

The Development of the Copulative  
Perception Verb Construction in English:  
A Corpus-based Approach

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# Chapter 1

## Introduction

### 1.1 The Aim and Scope of the Current Study

#### 1.1.1 The Characterization of the Copulative Perception Verb Construction

This dissertation aims to examine the diachronic development of an English construction called the *Copulative Perception Verb Construction* (hereafter, the CPVC) in English. The following list includes typical examples of the construction (Taniguchi 1997:270-1):

- (1) a. John looks happy.

- b. That sounds reasonable.
- c. This flower smells sweet.
- d. The cake tastes good.
- e. The cloth feels soft.

For this dissertation, following Taniguchi (1997), verbs in this construction will be called *Copulative Perception Verbs* (hereafter, CPVs) <sup>1</sup>. As its name indicates, the CPV construction can be regarded as a particular type of copulative construction such as *be* in that it is composed of three components that are formulized as *[Subject Verb Complement]*. As the examples above illustrate, the CPVC is characterized in term of both form and function. First, the subject refers to the percept, the object of perception, rather than the perceiver. For example, the grammatical subject of (1a), *John*, is the person seen by the speaker. In this respect, the construction is similar to a passive sentence (e.g. *John was seen by Mary*) although it is not marked morphologically. Significantly, the verb form is identical to that of an active sentence, that is, *look* but not *be looked at (by)*.

Second, the verb typically refers to physical perception. The most typical verbs

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<sup>1</sup>The CPVs have been called various names. Among them are *Psycho-Movement Verbs* in Postal (1970, 1971), *Flip Verbs* in Rogers (1971, 1972, 1974b,a), *Verbs of Seeming* in Quirk et al. (1985), *Source-based Copulative (State)* in Viberg (1983), *Stimulus-based Perception Verbs* in Kemmer (1993), *Stimulus Subject Perception Verbs* in Levin (1993), *Copulative Perception Verbs* in Taniguchi (1997), *Object-oriented (Evidential) Perception Verbs* in Whitt (2009, 2010, 2011b), *SOUND-Class Verbs* in Gisborne (1996, 2000), Gisborne and Holmes (2007), Gisborne (2010).

collocated with the construction are *look, sound, smell, taste, feel*. They denote the source of evidence, in technical terms, evidentiality, for the information that the speaker attempts to communicate through the remainder of the sentence. For example, (1a) roughly means that the speaker judges, based on John's appearance, that he is sick. As shown in Chapter 2, the construction takes more verbs, in addition to these five examples, as extended cases, including *test* in *John tested positive*.

Third, the complement is formally adjectival. Functionally, it prototypically describes some property or state of the referent of the grammatical subject. *Happy* in (1a) refers to John's temporal state of being happy.

Fourth, the CPVC often does not merely describe a situation, but it also additionally implies a subjective judgment made by the speaker about the situation, basing this on information derived from physical perception. In other words, the construction has an epistemic modal meaning. For example, in (1a), the speaker subjectively makes a judgment about the state of the grammatical subject based on visual evidence and additionally softens his/her assertion of it by pointing to the evidence. The modal meaning can be made explicit because of the fact that the sentence can be cancelled with *be* as follows:

- (2) John looked happy, but he wasn't.

In this sense, the construction is similar to other modal verbs such as *seem* and *appear*. As shown in the following chapters, the CPVs also share formal properties with *seem* and *appear*.

### **1.1.2 The Motivation of the Research Project**

The primary motivation of this thesis derives from a simple assessment: the CPVC seems far more complex than the characteristics mentioned above solely explain. Although prototypical cases of CPVC share these characteristics, the construction comprises more varieties and ongoing developments.

In the current section, let us take a brief look at extended and seemingly irregular cases. First, the grammatical subject does not always refer to the percept or the object of perception. For example, the construction can take expletive *it* as the grammatical subject. The construction does not have any referent by definition, in the sense that it merely fulfills a formal requirement of Present-day English that every sentence must have a grammatical subject except in such cases as the imperative. Thus, the referent of expletive *it* can be neither perceived nor recognized and, therefore, it cannot be the object of perception.

- (3) a. Just checked BBC and it looks fine tomorrow and Saturday.

(<https://www.readytogo.net/smb/threads/>

weather-warning-for-saturday.743640/)

- b. It means – it sounds like he’s going to be a senator.

(COCA, 2017, SPOK, CBS: Face The Nation)

Second, the verb is often not one of the perception verbs nor does it necessarily refer to perception gain evidence. Some of these cases seem to be extended cases of the CPVC. Like perception verbs, verbs in this category denote an activity for gathering information.

- (4) a. But, yeah, I tested positive.

(COCA, 2017, SPOK, NPR: Fresh Air)

- b. This wine drinks smooth all the way through, and the finish, once again, shows loads of apple. (<http://beausbarrelroom.blogspot.com/2011/04/tasting-ceja-vineyards-wines-pinot-noir.html>)

Third, the complement does not always appear in the CPVC. To illustrate, the following examples do not explicitly have formal complements. Instead, they function as adverbials that add the speaker’s attitude to the core meaning of the utterance based on the speaker’s perception.

- (5) a. Got a bit of Elf in you, too, it looks.

(COCA, 1992, FIC, BkSF:NonetoAccompany)

- b. Not the an – there’s no – there’s no magic pill, it sounds.

(COCA, 1998, SPOK, CBS\_SatMorn)

In (5a), the speaker softens his or her assertion about the property of the interlocuter by adding *it looks*. Likewise, in (5b), *it sounds* refers to the evidence the speaker attained and, with it, he or she attenuates the assertive power of the rest of the sentence.

Fourth, the construction as a whole does not always show a subjective judgment. As the following examples indicate, it may not show any subjective attitude but may rather describe a simple situation<sup>2</sup>.

- (6) a. Your skin looks beautiful.

(COCA, 2014, SPOK, NBC: Today Show)

- b. The music sounds great!

(COCA, 2000, NEWS, Houston)

This non-epistemic usage occurs when more than one element of the construction (i.e. the subject, the verb, the adjectival complement) refer to the same sensory modality. For example, in (6a), the verb *look* and *beautiful* are both relevant to visual perception.

All of these irregularities suggest that CPVC forms a radiational category based

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<sup>2</sup>This type of the CPVC is referred to as *attributive use* in Gisborne (2010).



on family resemblance. Where does this complexity in the construction derive? This research hypothesizes that the answer is diachrony. Specifically, the complex structure of CPVC stems from the accumulation of gradual and local developments rather than systematic ones. This idea is consistent with the Usage-based model (Lan 1987, Langacker 1988, Barlow and Kemmer 2000, Croft and Cruse 2004). More concretely, the construction has gradually obtained subcategories and irregularities over time.

Let us take the most salient sense of perception among the five senses: visual perception. This is the dominant source of information on the outer world for human beings. Since verbs of visual perception such as *see* have been frequently used in a wide range of contexts, they encompass many developed and abstract senses with many complement patterns. For example, *see* means understanding with *that*-clause such as *I see that John is a nice guy*.

The recent development of the CPVC has not been satisfactorily researched previously. Nevertheless, some excellent studies have focused on the general history of the construction, such as Taniguchi (1997), Gisborne and Holmes (2007) and Whitt (2010), and these will be reviewed in Chapter 3.

However, relevant phenomena in Present-day English require further study. The research questions in this study are as follows:

- (7) How has the copulative perception verb construction developed in Present-day English?

This paper will attempt to describe and explain three specific developments of the CPV construction. Each research question can be formalized as follows:

- (8) How have clausal complements introduced by *as if*, *as though*, and *like* developed in the CPVC?
- (9) How have the CPVC developed into comment clauses?
- (10) How have the CPVC developed to take the *that*-clause as their complement?

Here are relevant data one by one.

- (11) a. Pierre's daughter looks as if she is going to cry, it is so hot.

(COHA, 2000, FIC, Hush in This Heat)

- b. C-HILLIS: I had a beer. I can remember having a beer.

MORIARTY: So, it sounds like, at least initially, the conversation was civil.

C-HILLIS: It was initially civil.

(COCA: SPOK: CBS\_48Hours)

c. It looks to me that Nathan Bedford Forrest was a military genius.

(COCA, SPOK, CNN\_Cooper, 2011)

All of these need to be explained through research. This research will address these questions with corpora data.

## **1.2 The Position of the CPVC**

This section will define the object of this research, the copulative perception verbs construction. In the next section, the research commences with characterizing the structure of perception events in terms of participants. Next, perception verbs are classified typologically into three categories: active perception verbs, experiencer-based perception verbs, and source-based perception verbs. The CPVC belongs to the third category: source-based perception verbs.

### **1.2.1 Perception events**

#### **Participants**

As their name indicates, perception verbs denote perception events. In the perception events, there are usually three participants: the perceiver, the perceived object (or percept in Quirk et al. (1985)), and the stimulus. They can be subdivided ac-

ording to their characteristics into the following categories:

1. the perceiver or the experiencer
2. the perceived object (percept) or the source of the stimulus
3. the stimulus

First, the perceiver is defined here as an intentional agent who takes a perceptive action with one of the senses. In this sense, the perceiver role is a special type of actor role. For example, the subject of *look*, an active verb, is given the role of the perceiver.

Second, the experiencer has a slightly different role from the perceiver. In this case, it does not matter whether there is an intentional act of perception.□ Instead, the experiencer is defined here as an animate being that recognizes the existence of an object. For example, the experiencer role is assigned to the subject of *see*. *See* is a verb that indicates that perception based on vision has been established regardless of whether a perceptual act has been performed. Moreover, the perceiver is at the same time the experiencer because she recognizes an object as a result of her intentional act of perception via one of the five senses.

Next, the perceived object, or the object of perception, and the stimulus role will be explained here. The perceived object is an object which is recognized

by the experiencer or which the perceiver attempts to recognize. The source is something that emits the stimulus. The perceived object is also the source because the perceived object is recognized by the experiencer by the stimulus it emits.

The stimulus is typically the independent object which moves from the source to the experiencer. When it reaches the experiencer, the perceiver recognizes the stimulus and, in many cases, the objects. In the olfactory event, the three participants are fully realized linguistically.

- (12) a. John smelled the meat.  
b. The meat gave out a bad smell.

In the two example sentences, it is clear to see which grammatical constituent plays one of the three semantic roles. The grammatical subject in (12a), *John*, is the perceiver or the experiencer in the designated perception event. The grammatical object, *the meat*, is the perceived object. In (12b), the grammatical subject, *the meat*, is the source, which emits the stimulus. *a bad smell* is the stimulus.

It should be noted that not all of the three participants are necessarily present in all of the five senses. For example, in the olfactory event, all of them can be recognized easily. On the other hand, in the sense of sight, the independent movement of the stimulus (i.e., light) from the object to the perceiver is not usually recognized although it is known to be true according to modern scientific knowledge.

Taniguchi (1997:277) demonstrates that only smell and sound are recognizable sources with the following test.

- (13) a. The smell reached me.  
b. The sound reached me.  
c. ?? The feeling reached me.  
d. ?? The taste reached me.  
e. ?? The sight reached me.

The other three senses lack an independent stimulus. It can be said that the difference stems from the characteristics of the five senses. The auditory and olfactory sense are distant perceptions in that there is space where the stimulus moves between the perceiver and the perceived object. On the other hand, in the sense of taste and touch, the perception occurs when the perceiver contacts the perceived object or vice versa. Therefore, there is no space between the two participants, where the independent stimulus exists and moves. For example, the perceiver feels the taste of food only when she/he puts it in her mouth. The perceiver feels the texture of something only when she/he touches it.

Moreover, in the visual sense, although it is a distant perception, it is challenging for human beings to recognize its path between the perceiver and the perceived

object.

### Bi-directional perception and uni-directional perception

Taniguchi (1997, 2005) argues that there are two subtypes of perception: bi-directional perception and uni-directional perception. She illustrates the difference with the following diagram.

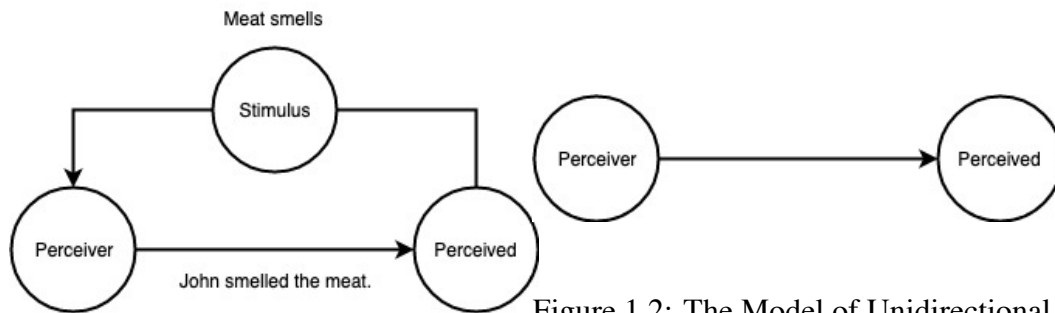


Figure 1.2: The Model of Unidirectional Perception

Figure 1.1: The Model of Bidirectional Perception

Taniguchi refers to this as the bi-directional model of perception. According to Kemmer (1993:136-7), some perception verbs, such as *smell*, can take two syntactic frames. One syntactic frame will be called the *experiencer-based frame*, as in (14a), in which the experiencer is taken as the grammatical subject. The other will be called the *source-based frame*, as in (14b), in which the perceived object is taken as the grammatical subject. Consider the following case:

- (14) a. John smelled the meat. [EB]  
b. Meat smells. [SB]

According to Taniguchi (1997), each of the two different syntactic frames represents a different imaginary path from one participant to another. In bi-directional perception, there are two movements, real or imaginary (metaphorical). One movement is the perceiver's focus from the perceiver him/herself to the perceived object. The other movement is that of the stimulus from the perceived object to the source. On the other hand, in the uni-directional perception, there is only one direction: from the perceiver to the perceived object.

### **1.2.2 Linguistically prominent five senses**

This paper deals with the five senses: sight, hearing, smell, taste and touch. The reason why the study focuses on the five senses is that they are most prominently linguistically realized. For example, each of them has a different verb in English: *look* for sight, *listen* for hearing, *smell* for smell, *taste* for taste and *feel* for touch. Other senses, such as temperature, are often expressed extensively by using some expression for one of the abovementioned five senses.



## 1.3 The Typology of Perception Verbs

At least since Rogers (1971), it has been widely accepted that English perception verbs are classified as three subtypes (Rogers 1971, Viberg 1983, Quirk et al. 1985, Declerck 1991, Kemmer 1993, Levin 1993, Biber et al. 1999, Huddleston et al. 1988, Whitt 2010). Although these studies employ slightly different terminology, the present paper uses the following terms:

1. active perception verbs (e.g. *look, listen, smell, taste, feel*)
2. experiencer perception verbs (e.g. *see, hear, smell, taste, feel*)
3. copulative perception verbs (e.g. *look, sound, smell, taste, feel*)

This classification is based on two criteria: Aktionarts and the semantic role of the subject. Active perception verbs are, as their name indicates, active verbs in terms of subject.

### 1.3.1 Viberg (1983)

Viberg (1983:125) also classifies perception verbs into three subcategories from a typological point of view: Activity, Experiencer-based (state/inchoative), and Source-based Copulative (state). For example, there are three different perception verbs in the system, as follows:

- (15) a. Peter looked/was looking at the birds. (Activity)
- b. Peter saw the birds. (Experiencer-based)
- c. Peter looked happy. (Source-based Copulative)

The other four sense modalities have the same distinction (e.g. *listen, hear, sound* in the sense of hearing). This thesis adopts this distinction and focuses on the third subcategory.

### **1.3.2 Kemmer (1993)**

Kemmer (1993) also argues that perception verbs are similarly classified similarly, into two subcategories according to the selection of the grammatical subject. One subcategory is that of experiencer-based perception verbs, in which the experiencer is taken as the grammatical subject in the clause. The other subcategory is that of stimulus-based perception verbs, in which stimulus or initiator serve as the grammatical subject. The initiator is defined here as the source of the stimulus. Let us consider the following pair of examples of each of the two categories below Kemmer (1993:136).

- (16) a. I smell Garlic. [Experiencer-based]
- b. Garlic smells good. [Stimulus-based]

In the first example, the grammatical subject, *I*, refers to the speaker as the experiencer. In contrast, the second example shows that *smell* takes the initiator, *garlic*, as its grammatical subject because garlic emits a strong smell. As shown in the second example, in her classification, the CPVC is classified as a subcategory of stimulus-based perception verbs because it typically takes the initiator as its grammatical subject.

## **1.4 The Organization**

This dissertation is made up of eight chapters, including the introduction and conclusion, and it is organized as follows. Chapter 1 sets the scene, introducing the main research question of this study and its significance. Chapter 2 describes the synchronic characteristics of the copulative perception of verb construction. It shows that the construction is not monolithic but rather contains numerous subcategories. It further argues that the complex structure can be described in terms of rational category based on the family resemblance, as is proposed in cognitive linguistics. Chapter 3 critically reviews the existing literature on the CPVC and indicates the gaps needing to be filled. Chapter 4 presents the theoretical framework, explaining the technical terms employed in this paper. This paper adopts

an eclectic approach, employing theoretical and methodological tools from various disciplines, including grammaticalization, cognitive linguistics, and corpus linguistics.

Chapter 5-7 are case studies. Chapter 5 focuses on the development of the CPVC with *as if/as though*, and *like* clauses in contemporary English. This chapter will show that the relationship between CPVs and verbs of seeming have been different according to complementizers. It is argued that these two verbal categories have been increasingly fused based on their similarities. They are forming a unified category. Chapter 6 explores the further development of the CPVC into a comment clause from the viewpoint of grammaticalization, especially in the case of *look* and *sound*, with *like*-clauses. They are changing from the main clause to an adverbial position. They have been undergoing semantic bleaching and semantic generalization, expanding their collocations and contexts. They are becoming further separated from their subordinate clauses. Chapter 7 examines the emerging use of the CPVC with *that* clauses. Although this use has not been a focus of previous research and has sometimes been judged as ungrammatical, its frequency has been increasing in Present-day English, as the sample here shows. Chapter 8 presents the overall conclusions and future perspectives.

## **Chapter 2**

# **The Synchronic Description of the Copulative Perception Verb Construction**

### **2.1 The Purpose of This Chapter**

This chapter describes the *copulative perception verb construction* from a synchronic point of view, arguing both that it serves as a prototype category with subcategories based on prototypicality and family resemblance, as proposed in cognitive linguistics (Lakoff 1987) and that it shows family resemblance (Tay-

lor 2003). A radial category, it cannot be defined by any necessary or sufficient conditions.

Moreover, the present chapter argues that the complex network shown by CPVC derives from the fact that it has undergone diachronic developments through its interaction with its contexts. In other words, there have been over time small, local changes, which only affect part of the network, but few systemic changes actually have had an impact on the whole category. This idea of the accumulation of small, gradual changes is consistent with the usage-based approach to language that was first proposed by Langacker (1988) and that was later adopted in diachronic construction grammar (Barðdal and Gildea 2015, Traugott and Trousdale 2013a).

## **2.2 Prototype Categories**

Research in cognitive linguistics, following the seminal work of Elenor Rosch, has studied prototype categories extensively.

Prototype categories are best characterized by comparing them with classical categories, which are defined in terms of necessary and sufficient conditions. Classical categories have two characteristics. First, their boundaries are delimited because they are defined in terms of necessary and sufficient conditions. Second,

members of a category have an equal status in that category. Technical terms frequently show these characteristics. An example of this is seen in the category of odd numbers (e.g. 1, 3, 5). The category is defined by the fact that its members “cannot be divided exactly by the number two” (*OALD8*). This simple definition is a sufficient condition without any exceptions. The boundary between odd numbers and even numbers is absolutely clear. Moreover, the membership of each member is precisely equal; it would be unnatural to say, for example, that one is a more authentic odd number than three.

Prototype categories are, on the other hand, diametrically opposite to the classical categories. They have three significant characteristics. First, the boundaries in prototype categories are often indistinct and unable to be defined with necessary and sufficient conditions. For example, Labov (1973) conducted a famous psychological experiment on the distinction between the cup and the bowl, revealing that the boundary between the two categories are blurry rather than distinct, forming the continuum or cline according to such criteria as size, depth and width.

Second, many—if not all—prototype categories also demonstrate family resemblance among its members. When a category shows family resemblance, no features are shared by all the members of the category. Instead, features are common only among some of the members. Rosch and Mervis (1975:575) defines a

category with family resemblance as one in which “each item has at least one, and probably several, elements in common with one or more other items, but few, if any, elements are common to all items.”

Third, in prototype categories, some members are more typical than others. Let us take the category of birds as an example. Robins, pigeons, and sparrows are considered as more typical than penguins or ostriches. The birds are closely related to the daily lives of many English speakers. English speakers frequently see robins, pigeons, and sparrows both directly, as in the park, and indirectly, as in tales or stories. These birds also define common features of birds as a category. They have beaks and feathers, they can fly and bear eggs, and so on. Penguins and ostriches, atypical members, are rarely seen in most English-speaking areas. They lack some of the features which birds usually display, or they have extra characteristics which prototypical members do not have. For example, penguins cannot fly (lack of a feature) but can swim (extra feature). Ostriches cannot fly (lack of a feature) but can run fast (extra feature). Ostriches are also extraordinarily large in size (extra feature).

Prototype categories are not only semantic categories about the world, as in the bird categories, but they are also linguistic categories such as grammatical categories (Taylor 2003). Bybee (2015:196-7) observes that prototype categories



show the following four characteristics:

- (1) a. Prototype categories exhibit degrees of typicality; not every member is equally representative of the category.
- b. Not all members of a category share all features with other members.
- c. It is sometimes said that prototypical categories can be blurred around the edges.
- d. Finally, the defining features of prototypical categories cannot be merely a single set of criteria (necessary and sufficient attributes).

The rest of the chapter shows that CPVC fulfills each of the four characteristics above.

## **2.3 Prototypes of the CPVC**

### **2.3.1 The Percept as the Subject**

One of the most salient characteristics of CPVC is subject selection. The construction takes the object as the grammatical subject. In the event of perception, the perceiver is usually more salient than the object of perception, making the

former the most likely candidate for the grammatical subject, and such cases can make the selection seem somewhat strange. Usually, in order to change the order of alignment, some grammatical means is required. For example, passivization promotes the object of perception from the object position to the subject position and demotes the perceiver from the subject position to an adjunct *by*-phrase position. However, this construction does not have any formal modification like the passive construction.

- (2) a. John saw Mary yesterday.
- b. Mary was seen by John yesterday.

Some studies have pointed out that CPVC is similar and relevant to a middle construction in that each is a marked construction. They are both formally active and semantically passive (Taniguchi 1997, Honda 2005).

This marked alignment has been explained in terms of the operation of saliency. In a default setting, the perceiver is generic Jackendoff (2007).

### **2.3.2 Perception Verbs as Stative verbs**

The second characteristic of CPVC is that the construction as a whole is a non-intentional stative predicate although verbs in it also use active predicates.

- (3) a. Celine first looked at John when she entered the room. (Active)  
b. John looks happy. (Stative (= CPVC))

The non-intentionality is made clear through the fact that the construction cannot be collocated with adverbs such *carefully*, *deliberately* and *attentively*, all of which refer to intention.

- (4) a. John looks happy.  
b. Joan doesn't sound angry.
- (5) a. # John carefully looks happy.  
b. # Joan carefully doesn't sound angry.

Semantically, the verb phrase of the construction refers to some property of the referent of the grammatical subject.

### 2.3.3 Adjective as Obligatory Predicative Complement

The third characteristics of CPVC is that the construction has an obligatory, post-verbal complement, as exemplified in Taniguchi (1997:272).

- (6) a. \* John looks (John cannot be the perceptual object).  
b. \* That sounds.

## 2.4 Gradience of the Subject, the Verb, and the Complement

Regarding CPVs in general, Taniguchi (1997:270-1) provides typical examples:

- (7) a. John looks happy. (Sight)  
b. This sounds reasonable. (Hearing)  
c. This flower smells sweet. (Smell)  
d. This cake tastes good. (Taste)  
e. This cloth feels soft. (Touch)

Such examples have been the focus of numerous studies, among them Rogers (1971, 1972, 1974b), Asudeh (2002), Taniguchi (1994, 2005), Gisborne (1993, 1998, 2000), Gisborne and Holmes (2007), Gisborne (2010), Whitt (2009, 2010, 2011a,b, 2014, 2018). These constructions characteristically take an adjectival complement to denote some property of the subject referent as well as other copulative predicates such as *be* and *seem*. Following Taniguchi (1997), this work shall refer to them as *Copulative Perception Verbs* (CPV).

In addition to taking adjectives as their complements, as in (8), they have come to take clausal complements headed by *as if* (*though*) and *like* in Modern English as exemplified in (9).

- (8) a. John looks happy. (Sight)  
 b. This sounds reasonable. (Hearing)  
 c. This flower smells sweet. (Smell)  
 d. This cake tastes good. (Taste)  
 e. This cloth feels soft. (Touch)
- (9) a. John {seems/looks/sounds} as if he's seen a ghost.  
 (Taniguchi 2005:245)  
 b. It {seems/looks} like/as though Peter has gone home.  
 (Gisborne 2010:276)

This pair shows that in addition to fully referential subjects such as *John* in (??), these constructions can take the expletive subject *it* in (9b). This subject alignment is of considerable interest. CPVs do not express a perception, but the speaker draws the only inference.

### 2.4.1 Subtypes of the CPVC subject

Before going into the theoretical aspect, it should be noted that the CPVC has three subtypes: the control type, the raised type, the attributory type. This classification was first proposed in Gisborne (2010:Ch.7). The criteria for the classification are

as follows:

1. Whether or not the verb assigns a *-role*. More concretely speaking, is the *perceived* role given to the grammatical subject?
2. Whether or not there is evidentiality in its semantics.
3. Whether or not the verb and the complement form a complex predicate.

On the other hand, the raised type of pattern does not have the same implication. The referent of the grammatical subject is not necessarily perceived by the perceiver. Consider the following examples:

The second criterion is used in a manner similar to the attributory use among the three subtypes.

### **The Control Type: Evidential-1**

The first criterion distinguishes the raised type from the other two types. In the control pattern, the grammatical subject is given the perceived role by the verb. In other words, the referent of the grammatical subject is perceived in a sense designated by the verb. The following examples from Rogers (1972:306) illustrate this point:

- (10) a. Harry looked drunk to me.

- b. I saw Harry.

(10b) is the presupposition of both sentences (10a). In other words, the first sentence, (10a) implies that the speaker saw the referent of the grammatical subject, Harry, and received visual evidence for or against Harry's drunkenness. Moreover, the presuppositional relationship can be demonstrated by the fact that the content of (10b) cannot be denied by simple negation with *not*, as seen below:

- (11) Harry didn't look drunk to me.

Although *not* denies the proposition that Harry seems to the speaker to be drunk, it cannot deny the fact that the speaker saw Harry. This implicational relationship is the most salient characteristic of the control type.

The control type is the first of these subtypes. In the control type, the subject is assigned a *-role* by the verb. In other words, the referent of the subject is evaluated as well as perceived. The examples are as follows (Gisborne 2010:245):

- (12) a. He sounds foreign.  
b. He looks ill.  
c. The fabric feels old.  
d. The wine smells delicious.  
e. The food tastes fantastic.

Gisborne (2010:246) argues that the control type can be paraphrased by *to judge by* because it has evidentiality in its semantics, as follows:

- (13) a. To judge by his sound, he is foreign.  
b. To judge by his look/appearance, he is ill.  
c. To judge by its feel, the fabric is old.  
d. To judge by its smell, the wine is delicious.  
e. To judge by its taste, the food is fantastic.

### **The Raised Type: Evidential-2**

The second evidential type is called the raised type, in which the grammatical subject is not assigned a *-role* by the verb. In other words, the referent of the subject is not perceived. Some examples are as follows (Gisborne 2010:245):

- (14) a. (I've seen the forecast and) tomorrow's weather looks fine.  
b. (I've heard the forecast and) tomorrow's weather sounds fine.

These phrases are unambiguously examples of the raised pattern because the referent of the grammatical subject in each of the sentences cannot be perceived. That is, the referent of the grammatical subject, *tomorrow's weather*, cannot be directly perceived via the senses; hence, it cannot function as evidence for the



proposition that the rest of the sentence expresses. Instead, the evidence on which the speaker makes an assertion is *the (weather) forecast*, which is not linguistically realized. This can be shown by the test that uses the phrase *to judge by*.

(15) # To judge by tomorrow's weather, it looks fine.

This sentence is pragmatically analogous unless the speaker is a time tripper who can travel to the next day, see the weather, and return to the original day. This sentence shows that the grammatical subject in the raised pattern does not have any *-role* assigned by the verb.

Another illustration of the difference between the raised pattern and the control pattern derives from the fact that CPVC takes a dummy subject *it*, which cannot by definition be assigned any *-role*. Therefore, it cannot be assigned the perceived role by the verb.

(16) a. It looks like/as though Peter has gone home.

(Gisborne 2010: 276)

b. It means – it sounds like he's going to be a senator.

(COCA, 2017, SPOK, CBS: Face The Nation)

As a minor complementizer, *that* also takes the dummy subject *it*.

- (17) a. And, I mean, you look at this tape, and it looks that this man is being – not being subdued. He’s being battered. (COCA, SPOK, Fox\_Saturday, 2005)
- b. I haven’t had a chance to read the fine print, but it sounds to me that we’re essentially back where we were yesterday. (COCA, SPOK, CNN\_King, 1999)

This raised pattern, or evidential-2 use in Gisborne’s term, also take dummy element *there* as the subject. There are two subtypes of complementation: *to*-infinitive and *like*-clause.

- (18) a. Papa doesn’t have but one shot, and there looks to be a half dozen of them.  
(COCA, 2015, FIC, Bk:DestinyTexas)
- b. There looks to be an opening in the cliffs where we can shelter for the night.  
(COCA, 2002, FIC, Bk:ValhallaRising)
- c. There looks to be more than enough healthy skin to close the girls!  
(COCA, 2001, SPOK, CBS\_48Hours)
- d. There looks like there is going to be a riot.

(Richard 1972: 307)

Although the number is much smaller than *look*, we can find cases of *sound*.  
Just like *look*, *there sound* take *to*-infinitive and *like*-infinitive.

- (19) a. There sounds like there was a very cold side to her.

(COCA, 2008, SPOK, CBS\_48Hours)

- b. There sounds like there are two Ted Mahers!

(COCA, 2003, SPOK, CBS\_48Hours)

- c. Certainly in this latest solo odyssey there sounds to be a more confident stylistic consistency, and a finer cohesion between the different parts of the thematic continuum.

(2000, The Essential Jazz Records: Modernism to postmodernism)

- d. ... case where there sounds to be something rather obviously right about cultural relativism.

(2005, Truth: A Guide)

In sum, in this pattern, CPVs play a purely evidential role in the construction as a whole, while the grammatical subject does not need to refer to either the percept or the topic.

### **The Attributory Type**

The third type is the attributory type, which is defined not by the role but by the character of the verb phrase. The examples are as follows:

- (20) a. This music sounds lovely.
- b. Peter's face looks lived in.
- c. This cloth feels sticky.
- d. This food smells spicy.
- e. This food tastes rancid.

The most noticeable difference between the control and raised type of this construction is that this pattern does not have any evaluative meaning. As Gisborne (2010) indicates, the verbs in this pattern can be paraphrased with *be*, not *seem* as follows:

- (21) a. This music sounds lovely. = This music is lovely.
- b. Peter's face looks lived in. = Peter's face is lived in.
- c. This cloth feels sticky. = This cloth is sticky.
- d. This food smells spicy. = This food is spicy.
- e. This food tastes rancid. = This food is rancid.

It also does not have any cancellability, as follows:

- (22) a. ! This music sounds lovely, but it isn't.  
b. ! Peter's face looks lived in, but it isn't.  
c. ! This cloth feels sticky, but it isn't.  
d. ! This food smells spicy, but it isn't.  
e. ! This food tastes rancid, but it isn't.

Both of these factors indicate that this pattern does not derive any meaning through inference.

## **2.5 Verbs in the CPVC**

This section details the kind of verbs that can appear in CPVC.

### **2.5.1 Perception Verbs**

As the name indicates, CPVs are basically perception verbs. The first hypothesis can be stated as follows:

- (23) First hypothesis  
Perception verbs can appear in CPVC.

Of course, this hypothesis is unsupported. Two of the clearest counter examples are found in the verbs *see* and *hear*, which cannot appear in the construction.

- (24) a. John looks sick.  
b. \* John sees sick.  
c. The plan sounds reasonable.  
d. \* The plan hears reasonable.

Both of the examples, *look* and *see*, refer to visual perception, but there is a difference in acceptability. This difference stems from verbal qualities, or *Aktionarts*. While *look* is an active verb, *see* is a stative verb. It is notable that active verbs can appear in CPVC, and stative verbs cannot. This can be applied to the case of *hear*. The modified proposal is represented as follows:

- (25) Second hypothesis

Active perception verbs can appear in CPVC

However, this statement is not fully appropriate because all active perception verbs cannot necessarily appear in CPVC. For example, *Stare* refers to visual perception and is active in aspect but cannot appear in the construction as exemplified in the following phrases.

- (26) a. John looks sick.

- b. \* John stares sick.
- c. The plan sounds reasonable.
- d. \* The plan eavesdrops reasonable.

The difference between *look* and *stare* involves the existence of manner. Since *look* is the most basic verb of visual perception, it does not contain any additional meaning. On the other hand, *stare* has richer meaning and contains a sense of the manner of how the agent acts. This manner is clearly shown in the dictionary descriptions of these terms. For example, *Oxford Dictionary of English* defines *stare* as follows:

- (27) look fixedly or vacantly at someone or something with one's eyes wide open (s.v. *stare*)

*fixedly or vacantly* and *with one's eye's wide open* are manners of describing the agent. Thus, the third hypothesis regarding verb selection of CPVC is described as follows:

- (28) Third hypothesis
- Active perception verbs without the agent-oriented manner can appear in CPVC.

On the other hand, if a verb includes a manner that describes not the agent but

the object of perception, it is predicted that it will be acceptable in the construction. As an example, let us consider the verb *stink*, a verb of olfactory perception. The verb has a richer meaning than *smell*.

- (29) a. The garbage smells terrible.  
b. \*The garbage sniffs terrible.  
c. The garbage stinks terrible.
- (30) a. “Stinks,” says Russ. “Stinks terrible. A putrid god-awful unforgivable unforgettable stink that I can’t get out of my nostrils, my whole goddam head, whatever.

*(A Southern Exposure)*

- b. It smells — it stinks — bad!” Kate cried, and reverted to pinching her nose and fanning the air to be certain she understood.

*(River of Sky)*

## 2.5.2 Extended Cases

Gisborne (2010) argues that there are extensive cases in which verbs in this construction are used as action verbs.

Taniguchi (1997:294) also argues that active verbs are used in CPVC instead of



perception verbs because CPVC generalizes its meaning “to code a situation where the implied Experiencer evaluates some entity through her action, not limited to perceptual experience”(p.294). She offers examples with *read*, *touch*, *test* and *eats*, all of which have meaning that is interpretable as some activity to derive information about the object of the designated event.

- (31) a. Whose productions...read better than they act.

(1789, *Aristotle's Treatise on Poetry*. I, 254)

- b. Nothing can read more freely and easily than his present translation.

(1828, *Examiner*, 84/2)

- (32) a. We say this beast touches nicely upon its rib.

(1770-4, *A. Hunter, Georg. Ess.* IV, 575)

- b. They touch rough dusty rough, as books touch that have been lying unused.

(1885, *Jefferies, OpenAir*, 104)

- (33) a. He tested positive for HIV. Taniguchi (1997:296)

- b. The meat cuts tough.

(Horton 1996:329)

- c. The cake eats short and crisp.

(Horton 1996:329)

Although there are some cases online where active verbs are used in CPVC, all of the verbs refer to events. The most typical cases are found in advertisements or reviews mainly because the primary purpose of such material is to introduce some property of products, a purpose which is certainly compatible with the characteristics of CPVC.

- (34) a. It reads like you are in the room with the characters.

(<https://www.amazon.com/gp/customer-reviews/RSOGY5W463FNM?ASIN=1500754609>)

- b. With an 80s 2-ply thread count, it's still a durable fabric that wears soft rather than silky.

(<https://propercloth.com/fabrics/portuguese-navy-airtex-1957.html>)

- c. The wine drinks smooth and elegant with a pleasant long finish

(Chevel Yehuda Aminadov Reserve)

- d. It wears soft and lovely as a feminine scent.

(<http://www.luckyscent.com/product/30806/molecule-01-travel-spray-by-escentric-molecules>)

## 2.6 Complementation patterns

Gisborne (2010:243-4) shows that the CPVC takes many types of complementation patterns as follows.

- (35) a. Jane sounds nice. [adjective]  
b. Jane sounds a nice girl. [noun]  
c. Jane sounds like a nice girl.[prepositional phrase]  
d. Jane sounds like/as though she's a nice girl. [clause]  
e. Mr. Clark looks to have achieved the impossible. [to-infinitive]

In this sense, the CPVC has a similar function with the middle construction, and it is also used frequently in advertisements (Hundt 2007). The formal difference between the two constructions is in the types of complements they take. Generally speaking, CPVC takes adjectivals, and the middle construction takes adverbials. However, the distinction becomes blurred in relation to propositional complements because they can be used both adjectivally and adverbially. In this survey, some examples with a *like* clause were employed as follows:

- (36) a. This car rides like no other CRX and has got to be experienced to be believed.

(<http://findclassicars.com/honda/109187-buyers-choice-1-of-2-exceptional-1st-gen-crx-sis-1-stock-1-mugen-equipped.html>)

b.

*sound to infinitive*

Inoue (2018) conducted a survey of COCA and concluded that there is no authentic data of *sound* with a *to*-infinitive complementation pattern. However, although the number is quite small, a few of the examples can be found within the same corpus. For a practical reason, the present study searched this construction with [*sound*]. [*v\**] *to be/have*.

- (37) a. That is already established. We're there. There is a second level of responsibility in terms of, did they give this particular weapon system to the separate tests? The evidence on that sounds to be mount – as to be mounting. The Ukrainians are now claiming it.

(COCA, 2014, SPOK: CBS FACE THE NATION 10:30 AM EST)

- b. COOPER: That would be one thing if he was willing to even say something to Kim Jong-un about Kenneth Bae or anything else, but it sounds like he almost sounds to be accusing Kenneth Bae of

having done something wrong. TOOBIN: He is. (CROSSTALK)

ANDREW-SULLIVAN, A: It's an absolute disgrace.

(COCA, 2014, SPOK: AC 360 Later 10:00 PM EST)

- c. When they'd first moved here, she'd found the cacophony of smells and sounds to be overwhelming, but she had gotten to the point where she sometimes liked it. After a year, she'd felt like they might be safe here, and that helped.

(COCA, 2014, FIC: I see you)

- d. UNIDENTIFIED-MALE Was it all one voice or was it more than one voice? GOOD It sounded to be the same voice. UNIDENTIFIED-MALE And you are not able to identify that voice or are you able to identify it?

(COCA, 2013, SPOK: CNN NEWSROOM 10:00 AM EST)

- e. So you end up with a band such as the Punch Brothers - who sound to be a bluegrass band, what with the mandolin, acoustic guitar and banjo.

(COCA, 2012, NEWS: Houston Chronicle)

Many researchers have argued that one of the unique characteristics of CPVC is that it requires an obligatory post-verbal complement.

## 2.7 CPVs as Active Predicates

Gisborne (2010:265) reports that CPVs can be used as active predicates in terms of verbal aspects with an agent subject by using the progressive and adverb *deliberately*.

- (38) a. John is looking scary (to frighten off the boy she doesn't want to date).  
b. Jane is sounding angry (to hide the fact she's scared).  
c. Jane is deliberately looking scary.  
d. The teacher is deliberately sounding angry.

In this case, CPVs do not have the subjective interpretation. This is exemplified by the fact that *to*-phrases referring to the experiencer cannot appear in the active use as shown below:

- (39) a. Jane is deliberately looking scary (\*to me).  
b. Jane is looking scary (\*to me) to frighten off the boy she doesn't want to date.

## 2.8 Related Verbs and Constructions

In the linguistic framework of English, CPVC interrelates and interacts with other constructions.

### 2.8.1 *Seem and Appear*

The first construction explored here is the type containing verbs of seeming (i.e. *seem* and *appear*), exemplified as follows:

- (40) a. Yeah, that seems reasonable.

(TV, 2017, *You Me Her*)

- b. Well, the agreement appears reasonable, but ....

(TV, 2011, *The Closer*)

Here are some counterparts of CPVs.

- (41) a. That looks reasonable.

(Movie, 2008, *Little Mosque on the Prairie*)

- b. That sounds reasonable.

(TV, 2017, *Criminal Minds*)

This relationship between the verbs is based on the fact that they share numerous characteristics with the CPVs. According to Quirk et al. (1985), both of the

constructions are classified into the same subcategory of copula verbs. Gisborne and Holmes (2007) integrates these two verbal categories as one under the name of *evidential verbs of appearance*. In this article, *seem* and *appear* are termed as “the sensory-modality-neutral verbs of appearance” and the Copulative Perception Verbs as “the sense-organ-specific verbs.”

First, both of the verbal constructions have evidential and epistemically modal meanings. Let us consider evidentiality. Evidentiality refers to “the kind of justification for a factual claim which is available to the person making that claim” (Anderson 1986:274) or defined as “the linguistic means of indicating how the speaker obtained the information on which he bases an assertion” (Willett 1988:55).

Second, both of the verbs show epistemic modality. Epistemic modality involves the degree to which the speaker commits to the truth value of the proposition. Two facts exemplify the modality’s existence. First, by default, both of the verbal categories show the speaker’s attitude towards the proposition expressed in the rest of the sentence.

- (42) a. John looks happy.  
b. John sounds happy.  
c. John seems happy.  
d. John appears happy.



If necessary, the speaker is explicitly expressed with a to-phrase.

- (43) a. John looks happy to me.  
b. John seems happy to me.

Moreover, when the attitude does not belong to others but is experienced or interpreted by others, it is also expressed by to-phrase, as shown below.

- (44) a. - John looks happy to Mary.  
b. - John looks happy to Mary.

Second, the proposition can be cancelled by *be*, as shown below.

- (45) a. John looks happy, but he is not.  
b. John seems happy, but he is not.

Gisborne also argues that the evidential use of CPVs, sound class verbs in Gisborne's terms, can be paraphrased with *seem*.

Second, Third, Previous studies have intensively studied the relationship between the two verbal groups, arguing that CPVs have developed their complementation patterns based on the analogy with *seem* and *appear*.

## 2.8.2 The Middle Construction

The CPVC is also similar to the *Middle Construction* in several respects (Taniguchi 1994, Honda 2005). Some examples of the middle construction are presented below:

(46) a. Bureaucrats bribe easily.

(Keyser and Roeper 1984:381)

b. This meat cuts easily.

(ibids.)

c. This knife cuts well.

(ibids)

Just like the CPVC, the middle construction is made up of three constituents: subject, verb, and an obligatory post-verbal adverbial complement. The similarities can be summarized as follows:

1. Both of the constructions are used to describe some property of the subject.
2. Both constructions are pseudo-passives in that the subject refers not to the agent of the action described by the verb but to the patient/object.
3. Both constructions are stative in Aktionart even though verbs in these constructions are often used as active verbs.

4. Both constructions require an obligatory complement after the verb.
5. Both constructions contain an implicit argument.

The first similarity between the CPVC and the middle construction is that both of them are used to describe some property or characteristic of the subject. Let us take a look at the following examples:

- (47) a. The actress looks tired. ()
- b. The curry and rice today tasted really good. ()

In the first example, the speaker takes up the referent of the subject, *the actress*, and describes her visual quality. In the second example, the speaker comments on the quality of the food she has had. Both of the examples show that the speaker talks about the subjects and their property.

The same hold for the middle construction. Let us consider the following examples:

- (48) a. The book reads easily.
- b. The knife cuts well.

In the first example, the sentence is about *the book* and characterizes a property of the subject. That is, the speaker tries to describe how easy it is for him or for other people to read the book. The sentence in the second example introduces the quality of the knife, the grammatical subject. Because of this property, the middle construction is frequently used in advertisements (Hundt 2007).

Second, the CPVC and the Middle Construction are stative as a whole, if not entirely. Although they are verbs, they can refer to activity. For example, *look* is stative in the CPVC but at the same time active, illustrated in the following examples.

- (49) a. John looked tired yesterday. (CPVC as stative)  
b. I looked at John yesterday. (active)

In the first example, the verb is stative, and the sentence as a whole does not denote any action or event. On the other hand, the second example refers to an event that can be expected actually to happen at a specific time. The relationship between CPVs and equivalent active verbs can be supported with the paradigm of perception verbs aforementioned in 1.3. As shown in Viberg (1983), English perception verbs are classified, according to subject selection and verbal aspect, into three subcategories: activity, experience, and copulative.

Table 2.1: Three classifications of perception verbs based on Viberg (1983)

	activity	experience	copulative
sight	<i>look</i>	<i>see</i>	<i>look</i>
hearing	<i>listen</i>	<i>hear</i>	<i>sound</i>
smell	<i>smell</i>	<i>smell</i>	<i>smell</i>
taste	<i>taste</i>	<i>taste</i>	<i>taste</i>
touch	<i>feel</i>	<i>feel</i>	<i>feel</i>

The table shows that activity and copulative categories share verbs<sup>1</sup>.

On the other hand, experience verbs are never used in the CPVC. They are stative verbs in nature, precisely as copulative verbs.

- (50) a. \* John sees sick.  
 b. \* Mary hears sick.

The same holds in the case of the middle construction. Activity verbs, espe-

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<sup>1</sup>The only exception is in the case of hearing, in which the activity verb is *listen* and the copulative verb is *sound*. According to OED2 (1989), the CPVC with *listen* actually existed in the early 20th century as shown below:

- (1) a. That listened very well indeed, and we all climbed into a cabbage and vamped over.  
 (1908, K. McGaffey, *Sorrows of Show Girl* 78)  
 b. All is fair in love, war, and baseball except stealing signals dishonestly, which listens like another paradox.  
 (1912, C. Mathewson, *Pitching in a Pinch* vii. 143)  
 c. Here's where I slip it out...to help square the repair bill for my joy-ride. How does it listen to you?  
 (1923, R. D. Paine, *Comrades of Rolling Ocean* xiv. 250)  
 d. It don't listen reasonable to me.  
 (1923, L. J. Vance, *Baroque* xxvii. 174)  
 e. It has been suggested...that it listens well may be from es h?rt sich gut an.  
 (1945, *Mencken Amer. Lang. Suppl.* I. 317)

However, these constructions are almost extinct. It could be suggested that this use has been lexically blocked by *sound*, which is already established.

cially transitive verbs, are often used in the middle construction. Let us consider the following examples:

(51) a.

b.

On the other hand, stative or achievement verbs cannot occur in the construction, as exemplified below:

(52) a. \* French acquires easily. Keyser and Roeper (1984:383)

b. \* The arguments assume easily. (ibid.)

c. \* The answer knows easily. (ibid.)

d. \* The answer learns easily. (ibid.)

The stativity supports that both of the constructions are non-eventive in that they do not refer to any event at a particular time but instead refer to some property of the activity.

Third, both of the CPVC and the middle construction usually requires a post-verbal complement. If a CPVC does not have a complement, it shows degraded acceptability, as illustrated below.

(53) a. \* John looks. (John cannot be the perceptual object)

Taniguchi (1997:272)

- b. \* That sounds.

(ibid.)

The middle construction also requires a post-verbal complement, as indicated by Keyser and Roeper (1984:385) <sup>2</sup> :

- (54) a. \* Bureaucrats bribe.
- b. \* The wall paints.
- c. \* The chicken killed.
- d. \* The floor waxes.

The difference between the two constructions is its type of complement. The CPVC takes an adjectival, and the middle construction takes an adverbial. Diachronically speaking, the CPVC has occurred with adverbial complements (Taniguchi 1997, Gisborne 2000). Let us take a look at the following examples from Taniguchi (1997:283) :

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<sup>2</sup>The middle does not necessarily need a post-verbal complement if it is negated with negators such as *not* or *never*. This is in part because negation itself can characterize the subject as it does the complement.

- (1) a. The bureaucrats never bribe.
- b. Tomorrow never knows.

This fact suggests that the post-verbal complement is not a formal requirement but a functional one.

- (55) a. To call them a slip, would indeed sound strangely.

[1789T. Twining, Aristotle's Treatise on Poetry, 216: OED]

- b. The rags smelt unpleasantly.

[Anstey, Vive VersaXVI, 305: Visser 1963]

- c. His grace looks cheerfully and smooth.

[1594Shakespeare, Rich. III, III, iv, 50]

According to Honda (2005), both the CPVC and the Middle Construction have been motivated by the same psychological mechanism, and they form a continuum in term of complementation patterns. The CPVC prefers to take adjectival complements, and the middle construction favors adjectival ones.

## 2.9 Summary

This chapter has argued that the CPVC is a radiational category synchronically. In other words, the construction has a wide range of variations. Prototypically, the subject is assigned the *perceived* role by the verb. In peripheral cases, the subject is not given the *perceived* role by the verb, but it is made the object of evaluation by the construction as a whole. Recently, the subject is expletive *it*. CPVC are generally collocated with five perception verbs: *look*, *sound*, *smell*, *taste*, and *feel*.



However, more varieties of verbs such as *test* and *read* are collocated with CPVC, if they denote some action for information. Although the CPVC as a whole is usually stative, it is also active in cases with *look* and *sound*, denoting the subject's ability to give some impression to others through visual (e.g. facial expression) or auditory (e.g. language) cues.

The next question to be asked is how these variations have occurred diachronically, which is the main topic of this dissertation.

## **Chapter 3**

# **Literature Review and Research**

## **Questions**

In linguistics, Copulative Perception Verb Construction (CPVC) has been studied extensively and has inspired many research questions. In order to form the specific research questions considered in the following chapters, the present chapter will consider and critically review relevant previous literature, sorted by research topic.

In the history of linguistics, CPVC has been identified by many names.

## 3.1 On Subjects

### 3.1.1 The Perceived Object as a Grammatical Subject

Among the problems associated with CPVC, as Taniguchi (1997, 2005) points out, is how the perceived object can be the grammatical subject. Perception verbs usually take the perceiver or experiencer as their grammatical subject if no special mechanism (a passive construction, for example) is applied. Therefore, CPVC has been regarded as a marked construction and it has received special attention in the literature.

The earliest version of generative grammar (called transformational grammar (Chomsky 1957, 1965)), focused on how transformational rules should be posited in order to capture the relationship between two seemingly semantically equivalent sentences from a truth-value point of view. A typical example is the active-passive relationship.

In generative grammar, it is Rosenbaum (1965, 1967) who first tackled this question. He considered perception verbs in CPVC as a special type of verb with *Oblique Verb Phrase Complementation*, as exemplified below.

Although he himself admitted the solution did not solve the problem completely, Rosenbaum could capture the relationship between ordinary perception

verbs and their CPVC counterparts. He posited the following three rules sequentially applied to change the hypothetical starting phrase (i.e. *I taste the meat*) [*the meat*] [*be salty*]) into the generated structure (i.e., *the meat tastes salty to me*).

### **3.1.2 Non-Perceived Object as a Grammatical Subject of CPVC**

The previous subsection examined how CPVC is marked because the subject is the object of the perceived. However, this is not always the case.

## **3.2 On Aktionarts**

### **3.2.1 As Stative Predicates**

The second frequent question about CPVC concerns aktionarts. For example, although *look* can be used as an active predicate, it is used as an

## **3.3 Diachronic Development**

Research on the origin and development of CPVC is a recent enterprise.

### 3.3.1 Taniguchi (1997, 2005)

Taniguchi (1997) explores three intriguing syntactic properties of CPVC from a usage-based point of view.

1. Why is the percept (that which is perceived), not the perceiver, the grammatical subject in this construction?
2. Why does this construction require an obligatory adjectival complement?
3. Why does the construction imply the experiencer, typically the speaker?

#### **On the Percept Subject**

The first question is interesting, given the standard assumption in linguistics that the agent is favored as the grammatical subject over the percept if both of them are present in a scene. The second question asks what motivated the construction of a *be*-copula construction. The third question is about subjectivity. CPVC has a modal meaning and denotes the experiencer's evaluation. To each of the questions, Taniguchi offers a usage-based explanation, demonstrating that these seemingly contradictory characteristics can be explained by the gradual change of the construction.

The first question can be explained by analogy and extension. The CPVC

originated as a construction denoting an event of stimulus emission. The verbs typically used were sound and smell—a verb of sound emission and a verb of smell emission, respectively. At this stage, the source of stimulus is the grammatical subject.

In particular, smell represents what Taniguchi defines as a bi-directional perception, in which there are two possible paths. One is the movement of the olfactory stimulus from the source to the perceiver. In this path, the source of stimulus is the grammatical subject (as mentioned above). The other path is the activity from the perceiver to the source, in which the perceiver is the grammatical subject.

Once CPVC established the collocation with bi-directional verbs such as *smell*, it extended via analogy to what Taniguchi (1997) calls one-directional perception. Unlike the bi-directional perception, one-directional perception does not have a path from the source of stimulus to the perceiver. For example, *look* does not have a path because humans generally do not recognize light as an independent stimulus moving from the source to the perceiver (or his/her retina). Likewise, the senses of taste and of touch are based on direct physical contact and there is no physical distance between the stimulus and the perceiver.

However, at the level of linguistic expressions, these senses are quite similar, so as a process of analogy and levelling, even verbs of one-directional perception

appear in CPVC. By incorporating them, CPVC as a whole gradually lost the sense of stimulus emission, as bi-directional perception verbs became a minor element compared with one-directional perception verbs.

In sum, Taniguchi's answer to the first question is that the subject originates as the source of stimulus in bi-directional perception.

### **On the Obligatory Adjectival Complement**

Regarding her second question, Taniguchi offers a formal and functional motivation, arguing that CPVC appeared as a construction denoting stimulus emission. At this stage, CPVC was a type of intransitive construction and took an optional manner adverb. In Middle English this manner adverb shared a morphological form with its adjective counterpart which became a basis for reanalysis of the post-verbal element of CPVC from an adverbial adjunct to an adjectival complement.

Taniguchi also argues that there was an implication by which CPVC, which initially denoted an event, came to refer to the characteristics of the grammatical subject. That is, the manner of stimulus emission indirectly indexes the characteristics. Let us consider her example *this flower smells sweet(ly)*. The fact that the flower can emit a sweet smell (the way of emission) implies that the flower itself (or the stimulus from it) is sweet. In order to describe the feature of a thing,

an adjective is the most appropriate candidate. In sum, together with the formal coincidence, this implication motivated the post-verbal element of CPVC to become an adjectival complement. As a result, the construction as a whole changed its status from an intransitive construction of stimulus emission to a copulative construction denoting the characteristics of the subject.

### **On the Inherent Existence of the Experiencer**

Regarding the third question on the inherent existence of the experiencer, Taniguchi employs two mechanisms: a generic experiencer and subjectification. First, CPVC only has the generic experiencer implicitly. In cognitive grammar, it is generally assumed that the most salient element in a scene becomes the grammatical subject. It is also assumed that, other things being equal, the experiencer (agent) is more salient than the percept (object), following the tendency that human beings are likely to be more salient than objects. This is generally true. So, in order for the percept to be the grammatical subject of CPVC, the percept has to be more salient than the experiencer in some way. Taniguchi thus employs “a basic cognitive principle that may be summarized as follows: other things being equal, specific and concrete entities stand out more readily than general and abstract ones” (289). By this principle, a generic, abstract experiencer is degraded sufficiently to be less



salient than the percept. In other words, the experiencer is backgrounded to foreground the percept.

Second, Taniguchi employs the framework of subjectivity in construction grammar. In this framework, an expression is maximally subjective if it contains the speaker implicitly and requires his vantage point in order for its meaning to be understood comprehensively. Let us consider the following examples from Langacker (1990:17–21):

- (1) a. Vanessa jumped across the table.
- b. Vanessa is sitting across the table from Veronica.
- c. Vanessa is sitting across the table.

The difference between (a) and (b) is that of activity. The example in (a) represents an actual activity (jumping), while the of the example in (b) denotes only a stative situation. Langacker argues that in cases like (b) what moves is not the grammatical subject, but the speaker's gaze. In other words, (b) expresses the movement of the gaze of the speaker from Veronica to Vanessa.

Compared with (b), example (c) does not contain a starting point. Further, (c) is maximally subjective because the implicit vantage point of the speaker is required in order to understand the meaning of the expression. More concretely, in (c), the speaker him/herself is understood to sit across from Vanessa and reason

why the speaker does not appear in the expression explicitly is that the sentence represents his/her field of vision. Human beings do not have themselves directly in their own field of vision.

It should be noted that the speaker can be expressed as an explicit self:

- (2) Look! My picture's in the paper! And Vanessa is sitting across the table from me! (Langacker 1990:20)

This explicit self needs a rather special context and, in this case, the speaker is split as both an experiencer and the object in the picture.

Taniguchi argues that the same mechanism can be applied to CPVC, which implicitly contains the existence of a generic experiencer or of the speaker.

- (3) John looks sick.

This sentence has two interpretations about the experiencer. One is that the experiencer is generic and can be paraphrased as follows:

- (4) Anyone will judge that John is sick if he or she sees him now.

The other interpretation is that the experiencer is the speaker.

- (5) As far as what I see, John seems sick.

In sum, whether by means of a generic experiencer or subjectification, CPVC construction inherently contains the experiencer in the semantics.

### **On the Extension of CPVC**

Taniguchi also argues for a further extension of CPVC based by means of analogy with *seem* and *appear*, and signifying inference. Diachronically speaking, CPVC has gained epistemic modal meaning (typically the speaker's subjective judgment), a primary characteristic of *seem* and *appear*. In addition, CPVC already shares some syntactic frames as a copula with *seem*. Moreover, she adds that perception is closely related to inference in that human beings infer based on perceptual evidence and judgment. Based on these similarities, CPVC has imported additional characteristics from *seem*.

The first extension by analogy of CPVC is the *to*-infinitive complement:

- (6) a. John looks to be a fool.
- b. John sounds to be a fool.
- c. \*It tastes to be a fruit.
- d. \*It feels to be a blanket.
- e. \*It smells to be a rose. (Taniguchi 2005: 244)

The reason why only *look* and *sound* take this type of complement is that they represent the senses that are most often used to provide perceptual information for further inference. *Look* was the first to develop this complement pattern because

visual perception is the most dominant of the five senses.

Taniguchi also points out that *to*-infinitive can hardly be collocated with *taste*, *touch*, and *feel*. This can be explained in terms of semantic inconsistency.

The second extension is *as if*-extension which, unlike *to*-infinitive, can follow all five verbs:

- (7) a. John seems as if he's seen a ghost.
- b. John looks as if he's seen a ghost.
- c. John sounds as if he's seen a ghost.
- d. This tastes as if it's a sort of fruit.
- e. It feels as if it's made of wool.
- f. This room smells as if it's not been cleaned recently.

In sum, Taniguchi argues that CPVC has gained new usages via analogy with *seem* and *appear*.

### **Taniguchi's Contribution and Room for Further Research**

Taniguchi offers a convincing explanation of the emergence and ensuing development of CPVC as a whole from a usage-based point of view.

Further, she suggests that many developments of the construction have been

primarily influenced by similar verbs such as *seem* and *appear* via analogical extension.

Finally, she shows that CPVC has kept changing even in Present-day English, taking up non-perception verb members such as *test*.

Despite her considerable contribution to the analyses of CPVC, room remains for further research.

For example, although CPVC has indeed been deeply affected by *seem* and *appear*, it does not follow that the influence is only unidirectional. Theoretically speaking, the opposite is also possible, that CPVC has had an impact on the behaviors of *seem* and *appear*.

Additionally, Taniguchi mainly focuses on sentential examples in her research and all of her examples contain complete sentence parts: subject, verb, and complement. However, there are many examples in which CPVC does not have either a subject or a complement (for example, a comment clause), and it would be interesting to consider such examples.

Finally, part of Taniguchi's research is based on CPVC's acceptability utilizing evidence gained from native informants. However, as is often the case with emerging expressions, there seems to be some gap between what is acceptable and what is actually used in practice. For example, *look that* is considered unaccept-

able in her research, but it can be found in authentic data from corpora. It would be intriguing to research this area.

### **3.3.2 Gisborne and Holmes (2007)**

Gisborne and Holmes (2007) investigated the development of CPVC under the name of “verbs of appearance” in the history of English utilizing the Helsinki Corpus as their data source. They found that the development of evidentiality in CPVC has nothing to do with the development of subjectivity.

#### **On the Relationship Between Evidentiality, Epistemic Modality, and Subjectivity**

First, and most importantly, Gisborne and Holmes convincingly distinguish evidentiality and epistemic modality from subjectivity. They argue that evidentiality belongs to the lexical meaning of verbs and that in the case of *seem* and *appear*, evidentiality first appeared in the English language as a result of semantic bleaching of these verbs. Let us consider the case of *appear*:

- (8) a. Apered an ongel of heuene in here 'slepe.
- b. Page. Hee's the man should fight with him  
          Shal. It appears so by his weapons

As evidenced in (8a), when the verb takes a concrete thing or person as its subject, there is no evidential meaning in the semantics. However, when the verb takes an abstract proposition as its subject, as in (8b), evidential meaning arises and is explicitly shown by the phrase *by his weapons*.

Epistemic modality in verbs, typically the speaker's judgment, appeared as the implicature that when a speaker indicates a source of information, they soften their commitment to the truth-value of the proposition they speak. The assumption is that if a speaker is confident enough about a proposition, they assert it explicitly without any additional information. Such implicature was repeated and then gradually become an inherent part via semanticization or pragmatic strengthening.

On the other hand, Gisborne and Holmes suggest that subjectivity belongs to a small clause structure in which the speaker can be regarded as an argument of the verb.

We show that there is an evaluative construction type, which involves the assignment of semantic relations so that the speaker can be construed as an argument of the verb. In essence, we claim that in a subset of raising examples (those involving small clauses), the speaker is, semantically, an argument of the verb.

The "raising" patterns identified here are typically extraposed *that*-complements

or *to*-infinitive predicative complements. In these syntactic patterns, the verb does not assign any theta-role to the grammatical subject.

### **On the relationship of the perception verbs with *seem* and *appear***

Gisborne and Holmes also argue that CPVs such as *look* and *sound* have developed differently from *seem* and *appear*. This is based on their observation that *look* and *sound* have never been collocated with *that* and *to*-phrase, which are observed in the case of *seem* and *appear*.

Gisborne and Holmes propose that, in the case of *look*, nearly half of the predicative complements are adverbs and that there are cases which are ambiguous between adverbs and adjectives. This is consistent with Taniguchi's (1997, 2005) argument that adverbials were reanalyzed as adjectival complements because of their morphological coincidence in Middle English. The conjunctions *as if* and *as though* appear to provide further supportive evidence of this reanalysis because they are also used both adverbially (as adjuncts) and adjectivally (as complements).



### **Gisborne and Holme's Contribution and Room for Further Research**

Gisborne and Holmes (2007) provide both descriptive and theoretical contributions to CPVC research.

Descriptively speaking, they provide authentic data and clearly demonstrate that CPVs have a different development path from *seem* and *appear*.

Theoretically speaking, they distinguish two apparently confusing concepts—evaluative meaning and subjectivity—and assign them to different grammatical structures. That is, evaluative meaning is part of verbal meaning, but on the other hand, subjectivity is part of the meaning of small clause construction or raising construction. Such a distinction favors construction grammar, which the present paper partly relies upon.

Although Gisborne's and Holmes's contribution is clear, there appears to be room for further research. First, because they employed the Helsinki Corpus as their data source, they do not consider more recent developments in CPVC, the most important of which is *that* construction. They mention that perception verbs such as *look* have not been collocated with *that*-clause or *to*-infinitive as their complement, but this claim may be too strong. But their direction is generally correct in that there are relatively few examples of *look* and *sound* with *that*-clause than *seem* and *appear*. Still, large corpora such as *COCA* contain tokens with *that*-

clause, such as in the following examples:

- (9) a. It looks to me that Nathan Bedford Forrest was a military genius.  
(COCA, SPOK, CNN\_Cooper, 2011)
- b. It sounds to me that it was a profit margin problem.  
(COCA, NEWS, Minneapolis Star Tribune, 2017)

We can also find *to*-infinitive as follows:

- (10) a. The furniture looked to be expensive.  
(COHA, 1933, FIC, UnionSquare)
- b. “There sounds to be something in that,” said Jack faintly. “Nothing at all!” exclaimed Leicester.  
(COHA, 1921, FIC, WildJusticeStories)

Therefore, the more recent development of CPVC should be described and explained in further research.

### **3.3.3 Whitt (2009, 2010, 2011)**

#### **On CPVs as Lexical Evidentials**

A series of papers by Whitt (2009, 2010, 2011b) explores the relationship between evidentiality and argument structures perception verbs take in English and Ger-

man. Among verbs, *look* and *sound* were studied as evidential perception verbs and data were collected from the ARCHER Corpus and the Helsinki Corpus.

Whitt identified four complementation patterns: ADJ (adjective); CONJ (conjunction); C (clause); IC (infinite clause); and N (noun). Since he presents some rather long authentic examples from corpora as evidence, for convenience, a brief collection of each of the constructional types is produced here:

1. <PV+PP> (e.g. *John looks like a nice guy.*)
2. <PV+ADJ> (e.g. *John looks nice.*)
3. <PV+CONJ+C> (e.g. *John looks like he is a nice guy.*)
4. <PV+IC+ADJ;(IC)+N; (IC)+ADJ+N> (e.g. *John looks to be a nice guy.*)

In terms of evidential meaning, Whitt argues that object-oriented perception verbs show only one type of evidentiality regardless of whether syntactic patterns “almost exclusively markers of inference” (Whitt 2009:1094), or “inference based on observation” (Whitt 2011b:358).

- (11) a. Business is good for you, too, it looks like.

(SOAP, 2011, GH)

- b. Poor bastard has more courage than sense, looks like.

(SOAP, 2011, DAYS)

c. It could be a lot of fun, it sounds like.

(SOAP, 2010, AMC)

d. Well, I care because you punched out her father, it sounds like.

(SOAP, 2003, AMC)

### **Whitt's Contribution and Room for Further Research**

Whitt's classifications focus on the sentential level and appear not to be comprehensive enough to cover the wide range of usage CPVC has in Modern English. For example, Whitt does not include any cases in which objective-oriented perception verbs function as part of an epistemic parenthetical such as *it looks like* or *sound like*. This seems to be partly due to the coverage of the corpora used as neither the Helsinki corpus nor the ARCHER corpus cover very recent data, and the parenthetical use had not yet emerged in the periods those sources cover. However, such parenthetical usage can be found in such Present-day English corpora as *COCA*.

Moreover, CPVs such as *look* and *sound* are in fact collocated with *that*-clause and *to*-infinitive, but these usages are not considered by Whitt. Thus, this dissertation will consider the parenthetical use and *that*-clause constructions.

### 3.4 Summary

This chapter has reviewed previous studies on CPVC, all of which agree that the development of CPVC was triggered by formal and functional similarities with verbs of seeming such as *seem* and *appear*. In other words, CPVC has developed as a new pattern of complement by way of an analogical extension. This paper largely agrees with this finding in that, historically, CPVs have been getting more similar, both formally and functionally, to verbs of seeming.

What is lacking in previous studies, however, is a consideration of whether this is really a unidirectional change, from verbs of seeming to CPVs. The next chapter contends that this change is, in fact, bidirectional. Further, the following chapters argue that CPVs and verbs of seeming have been interacting with one another, forming a new unified category.

# **Chapter 4**

## **Theoretical and Methodological**

## **Framework**

### **4.1 Introduction**

This chapter introduces the theoretical framework for the case studies presented in the following chapters.

## **4.2 Grammaticalization**

### **4.2.1 Defining Grammaticalization**

Grammaticalization is the process of language change by which more grammatical units emerge from more lexical sources. The present dissertation adopts the definition of grammaticalization presented by Hopper and Traugott (2003:8) as “the change whereby the lexical items and constructions come in certain contexts to serve grammatical functions, once the grammaticalized, continue to develop new grammatical functions.”

#### **Classical Grammaticalization: Lehmann (2015)**

Grammaticalization involves numerous processes, but some of the most influential criteria of grammaticalization is offered by Lehmann (2015) as follows:

- (1) a. attrition or phonological reduction
- b. paradigmaticization
- c. obligatorification
- d. fixation
- e. coalescence

Phonological attrition (also called phonological reduction, semantic attrition, or semantic bleaching, which will be discussed later in this paper) refers to the gradual loss of either phonological or semantic content over time. Through phonological attrition, parts of an expression lose their autonomy as lexical items or free morphemes. For example, through attrition, the casual contraction *gonna* often is used to replace *going to* as a future marker. Similar cases can be found in other semi-modal expressions such as *want to* (*wanna*) and *got to* (*gotta*). Attrition is triggered by high frequency usage, especially in the spoken medium: The more frequently two items are collocated, the more likely it is that attrition will take place. For instance, the phrase *don't know* is used so frequently in spoken conversation that it has eroded into *dunno* (Bybee and Scheibman 1999).

Paradigmaticization is the process by which a grammaticalizing item becomes a member of a more restricted, closed-class grammatical category and follows the new category's rules.

Obligatorification is the process by which a grammaticalized item appears obligatorily, even if its source item was optional. For example, the English indefinite article *a(n)* originated from the numeral *one* via weakening in stress and phonological reduction. Old English did not have any indefinite articles and the numeral *one* was optional. Indefinite, singular, countable nouns could appear as bare nouns



without *one*. For *one* developed into the indefinite article *a(n)*, it had to occur obligatorily. In Present-day English, when any singular, indefinite, countable noun appears in a sentence, it must be preceded by *a(n)*. For example,

- (2) a. Tomoki is a student.  
b. \*Tomoki is student.

Obligatorification is often associated with the loss of semantic motivation and since obligatorification is a formal requirement, it is used even in cases where little, if any, semantic motivation is found. It is possible to compare English predicative nouns, such as *student* in the examples above, with those of neighboring languages. For example, while predicative nouns must follow the indefinite article in English, they do not have to do so in French and German:

- (3) a. \*Tomoki is student.  
b. Tomoki est étudiant.  
c. Tomoki ist student.

The obligatoriness of indefinite articles is a grammatical matter in individual languages.

Fixation is the process by which an item loses syntactic freedom as it appears in a narrower range of positions. For instance, *a(n)* occurs almost exclusively in

the determiner position. On the other hand, its lexical origin, *one*, can occur in numerous positions including as an adjective (e.g., *I have only one computer*) or a pronoun (e.g. *My mobile phone is broken, now I want a new one.*).

Coalescence concerns an element's degree of boundness and, in this process, loses its formal autonomy and adheres to other morphemes (Krug 1998). For example, *not* has been reduced phonologically to *n't* and has become part of modal auxiliary verbs (cliticization) such as *don't* and *haven't*. Sometimes, both of the elements are phonologically reduced, such as *won't* from *will not* and *shan't* from *shall not*.

It should be noted that “grammar” is used here in the narrowest sense, covering small elements such as conjugations and affixes. Grammaticalization is a process in which free morphemes with rich lexical meaning become bound by ones with very schematic meaning such as tense, aspect, and modality.

### **Semantic Bleaching**

Grammaticalization in a broader sense includes the gradual semantic and functional change of expressions over time. One of the most important theoretical tools in considering grammaticalization is semantic bleaching (originally proposed by Sweetser (1988)), the process by which an originally lexical item loses its con-

tent meaning and develops more grammatical and schematic meaning. One such example is *be going to*, which is a common future marker in Present-day English.

(4) a. We're going to buy a house when we've saved enough money.

(OALD8)

b. It's going to rain this afternoon.

This future marker emerged from the combination of a lexical verb of physical motion (*go*) in the progressive form (i.e., *be -ing*) with a purpose phrase (i.e., *to-* infinitive). The development path is presented below.

(5) intensive motion > intensive motion with a purpose > intention with a purpose (future) > future

(6) a. Are you going to Dave's party?

b.

Here, the future expression developed as the lexical verb *go* lost its semantic content of movement; that is, the expression was used to refer to a voluntary movement with a purpose (e.g., *I'm going to the bar to drink*) but later it was reanalyzed as a future expression.

Semantic bleaching, as a process of grammaticalization, concerns the extension of contexts. An expression experiencing semantic bleaching develops more

abstract meaning gradually over time. And, thanks to that abstractness, the expression can be freely applied in more contexts without semantic anomalies or conflicts. Formally, it is directly related to collocational expansion, which Himmelmann (2004) also call *host-class expansion*. In the case of *be going to*, in its early stage, the phrase was only collocated with voluntary movement. In this period, collocated verbs with *be going to* was limited to active verbs because it retained original meaning of *go* as a lexical item in its semantic content.

Later, as *be going to* was gradually bleached, it began to be collocated with a broader range of verbs until, in Present-day English, it can be followed by verbs of weather, which have nothing to do specifically with movement.

(7) It's going to rain this afternoon.

Semantic bleaching is also concerned with syntactic frequency.

**The relationship between the source lexical item and the grammaticalized item: Hopper (1991)**

Regarding paradigmaticization, (Hopper 1991:22) proposes five key principles:

(8) a. Layering: “Within a broad functional domain, new layers are continually emerging. As this happens, the older layers are not necessarily

discarded, but may remain to coexist with and interact with the newer layers.”

- b. Divergence: “When a lexical form undergoes grammaticization to a clitic or affix, the original lexical form may remain as an autonomous element and undergo the same changes as ordinary lexical items.”
- c. Persistence: “When a form undergoes grammaticization from a lexical to a grammatical function, so long as it is grammatically viable some traces of its original lexical meanings tend to adhere to it, and details of its lexical history may be reflected in constraints on its grammatical distribution.”
- d. Specialization: “Within a functional domain, at one stage a variety of forms with different semantic nuances may be possible; as grammaticization takes place, this variety of formal choices narrows and the smaller number of forms selected assume more general grammatical meanings.”
- e. Decategorialization: “Forms undergoing grammaticization tend to lose or neutralize the morphological markers and syntactic privileges characteristic of the full categories Noun and Verb, and to assume attributes characteristic of secondary categories such as Adjective, Participle,

Preposition, etc.”

### **Grammaticalization as an expansion: Himmelmann (2004)**

Himmelmann (2004) redefines grammaticalization as three levels of context expansions: host-class expansion, syntactic context expansion, and semantic-pragmatic expansion. His definition of host-class expansion is presented here:

First, construction-internally, the class of elements the gram is in construction with, i.e. the host class, may be expanded. For example, when demonstratives are grammaticized to articles they may start to co-occur regularly with proper names or nouns designating unique entities (such as *sun*, *sky*, *queen*, etc.), i.e. nouns they typically did not co-occur with before. This context-expansion could be called *host-class expansion* (p.32).

Further, Himmelmann (2004) defines *syntactic context expansion* as follows:

Second, the larger syntactic context in which the construction at hand is used may change. Thus, for example, emerging article grams typically occur first in core argument positions (subject or object position) and less commonly, or not at all, in adpositional expressions.

When grammaticization progresses further, use of the construction with an article may also become obligatory in adpositional expressions and other syntactic environments it did not occur in before. This aspect of context expansion could be called *syntactic context expansion* (p.32).

Finally, he defines *semantic-pragmatic context expansion* as follows:

Thirdly, and most importantly, the semantic and pragmatic contexts in which the construction is used is expanded. Adnominal demonstratives are found only in expressions which involve deictic (exophoric, discourse deixis), anaphoric or recognitional reference. The usage contexts for articles are broader and include in particular larger situation uses (*the queen, the pub*) and associative anaphoric uses (*a wedding - the bride, a house - the front door*), contexts in which use of demonstratives is impossible. Hence the grammaticization of articles crucially involves a *semantic-pragmatic context expansion* (pp.32-3).

These context expansions are formulated by (Himmelmann 2004:33) as follows:

(9)

where A and B represent full lexical items, *b* a grammaticized element and the following three types of contextual changes occur:

- a. host class formation: (e.g., common nouns → common and proper nouns)
- b. change of syntactic context: (e.g., core argument position → core and peripheral argument positions)
- c. change of semantic-pragmatic context: (e.g., anaphoric use → anaphoric and associative anaphoric use)

## **4.2.2 Grammaticalization and CPVC**

As Brinton (2008b) points out, even prototypical cases do not fulfill all of the criteria and principles introduced in the previous section.

## **4.3 Other Mechanisms of Language Change**

### **4.3.1 Analogy**

Among the mechanisms introduced earlier in this chapter, analogy has been a driving force of language change. Hilpert (2017:90) argues that "adult speakers as well use analogy as the basis for creative linguistic utterance".



Analogy is defined as the application of an established schema to a new item and there are four elements in the process. One famous case of analogy is the application of *-ed* suffix in order to form the past tense form from an infinitive.

1. The established relationship between one item and (e.g., *wait - waited*, in other words, the verb and the past tense formation rule)
2. A new element (e.g., *bit*)
3. Similarities between the old item and the new one (e.g., both of them, *wait* and *bit* are verbs)
4. The new application of the schema to the new item (i.e., *bit - bitted*)
5. Evaluation based on conventionality (i.e., in this case there is already a more established and frequent form of *bit* in the past form *bit*, so it is not acceptable to most native speakers of English.)

As Bybee (2015:93) points out, analogical extensions are item-based, so that one extension rarely has a great influence on the grammatical system as a whole. As a result, there can be many variants and gradients in the same grammatical system, synchronically speaking.

The relevance to CPVC is hinted at in (Hilpert 2017) with reference to *criticize* with *that* clauses. *Criticize* rarely takes *that*-clauses as its complement in Present-day English, but there are examples:

(10) The organization criticizes that too many wild animals are privately owned.

(Hilpert 2017:78)

Here, *criticize* has extended to take a *that*-clause as its complement. Hilpert argues that this extension is based on analogy and that the basis of this extension is the semantic similarities with other verbs with *that* clauses such as *complaint*, *object*, and *protest*.

A similar extension can occur in the case of CPVC. *Look* and *sound* do not usually take *that*-clauses instead of *like*-clauses as their complement, but there are authentic examples found in corpora:

(11) a. It looks that things are slowly deteriorating in Iraq.

(COCA, SPOK, CNN\_Iraq, 2003)

b. To me, it looks that you do not sleep at all well.

(COCA, FIC, ArkansasRev, 1994)

c. But it sounds that these prices are comparable.

(COCA, SPOK, Hand-Painted Coffins from a Rhode Island

Artist, 2006)

- d. And it sounds that the accusations are being tossed in the air like confetti by one of your previous guests, also sounds pretty horrifying as well.

(COCA, SPOK, Clinton White House Scandal, 1998)

This complementation extension appears to be based on the semantic similarities between these verbs and *seem* and *appear*. Both of these have formal and semantic similarities (for example, they both have evidential and epistemic meaning) and they share numerous complementation patterns.

#### **4.4 Evidentiality and Epistemic Modality**

It is widely recognized that CPVC typically incorporates evidentiality in its semantics (Gisborne 1996, 2010, Whitt 2009, 2010, 2011b). Evidentiality (which refers to the source of information that the rest of the utterance expresses) denotes how the speaker reaches the proposition that they seek to communicate to their interlocutors. For example,:

- (12) a. John looks happy.
- b. John sounds happy.

The sentence (12a) expresses that the speaker reached the proposition of John being happy based on visual evidence, such as John's figure or his actions. On the other hand, (12b) expresses that, by hearing the quality of John's voice, the speaker believes that he is/seems happy.

Evidentiality has been used in various ways. Forms evidentiality called evidentials refer to grammaticalized forms such as clitics or affixes. Anderson (1986:273) defines evidentials as linguistic means to "express the kinds of evidence a person has for making factual claims." In this sense, there is not any grammatical system for evidentiality in English.

However, English does employ lexical items such as verbs and adverbs to express evidentiality. Some examples from Whitt (2011b:347) are below:

- (13) a. I **see** Anita swimming in the lake  
b. Anita is **supposedly** coming to the party.

Gisborne (2010) and Whitt (2011b) call these *lexical evidentials*, a concept which is essentially the same as what ? calls *evidential strategy*.

The relationship between evidentiality and epistemic modality is also relevant here, but there is some controversy about the subject.<sup>1</sup> For some scholars, evidentiality, or evidential modality, can be placed in the same category as epistemic

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<sup>1</sup>For more detail, please see Gisborne (2010).

modality. For example, Palmer (2001) argues that both evidentiality and epistemic modality constitute the same category, which he calls *propositional modality*.

Other scholars oppose this claim. For example, de Haan (1999) argues that evidentiality and epistemic modality are different conceptually and that the former denotes the source of information and the latter refers to the speaker's attitude or evaluation. In other words, he defines evidentiality as deixis, which points to the source.

Gisborne and Holmes (2007:27) argue that "the development of evaluative modality out of evidential modality involves pragmatic strengthening, with the implicature present in the evidential modality eventually becoming conventionalized." The logic is that, if the speaker is confident enough about the truth of something, he does not need to mention the evidence for it; all he has to do is assert its truth. The hearer infers the reason why the speaker takes up the evidence and concludes that the reason why the speaker mentions the evidence at all is that the speaker is not confident enough of its truth. If this inference occurs frequently, it becomes part of the semantics, what Gisborne and Holmes (2007:27) call semanticization or pragmatic strengthening.

## 4.5 Subjectivity and Intersubjectivity

Subjectivity, which concerns the speaker in semantics, has been defined in various ways, but the present introduces subjectivity as presented by Langacker and Traugot.<sup>2</sup>

### Langacker's Subjectivity

Langacker defines subjectivity as the inherent existence of the speaker's perspective in linguistic expressions, proposing his on-stage model in cognitive grammar, which begins with the analogy of visual perception (Langacker 2008:77):

Though quite general in application, it is best introduced with reference to visual perception. Imagine yourself in the audience of a theater, watching a gripping play. All your attention is directed at the stage, and is focused more specifically on the actor presently speaking. Being totally absorbed in the play, you have hardly any awareness of yourself or your own immediate circumstances.

One of the basic tenets of cognitive grammar is that a situation can be construed in more than one way and expressed with different linguistic means. In order to

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<sup>2</sup>For a good summary, Whitt (2011b) is a useful reference.

instantiate this idea, Langacker has proposed a model that has two potential areas: (on-)stage and off-stage. He offers the following explanation of subjectivity versus objectivity with special reference to on/off stage(Langacker 2008:77):

In this polarized arrangement, where the asymmetry in viewing role is maximized, the viewing subject is said to be construed with maximal subjectivity and the object with maximal objectivity. Subjective construal is characteristic of the viewer's role as such—as an offstage locus of perceptual experience that is not itself perceived. Conversely, objective construal characterizes the onstage focus of attention, which (at least in that capacity) does not engage in viewing. By virtue of being attended to, an entity construed objectively is clearly more prominent than it is when construed subjectively.

Those *on stage* are within the perspective of the speaker and are explicitly expressed. On the other hand, those *off stage* exist implicitly in the expressions but are not expressed with linguistic means. In this model, an expression is maximally objective when everything, including the speaker, is *on stage* and expressed explicitly, whereas it is maximally subjective when the speaker implicitly exists in its semantics. To make this clear, let us consider Langacker's examples:

- (14) a. Vanessa jumped across the table.

- b. Vanessa is sitting across the table from Veronica.
- c. Vanessa is sitting across the table from me.
- d. Vanessa is sitting across the table .

(Adapted from Langacker 1990:326)

The example of (14a) is objective in that the expression does not need the existence of the speaker in order to interpret the whole sentence. From (14b) to (14c), the first parts of each sentence are identical (i.e., *Vanessa is sitting*), but the last phrases differ. Sentence (14b) is the most objective because it describes a situation in which the speaker's position is irrelevant. Sentence (14c) is more subjective than (14b) because the existence of the speaker (explicitly expressed linguistically with *to me*) is relevant but more objective than (14d).it. The example of (14d) is the most subjective of the three because the speaker's perspective is necessary for the sentence to be fully understood.

Langacker's version of subjectivity is useful to analyze CPVC from a semantic point of view. As in the case of (14), CPVC expresses subjectivity by two means: the subject alignment and the agent.

- (15) a. I looked at John and guessed he was happy. (Agent/Experiencer-based use)



- b. John looks happy to Mary. (CPVC)
- c. John looks happy to me. (CPVC)
- d. John looks happy. (CPVC)

In (15a), the speaker is the grammatical subject and cannot be omitted, and the sentence expresses objectivity. The examples from (15b) to (15d) are all CPVC. The difference between agent/experiencer-based perception verb constructions such as in (15a) and CPVC is the selection of the grammatical subject. CPVC demotes the agent of perception from the obligatory subject position into an adjunct prepositional phrase. This demotion contributes to making the CPVC subjective because the speaker, as the agent of perception, necessarily appears in the sentence. Sentence (15b) is objective in that the speaker's perspective is irrelevant to the meaning of the expression as a whole. In other words, the content of the sentence is represented as a separate object from the speaker. In (15c), the speaker's perspective is clearly denoted with *to*-phrase (i.e., *to me*). In this sense, this example is less subjective than (15d). The example in (15d) is the most subjective of the four examples because the speaker is not linguistically realized although the presence is an inherent part of the sentence. *Looks happy* raises the question of *Who saw John and judged him to be happy?*

### 4.5.1 Traugott's Subjectification

Traugott is concerned with subjectivity in order to explain semantic change, what she calls *subjectification*. In her view, “subjectification and intersubjectification are the mechanism by which: meanings are recruited by the speaker to encode and regulate attitudes and beliefs (subjectification) and once subjectified, may be recruited to encode meanings centered on the addressee (intersubjectification). ” Traugott (2010:34).

Traugott and Dasher (2002) formulate the following cline.

Non-/less subjective > subjective > intersubjective

Non-/less subjective meaning refers to what is minimally, if not completely, associated with the speaker. Traugott and Dasher (2002:22) characterizes objective meanings as follows:

- (i) They are declarative, i.e. minimally marked with regard to modality,
- (ii) All participants in an event structure are expressed in surface structure,
- (iii) Lexical items are minimally concerned with the interlocutors' perspective (i.e., minimally deictic),

Subjective meaning refers to the speaker's attitude as encoded in the semantics of a lexical item. Traugott and Dasher (2002:22) introduce four characterizations

of subjective meanings:

- (i) overt spatial, and temporal deixis,
- (ii) explicit markers of SP/W attitude to what is said, including epistemic attitude to the proposition,
- (iii) explicit markers of SP/W attitude to the relationship between what precedes and what follows, i.e. to the discourse structure; many aspects of discourse deixis are included here,
- (iv) The R-heuristic predominates.

Intersubjective meaning concerns the speaker's awareness of the hearer in discourse.

Taniguchi (1997, 2005) argues that CPVC emerged from bi-directional perception verbs with adverbial complements. In this initial stage, CPVC does not have subjective meaning because it mainly denotes either the event of perception or the emission of stimuli such as sound or smell. Consider the following examples with *-ly* adverbs.

- (16) a. the skinne smelt sweetly and somewhat like to a mosk-cat

(1607, from EEBO)

- b. hee telleth her it looked and smelt ill-favouredly comming out of a filthy budget, and that it should be fit first to open and ayre it, because hee knew she was averse from ill Sents:

(1641, from EEBO)

- (17) a. that we take pleasure to heare the organs and instruments of musicke sound pleasantly; we delight to heare birdes singing sweetly

(1603, from EEBO)

- b. and whilst they are there, let the music sound harmoniously, with soft strokes, pleasing notes, and gentle strains: and temperance, I desire you to order the rest of the entertainment, and let ease wait upon you

(1662, from EEBO)

According to Taniguchi (1997), the adverbial complement was reanalyzed as the adjectival complement because in Middle English adverbs and adjectives were morphologically and inflectionally the same. Thanks to this reanalysis, the precursor of CPVC became a genuine copula construction, in which the complement denotes a property of the subject (i.e., a subject-oriented complement).

At this stage, the construction encodes the speaker's attitude towards the proposition based on evidence gathered via the senses and the speaker's attitude is made

clear by the fact that CPVC can be cancelled by the following *be*. Some examples are as follows:

Kenji looked happy but he wasn't. Hanako sounded angry but she wasn't.

These examples demonstrate that CPVC does not represent facts, but rather the speaker's opinion. In other words, the CPVC illuminates the speaker's commitment to the truth-value of the proposition expressed in the rest of the sentence.

#### **4.5.2 Intersubjectivity**

In addition to subjective meaning, CPVC has gained intersubjective meaning, or the speaker's awareness of the hearer in the discourse. Intersubjectification as a diachronic process usually follows subjectification, which is "recruited to encode meanings centered on the addressee" (Traugott 2010:35). Traugott defines intersubjectivity as

the explicit expression of the SP/W's attention to the 'self' of addressee/reader in both an epistemic sense (paying attention to their presumed attitudes to the content of what is said), and in a more social sense (paying attention to their 'face' or 'image needs' associated with social stance and identity). (Traugott 2010:128)

A key instance of intersubjectivity a lexical item is a reply, because it requires

the presence of the hearer. CPVC is used intersubjectively as a conditional agreement to the previous utterance by the hearer. Some examples are shown below:

(18) Karen: Well, I guess we're the first.

Frank: Yeah, looks like. (SOAP, 2002, PC)

(19) Luis: Well, good for you, but not this morning.

Reggie: Is that blood?

Luis: Uh, looks like. I guess somebody must've hit a dog and then drug the dog – yo, yo, I'm not playing! (SOAP, 2003, AMC)

(20) Billy: Well, nothing's happened yet, but they're insisting on some face time, and I thought it was worth the trip.

Ashley: Sounds like. Billy: Mm-hmm. (SOAP, 2012, YR)

In each of these, the speaker essentially agrees to the previous utterances of the addressee., But, at the same time, it implies that this agreement is based on evidence the speaker has obtained and therefore the speaker's judgement is collected indirectly and might be wrong.

## **4.6 Data**

### **4.6.1 Corpora as Data**

The present research collects data mainly from corpora, which are collected data of actual language use. Specifically, this paper adopts the definition of corpora by Gries (2017), that corpus “refers to a machine-readable collection of (spoken or written) texts that were produced in a natural communicative setting, and the collection of texts is compiled with the intention (1) to be representative and balanced with respect to a particular linguistic variety or register or genre and (2) to be analyzed linguistically” (Gries 2017:7). All of the corpora employed for data collection in this dissertation fulfill this definition.

#### **Advantages of Using Corpora**

There are three reasons for the preference for corpora data in this research. First, corpora provide natural, objective data that offer rich, contextual information and thus enable researchers to closely analyze how constructions are actually used in written and spoken contexts.

Further, corpora are objective in that they are independent of any theories or predictions and are accessible to anyone. They do not express subjective judgment

made by native speakers and the data corpora provide are desirable for robust scientific research.

Moreover, if the retrieval process is done correctly, corpus data can be processed quantitatively.

Corpora are also useful for diachronic research, and, in many cases, they provide the only available data source. Since language change takes place gradually over time no single speaker can live long enough to be a reliable informant. Linguistic expressions do not instantaneously appear or vanish.

Finally, corpora, especially large ones, can provide data on emerging expressions, which can appear infrequently or only in specific contexts. Since emerging expressions are not established in the lexicon, speakers often do not recognize their existence. However, large corpora can collect cases where such expressions are used.

### **Limitations of Corpora**

Although as data sources corpora have numerous advantages, they also have some limitations.

First, corpora cannot effectively provide negative evidence, which is evidence concerned with examples that either do not occur or are unacceptable. In linguis-



tics, it is routine to contrast acceptable evidence with its unacceptable counterparts, akin to contrastive experiments between a testing group and its control group in the field. For example, Gisborne (2010:242) hypothesizes that CPVC can only take a gradable complement and confirms this with comparison between CPVC with a gradable complement (positive evidence) and CPVC with a non-gradable one, as follows:

- (21) a. \* Jane sounds a woman. (gradable)  
b. Peter looks a fool. (gradable)

However, this procedure cannot be used in corpus-based research because the absence of an expression in a corpus does not necessarily mean it is unacceptable for speakers. The omission might be caused by the size of the corpus or may even happen by accident and these possibilities cannot be excluded.

However, there have been attempts to statistically predict and explain the acceptability of expressions from their distribution in corpora. One of the most famous approaches is negative entrenchment by Anatol Stefanowitch (Stefanowitsch 2006, 2008). Stefanowitsch (2006) considers the combination of verb *say* and ditransitive construction and tries to calculate how unlikely the verb is to combine with the construction, using *collexme analysis* and the Fisher-Yates exact test. The results suggested that the combination of the verb and the construction is signifi-

cantly more infrequent than the expected value, and therefore, it can be concluded that the combination is likely to be unacceptable, or to be avoided. This argument assumes that humans employ similar statistical approaches regarding how speakers judge acceptability. This model appears promising, but further research must be conducted in order to confirm the theory.

#### **4.6.2 BYU Corpora**

The present paper collected data from BYU Corpora (BYU), a large family of English corpora available online. They were compiled by Mark Davies, professor at Brigham Young University, it comprised 13 corpora in 2019. The contents cover many varieties of English including regional variants (e.g., British and American) and medium variants (e.g. spoken, written, and internet).

There are three reasons why BYU is used in this paper. First, BYU comprises the largest corpus family available, which means that minor phenomena with low frequency can be observed. New and emerging expressions often appear so infrequently that a small corpus might elicit no examples of an emerging expression. For the present dissertation, several emerging but still non-standard uses of CPVC were investigated, such as *that*-complementation (e.g., *it looks to me that the situation is getting worse.*).

## 4.7 Summary

This chapter has considered the theoretical and methodological frameworks that are used in the three case studies to follow. Theoretically, this research is organized by a study of grammaticalization. As previous studies have shown, CPVC has demonstrated many features of language change over time, and the case studies included here will show that this has not finished, but continues to evolve.

The present dissertation utilizes corpora as its data source for three key reasons: 1) corpora demonstrate actual language use, independent of the researchers' predictions; 2), corpus data provide useful and accessible data for diachronic research; and 3) if the corpora are sufficiently large, they can provide data for infrequent, emerging expressions. With this framework the following chapters will consider three diachronic aspects of CPVC.

## **Chapter 5**

# **On the Diachronic Changes in American English**

### **5.1 The Purpose of This Chapter**

This chapter explores the diachronic development of Copulative Perception Verb Construction (CPVC) with clausal complements introduced by *as if*, *as though* and *like* in modern American English. In Present-day English, CPVC has come to take clausal complements, as exemplified in the following examples (emphasis added by the author):

- (1) a. Pierre's daughter looks as if she is going to cry, it is so hot.  
(COHA, 2000, FIC, Hush in This Heat)
- b. It sounds as if you've got company.  
(COHA, 2002, FIC, The Drive-in Puerto Rico)
- (2) a. Coupled with her usual brown cardigan and plaid skirt, she always looked as though she were on her way to interview for a job at the library.  
(COHA, 2000, FIC, WalkRemember)
- b. When a man's voice answered the phone, it sounded as though he was in a crowded bar.  
(COHA, 1993, FIC, Snagged)
- (3) a. She looks like she wants to say a lot of things.  
(COHA, 2002, FIC Droplet)
- b. "Sounds like we have a job to do," I said.  
(COHA, 2006, FIC, Memory of a Thing that Never Was)

In previous research, it has been occasionally suggested that '123456789CPVC has acquired sentential complements via analogical extension from those of the verbs of seeming such as *seem* and *appear* (Taniguchi 1997, 2005). As *look* and

*sound* developed the meaning of inference based on evidence, they have become more similar to verbs of seeming/inference. They are also similar from a syntactic point of view. One of the functional similarities that both copulative perception verbs (CPVs), such as *look* and *sound*, and verbs of seeming, such as *seem* and *appear*, have is that they both express evidential and epistemic modal meaning (Matushansky 2002). Regarding evidentiality, all of these verbs provide evidence for the speaker to make a commitment to the truth-value of his/her utterance. *Look* denotes visual evidence, whereas *sound* refers to auditory or linguistic evidence, and *seem* designates sensory-neutral evidence.

Because the existence of evidence often implies that the speaker is not fully confident of what he/she is talking about (Gisborne and Holmes 2007), evidential meaning enables epistemic modal meaning as a result of pragmatic inference Chafe (1986:267) also argues that when the speaker present sensory evidence, it indicates his/her lack of confidence:

The knowledge derived from sensory evidence may, on the other hand, be treated as less than fully reliable. Lesser reliability is expressed in English with phrases such as *looks like*, *sounds like*, and *feels like*.

Chafe presents the following examples as evidence:

- (4) a. She looks like she's asleep.
- b. He sounds like he's mad.
- c. It feels like the door is open. (Chafe 1986:267)

In (4a), the speaker has evidence (perhaps the subject's face or the light of her room) to conclude that "she" is asleep, but the speaker is not fully confident this is true. In (4b), by hearing the way "he" speaks, the speaker supposes that he is insane. In (4c), the speaker believes that the door is open based on tactile evidence (e.g., the speaker feels cold air coming into the room).

These semantic similarities suggest that these verbs share complementation patterns as follows:

- (5) a. Exercise is difficult for some FMS patients not only because of the pain they feel but because it seems as if their body is in a fragile state.  

(COHA, 2001, MAG, Turn Off the Pain!)
- b. But maybe the 10th is the lucky charm because, with a 2 percent rate, it appears as if money is being given away.  

(COHA, 2001, NEWS, Editorial Roundup)
- c. It seems like we're going back in time.

(COHA, 2009, Mom's the word)

- d. I had told this character not to film in there, but it appears like he did it anyway.

(COHA, 1979, China Syndrome)

This suggests a working hypothesis: that two similar expressions which share numerous formal and semantic features will gain further similarities over time. However, This must be empirically verified with authentic data.

Previous research proposes that *like*, *as if*, and *as though* are functionally the same. For example, Gisborne (2010) subsumes them “under a single type: clausal like Xcomps” (p.267). However, this is true if only the acceptability of created examples without contexts is taken into account. However, it does not follow that these verbs are interchangeable and have followed the same path of development. However, how they have developed in the history of English it is still not fully understood. For example, their distributions in the lexicon are likely to be different because *like* is more informal and colloquial compared with *as if* and *as though* .

There are, therefore, two gaps that the present chapter attempts to fill. First, although there have been some theoretical considerations of this complementation pattern, relatively little research on their historical development utilizing authentic data has been done. Second, the data in previous studies have come mainly



from British English; for example, Gisborne and Holmes (2007) used the Helsinki Corpus and Whitt (2010) employed the ARCHER Corpus. Several studies have pointed out that there is a difference in distribution between *as* complementizers (i.e., *as if* and *as though*) and *like*. For example, *like* has been increasing in frequency in American English. Therefore, utilizing authentic data from the *Corpus of Historical American English (COHA)*, the present chapter considers whether CPVs have developed their sentential complementation pattern based on their similarities with verbs of seeming.

This corpus-based survey suggests that the relationship between CPVs and verbs of seeming are more complex than previously supposed. But this is not a unidirectional extension from the verbs of seeming to CPVs. Rather, it is closer to a bi-directional and interactional extension and two verb groups appear to be merging into a unified verb category. This is supported by the fact that the relationship between the two verb groups is different between the case of *as if* and *as though* and that of *like*. Specifically, this chapter argues two points:

1. As argued in previous research, the verb constructions *as if* and *as though* originated with *seem* and *appear*, and then extended to perception verbs such as *look* and *appear*.
2. However, *like* developed primarily with *look* and *sound* and then extended to

*seem* and *appear*.

The remainder of this chapter is organized as follows. Section 5.2 introduces relevant previous literature as a background to the analysis here, particularly concerning similarities between CPVs and verbs of seeming. Section 5.3 introduces the data source, *COHA*, and research methodology. Section presents the results derived from the corpus and Section 5.5 discusses the theoretical implications of these results. The chapter also suggests the historical changes of CPVs and elucidates the evolution of complements. Finally, Section 5.6 presents conclusions and possibilities for future research.

## **5.2 Previous Studies**

Previous researchers have occasionally suggested that CPVs are similar to verbs of seeming. But because the senses of sight and hearing are the primary means humans use to gather perceptual information, earlier research focused only on *look* and *sound*, even though CPVs comprise five verbs (*look*, *sound*, *smell*, *taste*, and *feel*; see?). *Look* and *sound* are common verbs with formal and functional similarities and they have developed numerous meanings and uses, including ones similar to *seem* and *appear*. All of them have been used as impersonal verbs, taking both

expletive *it* and clausal complements.

Taniguchi (1997) argues that CPVs have become formally and functionally similar to verbs of seeming via the meaning of inference. One of these formal similarities is found in their complementation pattern. Along with *as* adjectives, predicative nouns, and *to*-infinitives, both of the verb classes also occur with sentential complements introduced by *as if* (*though*), as in

- (6) John seems/looks/sounds as if he's seen a ghost.

(Taniguchi 2005:245)

In addition, *like* also introduces a clausal complement. Quirk et al. (1985:1175) state that “an alternative construction is one in which the *as if* clause is replaced by a phrase introduced by *like*”. Thus, both verb classes can take a sentential complement headed by the conjunction *as* in the following cases:

- (7) a. It seems like it's going to rain. [“It looks like it isn't going to rain.”]

(Quirk et al. 1985: 1033)

- b. It seems like the weather is improving.

(Quirk et al. 1985: 1175)

In (7a), *look* takes expletive *it*. This does not refer to direct visual perception, but rather has a modal meaning, expressing the speaker's commitment to the truth

of the proposition expressed in the subordinate clause (i.e., *it isn't going to rain*). This example shows further similarity to verbs of seeming as impersonal verbs which take expletive *it* .

Based these similarities, one question arises with regard to how CPVs have come to be similar to verbs of seeming, developing the grammatical pattern above? The following sections attempt to answer this question.

## **5.3 Data and Methodology**

### **5.3.1 Data**

Data for this chapter were collected from *COHA* (Davies 2008 -), a four million-word, diachronic corpus of written American English from 1810 to 2009, balanced by genre: Fiction, Popular Magazines, Newspapers, and Nonfiction Books.. Since the complementizer *like* is common in American English, there are three reasons for using *COHA* . First, *COHA* covers some 200 years of writing, and it is expected to present the recent development of CPVs with sentential complements. Second, *COHA* is annotated with part-of-speech (POS) tags, enabling researchers to search the data in more detail. For example, *like* is ambiguous as a preposition or as a complementizer. Using POS tags (i.e., [c\*]), the prepositional cases could be

retrieved efficiently, but because the accuracy of the results was not perfect, a manual check was also conducted. Third, the present study focused on American English, which, to date, has not been comprehensively studied because there had not been American English corpora compiled for diachronic research. In contrast, Taniguchi (1997) used data from the *Oxford English Dictionary* and Gisborne and Holmes (2007) used data from the *Helsinki Corpus*, a diachronic corpus of British English. In addition to the *Helsinki Corpus*, Whitt (2011a) collected data from the *ARCHER* corpus, another diachronic British corpus. Therefore, data from *COHA* is expected to provide new data.

The composition of *COHA* varies considerably in size and ratio for each decade it covers. For example, texts from the 1810s are remarkably small in number and notably different in balance from other decades. Second, *COHA* does not contain texts from newspapers from the 1810s to the 1860s, but the number increases steadily from the 1860s to the 1910s. Finally, the composition becomes stable from the 1920s to the present. Taking all this into account, the present research adopts normalized frequencies (i.e., occurrences per million words), rather than raw frequencies.

### **5.3.2 Methodology**

One hundred sentence examples were randomly selected from each decade represented in *COHA* for manual coding. Some data include more than 100 examples because the number of instances in each decade varies considerably, as mentioned above.

Table 5.1: Number of collected data by decade

decade	look as if	look like	sound as if	sound like	seem as if	seem like	appear as if	appear like
1810s	3	0	0	0	13	0	2	0
1820s	57	0	4	0	100	0	38	0
1830s	100	9	5	0	100	0	44	0
1840s	100	17	10	0	100	2	26	0
1850s	100	13	10	0	100	1	47	3
1860s	100	20	9	0	100	1	37	0
1870s	100	30	17	0	100	7	38	2
1880s	100	29	30	0	100	12	48	0
1890s	100	56	23	0	100	30	32	0
1900s	100	92	30	0	100	18	24	0
1910s	100	100	48	7	100	42	45	0
1920s	100	98	51	2	100	34	42	0
1930s	100	100	58	9	100	65	30	1
1940s	100	100	99	10	100	78	21	0
1950s	100	100	99	21	100	45	15	0
1960s	100	100	100	18	100	23	20	1
1970s	100	100	100	38	100	45	22	1
1980s	100	100	100	43	100	43	22	0
1990s	100	100	100	94	100	83	23	0
2000s	100	100	100	100	100	126	46	0
Sum	1,860	1,264	993	342	1,913	655	318	8

Sentences were manually coded with syntactic and semantic tags such as conjunction types (e.g., *as if*; *as though*; and *like*) and subject (e.g., expletive *it*; fully referential nouns; pronouns; and dropped subjects).

All of the examples collected automatically were used to analyze the development of each verb with the frequency of the conjunctions . Manually-coded data were used to compare the relationships between the verbs and the subject types. One of the consequences of taking sentential complements is the appearance of expletive *it*, and therefore expletive *it* is also included in the results shown in the following section .

## **5.4 Results**

### **5.4.1 Quantitative Results**

#### **Overall Result**

The data indicate that each complementizer shows a different pattern of development. Figure 5.1 presents the diachronic change of each verb followed by *as if* (*though*) complement from the 1810s to the 2000s.



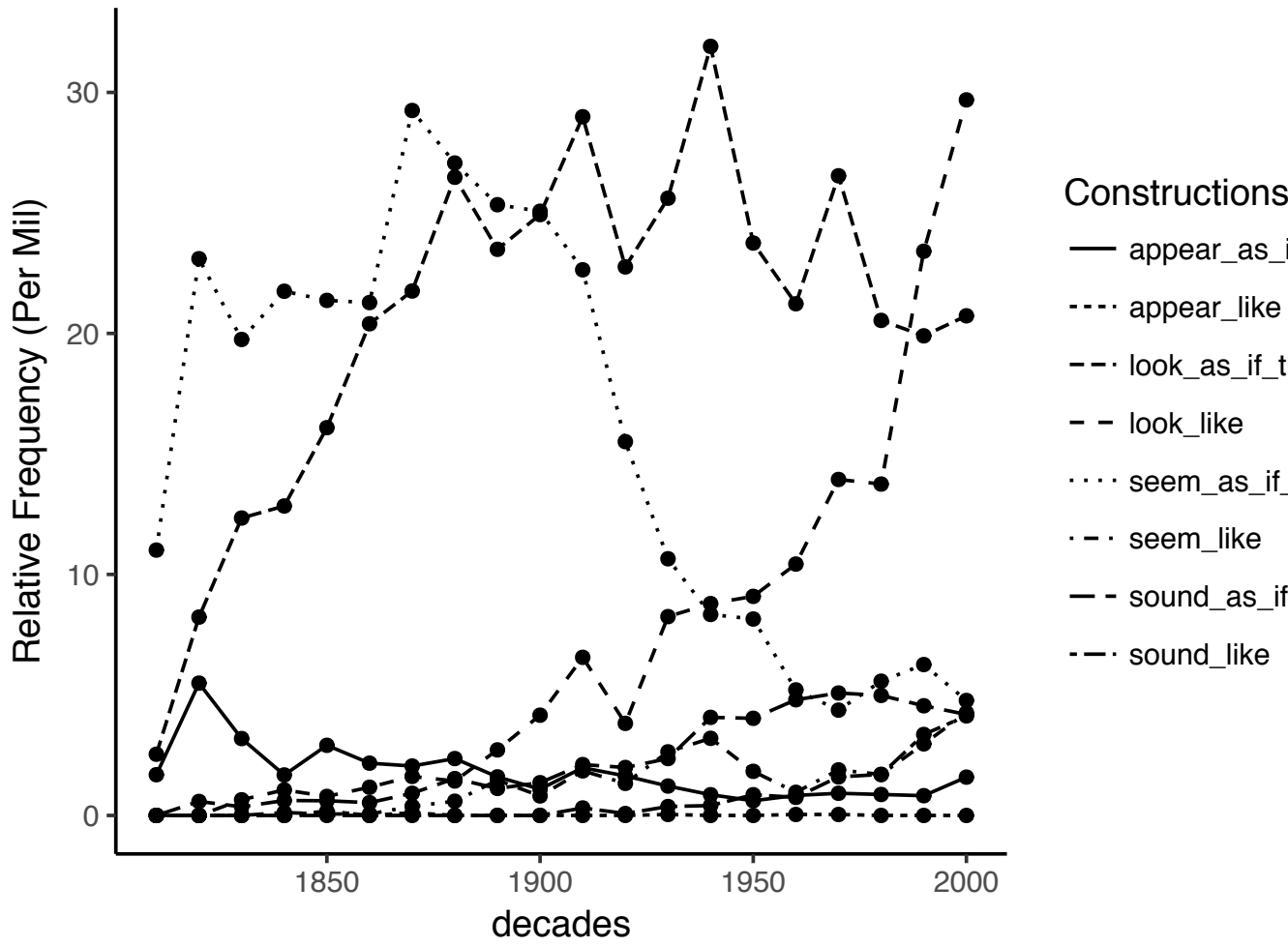


Figure 5.1: The development of the constructions as a whole

Table 5.2: Relative frequency of each combination of verbs and complementizers (per million words)

decade	look as if	look like	sound as if	sound like	seem as if	seem like	appear as if	appear like
1810s	2.54	0	0	0	11.01	0	1.69	0
1820s	8.23	0	0.58	0	23.1	0	5.49	0
1830s	12.34	0.65	0.36	0	19.75	0	3.19	0
1840s	12.84	1.06	0.62	0	21.75	0.12	1.68	0
1850s	16.09	0.79	0.61	0	21.37	0.06	2.91	0.18
1860s	20.4	1.17	0.53	0	21.28	0.06	2.17	0
1870s	21.76	1.62	0.92	0	29.25	0.38	2.05	0.11
1880s	26.48	1.43	1.53	0	27.07	0.59	2.36	0
1890s	23.49	2.72	1.12	0	25.34	1.46	1.6	0
1900s	24.93	4.16	1.36	0	25.07	0.81	1.09	0
1910s	28.99	6.56	2.11	0.31	22.64	1.85	1.98	0
1920s	22.76	3.82	1.99	0.08	15.51	1.33	1.64	0
1930s	25.61	8.25	2.36	0.37	10.65	2.64	1.22	0.04
1940s	31.91	8.79	4.07	0.41	8.34	3.2	0.86	0
1950s	23.75	9.09	4.03	0.86	8.15	1.83	0.61	0
1960s	21.23	10.43	4.8	0.75	5.21	0.96	0.83	0.04
1970s	26.54	13.94	5.08	1.6	4.37	1.89	0.92	0.04
1980s	20.54	13.75	4.98	1.7	5.57	1.7	0.87	0
1990s	19.9	23.41	4.55	3.36	6.26	2.97	0.82	0
2000s	20.73	29.69	4.19	4.13	4.77	4.26	1.59	0

The data shows that *seem as if* was already established in the 19th century. However, it has gradually been replaced in the 20th century. *Look* occurred with much lower frequency than *seem* in the 1820s, 8.23 and 23.1 per million words, respectively. However, *look* narrowed the gap by the 1900s, sharply increasing its frequency to 24.93 per million words, and the ratio between the two verbs actually reversed in the 1910s. On the other hand, *seem* displays a drastic decrease in frequency, from 26.48 per million words in the 1890s to 4.77 in the 2000s. *Sound* and *appear* show a similar tendency, although they occur much less frequently than *seem* or *look*: *Sound* displays a gradual increase from 0.58 in the 1820s to 4.8 in the 2000s, whereas *appear* shows a slow but consistent decrease from 5.49 in the 1820s to 1.59 in the 2000s.

However, when it comes to the *like* complement, these verbs exhibit a different tendency and *seem* is not the source of this use, as shown in Figure 2. In the 1820s, there was no established use of complement headed by *like*. In fact, none of the verbs examined here took *like* until the 1830s. Furthermore, *look* (a CPV), first took this complement in the 1830s, with a frequency of 0.65 occurrences per million words, and later showing a sharp increase to 29.69 in the 2000s. By contrast, *seem* does not appear with the *like* complement until the 1840s, and increased in occurrence to only 4.26 per million words in the 2000s. *Sound* first appears in this

syntactic frame in the 1910s, and has slightly but consistently increased to 4.13 occurrences per million words in the 2000s. Lastly, *appear* occurs in the data only eight times, a number too small from which to draw any trend. Finally, the CPVs analyzed here appear to have developed in parallel over time but it is reasonable that *look* dominantly takes *like* clauses, but not *seem*.

### **Verbs**

Next, the data comparing verbs of perception and verbs of seeming was analyzed and the results are presented in Figure 5.2.

These results suggest that verbs of perception have been surpassing verbs of seeming in number since the late 19th century.

### **Complementizers**

Figure 5.3 suggests that *like* has been surpassing *as if (though)* in the late 20th century.

### **Expletive *it*: Impersonal Usage**

In subject preference, there is a difference between CPVs and verbs of seeming, regardless of which sentential complement they take. Figure 5.4 and Figure 5.5

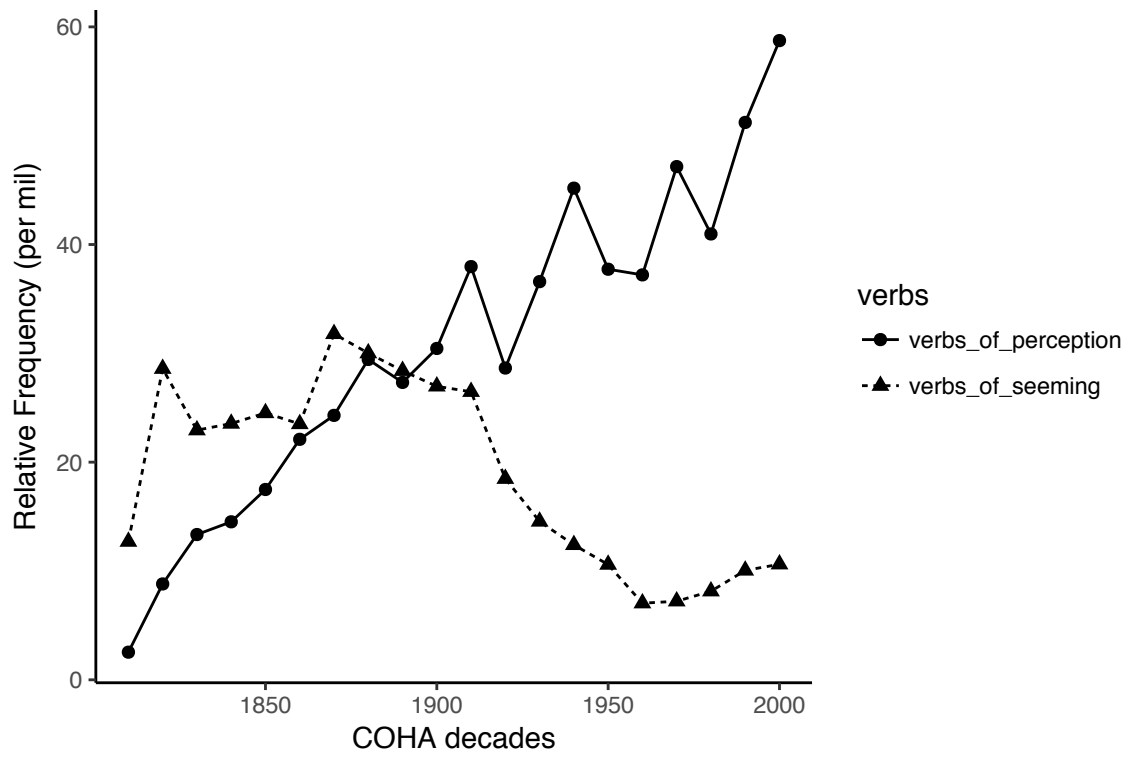


Figure 5.2: Development of the verb classes

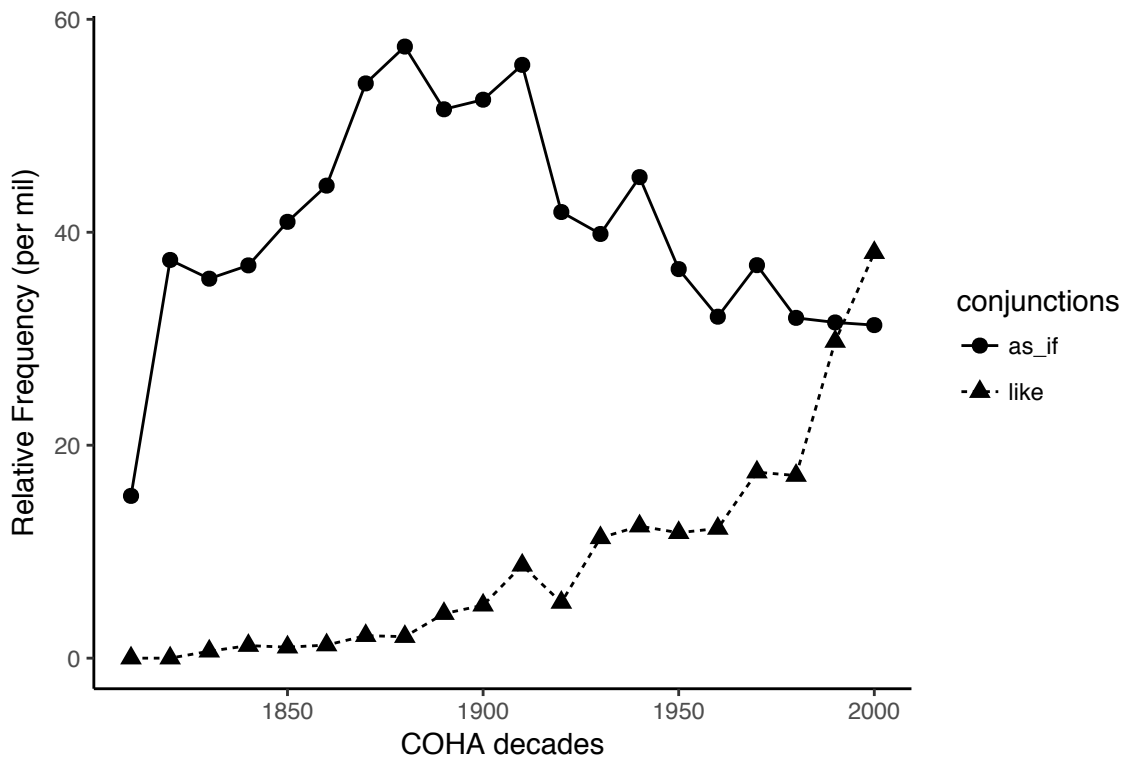


Figure 5.3: The development of the conjunctions

show the percentage of expletive *it* with each verb. Figure 3 indicates the percentage of expletive *it* that each verb takes with *as if (though)* complement, and that each verb takes expletive *it* by a different ratio. *Seem* demonstrates a clear preference for the expletive subject in every decade, consistently exceeding 80%. On the other hand, *appear* does not display such a clear tendency, but the percentage is nonetheless stable and remains the second highest percentage overall across most of the decades. By contrast, CPVs do not take the expletive *it* subject as frequently as *seem*. Expletive *it* was around 10% in the case of *look* until the 1870s, then increased in frequency starting in the 1880s reaching 40% in the 1920s. Thereafter, though, the percentage gradually decreased to around 25% in the 2000s. *Sound* with *as if (though)* in the 19th century is difficult to interpret because there were only a small number of instances, but the construction shows a similar tendency to *look* in the 20th century, with a percentage between 30% and 40%. In all, verbs of seeming show a stronger tendency to take the expletive *it* than CPVs, although *look* has steadily grown in usage.

Figure 5.5 presents the proportion of the expletive *it* with *like* complement in each of the verbs. It is not as clear as Figure 3 because the number of instances is much smaller than *as if (though)*, in particular in the 19th century as Figure 2 shows. *Seem* is difficult to interpret because of its small number of occurrences in

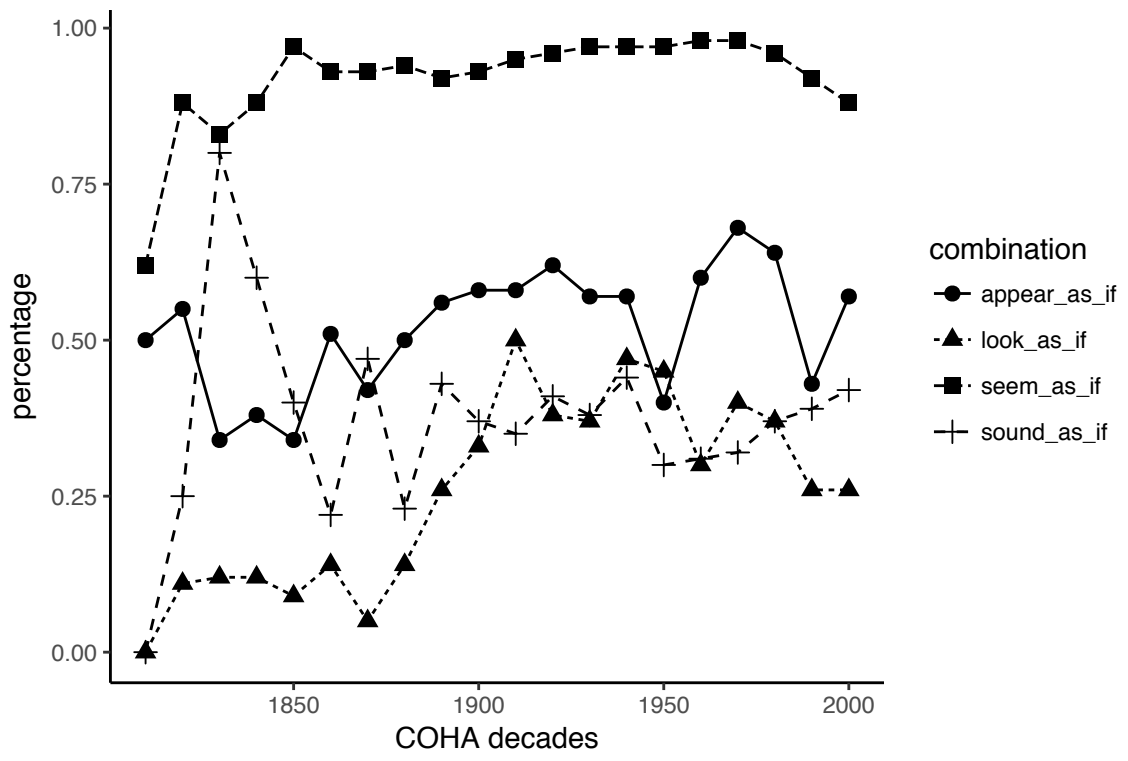


Figure 5.4: The percentage of *it* and *as if (though)* according to verbs



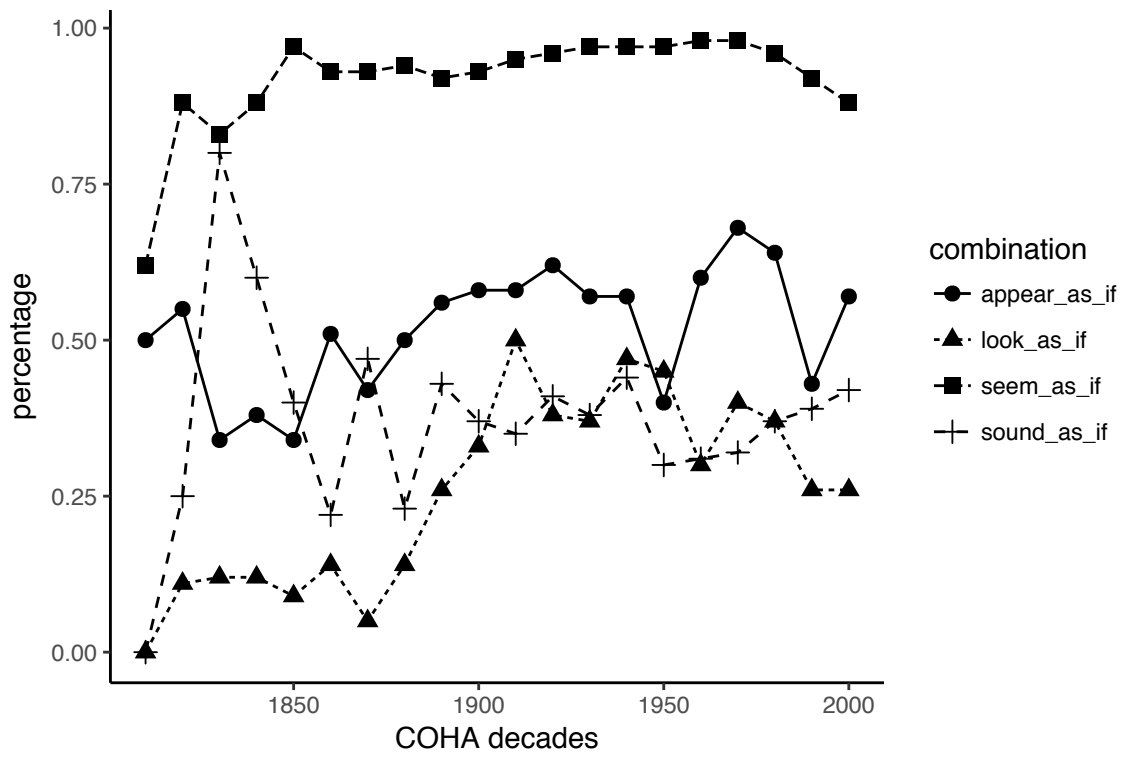


Figure 5.5: Percentage of *it* and *like* according to verbs

the 19th century, but, with the exception of the 1930s-1940s, it has grown gradually during the 20th century. By contrast, *look* does not exhibit such an increase, and the proportion remains between 20% and 30% from the 1860s to the 2000s. *Sound* has grown faster than *look*, showing a rapid increase from the 1900s to the 1950s, but the line is unstable because the number is small. *Appear* occurs only eight times and therefore it is excluded from the figure below. In summary, the *as if (though)* complement frequently occurs with *seem* and expletive *it*, whereas the *like* complement with *look* and referential subjects. In the following section, examples of each combination are closely examined.

## 5.4.2 Examples

### Look

As judged by the data examined here, all the complementation patterns are found in the case of *look*. Below are examples of *it* and dropped subjects with an *as if (though)* clause, a construction that has increased from the 1870s, as shown in Figure 5.3 .

- (8) a. It looks as if he had lived a pretty narrow life.

(The Web of Life, 1900)

- b. It looked as if they were having a good day.

(The Cat Who Robbed a Bank, 2000)

- c. It looked as though the Knight of the Cumberland had grown rebellious and meant to choose whom he pleased, but... .

(A Knight of the Cumberland, 1906)

- (9) a. Looks as if Bellini might have loved her.

(Charles Scribner's Sons, 1908)

- b. Looks as though you've got a pretty keen eye for money yourself.

(The Risk Profession, 1961)

There are also examples with referential subjects as in the following examples.

*Look* is different from *seem* in frequency in that *look* prefers referential subjects and *seem* prefers expletive *it*.

- (10) a. Pierre's daughter looks as if she is going to cry, it is so hot.

(The Hush in This Heat, 2000)

- b. The garment looked as though it had been deliberately fashioned to make its wearer appear shorter and heavier than she actually was.

(The Paid Companion, 2005)

Similar to the examples of *as if (though)* clause above, the *like* clause follows *look*

with expletive *it* (a use that became common in the 20th century; see Figure 5.2 shows) as presented in the following examples:

- (11) a. It looks like we were going to lose some of our own territory, don't it?

(Wearing of the Gray: Being Personal Portraits, Scenes and Adventures of the War, 1867)

- b. It looked like I'd just dropped from heaven when he first saw me.

(T.Tembarom, 1913)

- c. The coast was an end in itself now, and on maps it looked like they were nearly there.

(March to the Sea, 2002)

The omitted subject also commonly appears in the data, in particular in the conversation in the fiction genre as follows:

- (12) a. "Looks like they're going to raise the roof, doesn't it?" he said.

(Out of the Primitive, 1911)

- b. "Everything about her is impressive," insisted Colonel Payton. "Looks like we're all in agreement."

(Identity Crisis, 2004)

In the case of referential subjects with *like* complements, the subject of the matrix clause and that of the complement clause often refer to the same referent:

(13) a. Mr. Gregory, here, looks like he would be willing to take odds, ....

(Oak Opening, 1848)

b. Stolen fruits may look like they are sweet, but taste them, and they are bitter.

(Tales of the Road, 1905))

c. Everything looked as if a civil war were close at hand.

(Grandfather's Chair, 1842)

d. "How?" said the peddler, looking as if the sentence contained some mysterious meaning.

(Guy Rivers: A Tale of Georgia, 1834)

However, as in (10c-d), the matrix clause and the complement clause are not necessarily co-referential. This shows a clear contrast with the case of *seem*, where the subject of the main clause and that of the complement clause must be co-referential, as discussed in Chapter 4.2.3.

## Sound

*Sound* shows a similar development pattern to *look* as a member of the CPVs.

First, it takes expletive *it* as its subject as in the following instances:

- (14) a. Finally they stopped. Ryan heard a garage door open, then they drove inside. It sounded as if the two men carried the other kid away.

(The Search, 2000)

- b. It sounded as if he required the services of a private discriminator.

(The Gist Hunter, 2005)

- c. “It sounds as though you had won, sir!” he cried.

(The White Mice, 1909)

- d. “It sounds as though you expect them to have a real combat!”

(Innocent, 1968)

It should be noted that there is an ambiguity between expletive *it* and pronominal *it* and that expletive *it* denotes a piece of evidence the speaker actually hears, as exemplified below:

- (15) She hears a strange scraping sound – it sounds as though something is being dragged.

(Grudge [Movie script], 2004)

In the light of reanalysis in Hopper and Traugott (2003) , this formal ambiguity has motivated CPVs to take the impersonal construction because the ambiguity can potentially be interpreted in two ways. Moreover, the subject is often omitted, which makes a sole interpretation more difficult, as expressed here:

- (16) a. He said, “Sounds as if you get very involved with your work, your clients, Mr. Howe ....”

(Do With Me What You, 1973)

- b. Sounds as though he were thinking over that Paris proposition.

(Nowadays: A Contemporaneous Comedy, 1914)

This verb also takes referential subjects, which often denote hearsay evidence, as demonstrated in the following example:

- (17) a. It was the first neighing of a youthful steed, in his impatience for the trial, when his voice sounds as if his arteries are ruptured with the effort.

(Logan: A Family History, Volume 1, 1822)

- b. ...your voice sounds as though you were going to tell us something awful!

(Grandfather's chair, 1842)

- c. I know I sound as though I don't care about Sparrow.

(The Project, 2001)

The corpus also provides some examples of *like* complements with expletive *it* and the omitted subject, as in (15) and (16) respectively:

- (18) a. "I don't just see it yet," said Old Hosie slowly, "but it sounds like there might be something mighty big there."

(Counsel for the Defense, 1912)

- b. It sounds like they broke the horse.

(Ride, Vaquero, 1953)

- c. It sounded like she was crying, and when I asked her what was wrong she asked me to meet her in the reading room at the school's library.

(Just Too Good to be True, 2008)

- (19) a. "Sounds like they haven't had a very good relationship," Vicki said.

(Horsemen of Terror, 2002)

- b. "Sounds like she died instantly." I stood there with my mouth open.

(Rituals of the Season, 2005)



When *sound* takes referential subjects, the referents serve as evidence on which the speaker infers and asserts the proposition of the *like* clause. In (17b), the subject referent is simultaneously not only evidence but also the topic of inference.

(20) a. I guess every word I say sounds like I'm lying.

(T. Tembarom, 1913)

b. He sounds like he's got a problem.

(Down and Out in the Magic Kingdom, 2003)

Although the total number of occurrences of *sound* is much smaller than that of *look*, it also shows a range of syntactic combinations .

### **Seem**

*Seem* also shows a range of grammatical patterns. As Figure 5.3 indicates, of the four verbs discussed here, *seem* occurs most frequently with expletive subject *it*, as exemplified in the following examples:

(21) a. It seems as if the scene was closing.

(Novels, 1827)

b. It seemed as if every adult in town adored her.

(A Walk to Remember, 2000)

- c. It seems as though it was six years instead of six months since I left that part of the country, ....

(The Select Letters of Major Jack Downing, 1834)

- d. It seemed as though there were an overpowering nausea upon him.

(The Adventures of Jimmie Dale, 1917)

The grammatical subject is often omitted when this complement is used in conversation, as exemplified below:

- (22) a. “Seems as if I should choke!” says Bub.

(The Silent Partner, 1870)

- b. “Seems as if I’d kind of miss all the fuss in the store around Christmas,”

(Christmas A Story, 1912)

This usage with expletive *it* is already established in the 19th century according to Figure 5.3 , and it is the source of the emergent impersonal usage of CPVs. Although referential subjects are not common during all the decades analyzed, they are also found as follows:

- (23) a. It was beginning to get dark, and the tiny lights seemed as if they were twinkling.

(Flamingo, 2001)

- b. ... they seemed as though they would devour each other embracing and caressing.

(The Tennessean: A Novel, Founded on Facts, 1927)

- c. It seemed as though there were an overpowering nausea upon him.

(The Adventures of Jimmie Dale, 1917)

As shown in the above examples, the subject of the main clause and that of the subordinate clause are obligatorily co-referential. But, as exemplified in the case of *look*, this obligatory relationship is not necessarily applied to CPVs. In the same way, sentential complements headed by *as if (though)*, which can take expletive *it*, textitseem followed by *like* can take referential nominal subjects and dropped subjects :

- (24) a. It always seemed like I was going to succeed, but somehow I never did.

(Stories of a Western Town, 1893)

- b. But he was the kind I hadn't known, and it seemed like he was part of the whole thing – like the girls with title that Ann said I must get next to.

(T. Tembarom, 1913)

- c. It seemed like she was saying for me to shut up.

(Imani All Mine, 2000)

- (25) a. Seem like he had two wounded gray and nasty-looking birds folded up in his hands.

(Imani All Mine, 2000)

- b. Seems like there was something I should remember ....

(Jinx High : A Diana Tregarde Investigation, 2006)

- (26) a. He seems like he's plenty of money, an' we takes it he's all right.

(Wolfville, 1897)

- b. Brambles tore at us, rocks slashed our bare feet, our hearts seemed like they must burst within our breasts.

(Gates of Fire: An Epic Novel of the Battle of Thermopylae, [FIC], 1999)

- c.

In conclusions, *seem* comprises all the possible combinations of subjects and complements,, but each combination shows a different occurrence frequency.

## Appear

In contrast to the many varieties that *seem* exhibits, of the four verbs examined here, *appear* exhibits the fewest varieties, particularly with *like* clauses, as shown in these examples with *it* and *as if (though)*:

- (27) a. It appeared as if these people had never before seen a European, or American.

(North American Review, 1842)

- b. “It doesn’t appear as if the windshield was broken,” Saperstein said. “But I bet there’ll be clothing fibers on the wipers, and probably on the bumper or fender area.”

(False Accusations, 2000)

- c. At first it appeared as if I were the most fortunate of men, for a caravan headed for Baghdad was departing within the month, and I was able to join it.

(The Merchant and the Alchemist’s Gate, 2007)

- d. I need not tell you of our misery. It appeared as though God had turned his face from his chosen people.

(Rabbi and Priest: A Story, 1892)

- e. The murder was done by someone who wanted it to appear as though Stubbs had done it.

(Bartholomew Fair Murders, 1986)

Examples of referential subjects with *appear + as if (though)* are also found in the data:

- (28) a. The room was neatly arranged, and appeared as if no one had lately used it.

(The Novels, 1827)

- b. Seen from behind, they appeared as if they wore a helmet.

(North American Review, 1829)

- c. A young man, who appeared as though he had just made his debut from Bond-street, tried it once, but he signally failed.

(The Adopted Daughter; Other Tales, 1859)

- d. The trade problem with the Common Market is beginning to appear as though it will make things worse before they get better.

(The Atlantic Monthly, 1963)

The combination of *appear* and *like* has the least number of occurrences of all the possible combinations appearing only eight times during the 200 years ana-

lyzed. It should be noted that all the examples appeared with expletive *it*.

- (29) a. ... and it appeared like I could have no peace till I saw you.  
(Clovernook, or Recollections of our Neighborhood in the West.  
Volume 2, 1853)
- b. “But it appears like he was right this time, ma’am,” Matthew said.  
(Bloodline, 1968)

Thus *appear* is small in frequency and demonstrates the fewest syntactic varieties.

## 5.5 Discussion

In contrast to the large number of syntactic varieties expressed by *seem*, of the four verbs examined here, *appear* displays the fewest, particularly with *like* clauses. Below are some examples with *it* and *as if (though)*:

- (30) a. It appeared as if these people had never before seen a European, or American.  
(North American Review, 1842)
- b. “It doesn’t appear as if the windshield was broken,” Saperstein said.  
“But I bet there’ll be clothing fibers on the wipers, and probably on

the bumper or fender area.”

(False Accusations, 2000)

- c. At first it appeared as if I were the most fortunate of men, for a caravan headed for Baghdad was departing within the month, and I was able to join it.

(The Merchant and the Alchemist’s Gate, 2007)

- d. I need not tell you of our misery. It appeared as though God had turned his face from his chosen people.

(Rabbi and Priest: A Story, 1892)

- e. The murder was done by someone who wanted it to appear as though Stubbs had done it.

(Bartholomew Fair Murders, 1986)

Examples of referential subjects with *appear + as if (though)* are also found in the data:

- (31) a. The room was neatly arranged, and appeared as if no one had lately used it.

(The Novels, 1827)

- b. Seen from behind, they appeared as if they wore a helmet.



(North American Review, 1829)

- c. A young man, who appeared as though he had just made his debut from Bond-street, tried it once, but he signally failed.

(The Adopted Daughter; Other Tales, 1859)

- d. The trade problem with the Common Market is beginning to appear as though it will make things worse before they get better.

(The Atlantic Monthly, 1963)

The combination of *appear* and *like* had the fewest number of examples of all the possible combinations, with only eight occurrences during the 200 years studied. It should be noted that all the examples appeared with expletive *it*.

- (32) a. ... and it appeared like I could have no peace till I saw you.

(Clovernook, or Recollections of our Neighborhood in the West. Volume 2, 1853)

- b. “But it appears like he was right this time, ma’am,” Matthew said.

(Bloodline, 1968)

*Appear*, therefor, exhibits to lowest frequency and has the least syntactic variation.

## 5.6 Summary

This chapter has demonstrated that the development of CPVC with clausal complements is not a simple path aligned with complementizers. In the case of *as if* and *as though*, the results of this survey were consistent with those of previous studies, that CPVC obtained clausal complement patterns with these complementizers as a result of the analogical extension of verbs of seeming such as *seem* and *appear*.

On the other hand, CPVC also has *like*-complements, but this usage did not derive from its counterparts *seem* and *appear*. *Look like*, for example, emerged earlier than and has been more frequent than *seem*. In spite of the wide syntactic variation of *seem*, *appear* displays the least variation of the four verbs examined here, particularly with *like* clauses. Below are some examples with *it* and *as if* (*though*):

- (33) a. It appeared as if these people had never before seen a European, or American.

(North American Review, 1842)

- b. “It doesn’t appear as if the windshield was broken,” Saperstein said.  
“But I bet there’ll be clothing fibers on the wipers, and probably on

the bumper or fender area.”

(False Accusations, 2000)

- c. At first it appeared as if I were the most fortunate of men, for a caravan headed for Baghdad was departing within the month, and I was able to join it.

(The Merchant and the Alchemist’s Gate, 2007)

- d. I need not tell you of our misery. It appeared as though God had turned his face from his chosen people.

(Rabbi and Priest: A Story, 1892)

- e. The murder was done by someone who wanted it to appear as though Stubbs had done it.

(Bartholomew Fair Murders, 1986)

Examples of referential subjects with *appear + as if (though)* are also found in the data:

- (34) a. The room was neatly arranged, and appeared as if no one had lately used it.

(The Novels, 1827)

- b. Seen from behind, they appeared as if they wore a helmet.

(North American Review, 1829)

- c. A young man, who appeared as though he had just made his debut from Bond-street, tried it once, but he signally failed.

(The Adopted Daughter; Other Tales, 1859)

- d. The trade problem with the Common Market is beginning to appear as though it will make things worse before they get better.

(The Atlantic Monthly, 1963)

The combination of *appear* and *like* has the fewest examples of all the possible combinations, occurring only eight times during the 200 years studied, all of which appeared with expletive *it*.

- (35) a. ... and it appeared like I could have no peace till I saw you.

(Clovernook, or Recollections of our Neighborhood in the West.

Volume 2, 1853)

- b. “But it appears like he was right this time, ma’am,” Matthew said.

(Bloodline, 1968)

Therefore, *appear* has the is smallest number and least syntactic variation.

## **Chapter 6**

### **The Copulative Perception Verb**

### **Construction as a Comment Clause**

### **in Present-day Spoken American**

### **English**

#### **6.1 Introduction**

This chapter concerns the development of Copulative Perception Verb Construction (CPVC) into a pragmatic marker, as exemplified here:

- (1) a. The only job prospect that this guy had, it looks like, is this hedge fund, this joke hedge fund he was starting up based out of his own apartment. (COCA: SPOK: CNN)
- b. C-HILLIS: I had a beer. I can remember having a beer.
- MORIARTY: So, it sounds like, at least initially, the conversation was civil.
- C-HILLIS: It was initially civil. (COCA: SPOK: CBS\_48Hours)

A corpus-based survey was conducted to elicit evidence for the development of CPVC, including tag-question formation; formal fossilization; and the variable positions in which CPVC occurs. Hopper (1991) considers CPVC to be as a case of grammaticalization. Some typical examples are provided in Taniguchi (1997:270-1) as follows:

- (2) a. John looks happy.
- b. This cake tastes good.
- c. This cloth feels soft.
- d. That sounds reasonable.
- e. This flower smells sweet.

Formally, CPVC comprises three elements: the subject, the verb, and the adjec-

tival complement. Functionally, it is used to describe some property of the subject referent, for example, sentence (2a) expresses that, judging from his appearance, John is happy.

Regarding the adjectival complement, Gisborne (2010) demonstrates that CPVC can take a wide variety of complements, including clause complements such as

- (3) a. Jane sounds nice. (adjective)
- b. Jane sounds a nice girl. (noun phrase)
- c. Jane sounds like a nice girl. (*like*-phrase)
- d. Jane sounds like/as though she's a nice girl. (*like*-clause)

All of these complements describe an attribute (i.e., *nice*) possessed by the subject referent (i.e., *Jane*). In addition, CPVC has developed a new usage as a comment clause, presented in (4).

- (4) Looks like I have no choice, do I? (SOAP, 2003, GH)

In this example, the main clause, *looks like*, adds the speaker's evaluation or perspective to the content of the subordinate clause (i.e., *the speaker does not have any choice*). These functions are similar to that of other comment clauses identified by Brinton (2008b) such as *I suppose* or *I think*. Moreover, the tag question phrase *do I* has a discursive function, sharing the speaker's point of view with the hearer.

This chapter examines the ongoing development of CPVC with a clausal complement in Present-day spoken American English from a cognitive linguistic point of view, adducing four examples of formal or functional changes as evidence:

1. tag question agreement with the subordinate clause
2. preferred light or omitted subject in the main clause
3. free occurring position of the construction
4. indicative mood in the subordinate clause

Sentence (4) exemplifies the first, second, and fourth of these criteria. First, the tag *do I* does not agree with the main clause *looks like*, but rather, agrees with the subordinate clause *I have*. Further, the main subject is omitted and the most reasonable candidate for this element is expletive *it*, which cannot have a referent described by the adjectival complement. As a result, the main clause is shorter than the subordinate clause and the main clause becomes independent of the rest of the utterance, shifting focus from the internal part of the proposition to the outside. In other words, the main clause shifts its function from the main structure of a clause to a more adverbial part added to what was formerly the subordinate clause.

Finally, the subordinate clause, which in CPVC has typically been used in the subjunctive mood, is here expressed in the indicative mood (i.e., *have*). This sug-



gests that the subordinate clause is more likely to refer to some proposition rather than to some hypothetical standard to be compared with the subject of the main clause. This chapter argues that the main clause (e.g., *look as if* or *look like*) thus becomes more peripheral to the sentence in the sense of Traugott (2012)'s theory, and the relationship between the main clause and the subordinate clause radically changes.

## 6.2 Previous Studies

### 6.2.1 Historical Development of CPVC

The following section outlines the development of CPVC, citing some seminal prior research. From a typological point of view, there are two types of perception verbs organized by subject alignment: experiencer-based perception verbs and stimulus-based perception verbs (Viberg 1983, Kemmer 1993, Whitt 2009). Experiencer-based perception verbs take the experiencer-perceiver as their grammatical subject while stimulus-based perception verbs take the object of perception.

- (5) a. I smelled this meat.
- b. This meat smells.

Taniguchi (1997) argues that CPVC evolves from intransitive stimulus-based perception verbs with a post-verbal adverb as in (7). This original construction refers to an event of stimulus emission from the object, but then it changes into the attribute of the object.

- (6) a. The apple smells sweetly.  
b. The apple smells sweet.

This transition is based on two mechanisms, about the first of which concerns the form of adverbial complements. For example, from Middle- to Early Modern English, the form of the adjective and the adverb is identical, which allows the adverbial complement to be reanalyzed as an adjectival. The second mechanism concerns inference: if the apple emits a sweet smell, it is reasonable to infer that the apple itself has an attribute of sweetness.

This inference can also be extended to the other senses. For example, if the apple has an appearance that suggests its sweetness (e.g., it is red), it is also reasonable to infer that the apple is sweet.

- (7) The apple looks sweet.

At this stage, CPVC refers to some state or attribute of the subject with adjectival complements.

Gisborne (2010:243-4) argues that CPVC can take a wide range of complements, as demonstrated here:

- (8) a. Jane sounds nice. (adjective)  
b. Jane sounds a nice girl. (noun)  
c. Jane sounds like a nice girl. (*like*-phrase)  
d. Jane sounds like/as though she's a nice girl. (*like*-clause)  
e. Mr. Clark looks to have achieved the impossible. (*to*-infinitive)

The complementation pattern includes clausal complements introduced by *as if (though)* and *like*. Typical examples are shown in (9):

- (9) a. John *looked as if* he had seen a ghost. (Quirk et al. 1985:1175)  
b. You *look like* you need a drink.

(Huddleston and Pullum 2002:1158)

By taking clausal complements, CPVC has two internal finite clauses: the main clause with perception verbs and the subordinate clause (*as if (though)/like* clauses).

There have been numerous studies conducted on CPVC with clausal complements (? , among others). Taniguchi (1997, 2005) offers an explanation of the emergence of the clausal complement in CPVC from the viewpoint of cognitive grammar, arguing that this complementation pattern is an analogical extension

from *seem* because perception verbs such as *look* became similar to *seem* in that both *look* and *seem* concern the speaker's evaluation. Examples from Taniguchi (2005:245) include:

- (10) a. John seems as if he's seen a ghost.
- b. John looks as if he's seen a ghost.
- c. John sounds as if he's seen a ghost.

In example (10a), the speaker, making a judgment based upon inference, concludes that the referent is shocked or terrified due to the referent's appearance in (10b) and his voice in (10c). The clausal complements in these cases are similar to other complements, such as adjectives or nouns. In cases such as (6.2.1), the sentence specifically concerns the reference to the subject of the main clause and it introduces into the discourse a new property or state of the subject referent. This type of use can be called the *old* CPVC.

But CPVC has developed further and Gisborne (2010) divides the evidential use of CPVC into two classifications: Evidential-1 and Evidential-2. In Evidential-1, the perception verb assigns a semantic role, the percept, to the grammatical object, as in the following examples:

- (11) a. John looks as if he's seen a ghost.

- b. John sounds as if he's seen a ghost.

In this case, the referent of the grammatical subject (*John*) is seen or heard by the speaker.

On the other hand, in Evidential-2, the perception verb does not give any semantic role to the grammatical subject, as shown in the following example:

- (12) a. (I've heard the forecast and) the weather looks fine tomorrow.

(Gisborne 2010:245)

- b. It sounds like the weather will be fine tomorrow.

In the first example, because the weather for the next day cannot be directly observed, the speaker has not actually witnessed the weather itself, but rather the weather forecast. In the second example, the referent of the grammatical subject in the main clause (*it*) cannot be assigned any semantic role because it is an expletive, and refers to nothing specific. Here, the function of CPVC is no longer to describe some property that the subject referent possesses, but to describe the content of the subordinate clause, (i.e., *the weather will be fine tomorrow*). This function can be called the *new* CPVC.

Huddleston and Pullum (2002) propose that there has been a functional shift from the description of the subject referent to “the issue of whether the content

clause is true” (p.1151). This suggests that the new CPVC has emerged because the subordinate content clause has changed from an adjectival clause that describes the subject referent to a content clause that refers to a proposition. In , as an example of the old CPVC, the speaker does not argue that John has seen a ghost, but rather has tried to communicate to the hearer how terrified John seems. In , as an example of the new CVCP, the speaker commits to the proposition that the weather will be fine on the next day, which is expressed by the *like*-clause.

The new CPVC is also different from old one in terms of topic-focus structure in the sense presented by Erteschik-Shir (2007). In (4), the sentence topic is no longer the grammatical subject of the main clause since that subject can be either expletive *it* or omitted altogether. In this case the sentence topic is the subordinate subject or the subordinate clause itself. And the main clause (*(it) looks*) indicates evidentiality because it is concerned with evidence the speaker uses regarding the content of the subordinate clause. As Gisborne and Holmes (2007) points out, the indication of evidence often suggests that the proposition is not conclusive and carries a hint of uncertainty. In this sense, this use is similar to comment clauses like *I think* and *I suppose* in Brinton (2008b). To date, there has been little research conducted on the (pseudo-)comment clause use of CPVC and therefore the present study investigates this use.

## 6.2.2 Comment Clause

Brinton (2008a:1) presents the comment clauses as a kind of pragmatic marker<sup>1</sup> with a finite clausal structure as follows:

A pragmatic marker is defined as a phonologically short item that is not syntactically connected to the rest of the clause (i.e., is parenthetical), and has little or no referential meaning but serves pragmatic or procedural purposes.

Brinton's definition can be classified into a series of formal and functional elements, summarized as follows:

- formal features
  1. formally short elements
  2. free occurrence in position
- semantic features
  1. subjective evaluation

The present paper argues that CPVC is developing the comment-clause use in accordance with Brinton's definition. In a series of works (see Brinton (2008a) and

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<sup>1</sup>For a more comprehensive summary of pragmatic markers, see (Brinton 2017).

Brinton (2017)), Brinton has mainly been concerned with comment clauses with the first-person subject (e.g., *I mean, I gather, I think*) because the main clause with the first-person subject occurs more frequently than those with second-person (e.g., *if you will*) or third-person subjects (e.g., *what's more*). Interestingly, CPVC as a comment clause has characteristics of both the first-person subject and the third-person subject. Formally, it is a comment clause with a third-person subject because the subject is expletive *it*. Semantically, it has subjective meaning in that it refers to the speaker's subjective evaluation or attitude (*I guess* or *I think*, which are similar to *it seems* and *it appears*). Thus, the detailed description *it looks/sounds like* contributes to the description of comment clauses in general and to a deeper understanding to CPVC specifically.

### **6.3 Data and Methodology**

The data considered here were collected from *Corpus of American Soap Operas* (?) (SOAP). This corpus is derived from soap operas, a genre of television drama that reflects actual (if somewhat idealized) spoken English, as opposed to other corpora whose sources are mainly written texts. These data were supplemented by diachronic examples from *Corpus of Historical American English* (?) to assess



the diachronic aspects of CPVC.

The perception verbs examined here are *look* and *sound* because they are frequently used and well-schematized in meaning from mere perception to the speaker's evaluation (Gisborne 2010, Whitt 2010). Raw data were retrieved from the corpora and, after examination, irrelevant cases were deleted. The present research presents only qualitative results due to the small number of relevant cases identified, particularly in regards to tag questions.

## **6.4 Results**

### **6.4.1 Tag Question Formation**

The first evidence of (pseudo-)comment clause use of CPVC comes from the formation of tag questions. One of the general rules of forming tag questions is that “[t]he subject of the tag must be a pronoun which either repeats, or is in coreference with, the subject of the statement, agreeing with it in number, person, and gender” (Quirk et al. 1985:810). In other words, the tag part must be matched with the main clause.

This rule is so broad that many examples can be found in the corpus:

- (13) a. Alan kind of looks like he has some color in his face today, doesn't

he? (SOAP, 2007, GL)

b. Looks like they're pretty personal, doesn't it? (SOAP, 2003, YR)

c. It doesn't sound like we have much of a chance, does it?

(SOAP, 2008, ATWT)

d. Sounds like I've had a lot of dental work, doesn't it?

(SOAP, 2002, GH)

In (13a), the tag part *doesn't he* agrees with both the main clause subject and verb (*Alan kind of looks like*). In (13b), although things seem a little confusing because the subject of the main clause is omitted, it is still reasonable to infer that the omitted subject is recoverable as expletive *it* because the verb *looks* is in the third person singular, and the subject of the subordinate clause is in the third person plural. So, the tag part is matched only with the main clause. In (13c), subject of the main clause can be accounted for in the same fashion, but the subject of the subordinate clause disagrees with that of the tag part in person and number. This also occurs in (13d).

However, there are also examples in the survey which violate the general rule of tag question formation, and their tag parts agree with the subordinate clauses introduced by *like* or *as if (though)*, rather than the subjects and verbs of the main clause.

- (14) a. Looks like I have no choice, do I? (= (4)) (SOAP, 2003, GH)  
b. So it looks like I don't have an escort, do I? (SOAP, 2002, OLTL)  
c. Looks like we're on the same page, aren't we?

(SOAP, 2005, OLTL)

Although the number of these examples is small, it nonetheless indicates a structural shift. In these examples, *it* refers to what the speaker wants to ask or confirm, which is the content in the subordinate clause. The main clause *look(s) like* adds the speaker's subjective evaluation. From a functional point of view, in examples the *like*-complement is no longer used to refer to some property of the referent, (i.e., adjectival function), but instead develops an independent propositional status, just as verbs of thinking do with *that*-clauses. From a formal point of view, this suggests that the main clause is independent from the rest of the sentence and, like adverbial clauses, is moving to a more peripheral, adverbial position.

#### **6.4.2 The Reduction or Omission of the Subject**

The second evidence for (pseudo-)comment clause use of CPVC comes from the type of the main clause subject. The present study divided the main clause subjects into four types: omitted, expletive, human, and thing, as exemplified here:

	expletive	omitted	human	thing	total
<i>look</i>	2,724	1,666	1,286	96	5,772
<i>sound</i>	824	404	241	43	1,512

Table 6.1: Subject types of CPVC with clausal complements in SOAP

- (15) a. [Omitted] Well, looks like I arrived just in time. (SOAP, 2010, GH)
- b. [Expletive] But, you know, it looks like he deliberately disobeyed me. (SOAP, 2008, GH)
- c. [Human] She looked like I was betraying her. (SOAP, 2008, GL)
- d. [Thing] I mean, I don't know much about jewelry, but these look like they're pretty expensive rings. (SOAP, 2003, GL)

The results presented in Table 6.1 suggest that the majority of the main clause subjects are either omitted or expletives, as in (16).

- (16) a. Looks like I'm going to Venezuela. (SOAP, 2005, GL)
- b. It sounds like she will be fine. (SOAP, 2002, YR)

This suggests that the subject in the main clause does not denote the perceived or the evaluated object, and the main clause itself is grammatically reduced. This has two consequences: First, these subjects lose the explicit relationship between

the main clause and the subordinate clause because they refer to the evidence by which the speaker believes the content of the subordinate clause.

Second, once the subject is omitted or expletives are introduced, as in *(it) looks like* and *(it) sounds like*, CPVC becomes a fixed phrase because it does not contain any slot to be filled. As a result, it has no connective part and refers solely to the speaker's attitudes with the implication of the existence of some evidence that is not explicitly mentioned in the utterance.

### **6.4.3 Free Occurring Position: Parenthetical and Independent**

#### **Use**

The third evidence of (pseudo-)comment clause use of CPVC is that, as a sentence's main subject and verb, CPVC usually occur at the beginning of the clause following the subordinate clause, as in the following examples.

- (17) a. She looked like I was abandoning her. (SOAP 2008 GL)
- b. Oh boy, looks like we were wrong. (SOAP, 2006, PASS)
- c. It sounds like he apologized. (SOAP, 2010, BB)
- d. Sounds like I hit a nerve. (SOAP, 2002, AMC)

Here, the main part has become separated from the rest of the clause, and what

used to be the subordinate clause has come to behave more like the main clause of the utterance. This separation is supported by examples in which the main clause still occurs at the beginning of the clause but with fillers such as *uh*.

- (18) a. Well, it looks like, uh, you ladies have made yourselves right at home. (SOAP, 2011, DAYS)
- b. Listen, it looks like, uh, Claudia stole a rental car. (SOAP, 2009, GH)
- c. And from the statements you gave me, it sounds like, uh, he played you just right. (SOAP, 2009, YR)
- d. And if we want it, it sounds like, uh, we need to move quickly. (SOAP, 2006, YR)

By using *uh*, the main clause is separated from, and thus more independent of, the rest of the sentence, but *uh* is more likely to be a parenthetical in that it seems to be able to be taken away from the rest of the utterance without changing the meaning.

*It* can also appear in the middle of an utterance, as in the following examples, which also exemplify the parenthetical use of CPVC:

- (19) a. Now, we're in for some heavy rains, it looks like, so I want you all to be very careful going home, all right?

(SOAP, 2009, AMC)

b. And if we want it, it sounds like, uh, we need to move quickly.

Before somebody else gets it. (SOAP, 2006, YR)

c. So he, it looks like, knew this was going to fail.

(COHA, 2010, SPOK)

Further, the end of the main clause is also available to CPVC. At this stage, *like* cannot be regarded as a complementizer because it never introduces a clause and the formerly-main clause has become a comment clause.

(20) a. Business is good for you, too, it looks like. (SOAP, 2011, GH)

b. Poor bastard has more courage than sense, looks like.

(SOAP, 2011, DAYS)

c. It could be a lot of fun, it sounds like. (SOAP, 2010, AMC)

d. Well, I care because you punched out her father, it sounds like.

(SOAP, 2003, AMC)

Finally, there are some cases in which the main clause can occur without any following clause, which will here be called “independence.”

(21) a. Sharon: So we’re stuck.

Jack: Yeah, it looks like. (SOAP, 2008, YR)

- b. Megan: Looks like Zende's made some new friends.  
 Bridget: Yeah, looks like. Hey, Megan, was Deacon still at the office when you left. (SOAP, 2002, BB)
- c. Gigi: You hear this, Balsom? Your parents loved each other.  
 Rex: Yeah, it sounds like. So what happened between this and ditching me in the hospital? (SOAP, 2010, OLTL)
- d. Michael: It's one of those great Perry Mason moments.  
 Victoria: Yeah, yeah, it sounds like. (SOAP, 2005, YR)
- e. Karen: Well, I guess we're the first.  
 Frank: Yeah, looks like. (SOAP, 2002, PC)

It should be noted that this use of CPVC falls within subjective modality in that the speaker's commitment to the agreement with the previous statement is attenuated.

This can be supported by cancellability as follows:

- (22) Sheridan: She's gonna live?  
 Luis: It looks like, but I need a doctor. (SOAP, 2007, PASS)

In this example, Luis mostly agrees with Sheridan's previous utterance, but he is not fully confident and he therefore says "but I need a doctor."

All of these occurring positions suggest that CPVC has developed into a com-



ment clause which, from a functional point of view, adds the speaker's evaluation or attitude to the rest of the utterance.

#### **6.4.4 Indicative Mood**

The third evidence for (pseudo-)comment clause use of CPVC is that the indicative mood is used more often than the subjunctive mood in the complement clause of CPVC. Originally, subordinate clauses of the construction are expressed in the subjunctive mood in order to denote some hypothetical comparison, functioning as predicates similar to other complements such as adjectives as in (23a). When the subjunctive mood is employed, whether the content of the subordinate clause is true or not is irrelevant, as in (23b). Typical examples are as follows:

- (23) a. John looked pale.
- b. He looks as if he were sick. (James 1986:86)
- c. Josh looked as if he had been dumped from a moving car and dragged a few hundred miles. (SOAP, 2006, AMC)
- d. The way he sounded on the phone, he sounded like he'd been up all night. (SOAP, 2005, OLTL)

It should be noted that the speaker does not show any commitment to whether

the content of the subordinate clause is true or not. For example, in (23c), the speaker does not believe that John had been actually dumped from a moving car and dragged a few hundred miles, but rather tries to show how miserable John was by telling an exaggerated story.

The survey data shows that the subordinate clause is in the indicative mood, as in (24).

- (24) a. Looks like they're getting some coffee. (SOAP, 2004, YR)
- b. Well, it looks like I have to go and get a prescription before it closes.  
(SOAP, 2008, OLTL)
- c. Sounds like we're going to be very busy. (SOAP, 2005, BB)

These sentences suggest that the content of the subordinate clause is no longer a standard for making a comparison but, rather, is what the speaker wants to communicate to the hearer.

## **6.5 Expansion as a Comment Clause**

As demonstrated in this survey, CPVC has expanded its scope of modification by becoming a comment clause. The original comment clause use modifies the finite clause, which was previously a subordinate clause. Some typical cases are shown

as follows:

- (25) a. Republicans are going to repeal it, it looks like, in some form.  
(COCA, 2017, SPOK, CBS: Face the Nation)
- b. But it's worth it, it looks like.  
(COCA, 2016, SPOK, NBC: Today Show)
- (26) a. I'm wondering, it sounds like, you know, you're doing so many things now.  
(COCA, 2009, SPOK, NPR\_TalkNation)
- b. You're asking cops to forget about their hunches, it sounds like.  
(COCA, 2015, SPOK, NPR: Fresh Air)

Comment clauses are adverbial clauses in distribution and, as CPVC has developed the comment clause use, it has modified a wider range of elements. For example, CPVC can modify phrases headed by participles as follows:

- (27) a. Liam: My dad's here.  
Steffy: Reading your letter, it looks like.  
Liam: Do you, uh, do you mind giving me a second?  
(SOAP, 2011, BB)
- b. Neil: What exactly is her job, Lily?

Lily: To find me into double minus triple zero by next week, it seems like.

Neil: Right. You do realize that you're special without all the tricks and gimmicks?

(SOAP, 2008, YR)

CPVC can also modify shorter elements such as adjectival and nominal phrases as in following cases, in which *it looks like* modifies nominal phrases.

(28) a. "Mongol raiders, it looks like," said Greg with wonder in his voice.

(COCA, 2005, FIC, Analog)

b. WILLIE-GEIST: He's all right?

TAMRON-HALL: Small injury, it sounds like.

WILLIE-GEIST: All right. Good.

(COCA, 2015, SPOK, NBC)

Further, CPVC can modify adjectival phrases as shown here:

(29) a. Thirsty, too, looks like.

(COCA, 1999, FIC, SouthernRev)

b. "Not careful enough, it sounds like.

(COHA, 2006, FIC, DeadliestDenial)

Finally, CPVC can also modify prepositional phrases including fragmental elements:

(30) a. Bianca: From whom?

Jack: Yeah, from everybody in Pine Valley, it looks like.

Opal: That's right.

(SOAP, 2004, AMC)

b. There was a power of the neighbors went together. To Tennessee, seems like, to join Daniel Boone.

(COHA, 1939, FIC, TreeLiberty)

In conclusion, CPVC as a comment clause can modify a wide range of elements which implies that the comment clause usage has adverbial distribution. From the viewpoint of grammaticalization, this shows host-class expansion and collocational expansion, as proposed by Himmelmann (2004).

## 6.6 Summary

The present survey has shown that CPVC with clausal complements is a comment clause that, in spoken Present-day American English, adds the speaker's subjective attitude to the content of the subordinate clause.

But older adjectival predicate use of CPVC has never faded and many of the examples in this survey are ambiguous between the two interpretations. Both the old and the new usages are coexistent in Present-day spoken American English.

# Chapter 7

## It looks that *it looks that* is possible.

### 7.1 The Purpose of This Chapter

The previous two chapters have dealt with established uses of CPVC: its *like*-complement and its comment-clause. However, since language never stops changing, CPVC continues to presents new uses, some as yet unestablished. The present chapter deals with one such new use of CPVC, specifically CPVC with *that*-clause as its complement. For example:

- (1) a. It looks to me that Nathan Bedford Forrest was a military genius.

(COCA, SPOK, CNN\_Cooper, 2011)

b. It sounds to me that it was a profit margin problem.

(COCA, NEWS, Minneapolis Star Tribune, 2017)

In (1a), the speaker receives some information first and then uses it as evidence to judge Nathan Bedford Forest as a skilled military man. On the other hand, in (1b), the speaker hears some information and, because of it, considers something as a profit margin problem. Although this use is similar to *look/sound like*, it is a much newer usage and still infrequent in Present-day English.

As these examples show, this complement pattern displays both evidential modality and epistemic modality at once, in the sense presented by Palmer (2001). Evidential modality refers to the source (evidence) by which the speaker reaches the proposition; in this case, it is indicated by perception verbs. Alternatively, epistemic modality concerns the speaker's commitment to the truth value of the proposition and is here indicated by the verb construction as a whole. As the examples below from COCA show, *it looks/sounds to me that* points to evidence that the speaker relies on to soften his/her assertion about the proposition expressed in *that* clauses.

In previous literature, the acceptability of this construction has been controversial. For example, Austin (1962) was among the first to address the combination of *look* and *that*. He argues that *that* clause as a complement is among constructions



“which do not occur with ‘looks’” (p.35), although *appear* can be placed in the complement pattern. Even in contemporary linguistics (for example, Taniguchi (2005), ?) this complement pattern is considered to be unacceptable<sup>1</sup>. On the other hand, some descriptive scholars such as Yagi (2006) and Inoue (2018) have identified authentic examples from corpora.

Although there have been a few descriptive studies on this complement, little systematic research has been conducted. This chapter collects examples of this pattern from BYU corpora and attempts to explain the distribution and proposes the following five arguments regarding *it looks/sounds that*.

1. This type occurs primarily in speech and is rare in the formal, written register.
2. *Look that* dates to around the end of the 19th century while *sound that* dates to the late 20th century.
3. This pattern often appears with adverbial phrases between the main verb and *that*-clause, such as *looks to me that*.
4. *It looks* and *it sounds that* are also used as comment clauses although they still appear infrequently.

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<sup>1</sup>It should be noted that Taniguchi and Gisborne do not predict this unacceptability in their theoretical framework, but simply mention this descriptive fact in passing.

## 7.2 Previous Studies

### 7.2.1 Unacceptability (with Informants)

In linguistics, some researchers have argued that CPVC with *that* complement is an unacceptable construction. For example, Taniguchi (2005:215) argues that the *that* complement is not acceptable in the case of CPVC, unlike *seem* and *appear*, as shown in the following examples:

- (2) a. It seems that John is happy.
- b. \* It looks that John is happy.

Taniguchi argues that, as CPVC gets more similar to those verbs by shifting from concrete sensation to inference, it acquires complement patterns such as the *to*-infinitive (e.g., *John looks to be a good doctor*) from *seem* and *appear* via analogical extension. But, this analogical extension is not yet complete, and this causes the unacceptability of *that* clauses in CPVC. This means that *as if* and *like* complement have been imported to CPVC (as discussed in previous chapters), but *that* has not.

Moreover, although Taniguchi does not explicitly name the data source from which the acceptability argument is derived, it is likely that the examples are from native informants. And although there is a high correlation in many cases, there

are often gaps between what is acceptable and what is useful.

Likewise, Gisborne and Holmes (2007:20) notes that “there is no point in their history in which they are able to occur with the complementizer THAT”. Gisborne (2010:276) also argued that *that* clause is unacceptable in CPVC and he offers the following contrast between *seem* and *look*:

- (3) a. It seems that Peter has gone home.
- b. \* It looks that Peter has gone home.

His data were based on his own knowledge: Gisborne is a native speaker of English and a professor of English at the University of Edinburgh. Gisborne’s argument that this usage is unacceptable perhaps implies that it is not established in the United Kingdom. At the same time, he suggests that this is not theoretically predictable:

This fact may be idiosyncratic, simply indicating that sound-class verbs select *like*, but it may be indicative of a substantial difference between *like/c* and *that* even as the sole argument of a raising verb (p. 276).

This comports with Park and Turner (2017:484), who propose that perception verbs “tend to resist” the alternation with *it – that* construction. Let us consider

the following examples.

- (4) a. Mia seems/appears like she is leaving.
- b. It seems/appears that Mia is leaving.
  
- (5) a. Mia smells like she was in the chicken coop.
- b. \* It smells that Mia was in the chicken coop.

Park and Turner argue that, as evidenced above, while *seem* and *appear* can be used in the alternation between the *like*-variant and *that*-variant, perception verbs such as *smell* cannot take the *that*-variant.

In sum, based on acceptability as identified by native informants, Taniguchi, Gisborne and Holmes, and Parker and Turner all suggest that this pattern (CPVC with *that* clauses) has not yet been recognized as an established usage among native speakers. However, although there is a high correlation between acceptable expressions and used expressions, it does not follow that unacceptable expressions are not used in data. As the next section shows, CPVC with *that* clauses do indeed occur in authentic data in Present-day English.

## 7.2.2 Authentic Data in Corpus Linguistics and Phraseology

Although this use has been regarded as unacceptable in some previous literature, corpus-based research shows that examples of CPVC in this complementation pattern can be found. For example, Yagi (2006: 207), a phraseologist, presented authentic examples taken from *Wordbank Online*, including

- (6) a. The IB meeting in March considers all proposals discussed at the interim meeting, but it looks very much that this is the road we will tread.

(WordBanksOnline)

- b. Or not so big, maybe, for it looks to me that even covered in shelves of wool and parka hood and blanket though he is, my father, is smaller, even diminished beneath.

(WordBanksOnline)

He argues that it is natural that *look that* should be established in the future for two reasons. The first reason is that *that* is semantically different from *as if/as though* in that the former represents the speaker's assertion but the latter represents counterfactual content. In this sense, *that* does not seem to block the *as if/as though*. The second reason is that *seem* is different from *look*. Although Yagi did not ex-

plain the differences in these verbs in detail, from the viewpoint of evidentiality, it might be that *seem* refers to inference and does not rely on any particular physical sense, but *look* specifically denotes visual evidence.

Following Yagi's findings, Inoue (2018) conducted a survey of the British National Corpus (BNC) and reported that CPVC with *that* clauses is actually found in Present-day English.

- (7) a. With a 34-0 lead, top gear was no longer required. Yet, despite their form over the last two months, the turning point for Wigan's 20th major trophy in six years undoubtedly came in December when it looked that they might struggle for success this season.

(BNC)

- b. "A girl in my class told me about it," adds Dolores. "She knew the lads and said they were very nice so that made it easier to audition for them." And did the lads turn out to be very nice? She pauses for a moment, and the van overflows with the sound of helpless male laughter. "Well they were townies you know," she finally says, and it looked to me that when townies hung out together, they all dressed the same, did the same things, went to the same places..."

(BNC)

Inoue considered five research questions, which she addressed in turn.

1. What is the function of *it looks that*?

With *it looks that*, the speaker euphemistically asserts that the content described by *that*-clause is real and can be assured visually.

2. What is the difference between *that* and *as if/as though/like*?

The difference between *that* and *as if, as though* and *like* concerns the reality of the content: *That* implies that some event actually happens, whereas the other three complements are counterfactual.

3. What is the difference between *it looks that* and *it seems that*?

The difference between *seem* and *look* is that the former represents the subjective judgment of the speaker based on his/her inference while the latter shows that the judgment is based on some evidence.

4. What has had an impact on the emergence of *it looks that*?

The construction comes from the uniformization of *look, sound, seem* and *appear* in complementation. *That* was imported from *seem* to *look* based on their semantic similarities because both verbs express the speaker's attitudes and his judgment based on evidence, although the type of evidence is

different between the two verbs.

5. What principles are involved in the emergence of *it looks that*?

This complement pattern is an analogy and *look* acquired *that* complementation via analogical extension.

### **7.2.3 Research Questions**

Although CPVC with *that* clauses are still formally regarded as unacceptable or unestablished for native speakers, it has been found in authentic data. This gap between acceptability and actual use is a typical characteristic of emerging expressions.

## **7.3 Data and Methodology**

### **7.3.1 Data**

Data were collected from elements of the *BYU-Corpora: COCA, COHA, Movie Corpus, TV Corpus* and *SOAP Corpus*. A summary of these corpora is presented in Table 7.1.

These data sources were chosen for three key reasons: First, they are all large,



Table 7.1: Summary of corpora employed (based on BYU-Corpora online)

	size	varieties	genres/medium	time periods
COCA	560 million	American	balanced, mainly written	1990-2017
COHA	400 million	American	balanced, mainly written	1810-2009
MOVIE	200 million	US/CA/UK/IE/AU/NZ	informal spoken	1930-2018
TV	325 million	US/CA/UK/IE/AU/NZ	informal spoken	1950-2018
SOAP	100 million	American	informal spoken	2001-2012

containing more than 100 million tokens each. The size is crucial when minor or infrequent expressions are surveyed. For example, *it looks/sounds that* is so new that the expression was expected to show a low frequency. But these large sources offer the opportunity to collect a sufficient number of examples for both qualitative and quantitative analysis.

Second, the corpora collectively cover a wide range of English varieties. *COCA* and *COHA* contain numerous tokens collected mainly from written materials. They are complemented by *MOVIE*, *TV* and *SOAP*, which comprise premade movie and television scripts written and edited by professional writers. And though the examples in these sources were not compiled from spontaneous speech and conversation they reflect typical actual spoken language used at the time they were created or broadcast.

Third, the corpora cover a long period of time. *COHA* covers written registers from the 1810s to the 2000s; the *MOVIE* and *TV* cover spoken English of six

regional varieties dating from the 1930s to the 2010s and from the 1950s to the 2010s, respectively. These two corpora were expected to offer the opportunity to look at the diachronic change of CPVC construction.

However, it should be noted that the corpora do not contain spontaneous speech and the relationship between spontaneous speech and scripted dialogues in movies and TV programs has not been analyzed and it is assumed that the language of actual daily conversation is reflected in the language of media. Still, the language of drama shows similarities to actual daily language use.

### **7.3.2 Methods**

#### **Retrieval**

In order to improve survey coverage, the present research employed three different retrieval queries. The first retrieval queries were as follows:

- (8) a. it LOOK that
- b. SOUND that

These are the most basic queries in the survey because they do not have any modifying phrases. Some examples of this type are exemplified below:

- (9) a. And, I mean, you look at this tape, and clearly it looks that this man is being - not being subdued. He's being battered. (COCA, SPOK, Fox\_Saturday, 2005)
- b. Did you get it wrong? My dad is a quick service deliveryman. It looks that you don't know about it. He was an artist a long time, (MOVIE, Misc, Beyond the Door, 1974)
- c. It looks that we can sort of put the blue ones together into sort of domes. (TV, Genius by Stephen Ha..., 2016)
- (10) a. But it sounds that these prices are comparable. Ms-BAXTER: And I really wanted it to be(COCA, SPOK, NPR\_Saturday, 2006)
- b. It sounds that you may need me. (MOVIE, US/CA, Wake, 2009)

However, actual cases are often modified by a wide range of phrases. Among them, the most important are prepositional phrases because CPVC is collocated with this kind of phrases to indicate the perceiver/evaluator (e.g., *to me*), who commits to the truth value of the proposition the subordinate clause expresses.

The second research query is as follows:

- (11) it LOOK SOUND to \_p\* that

Some of the retrieved examples of this query are shown below:

- (12) a. It looked to him that this man's condition was so hopeless that it was unnecessary for.... (COHA, FIC, TalesRoad, 1905)
- b. Well, it looks to me that she's there and you're not. (MOVIE, US/CA, The Walls of Jericho, 1948)
- (13) a. It sounds to me that the nerve fibers have grown out, producing a neuroma. (MOVIE, US/CA, Disputed Passage, 1939)
- b. I haven't had a chance to read the fine print, but it sounds to me that we're essentially back where we were yesterday. (COCA, SPOK, CNN\_King, 1999)

The third query concerns the omission of *that* complementizer because it is expected to be omitted in informal situations. The query for such cases is as follows:

- (14) it LOOK SOUND (to \_p\*) \_p\*

In this case, the survey limited the subject of the subordinate clause to pronouns in the nominative case such as *I* and *he* because other nouns are so ambiguous that an excessive number of unrelated cases are retrieved.

- (15) a. I saw some people, at least it looked to me they got whacked.  
(COCA, SPOK, Fox\_HC, 1999)

- b. Looks to me you already got a girlfriend.

(MOVIE, US/CA, Prison Break, 2007)

- (16) a. It sounds to me you're saying it's just pinpricks. (COCA, SPOK, CNN: Nancy Grace, 2015)

- b. Sounds to me he's just like his fucking sister. (MOVIE, UK/IE, Message from the King, 2016)

### **Manual Checking and Encoding**

After retrieval, each example was reviewed in order to eliminate irrelevant cases. As Table 7.2 shows, only 121 examples out of 1,052 cases were relevant. This is partly because *that* is a multifunctional word: It is not only a complementizer but also a demonstrative like *this*. There are numerous cases in which *that* is used as a demonstrative before nouns as shown in (17) and its extended case, an intensifier preceded by adjectives as shown in (18).

- (17) a. Aaron Rodgers just made it look that way. (COCA, MAG, Bleacher Report, 2016)

- b. I mean, you try and go back and look at it the way it looked that night. (COCA, SPOK, CBS\_48Hours, 2008)

- (18) a. I got beat up a little bit. I didn't think it looked that bad. (COCA, MAG, Esquire, 2003)
- b. Well, you don't have to make it look that good. (TV, Young Justice, 2013)

These cases were irrelevant to the survey because they do not contain complement classes and were removed from the final data.

Other irrelevant examples contained *as [adjective] as* construction.

- (19) a. As strange as it sounds that means the more you eat, the less you feel the reward. T(COCA, SPOK, CBS: 60 Minutes, 2012)
- b. I'm 30? "I say to my dad, as preposterous as it sounds that I will one day be 30, much less that he will be 70 .... (COCA, MAG, SatEvenPost, 2008)

These are, in fact, cases of adjectival complements, but *that* complements and so they were also eliminated from the data.

The examples collected from these corpora are summarized in Table 7.2.

Table 7.2: Corpora queries for CPVC with *that*-clause

Corpora	Queries	No. of hits	Relevant cases
COCA	it LOOK _r* that	1	1
	it LOOK that	111	8
	it LOOK to _p* that	18	18
	it SOUND _r* that	3	1
	it SOUND that	36	9
	it SOUND to _p* that	16	16
COHA	it LOOK _p* that	1	
	it LOOK that	101	
	it LOOK to _p* that	6	6
	it SOUND that	16	1
MOVIE	it LOOK _r* that	8	
	it LOOK that	144	13
	it LOOK to _p* that	8	8
	it SOUND that	15	5
	it SOUND to _p* that	5	5
SOAP	it LOOK that	192	
	it SOUND that	28	3
	it SOUND to _p* that	7	7
TV	it LOOK _r* that	8	1
	it LOOK that	296	6
	it LOOK to _p* that	5	5
	it SOUND _r* that	1	
	it SOUND that	18	
	it SOUND to _p* that	8	8
total		1,052	121

## 7.4 Results and Discussion

### 7.4.1 Genre Variation

Figure 7.1 and Table 7.2 present the variation in frequency of CPVC with *that* clauses by genre in COCA. COCA is a balanced corpus that includes five genres almost equally: ACAD (academic journals), FIC (fiction), MAG (popular magazines), NEWS (newspapers), and SPOK (spoken). The query results show that *that* complement patterns predominantly occur in spoken English and that the number of occurrences in SPOK is larger than the total in the other four genres combined.

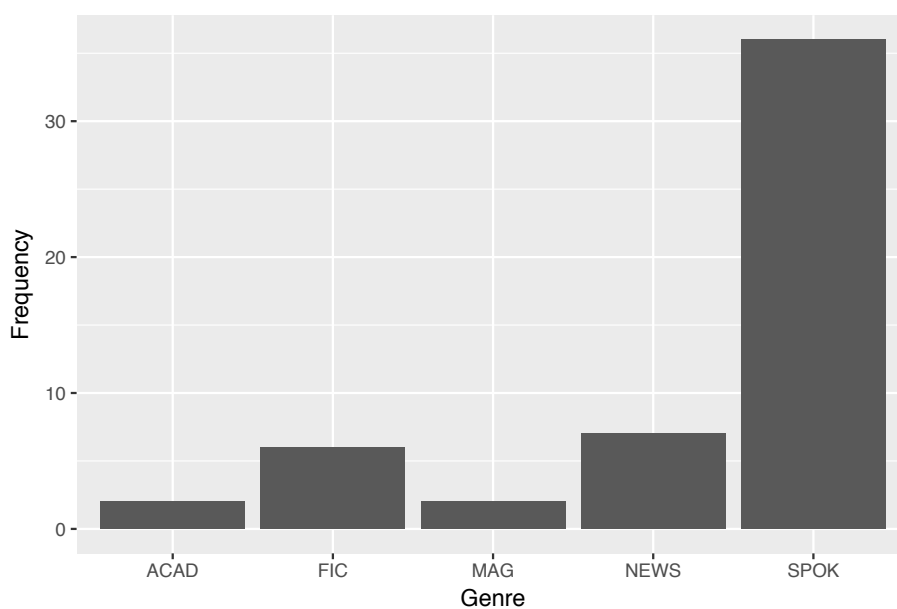


Figure 7.1: Genre variation of CPVC with *that*-clauses in COCA



Table 7.3: Genre variation of CPVC with *that*-clauses in COCA

ACAD	FIC	MAG	NEWS	SPOK
2	6	2	7	36

The predominance in spoken English suggests that this construction has emerged in spoken language, but it is not yet well established in written usage. Compared with spoken language, where words are often deployed creatively, written language is more prescriptive and resistant to change. This is particularly true in academic contexts, where the *looks that* construction is often edited or replaced with other expressions such as *seem that* or *appears that*, which are similar in function but regarded as more authentic than *looks that*.

## 7.4.2 Emergence

Next, let us consider the first record of *look that*<sup>2</sup>. Inoue (2018:93), using data from COHA and MEC, dated the first example of *it looks that* to 1996. However, the present survey, utilizing COHA, identified examples as far back as 1892.

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<sup>2</sup>Because the *look that* is used mainly in spoken language, it is difficult to identify when it first appeared in the language. It is likely that the first creative use of *look that* was not recorded and therefore is not accessible. The present paper, therefore, looked for the first “recorded” use.

- (20) It looked to him that Quimp, now that he had received his money, and made fifteen dollars out of his morning's work, was intentionally delaying the object of the expedition, for what reason he could form no clear idea. (COHA, 1892, FIC, FightingRight)

In the case of *it sounds that*, no case could be identified in COHA, but it was identified in the Movie corpus from 1977.

- (21) Hmm. Well, it sounds to me that he might be a Scot. And who might you be? (TV, 1977, Survivors)

The data show that *look* began to be collocated with *that* earlier than *sound*. Moreover, *look* has more examples than *sound* in the case of *that*-clause. These two facts suggest that *look* is more established than *sound* and *that* use is extended from *look* to *sound* via analogical extension based on their similarities in form and function.

This direction of the extension can be explained in terms of the relationship between inference and the five senses. Since Viberg (1983), it has often been argued that the five senses are not used equally in gathering information from the external world. Viberg (1983:147) formulates a hierarchy of the senses as follows:

- (22) sight hearing touch smell/taste

Here, the primary information source is vision, which is linguistically expressed by *look*, while hearing is a secondary source expressed by *sound*. Visual information is most frequently used as evidence for inference by the speaker, so that it is closer to inference than the other four senses. This enables *look* to become most similar to *seem* in complementation via analogical extension. Once the use of *look* is established, it is extended to other perception verbs such as *sound*.

The result of the survey is also consistent with Taniguchi (2005:244) regarding the *to*-infinitive complementation pattern which she demonstrates as follows:

(23) John looks to be a fool.

(24) John sounds to be a fool.

Taniguchi argues that, although both forms are at least somewhat acceptable, *sound* with *to*-infinitive is still regarded as non-standard. The difference in establishment appears to derive from the hierarchy of the five senses.

These data suggest that *look* first gained *that*-clauses as its complement around the beginning of the 19th century via analogical extension from *seem* and *appear*. Later, *sound* also developed this complement, around the 1970s as presented in (25). This difference may stem from the hierarchy of the physical senses. However, the results of this survey could be limited by the coverage of the data.

(25) {*seem, appear*} *look sound*

### 7.4.3 Insertion of Adverbial Phrases

In the survey data, it is often the case that *to*-phrases (e.g., *to me*) and other adverbial phrases are inserted between the verb and the complementizer *that*. For example,

(26) a. Did it look to you that I had?

(COHA, FIC, SalemFrigate, 1946)

b. It looked to me that it wasn't possible for us to get together.

(COCA, SPOK, PBS: PBS Newshour, 2016)

(27) a. I haven't had a chance to read the fine print, but it sounds to me that we're essentially back where we were yesterday.

(COCA, SPOK, CNN\_King, 1999)

b. And it sounds to me that with you, it was the first resort.

(COCA, SPOK, Ind\_Springer, 1996)

In both the case of *look* and *sound*, as Table 7.4 shows, there were more examples where adverbial expressions were inserted between a verb and a complementizer, compared to the number of examples where no adverbial expression as

Table 7.4: The frequency of insertive phrases between the verb and the complementizer *that*

	nothing	adverb	<i>to</i> + pronoun	total
look	27	2	37	66
sound	18	1	35	54
total	45	3	72	120

inserted. This suggests that formats like *look to me that* and *sound to me that* are more standard than *look that* and *sound that*.

This is related to the historical development of this syntax. The standard complement indicators following *look* and *sound* are *like*, *textitas if*, *textitas though*. These are collocations like *looks like* and *sounds as if* and are commonly used. But the high frequency of tokens inhibits the entry of new expressions. By comparison, *looks to me like* is not very common and therefore its blocking power is weak. In this gap, it is thought that first *look to me that* was used and, as a result, *look ... that* has been strengthened, and *look that* can be used alone.

This suggests that the change occurred based on the difference between change on the surface and change in the structure. Although *looks that* and *looks to me that* are syntactically the same, the surface is different in that *to me* is inserted between the verb and its conjunction.

*Looks like* is frequently used in Present-day English and can still be inserted

structurally, but it is predominantly used as *looks like*. This is equivalent to un-  
verbalization and is involved with specialization in grammaticalization. In other  
words, *looks that* and *sounds that* are suppressed by *looks like* and *sounds like* to-  
kens, which are much more frequent combinations with similar functions. How-  
ever, since *looks to me like* and *sounds to me like* are relatively infrequent tokens,  
it may be that there was room for new expressions of *looks to me that* and *sounds*  
*to me that*. This is consistent with Goldberg's (1995) suggestion that surface form  
is more important than structural form.

#### 7.4.4 Development into a Comment Clause

CPVC without a *that* complementizer can also be used as a comment clause. As  
with *like*, CPVC without a *that* complementizer is found only with *look* and *sound*,  
which refer the visual and auditory senses. In the survey data, the sentence subject  
is the syntactic expletive *it* in the data, as in *it looks* or *it sounds*, and the verb and  
the tense is either present or past.

Some examples are shown below:

- (28) a. Lots of people here, it looks.

(COCA, 2017, FIC, Bk:PlainDead)

- b. Got a bit of Elf in you, too, it looks.

(COCA, 1992, FIC, BkSF:NonetoAccompany)

- c. MITCHELL: Not the an – there’s no – there’s no magic pill, it sounds.

K-DOLAN: There is no simple answer...

D-DOLAN: No.

(COCA, 1998, SPOK, CBS\_SatMorn)

Although these are non-standard usages, this section considers why they are possible and how they have developed diachronically. The comment clauses *it looks/sounds* have developed from CPVC with *that*-clauses, following the path proposed by Thompson and Mulac (1991).

Thompson and Mulac (1991) propose that a comment clause emerges as a result of the separation of the matrix clause and the subordinate clause. In this process, the matrix clause is demoted to an adverbial position and the subordinate clause is promoted to the main clause position. As an example, Thompson and Mulac present the case of *I think* (Thompson and Mulac 1991:313).

- (29) a. I think that we’re definitely moving towards being more technological.  
b. I think  $\phi$  exercise is really beneficial, to anybody.  
c. It’s just your point of view you know what you like to do in your□

spare time I think.

The development from the first example to the second one is *that*-deletion, which loosens the relationship between the main clause and the subordinate clause. The phrase *I think* in (29b) is structurally ambiguous with the main clause followed by the subordinate clause and a comment clause modifying the prepositional utterance<sup>3</sup>. In other words, the main clause can be syntactically reanalyzed (neo-analyzed in Traugott and Trousdale (2013b)'s phrase) from the main clause to a comment clause. In the third example, *I think* is placed at the end of the sentence and is unambiguously a comment clause. CPVC with *that*-clause follows the same path.

The comment clause use of CPVC with *that*-clause likely started with the main clause use. This use is still common in Present-day English, exemplified as follows:

- (30) a. It looks to me that Nathan Bedford Forrest was a military genius.  
(COCA, 2011, SPOK, CNN\_Cooper)
- b. But what are you going to do? It sounds to me that it was a profit margin problem.

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<sup>3</sup>Dehe and Wichmann (2010) argue that main-clause use and comment clause use are different in prosody.



(COCA, 2017, NEWS, Minneapolis Star Tribune)

In the first example, *it looks to me that* is undoubtedly the main clause. It expresses subjective meaning, denoting the speaker's attitude toward the proposition based on visual evidence and expressed by the subordinate clause. Similarly, the second example shows that the speaker is committed to the truth value of the proposition, *it was a profit margin problem*, based on what he/ she has heard. This subjective meaning remains in the comment clause usage.

The second step in the development path is the deletion of *that* as a complementizer. *That* is the most neutral complementizer and therefore is optional in this construction. In the case of CPVC, examples without *that* are observed in the data as follows:

(31) a. Looks to me I'm just in time.

(COCA, 1995, FIC, LiteraryRev)

b. It sounds to me you're saying it's just pinpricks.

(COCA, 2005, SPOK, CNN: Nancy Grace)

Still, *looks to me* in the first example and *it sounds to me* in the second show the speaker's commitment towards the proposition expressed in the subordinate clause. But from a structural standpoint, they are ambiguous as to the main clause and a comment clause.

The development path is also motivated by similarities between *seems* and *appears*. Perception verbs and verbs of seeming are both affected by the speaker's judgement and inference. In other words, CPVC with *that*-clauses appear to be an analogical extension and already share numerous syntactic frames, including the copulative use, *like* complement, and *to*-infinitive complement. Both *it seems* and *it appears* have subjective meaning in their semantics and are used in comment clauses as follows:

(32) a. Jack: I think she'd be better off playing with sharp knives.

Phyllis: Emily changed you, it seems. Maybe Sharon can change Adam.

Jack: Into what?

(SOAP, 2010, YR)

b. John: Well, all right. I, uh, stopped by the loft to get Brady to back off Dimera. None too soon, it appears. I found that he had hacked into Dimera's server.

Marlena: Ooh, like father, like son.

Verbs of perception such as *it looks* and *it sounds* borrow this use as comment clauses, even though the comment-clause use is infrequent in Present-day Ameri-

can English.

Once they are reanalyzed as comment clauses or adverbial phrases, these constructions can freely occur at various positions in a sentence. Most importantly, they can occur in the middle or end of an utterance and in such cases they cannot be interpreted as the main clause, thus proving that perception verbs can function as comment clauses.

- (33) a. Lots of people here, it looks.

(COCA, 2017, FIC, Bk:PlainDead)

- b. Got a bit of Elf in you, too, it looks.

(COCA, 1992, FIC, BkSF:NonetoAccompany)

- c. MITCHELL: Not the an – there's no – there's no magic pill, it sounds.

K-DOLAN: There is no simple answer...

D-DOLAN: No.

(COCA, 1998, SPOK, CBS\_SatMorn)

In these examples, *look* and *sound* occur at the end of the utterance, where the main clause cannot occur, showing that CPVC can unambiguously serve as a comment clause.

Interestingly, there is no case in the data where *it* is deleted in contrast to comment clause use with *like* including *look like* and *sound like*. Typical cases are as follows:

- (34) a. You did some shopping recently, looks like. (COCA, 2015, FIC, MassachRev)
- b. I'm the only one you know, looks like, if you'd be hanging around the Zebulon National Forest. (COCA, 2000, MAG, Redbook)
- (35) a. They don't stay down, sounds like. (COCA, 2005, FIC, African American Review)
- b. COSBY: Do you think, Joe, it's going to get to the point of a boycott? I mean, sounds like, like you feel like it's pretty close? (COCA, 2005, SPOK, MSNBC\_Cosby)

In sum, there is no case in which only verbs such as *look* or *sound* function as comment clauses.

Moreover, once the construction has been reanalyzed as a comment clause it can also modify a wider array of elements. This is further evidence that CPVC has become a comment clause, because, unlike *like*, CPVC takes nothing but finite clauses. The main clause use cannot be recovered by the addition of *that* and the

change of syntactic order in the sentence. For example, let us consider again the following examples:

(36) a. Lots of people here, it looks.

(COCA, 2017, FIC, Bk:PlainDead)

b. \* It looks that lots of people here.

(37) a. Got a bit of Elf in you, too, it looks.

(COCA, 1992, FIC, BkSF:NonetoAccompany)

b. \* It looks that got a bit of Elf in you.

(38)

All of these examples express a degraded naturalness when the *that* is recovered as the main clause, as shown in each (b) example. In (36a), the construction modifies a nominal phrase; in (37a) it modifies a verb phrase without an explicit subject; and in (??) it modifies a prepositional phrase. These examples suggest that CPVC with *that*-clause unambiguously functions as a comment clause, although the number of such occurrences in Present-day English is still low.

## 7.5 Summary

This chapter has investigated the use of CPVC with *that*-clauses in Present-day English using BYU corpora, characterizing this pattern as an emergent but unestablished use. First, quantitative research reveals that CPVC with *that*-clauses is still predominantly represented in speech, but not in the written registers. Second, although this construction was thought to have first appeared around the 1990s, the present study has shown that it could be found in the Movie corpus as early as the 1950s. Finally, this usage can function as a comment clause in Present-day English, as do *looks like* and *sounds like*.

Despite these findings, it is unclear whether CPVC with *that*-clauses has been fully established in Present-day English: even though this study utilized a source as large as the BYU corpora, relatively few cases of this construction were found. This infrequency contrasts with the fact that *seems that* and *appears that* often occur in the same corpora. One possibility for this is that the development of CPVC with *that*-clauses is based on its similarity to that of the terms *seems* and *appears*. A second possibility is that the frequency is blocked by competition with already-established *like*-clauses. There is room, therefore, for research on how this usage will develop. However, the present study has not yet offered a persuasive conclusion about whether CPVC with *that*-clauses can be empirically supported.

Further research must be done.

# Chapter 8

## Conclusions and Future Perspectives

### 8.1 Summary of the findings

This dissertation has explored the development of Copulative Perception Verb Construction (CPVC) in English focusing on the following three phenomena:

1. CPVC with *as if*, *as though*, and *like* (Chapter 5)
2. CPVC as a comment clause (Chapter 6)
3. CPVC with *that*-clauses (Chapter 7)

Chapter 5 considered the development of CPVC with clausal complements (e.g., *look as if*, *look as though*, and *look like*) in terms of its interrelation with that



of verbs of seeming (i.e., *seem*, *appear*). Results indicate that CPVC obtained *as if* and *as though* as a result of analogical extension from *seem* and *appear*. However, in the case of *like*, *look* and *sound* developed earlier than *seem* and *appear*. The data also show that once CPVC gained these complements, it began taking over verbs of seeming. Further, data also suggest that, over time, CPVC has gradually been taking expletive *it* more often, which suggests that the construction has developed similarities to *seem* and *appear*.

Chapter 6 demonstrated that CPVC is now used as a comment clause in order to express the speaker's attitude, similar to *seem*. CPVC is sometimes used independently and shows the speaker's agreement with some uncertainty, as in the case of *apparently*. But its use as a comment clause is, in some cases, extended as an independent response with some new expression of agreement, such as *yeah*, to express the speaker's conditional agreement to a previous utterance made by his or her interlocutor. This use might be paraphrased as "Judging from the evidence, what you said seems to be true." However, this agreement is not yet established because it has not been collocated with expressions like *yeah*, which shows agreement more explicitly. Without such expressions, the speaker might show hesitation to agree fully with the opinion of the hearer. The balance of agreement and hesitation appears to dependent largely on context, especially regarding how reliable

the evidence seems to the speaker.

Chapter 7 discussed the ongoing development of CPVC with *that*-clauses. Although the use with *look* and *sound* has not been established among native speakers, the construction is found in Present-day English in authentic data from corpora. As Inoue (2018) suggests and this dissertation argues, in the cases of *look* and *sound*, *that* has evolved the use of *seem* and *appear*, which frequently occur in this complement pattern. Moreover, there are some cases where this appears as a comment clause, suggesting that there are two different paths of development for CPVC into a comment clause according to complementizers. The first, which is proposed in Chapter 6, suggests that in the case of *(it) looks like*, the verb and the complementizer are fused into a fixed phrase independent of the rest of the utterance. The second path, following Thompson and Mulac (1991), suggests that, in the case of *it looks*, the comment clause is separated from the rest of the utterance by deleting *that*.

The primary finding of this dissertation is that a new CPVC category has been emerging, similar to the emergence of modal auxiliary verbs such as *will* and *should*. The prototypical members of this category are *seem*, *appear*, *look*, and *sound*.

Although they have different origins, these verbs have been developing simi-

lar syntactic and semantic characteristics. *Seem* was initially an impersonal verb without specific subject, which is necessary for Present-day English and is linguistically realized as *it*. *Seem* is the most popular verb to show evidentiality, although it does not refer to any particular sensory systems. *Appear* originally meant “be evident” and “come into the sight of the speaker” Gisborne and Holmes (2007). As it developed evidential meaning, *appear* became more similar to *seem* in terms of both form and function. For example, *appear* came to take expletive *it* as its subject and thereby became a sole-argument predicate taking a proposition to be evaluated by the speaker. *Look* and *sound* came from active-perception verbs with a perceiver subject Taniguchi (1997, 2005). The evolution began from *sound* (a verb of stimulus emission with an adverb of manner), followed by *smell*. *Smell* connects the verb of stimulus emission and the verb of perception because the verb function is a member of both verbal categories. Once the usage was established in the case of *smell*, it further extended to other verbs of perception that do not refer to any stimulus emission, such as *look* and *feel*. In Present-day English, these verbs become modal copula verbs with complementation patterns.

## 8.2 Future Perspectives

Despite the contributions this research has made to a more profound understanding of perception verbs and verbs of seeming, it does have some limitations. The most important of these limitations is that, although this research has presented three case studies, it may not provide sufficient evidence and data to support the theories it proposes. Corpora employed here are mainly from Contemporary American English, but it would be interesting to compare American, British, and other English varieties, both synchronically and diachronically. For example, it has been suggested in previous studies that *like* is informal American English and that British English appears to prefer *as if*. This variational difference has not been considered in this dissertation because appropriate data were not available. If possible, such comparative research would shed light on a wide range of research questions concerning Americanization or colloquialization (Leech et al. 2009).

There are also other constructions that are closely related to the constructions dealt with in this dissertation, two of which are introduced below.

### ***Look/sound to as Raising Verbs***

First, this research has explored *to*-infinitive as exemplified below:

- (1) a. John seems to be a fool. (Taniguchi 1997:293)

- b. John looks to be a fool. (Taniguchi 2005:244)
- c. John sounds to be a fool. (ibid.)

Some researchers have compared *to*-infinitive with the bare complement and Taniguchi (1997) suggests that the two types of complements are connected to iconicity (Haiman 1985). This characteristic can be seen even in the case of *seem* (Matushansky 2002). Generally speaking, iconicity means that forms are motivated by their meaning; grammatically, iconicity proposes that conceptually close things are also placed close syntactically. When CPVC takes a bare infinitival complement, it denotes a direct experience. On the other hand, *to*-infinitive refers to indirect experience, as in the following examples from Taniguchi (2005:245).

- (2) a. John seems a good doctor.
- b. John seems to be a good doctor.

Comparing these two sentences presents a correlation between meaning and syntax. The example (2a) shows a direct perception and the complement, *a good doctor* directly follows the verb. On the other hand, (2b) shows indirect perception and with an additional element situated between the verb and the complement.

This is consistent with Usonienė (1999), Usoniene and Soliene (2010) who argue that *to* functions as a propositional marker. The difference between events

and propositions is directionality, in that the former can be observed directly and the latter may not be possible, prompting a question to ask about iconicity.

This complement pattern has been regarded as a result of interaction with verbs of seeming, in the same manner as clausal complements introduced by *as if* and *like*, but this poses some further questions. First, there has been few studies considering what verb classes can appear in the *to*-infinitival complement. As an exception, Taniguchi (1997) suggests that the verb is limited almost exclusively to *be* and it is preferred when the complement is a nominal.

However, there are some counterexamples. For example, Gisborne (2010) presents an example with auxiliary *have*.

- (3) Mr. Clark looks to have achieved the impossible.

(Gisborne 2010: 243-4)

One possible interpretation for this is that, by utilizing *to*-infinitive, CPVC can take a greater variety of complements which cannot be taken as bare complements. For example, auxiliary verbs cannot follow the main verb directly (e.g., *\*looks have* or verbal participles (e.g., *looks running*, but they can follow the main verb directly with *to*, as evidenced here:

- (4) a. Yes. And they look to be enjoying it.

(COCA, 2017, SPOK, NBC: Today Show)

- b. At first glance at the first few page proofs I received in the mail, the book looked to have been edited well, which made all the difference in the world when it came to divining the most important terms and concepts out of such dense text and creating an index out of them.

(COCA, 2017, FIC, Bk:SeeAlsoDeception)

- c. That would be one thing if he was willing to even say something to Kim Jong-un about Kenneth Bae or about anything else, but it sounds like he almost sounds to be accusing Kenneth Bae of having done something wrong.

(COCA, 2014, SPOK, CNN: Ac 360 Later)

In addition, some copula or stative verbs can occur in this position, which can be considered a kind of extension from *be*.

- (5) a. But Fort Collins' most problematic intersections look to remain as they are for some time.

(COCA, 2013, NEWS, Denver)

- b. I'm saying that they might be looking to get bitten. Those boys came here because they thought I could find some magic shell that

will cure people.

(COCA, 2001, FIC, ChicagoRev)

However, more systematic research is required to identify verbs collocated with this construction pattern. It appears that there is a cline or continuum between what is natural with *to* on one end of an utterance and what cannot definitely be on the other end. It is likely that *be* and auxiliary *have* will be judged as natural because activity verbs such as *head* are unacceptable (e.g., *look to head*), but they are acceptable in the form of the progressive (e.g., *look to be heading*) with auxiliary *be*.

- (6) The training mech just went down, and the intruder looks to be heading my way. Should I engage? (COCA, 2008, FIC, Analog)

This is probably because when it is in the simple form (i.e., *the intruder looks to head my way*), *look to* will be close to *expect to* in interpretation.

Third, more quantitative research with authentic data from corpora must be done in order to describe and explain the diachronic development of CPVC with *to*-infinitive. Visser (1963) argues that CPVC with *to*-infinitive complement first appeared in the 18th century (Taniguchi 2005:244), but there have been few studies concerning the development of *to*-infinitive with CPVC.



### ***Feel* as a Verb of Inference**

Future research concerns a more comprehensive survey of *feel*. The present dissertation has mainly considered *look* and *sound*, which denote dominant means of perception and hence have developed in the category of perception verbs. On the other hand, CPVC has also been classified into less developed verbs with *smell* and *taste*, partly because the verb has been considered to represent the sense of touch and CPVC has been considered a construction concerning the five senses. Some example,

- (7) a. The cloth felt soft. (Viberg 1983:124)
- b. This cloth feels soft. (Taniguchi 1997:270-1)
- c. The wallet feels like leather. (Ando 2005:58)
- d. The stew tastes/smells wonderful. (Jackendoff 2007:213)
- e. The fabric feels old. (Gisborne 2010:245)

Descriptively speaking, however, *feel* means more than just a sensation or perception and it can refer not only to the sense of touch, but also to feelings of mind. For example, in the following example, *feel* does not refer to the sense of touch but to the feeling the speaker has when he or she hears the snout.

- (8) Karnofsky's snout feels rough to me. (Rogers 1971:214)

The speaker's feeling is often associated with his or her evaluation. In this case, the object to be evaluated is not necessarily tactile.

- (9) The story feels sad, but it's beautiful.

*(Mayhem at the Hampton Classic: A Gabriel Fortuna Hamptons  
Adventure, 2010)*

A difference between (8) and (9) is the adjective and its paraphrasability with the agent/experiencer-based construction. The former cannot take the experiencer as the grammatical subject because the property, roughness, belongs to the object of perception, Karnofsky's snout. On the other hand, the feeling, sadness, occurs as exemplified below:

- (10) a. \* I am/feel rough when I heard Karnofsky's snout.  
b. I am/feel sad when I heard the story.

*Feel* takes *as if* or *like* as its adjectival complement in order to describe the attribute of the grammatical subject with a (hypothetical) comparison, as exemplified in (11a) below. Sometimes, it simply expresses the speaker's feelings and does not have any concrete referent as the subject as in (11b). This clausal complement is also employed to express the speaker's inference with/without evidence, as in (11c).

- (11) a. Her head felt as if it would burst. (Ando 2005:48)
- b. It felt as though they had already won the Quidditch Cup. (Ando 2005:48)
- c. It feels like the door is open. (Chafe 1986:267)

Compared with *I feel that/like, it feels like* puts a slight emphasis on the existence of evidence that leads the speaker to an idea expressed by *like*-clause.

CPVC is also used as a comment clause similar to *look* and *sound*, as presented below (emphasis added by the author):

- (12) a. They were billions of dollars in debt and yet they were out there giving millions of dollars, it feels like, to just about anybody in government who would take it.
- (COCA, 2002, SPOK, CBS\_SixtyII)
- b. So, this is the summer of superheroes, it feels like. Is this one worth it?

(COCA, 2013, SPOK, CBS: This Morning)

In these cases, CPVC have undergone decategorization from a main clause and become an adverbial somewhat separated from the rest of the utterance.

Finally, unlike *look* and *sound*, *feel* appears to be unable to take *to*-infinitive

nor *that*-complement, as evidenced below:

(13) \* It feels to be a blanket. Taniguchi (1997:245)

(14) \* It feels that the door is open.

A small pilot survey was conducted utilizing the BYU Corpora but no appropriate cases were found. These might be idiosyncratic or accidental gaps, but it is possible that these unacceptable cases might stem from some feature of *feel* systematically. It might also be that, similar to the case of *look* and *sound*, in that these constructions may develop in the future, but for the present, no conclusion can be drawn.

As exemplified above, *feel* demonstrates numerous interesting characteristics, formally and functionally. It is not just a verb of tactile sensation but also one of inference. But, in order to understand the whole picture of the verb, further theoretical and descriptive research is required.

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