemeier (2004, p. 6) observed, "In a developing L2 system, the target units are in direct competition with the native ones because they both represent alternative ways of construing the same reality." Therefore, instead of looking for examples from their native language, learners should be directed to focus on the form-function pairings of the target language. In our case, English modal constructions are word sequences that



DOI:10.6814/NCCU202101439

include the modal and its important collocates. Our study suggests that modal constructions express holistic and precise meanings. In practice, functions of modal constructions can be demonstrated through conversational examples, which embody the enactment of the constructions and allow the learners access to contextual features that are also part of modal constructions. Moreover, learners can be encouraged to explore the modal constructions in their native language. The discussion will not only raise the learners' awareness about modal constructions but heighten their sensitiveness to the distinctive formation and use of modal constructions between their mother language and the target language.

Another important argument of the constructionist approach is the assumed cognitive underpinning of our linguistic knowledge. Constructions are points of access to more elaborate conceptual structures, which enable us to attribute meaning to our experience. That is, modal constructions provide the learners templates to the native speakers' conceptualization of their experiences, which will greatly facilitate learning compared to memorization of abstract notions or broadly defined functions. For instance, the meanings of [we can do it] can be introduced in terms of the concreteness of the outcome to express either LET'S GET IT DONE or LET'S MAKE IT HAPPEN, in terms of the desire to participate in an activity to denote LET'S GO AHEAD or in terms of the realization of an activity to mean IT IS POSSIBLE FOR US TO. Note that the language we use to describe the construction is also rich, specific, and interrelated, so it allows the learners a better grip of the meanings of [we can do it] in its association with a desire for or the realization of an activity.

At the same time, the concept of modal constructions as a hierarchical network of association can be introduced to the learners. How constructions residing at different levels of the hierarchy are associated with each other should be explained. This is in



DOI:10.6814/NCCU202101439

terms of how schematic or mother constructions are abstracted over less schematic ones or daughters. The presentation in terms of mother and daughter or sister constructions will not only reinforce the learners' understanding of individual modal constructions as independent nodes encompassing unique meanings but consolidate the idea that grammar is a result of construction and frequency of use rather than derivation or the application of a few rules. For example, after learners are introduced [there might be some+*] and [there might be something+*] and their distinction, they may be guided to understand the possibility sense or the functional purpose that connects the two constructions to their mother construction, [there may be+*]. The introduction of constructions as an interconnected network of association presents a better model for a more systematic and motivated way of grammar instruction.

Finally, our findings suggest that instruction should begin with the most frequent and central members of modal constructions. These members are often more frequent, more stable and more prototypical in terms of the meanings they express, and therefore more learnable. Essentially, construction learning is inductive learning as Taylor (2002, p. 27) suggested, "a good deal of a person's language knowledge may consist in rather specific, low-level knowledge, not far removed, in terms of abstractness (i.e., schematicity), from actually encountered expressions." As numerous studies demonstrate, the slots of constructions are quite often dominated by just a few members, which play an important role in the generalization of their mother constructions and seed the development of their sister constructions. Learning will be optimized and memory load will be reduced with a focus on the central members in the initial stage of pedagogical implementation.



DOI:10.6814/NCCU202101439

## Limitations of the Study

A construction is the pairing of a meaning with a form. A construction is interpreted holistically without making further distinction between all types of meanings such as semantic or pragmatic meaning or forms such as syntax or lexis. The definition allows us the convenience of placing all language phenomena on the same line for study, from idiosyncratic idioms to general rules. However, a natural consequence of the approach is for us to ignore any difference between different kinds of meanings even if there is sign. For instance, our discussion of [we can do this] and its frequent contexts of occurrence clearly shows a divide in terms of its semantic and pragmatic input. The core meaning of this construction is WE HAVE THE ABILITY TO, but it often happens when there is less certainty about a prospect in the future. If this is the issue with the lower level constructions, whose meanings and functions are already relatively observable and transparent, it is more so with the more schematic constructions, whose meanings are believed to be grossed and contributed by numerous daughters or granddaughters. More research needs to be done to spell out more clearly the contribution of various types of meanings and the connection between specific constructions and more schematic ones.

While our first limitation concerns the characterization of constructions, the second limitation regards the identification of these theoretical entities. In our study, we gain access to modal constructions by establishing their collocational profiles with the help of Log Ratio statistics that measures the tendency for these linguistics items to go together. This is observation by frequency effect; however, other factors may also come into play in the formation of constructions such as perceptual, prosodic, or conceptual salience or functional purposes. Studies like these may explain why some constructions are fewer than their sister constructions but are much more significant to the family.



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These questions remain to be answered and further explored.

In general, the present study has identified more detailed and comprehensive information of central members of *can*, *could*, *may* and *might* constructions. Nevertheless, the limited scope did not allow us to explore other important members in the modal construction hierarchy. For instance, [you can do+*] or [you could have+*] should receive our attention because they are no less important than [we can do+*] or [we could have+*] to the *can* or *could* family suggested by their Log Ratio scores. Also, comparisons of sister constructions such as [we can do+*] and [you can do+*] may provide important insights into the organization of modal hierarchy as well as the dynamics of communication. Current discussion tends to ignore peripheral members or peripheral meanings of modal constructions. However, they are also part of the characteristics of the more schematic constructions, so their contribution is a topic worthy of future investigation. Moreover, these peripheral constructions are important targets for the study of meaning extension because they often occur in particular contexts and may give clues to processes of inferencing that underline interpersonal communication. Inclusion of the information may allow us to uncover and represent modal constructions more comprehensively.



## Directions for Future Research

The constructionist perspective on modality has helped us identify and distinguish central members of weak-modal constructions. The approach may be adopted to the distinction of weak (e.g., *can* and *may*) versus strong modality (e.g., *must* and *have to*) or among members that express similar modality (e.g., *must*, *should*, *have to*, and *need to*). Moreover, similar and significant constructions that only vary in terms of the modal verb that fill the slot of the constructions such as [may I] versus [can I], [might as well]



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versus [may as well] or [can you] versus [could you] can be studied to provide a more comprehensive understanding of the modal hierarchy and substance of human interaction and communication.

Constructions are conventional form-function pairings, which suggests that their representation varies among different languages. It can be expected that L2 learners may be prone to transfer constructions from their L1 when learning another language. Various studies have uncovered the discrepancy between the native speakers' and non-native speakers' use of modals (Aijmer, 2002; Deshors & Gries, 2014; Mitkovska, Bužarovska, & Kusevska, 2014; Neff, Martinez, & Rica, 2001) or modal constructions (Anthonissen & Mortelmans, 2016; Tsai, 2018). In her examination of modal use in Taiwanese senior high school students' compositions, Chang (2003) discussed the learners' problem with modal meanings shown in the following example (p. 18).

(5.1) 只要我 看到 它, 我就會 變得比較快樂

Zhih yiao wuo kan dao ta, wuo jiu hui bian de bi jiao kuai le

As long as I see it, I will become happier.

As long as I see it, I **will** become happier.

The example is presented in four lines. The first line shows the Chinese characters. The second line is a transcription of the characters in Hanyu Pinyin with the indication of tones. The third line is the gloss of each character and the fourth is the free translation of the whole sentence. In Chinese, *hui* is often associated with English modal *can* in direct translation. While both words denote 'ability', Chinese *hui* is also used to indicate epistemic 'future' (Li & Thompson, 1981). By treating *hui* and *can* as equivalents, students may mistake English *can* as *will* to indicate prediction. In Chang's study, the students were found to overuse certain modal verbs in places where other modal verbs



DOI:10.6814/NCCU202101439

were preferred. For instance, the students tended to ignore the volition and prediction sense of *will* and *would* and they often failed to recognize the possibility reading in *can* and *could*. Of course, the discussion of modal meanings should not be restricted to individual modals as argued by the current study. Currently, however, there has been little research on Taiwanese learners' use of English modal constructions. Similar studies may provide important information to specific areas of difficulty that most require attention and instruction.

In the constructionist approach, the learners' difficulty with L2 is considered rational because it is assumed that the learners' mental models have adapted to the constructions of their native language (Ellis & Cadierno, 2009). Contrastive studies between the learners' modal constructions in their native language and L2 will provide valuable descriptions regarding not only the types of form-meaning relationship but a glimpse into the different ways that different languages conceptualize the world.

Future research may also compare and contrast the performance of modal constructions in spoken versus written corpora to understand how constructions are flexibly adapted to the purpose of their use. Furthermore, because modality encodes the users' attitudes or opinions like judgment, assessment or intention, studies on modal constructions across different disciplines such as theater, academia, business or politics may uncover important linguistic characteristics that establish the disciplines.



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