# RESTRUCTURING AND INFINITIVES: THE VIEW FROM APPALACHIA

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## ABSTRACT

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This dissertation explores four instances of restructuring (clause union) in verb forms found in the Appalachian English (AppE) of eastern Kentucky. I compare novel restructuring analyses of causative and experiencer *have*, perception verbs, and the verb *liketa*. In addition I examine restructuring as reanalysis in the non-finite wh-adjunct *how come*. In each case, syntactic and semantic diagnostics for clause structure are used to identify types of restructuring and to develop a syntax for these understudied forms. One main goal of the dissertation is to apply Wurmbrand's mono-clausal approach to restructuring (Wurmbrand 2001) to cases of micro-variation between standard and Appalachian English. This reveals the difference between morphosyntactic variation present in bundles of features manipulated by the syntax and variation which ultimately stems not from the syntax, but from differences in the inventory of post-syntactic morphological rules in standard and non-standard grammars. For instance, I argue that variation in the form of causative and experiencer *have* complements in AppE is not the result of a different syntax but rather the result of variation in post-syntactic morphological rules. Investigation of the boundary between variation in syntactic objects and morphological operations performed on those objects will allow us a cleaner view of micro-variation in restructuring phenomena. On the other hand, the study of perception complements shows that differences in complements of this dialect are not always only superficially different. For example, in contrast with Standard English, perception complements in the dialect allow matrix passivization. Following major strands in the literature which argue that passive participle -en blocks some relations between matrix and embedded clauses, this is predicted in a language where the perfect and passive syntactic heads do not license participle morphology on the verb. I argue that Appalachian English is just such a

dialect. Irregular forms have leveled to the extent that that distinction between preterite and participle forms is unclear. I argue that matrix passivization in perception verbs is the result of grammatical reanalysis of the perfect and participle heads; they are no longer interveners. This means that any distinctions in past and participle forms present in adult grammars of AppE speakers are superficial and occur by way of what I have termed 'morphological enrichment' or unleveling; a process that most likely occurs in language/dialect contact situations with the standard. Essentially, morphological enrichment is the opposite of leveling by impoverishment. Secondly, comparison of perception complements with the restructuring *have* complements reveals that a unified account of the behavior of both sets of complements requires independent mechanisms such as agreement or head-movement; mechanisms previously used to explain restructuring in some bi-clausal accounts. Analysis of the AppE verb form *liketa* reveals a syntax similar to *wanna* contraction found in Standard English. Again, I apply a Wurmbrand style mono-clausal approach to restructuring to the form and make a theoretical comparison with a previous bi-clausal approach to *wanna* contraction. The major finding is that the mono-clausal approach is more favorable as it requires less stipulation with respect to restructuring. However, in the end, a proper analysis and comparison of the forms requires that they be differentiated by agree relations between the restructuring verb and the embedded auxiliaries. Finally, I analyze the syntax of non-finite *how come* complements found in AppE as a type of matrix clause restructuring and reanalysis.

To my friends and family.

## ACKNOWLEDGEMENTS

I am sure that I will not be able to mention everyone who has helped me finish this dissertation in the space provided. I will give it my best shot. To everyone that helped me over the past few years, thank you.

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Aside from my committee, I owe a great deal to my friends and colleagues here in the Linguistics Program and beyond. They really have made life bearable. Looking back grad school seems divisible into two parts. There is the early part, where you have no idea what is going on and just hope that what you say makes sense and the latter part in which you have some idea of what is going on and during which almost nothing anyone says makes sense. That said my early years in grad school were entirely too much fun. I would like to thank Matthew 'Elvis' Husband for all of his friendship, encouragement, and willingness to engage with almost any insane statement that came out of my mouth. He is my linguistics older brother. In addition to Elvis, I could also never forget Olga Eremina, Ai Kubota, or Jan Anderssen who always had insightful comments about my work. I really feel like these four showed me the ropes in grad school. Outside of the program, I have to thank Micalee Sullivan for being a great friend and convincing me that we should start a punk band in the middle of our grad careers. This was a truly brilliant idea. The house shows were epic. I

would also like to recognize the Greater Lansing Hash House Harriers for showing me how to make running enjoyable. The trick is to hide beer along the way. You always have to have a hobbies, right? Later, when all of those awesome people were gone, new awesome people appear. The list of awesome people includes but is not limited to Joe Jalbert my syntax buddy, Jess Gamache my work buddy, Curt Anderson my semantics buddy, Kali Byble my syntax little sister, Karthik Durvasula my argument buddy, Tuuli Morrill my brunch buddy, and Kim Fenn my psych buddy. Thank you all for all of your help. Y'all also helped make this dissertation possible.

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# CHAPTER 1

# INTRODUCTION

This dissertation is about the syntax of complementation in Appalachian English. It focuses on points of syntactic and morphosyntactic variation found in infinitival complements in the dialect. Put simply, this dissertation looks at how clauses are put together for a subset of verbs and how those clauses differ in Appalachian English (AppE) from their counterparts in Standard American English (SAE). Consider for example, the following verbs and the variation in the complement clauses between dialects.

(1) Experiencer *have*
   a. They had glasses [*to* break on them] AppE
   b. They had glasses [break on them] SAE

(2) Causative *have*
   a. I had Mary [*to* wash the dishes] AppE
   b. I had Mary [wash the dishes] SAE

The Appalachian English versions of these sentences both contain an infinitival-*to*, which is not licit in their Standard English counterparts. What accounts for this difference? Causative and experiencer *have* are not the only instances in AppE where verbs select infinitival complements which differ from those found in Standard American English. Consider now, the case of perception complements.

(3) a. John saw Mary to leave. AppE
   b. * John saw Mary to leave. SAE

This example shows that infinitival-*to* is banned in perception complements in Standard American English but not in Appalachian English. However, infinitival-*to* isn't totally ruled out in SAE. It is acceptable in passivized perception complements (4a), and it is traditionally assumed to be the passive counterparts of (4b).

(4) a. Mary was seen to leave SAE
b. John saw Mary leave AppE/SAE

This assumption probably arose because SAE does not allow the bare passivized version of (4b) below as in (5).

(5) Mary was seen leave. *SAE

However, if we look at the data from Appalachian English, the idea that the active bare perception complement in Standard English has the infinitival-*to* complement as its passive, no longer makes sense. It seems that AppE has the full set of these complements.

(6) Active AppE
a. John saw Mary leave.
b. John saw Mary to leave.

(7) Passive AppE
a. Mary was seen leave.
b. Mary was seen to leave.

The fact that these verbs exhibit variation is not surprising. Causation and perception complements belong to a very special set of verbs found in many languages called restructuring verbs. For example, it is still common practice for many linguists to assume that clauses generally come in two types. They are thought to either appear as complementizer phrases (CPs) as in example (8a) and (8b), tense phrases (TPs) in (8c).

(8) a. I expected [$_{\text{CP}}$ that John would leave]
b. I expected [$_{\text{CP}}$ for John to leave]
c. I expected [$_{\text{TP}}$ PRO to leave]

That a majority of verbs select either CP or TP complements is not contested. However, there exists a small subset of verbs which do not easily fit neatly into these categories. The verbs in example (9) are all restructuring verbs.

(9) a. I had John wash the dishes. causative *have*
b. I had John burn my dinner on me. experiencer *have*
c. I saw Mary leave. perception verb

These verbs select complements which have different properties from the CP and TP complements selected by other verbs. Specifically, these complements are smaller than TP. It

is also commonly assumed that this smaller than TP status is the result of clause union; either the product of some external mechanism such as head movement or that these verbs simply select smaller than TP clauses directly. In the first part of this dissertation, I provide a syntactic analysis of the variation in complements of causative and experiencer *have* and perception complements.

Cases of restructuring can also be found and compared within the same dialect. AppE has a lexical item *liketa* whose meaning is similar to the English adverb *almost*.

(10) John had liketa punched Bill before you arrived.
*John had almost punched Bill before you arrived.*

*Liketa* itself varies in terms of its morphosyntax in the dialect. For example, it may also appear in an uncontracted form.

(11) John had liked to have punched Bill before you arrived.

Following recent work on infinitival contraction as restructuring, I provide an analysis of this understudied form and propose that the relationship between the contracted and uncontracted forms is one of restructuring. The analysis of this form adds to an ongoing discussion of choosing between two well known theories of restructuring found in the first two case studies.

Lastly, it also seems to be the case that restructuring-like effects are not only found in embedded complements. In the final case study I examine what appears to be a matrix complement which has undergone clausal changes that appear to be leading to clause unification. Consider the case of *how come* and its non-finite counterpart found in Appalachian English.

(12) a. How come he left the party? SAE
b. How come him to leave the party?
WH 3S.ACC INF leave the party
"How come he left the party?" AppE

I argue that because non-finite *how come* in Appalachian English selects a TP infinitive it is best analyzed as a reduced matrix clause.

## 1.1 Goals of this work

The goals of this work are twofold. First, there is a theoretical agenda which seeks to show that rigorous inquiry into stigmatized and understudied dialects is worthwhile. It shows us just how little we actually know about syntactic variation and it can inform larger theories of language. The second goal of this work is more social. I believe that by subjecting understudied and stigmatized dialects to rigorous linguistic inquiry, more linguists will come to view them as interesting and worthy of study. This work seeks to build upon existing work done by sociolinguists, most notably Wolfram and Christian (1976). Moreover, by having linguists researching, working, and communicating with these communities the speakers also come to see the dialect as one which is interesting, worthwhile, and valid as a way of speaking for themselves and each other.

This dissertation highlights the importance of identifying morphosyntactic variation and disentangling it from syntactic variation through these 4 case studies of forms involving restructuring. In terms of determining clause size, failure to disentangle these two levels of representation leads to misleading conclusions about both syntactic and morphosyntactic variation. The major finding that this work has for theories of restructuring is that a hybrid approach between the two main types under discussion is necessary in order to account for all of the facts at hand. Such hybrid approaches must in turn pay special attention to divisions between syntactic and morphosyntactic variation.

## 1.2 Appalachian English

My interest in this dialect has deep roots in my own life. The data contained in this dissertation is the result of grammatical acceptability judgements from myself, my family members and other consultants from Southeastern Kentucky (including Pike and Letcher Counties) and Northeastern Tennessee, in figure 1.1.

Since, I can not list the demographic and family information for all of my informants,


Figure 1.1: Location of dialect area under discussion relative to the eastern portion of the United States.

I will use my own history as an example of the family and community histories commonly found throughout this part of Appalachia.

### 1.2.1 Demographics

I was born in Whitesburg, KY (population 2139[1]). It was the closest hospital to where I grew up 30 miles away. It might not seem like a long drive but the geography of the mountain roads at the time turn a 30 mile trip into about an hour's drive. I grew up off Old US 23 in a place called Jonancy, KY (population 97) on the banks of Shelby Creek.

Jonancy, shown in figure 1.2 below, is a small unincorporated community centered around a post office. My dad was born and raised 6 miles away in a holler called Beefhide Creek (population $\sim 73$[2]). My mother was born about a mile up the road in the other direction

[1]All census data gleaned from www.census.gov

[2]This is actually the approximate population of closest identifiable statistical entity in

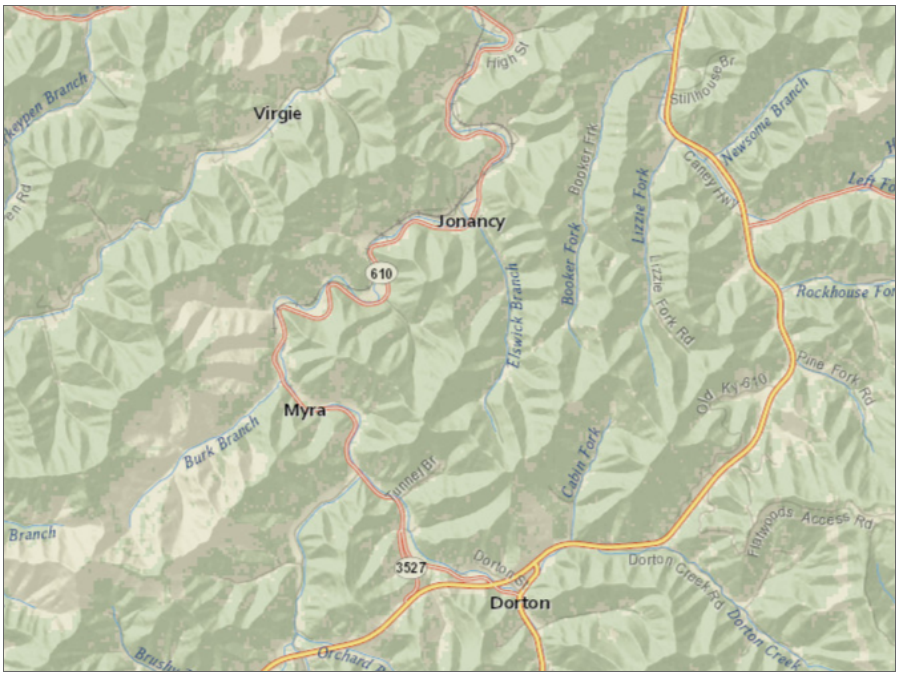



Figure 1.2: Jonancy and communities within two hours walking distance along Highway 610.

in a place called Elwood which, though adjacent to Jonancy belongs to a larger statistical area called Virgie (population 279). Virgie is the remnant of a mining community founded in the one of the many coal booms of the earlier part of the 20th century. My grandparents and great-grandparents all have similar stories. This patchwork of small isolated communities common to rural Appalachia and is pervasive throughout this part Eastern Kentucky. Speakers from other areas of eastern Kentucky were consulted as well, including McRoberts in Letcher County (population 784), Elkhorn (population 445), as well as Caney and Chloe Creek (included within the statistical area of Pikeville).

The area is not itself home to any major businesses or sources of employment other than coal mining, coal cleaning, and coal related manufacturing operations which are found throughout the county. As you might imagine local schools, groceries, and health-care clinics

the 2000 census.

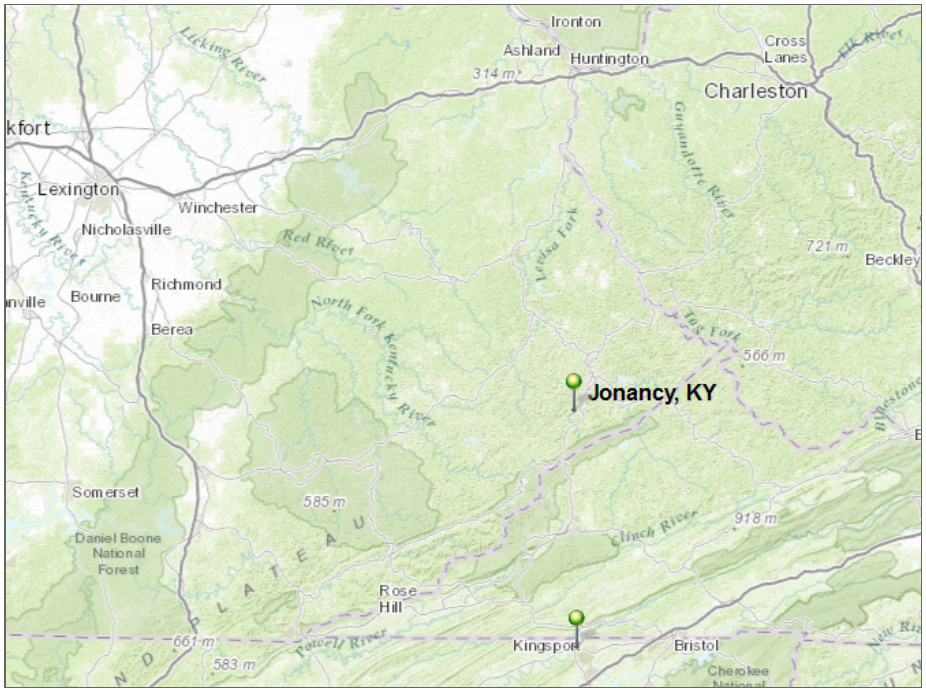



Figure 1.3: Jonancy in relation to Lexington, KY, Charleston, WV, and Kingsport, TN.

make up the remainder of the jobs in this rural part of southeastern KY. Pikeville, KY (population 6903) is now the nearest 'city' as well as the county seat. It is now located approximately 20 minutes north of Jonancy on US 23. Before the four-lane portion of US 23 was completed around 1995 it took about an hour to get from Jonancy to Pikeville. To give an idea of the relative isolation of this area to the rest of the world, the closest interstate lies to the south and is now (again due to new roads) approximately 1 hour and 40 minutes away in Kingport, TN. This is shown in figure 1.3.

### 1.2.2 On speaking and working with stigmatized dialects and dialect speakers

One of my earliest childhood memories involves a situation where a woman in a department store in Pikeville made a derogatory comment about my English to me and my mother. In some ways, this scene would continue to play itself out over and over again into my undergraduate years at the University of Kentucky. I understand first hand that people

experience unnecessary dialect bigotry and exactly why some speakers of stigmatized dialects might be suspicious of researchers and research goals. Needless to say, I take the social goal of this dissertation very seriously.

Working with speakers of Appalachian English is both challenging and rewarding. Of course the experience varies by individual speaker, but a lot of times when you ask a stigmatized dialect speaker for an acceptability judgment, even after you have heard them use the form in question, what you get back is not entirely a straight answer. Instead the responses range from affirmative and negatives to things like "Well, I've heard people say that but I don't say that" or responses injected with more social commentary like "Yeah, that sounds really 'hickish' and I've heard it before but I would never use it." As is well established in the sociolinguistic literature, this is because the average person is not entirely aware of what people say or how they say it (see Labov, 1996). Normally, this fact does not pose a serious problem for eliciting acceptability judgments, but many speakers have internalized the stigma associated with speaking Appalachian English. To those speakers, speaking Appalachian English is synonymous with 'Hillybilly English', 'the way hicks talk', or just a general lack of education or lower socio-economic status. Thus the quite natural phenomenon of lacking metalinguistic awareness is compounded by observer effects which arise when speakers are asked about certain forms. For example, I first became interested in the *have + to* forms of causative and experiencer *have* because my mother, family, and acquaintances use them quite frequently in their speech. However, when asked about the forms they either recognize it as non-standard and deny having said it or they assume simply because you are interested in the form that it is 'bad' non-standard English and deny saying it. Once, I asked a college educated childhood friend about the acceptability of the non-finite *how come* form analyzed in this work. He instantly cringed, "That sounds so hick, it makes my skin crawl" and followed this up with "But yeah, its totally acceptable". This was quite an informative statement for me as my mother, father, and myself all use the form. In all likelihood, my friend does as well.

There are however speakers who are quite proud of the way they talk as Appalachians and they provide rather different answers. I have found it necessary to include them in the mix of speakers even though these speakers may have a tendency to be more permissive in their acceptability judgments simply because they are proud of fact that the dialect is different. In both cases, I have used my own acceptability judgments as an waypoint of sorts. As a linguist, I know that 'bad English' is socially determined and does not reflect the state of the grammar that produces it. As a syntactician, I know that dialects are more similar than they are different. The key to working with stigmatized dialects lies in a diversity of informants. Though it never hurts to be able to weigh in with your own acceptability judgments and navigate the sea of social attitudes with insider knowledge, I firmly do not believe that it is a necessary condition for doing linguistic fieldwork.

## 1.3 Analytical frameworks

This dissertation assumes the basic assumptions of generative syntax as found in The Minimalist Program (Chomsky, 1995; 2001). Though I assume common knowledge of minimalist syntax, I will nevertheless lay out some basic assumptions of the framework here for the sake of accessibility.

### 1.3.1 Generative assumptions

The generative approach to human language assumes that the faculty of language operates relatively independent of other general cognitive systems and is itself part of the larger set of cognitive systems such as the visual or auditory systems. The linguistic system reflects the basic facets that we commonly associate with human language and is commonly conceived of as having three subparts. For instance, perceiving and producing language is handled by the perceptual/articulatory system. In generative traditions, instructions for this system are the result of processes which occur at the level of phonological form or PF. Similarly, the

semantic or meaning component of language is handled by a conceptual-intentional system. Thus processes involved in the composition of meaning happen at the level of logical form or (LF). Finally, the structure associated of linguistic expressions is generated by the syntax which must then interface with both PF and LF.

Though in the past it was assumed that the syntax manipulated words or lexical items which were pulled from a speaker's Lexicon, I will assume that this is not the case. Rather, I will adopt the framework of Distributed Morphology which assumes that words and word level processes are 'distributed' throughout the three part linguistic system just described. Under this account, the syntax is only ever responsible for the manipulation of abstract morphemes or bundles of formal features. I will return to Distributed morphology below.

The linguistic system is relatively invariant. In particular, I assume that syntax is universal and part of the biological endowment common to all human beings. In fact it is this endowment which allows them to acquire and speak their respective languages. Thus we posit a Universal Grammar to which all human languages conform.

In terms of syntactic analysis, I adopt the framework of the Minimalist Program (Chomsky, 1995) which among other things has sought to reduce the process by which linguistic expressions are created to their bare conceptually necessary minimum. In the syntax, this is achieved by assuming that all linguistic structure is the result of the operation Merge. Put simply, Merge takes a syntactic object $\{a\}$ and an object $\{b\}$ and creates a new object $\{a, b\}$. Other operations like Agree are tolerated only to the extent that they are necessary for making the structural descriptions produced by the syntax legible for the articulatory/perceptual system (PF) and the conceptual/intentional system (LF).

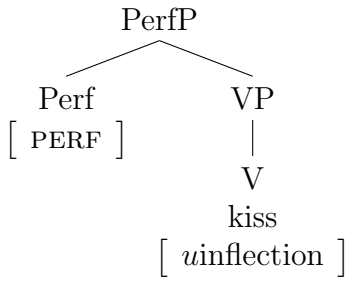
Broadly, this means that the morphological correlates of inflection, words, and phrases are assembled and combined together by the syntax in such way that they adhere to or meet interface conditions which are imposed by requirements of mapping to adjacent linguistic subsystems PF and LF.

Syntactic tree structures are then descriptions of operations performed on morphemes

by the syntax. The structures are constructed via merge. The features and possibly surface distribution of the morphemes that make up those structures may be further altered by agreement processes between features of syntactic objects in the derivation of the structure.

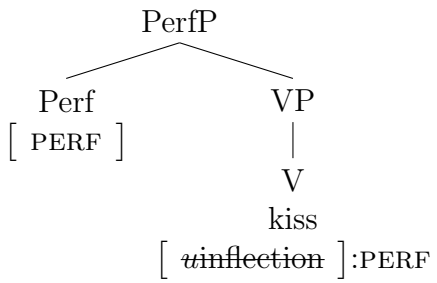
For example perfect verbal inflection in "Mary had kissed John" is the result of the merger of the perfect head with the verbal phrase containing the verb *kiss*.

(13)




Features contained on the perfect head are thought to undergo agreement with features in the verb phrase. The effect of this agreement is that the verb phrase now contains a PF interpretable feature which corresponds to the past participle.

(14)




Only after the derivation is complete and the relevant chunk has been sent to PF will the actual item *kiss* and the appropriate participle morphology be inserted into the syntactic head resulting in *kissed*.

### 1.3.2 Distributed Morphology

In the next few paragraphs, I will provide a brief overview of Distributed Morphology (DM) (Halle and Marantz, 1993; Embick and Noyer, 2007) drawing specifically on Embick and Noyer (2007) and Siddiqi (2010).

DM is a framework within the MP which assumes that there is no separate morphological component in the language faculty. Specifically, DM rejects the idea of a separate Lexicon. In previous theories of morphology the lexicon was thought of as the 'mental dictionary' or word storage component as well as the locus of many word-level or morphological operations like suffixation, affixation, and even inflection. Under these theories the syntax manipulates fully formed complex lexical items

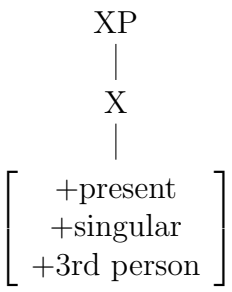
In DM, morphological operations are assumed to be similar in form from syntactic operations like merge and agree. This "syntax all the way down" approach, insists that words and any necessary derivational or inflectional morphology are composed by operations which occur after any syntactic operations are completed. As such the old conception of a lexeme can no longer apply. The syntax must have access to and operate only on morphemes that are abstract bundles of features. Morphemes manipulated by the syntax are thus divorced from their phonological information. The phonological components of traditional morphemes are thought of as Vocabulary Items (VIs) in DM and exist in a 'storage only' component of the grammar referred to as the Vocabulary. Any real world knowledge that we have about what specific VIs mean is stored in the Encyclopedia and is not available during the derivation.

Specifically morphemes are now only those syntactic units subject to syntactic operations which are contained in the terminal nodes of a given syntactic tree. They are divisible into abstract morphemes, which are bundles of syntactic and semantic features not including phonetic features, and roots which correspond to morphemes which bear lexical content and meaning such as *whiskey*, represented as $\sqrt{whiskey}$. Roots are subject to categorizing requirements which means that they must receive categorizing information from categorizing functional heads like $n$ to, in the case of *whiskey*, become a noun.

Abstract morphemes and roots are joined with their corresponding phonological features post-syntactically in the PF process of vocabulary insertion. Vocabulary insertion proceeds by way of feature matching constrained by the subset principle. A morpheme's corresponding phonology or VI is inserted if that VI contains all or a subset of the features specified on

the terminal node. A vocabulary item which has features not specified on a given terminal node will not be inserted. Further, in cases of competition for insertion among phonological exponents, the exponent with the greatest number of features matching those on the terminal node will be selected for insertion.

To see how this all works, consider vocabulary insertion of inflectional morphology in the following example adapted from Siddiqi (2010). Assume the syntactic node below.

(15)



For example this particular set of features is realized as *-s* in English on T after syntactic agreement between the subject DP and T has occurred. This is the feature specification of the verbal affix *-s* in English. Thus (16) is an example of a vocabulary item listed in the Vocabulary of English. Barring other conditions on its insertion (omitted here for clarity) it states that there is a vocabulary item *-s* that will be inserted onto nodes like the one above. Crucially, this happens after syntactic spellout at PF with the phonology /z/.

(16) [present, singular, 3rd] ↔ -s /-z/

## 1.4 Outline

This dissertation is structured as follows. Chapter 2 is an analysis of experience and causative *have* + *to* constructions in Appalachian English. I propose, based on syntactic diagnostics, that the causative and experiencer *have* in Standard and Appalachian English have an identical syntactic structure even though infinitival-*to* is present in Appalachian English. The infinitival-*to* in this particular case in AppE is the result of a default insertion rule in the dialect. Thus causative and experiencer *have* are both analyzed identically as restructuring

verbs and the discovery of the default insertion rule is evidence that some surface form variation is actually the product of post-syntactic processes. Moreover, such morpho-syntactic variation must be accounted for in any comparative or micro-variationist syntactic analyses. Chapter 3 examines the syntax of perception complements in Appalachian English. They also exhibit variation in Appalachian English and are often considered close syntactic relatives of *causative* structures. I propose that differences in the behavior of perception complements in the dialect is due to a deeper syntactic difference in the grammar of Appalachian English. Previous accounts of perception complements pin the seemingly odd behavior of infinitive form in the active and passive on the behavior of the passive participle. They posit the passive participle as an intervener between two heads in a probe/goal relationship. I suggest that Appalachian English does not have a passive participle which is distinct from past participles and thus intervention effects do not arise. This is supported by evidence from participle leveling. In chapter 4, I examine the behavior of infinitives in contractions via the dialect form *liketa*, a verbal counterpart to *almost*. The examination of the form and its analysis as a restructuring predicate allows us to tip the scales in the comparison of two theories of restructuring. Then in chapter 5, I examine the behavior of non-finite *how come* in Appalachian English as compared to its finite counterpart in Standard English. This chapter shifts the focus on restructuring from embedded complements to matrix complements. It raises several questions about the intersection of restructuring, grammaticalization, and the minimal requirements for features of root clauses.

# CHAPTER 2

# *HAVE + TO* CONSTRUCTIONS

## 2.1 Introduction

In Standard American English (SAE), the clausal complements of causative and experiencer *have* appear as bare infinitives. This means that they appear with uninflected verbal forms and without the standard infinitival-*to* which overtly marks the absence of any other tense or person agreement. This is illustrated for causative *have* in example (1a) and for experiencer *have* in example (1b).

(1) SAE
   a. I had Mary wash the dishes.
   b. They had glasses break on them.

Appalachian English (AppE) allows an infinitival-*to* in these same *have* constructions. Note the acceptability of infinitival-*to* in Appalachian English for the causative in example (2a) as well as the experiencer *have* in example (2b).

(2) AppE
   a. I had Mary *to* wash the dishes.
   b. They had glasses *to* break (on them).

Crucially, in SAE infinitival-*to* is illicit in both causative and experiencer *have* constructions. A bare infinitive is required.

(3) SAE
   a. * I had Mary to wash the dishes.
   b. * They had glasses to break on them.

Interestingly, the presence of infinitival-*to* in the AppE cases does not alter the meaning. For instance, the meaning of the causative *have* in Standard English and Appalachian English is the same. Consider causative *have* in examples (4a) and (4b) which both have the

interpretation in example (4c). Thus the bare-infinitive in Standard English is equivalent to the infinitival-*to* form found in Appalachian English.

(4) a. I had Mary wash the dishes. SAE
b. I had Mary to wash the dishes. AppE
c. *I am the instigator or cause of Mary washing the dishes.*

The experiencer *have* construction behaves in the same way, modulo the requirement of the ethical dative *on X* in Standard English. Consider the situation below. In both dialects experiencer *have* in examples (5a) and (5b) corresponds to the interpretation in (5c).

(5) a. They had glasses break on them. SAE
b. They had glasses to break (on them). AppE
c. *There was an event of glasses breaking and they experienced this event.*

The central claim of this chapter is that the variation in distribution of the bare infinitive in Standard English and infinitival-*to* in Appalachian English is best captured by assuming an identical syntax for both causative and experiencer *have* in both dialects. This means that the infinitival-*to* found in the AppE examples (2a) and (2b) is the result of a post-syntactic default insertion rule. Likewise, if the properties of these structures are the same across dialects, then infinitival-*to* in AppE is indicative of a null syntactic head in Standard English. Investigation into the nature of the syntactic head on which infinitival-*to* in these particular *have* constructions reveals that it is not T but rather AspP. In simpler terms, AppE has two infinitival-*to*s: The familiar one which is inserted on T in the tense layer of the functional structure of a propositional clause and one which is inserted as the result of a default insertion rule within the auxiliary layer of smaller than TP clauses, arguably AspP.

This chapter has the following structure. Section 2.2 is a general overview of what is known about *have + to* constructions in Appalachian English and more generally for Standard English. In this section, I review the properties of both causative and experiencer *have* in SAE, as well as one general analysis of *have* in SAE. Crucially, I propose that we think of causative and experiencer *have* as restructuring verbs. Then in section 2.3 I lay out

my analysis which argues that these two *have*s are located in $v$ and select for complements that are maximally headed by an AspP. I also argue that the *to* in the AppE is not where we usually assume infinitival-*to* is. After I argue for a particular articulation of the clauses of causative and experiencer *have*, I will lay out my assumptions about English verbal inflection, and show how slight alterations to the account given in Ritter & Rosen (1997) allow us to account for the variation that exists between Standard and Appalachian English with regards to the presence or absence of *to* in the complements of these verbs. Section 2.4 concludes the chapter.

## 2.2 Background

This section provides a context for the analysis presented in this chapter. First, I touch on a few specific references to the relevant cases of *have + to* constructions, before moving on to a non-dialect specific review of the syntax of causative and experiencer *have*.

### 2.2.1 *Have + to*

Precedent for claims that Appalachian English has extended the use of *to* beyond that of Standard American English can be found in Wolfram and Christian (1976) who note that it is quite common for verbs like *go, start,* and *get* to appear with *to* and be suffixed with *-ing*.

(6) a. He went to runnin' after her.
b. She started to eatin'.
c. I got to readin'.

In a later communication Wolfram notes the following.

(7) "One thing to be kept in mind about to in [West Virginia] dialect: there seems to be a general extension of the form beyond its limits in other varieties. For example, I think some speakers are inserting it as a kind of filler functioning something like the a-prefix (e.g. I just heard a tape with . . . you go to checking... ). "

(Butters and Stettler, 1986:*p.c. Walt Wolfram*)

Anecdotally, it seems that AppE makes use of *to + verb + ing* construction more than Standard varieties. These cases must be set aside because they are prepositional and not instances of infinitival-*to*. For instance, a great deal of prepositions can be modified by *right*.

(8) a. They set the whiskey shots right in front of us.
b. I stood the hoe right inside the door.
c. He ran right to the edge.

Like other prepositions the ones in question repeated in example (9) are acceptable when modified by *right*. Wolfram's examples of the gratuitous *to* in AppE are therefore prepositional.

(9) a. He went right to runnin' after her.
b. She started right to eatin'.
c. I got right to readin'.

Crucially though, note that example (10) shows that infinitival-*to* can not be modified by *right*.

(10) a. * I wanted right to run.
b. * She remembered right to drink the bourbon.
c. * They tried right to fix the problem.

Interestingly, *right* modification is unacceptable in both experiencer *have* and causative *have* constructions in Appalachian English. This indicates that these versions of infinitival-*to* are not prepositional, but not that they are themselves instances of the presence of a Tense layer in a clause.

(11) a. * They had glasses right to break on them.
b. * John had Mary right to wash the dishes.

*Have + to* causative and experiencer forms are explicitly mentioned in the literature as a marker of Southern speech. The form is attested for the entirety of central and southern Appalachian states including: West Virginia, Kentucky, Virginia, Tennessee, North Carolina, and Georgia. Beyond this, Butters and Stettler (1986) mention the prevalence of the

causative and experiencer *have+to* construction across the Southern United States and note that it is so prevalent that it in fact may be used to identify Southern United States English speakers. Anecdotally, I have never heard *have + to* structures used beyond the confines of central Appalachia. They speculate that the use of the *to*-infinitive complement might be subject to syntactic constraints (Butters and Stettler, 1986:pg. 189). As we will see in this dissertation, these data support two different syntactic distributions for infinitival-*to* in AppE.

### 2.2.2 General properties of causative and experiencer *have*

Zooming out from the specific context of Appalachian and Southern Englishes, it is necessary to review some general properties of causative and experiencer *have* that have been observed for SAE in the literature. Causative and experiencer *have* share a core set of properties that distinguish them from other verbs which take bare infinitive complements. Aside from this, experiencer *have* has an extra syntactic requirement where its complement must contain an anaphoric referential element, the commonly termed ethical dative *on X*.

#### 2.2.2.1 Causative *have*

Since causative *have* and other causative verbs often appear with bare infinitive complements in English, they are often described along with other verbs which take bare infinitive complements, like the perception verbs *see*, *hear*, and *feel* as in example (12). Thus causatives are often described in terms of how they differ from perception complements.

(12) a. John had Mary wash the dishes.
b. John saw Mary wash the dishes.

Mittwoch (1990) notes that the complement of periphrastic causatives can not be independently referenced by a pronoun in example (13a), whereas the complement of perception verbs can be referenced by a pronoun in example (13b).

(13) a. * John had Mary wash the dishes, and Bill had *it* too.
b. John saw Mary wash the dishes, and Bill saw *it* too.

Many authors point to this data as evidence that the event composition of causatives and perception complements differs in terms of how many events they actually denote. Because of data like that in example (13a) where *Mary wash the dishes* is not a possible referent of the pronoun *it*, they argue that causatives are thought to denote single complex events. Thus causatives may be thought of as an event $e$ which both precedes a second dependent event $e'$ and acts as the cause or instigation point of $e'$, rather than two independent events which happen to overlap temporally but are not otherwise related.

Perception complements on the other hand are thought to have independent reference and denote two separable eventualities which overlap temporally but are otherwise independent. They are commonly assumed to be composed of a perceiving event and an event perceived which are required to overlap temporally. In simpler terms, this reflects an intuitive difference between perception and causation complements. Events denoted by perception complements are not causally related to their matrix perception events, while the events expressed in causation complements are in essence dependent on the truth of their instigating event. This is illustrated in the following example where perception complements are semantically infelicitous (marked with #) as the continuation of a *because* phrase where causal relations are made explicit.

(14) a. Mary washed the dishes because John had her wash the dishes.
b. Mary washed the dishes because John made her wash the dishes.
c. # Mary washed the dishes because John saw her wash the dishes.

Without getting further into the semantics of causatives, I will assume that this is essentially correct and that causatives are best represented as single complex events while perception complements denote two events. We will return to perception complements in the next chapter.

Following Felser (1999), causative *have* may not take a derived event nominal as an object though perception verbs may. We see in example (15a) that causative *have* allows verbal predicates in its complements while example (15b) shows that derived event nominals are not licensed. Example (15c) shows that the perception verb *see* does license derived event nominals. Crucially, example (15b) can not have the causative interpretation of example (15a).

(15) a. We had Mary depart.
b. * We had Mary's departure.
c. We saw Mary's departure.

This shows us that causative *have* has strict selectional requirements and it can not select a nominal object as its complement.

Causative *have* has certain semantic restrictions on its predicate as well. Ritter and Rosen (1993) note that although causative *make* in example (16a) allows individual level predicate complements, causative *have* in example (16b) does not. This distinction has to do with whether or not the predicate is individual-level and would hold generally for that individual or if that predicate is stage-level and holds only for some temporal stage. Following Kratzer (1995), they assume that this distinction is due to the fact that individual-level predicates denote properties while stage-level predicates denote events and that this distinction is projected into the syntax from the level of argument structure. Ritter and Rosen note that, although these facts may be further altered by the aspectual composition of the clause, the basic distinction suffices for their purposes. Causative *have* only selects stage-level predicates.

(16) a. John made Bill like French cooking.
b. * John had Bill like French cooking.

Similar to Ritter and Rosen, Felser (1999) also invokes Kratzer (1995) and argues that the restriction on individual-level predicates in closely related perception complements is a result of the fact that individual-level predicates fail to project an event argument. She argues that individual-level interpretation requires a clause minimally headed by TP. This

tracks proposals in Diesing (1992a;b) who argues that subjects of individual-level predicates are restricted to appearing in the specifier of TP at the level of logical form, while subjects of stage-level predicates may either appear in the specifier of $v$P or TP. For Felser, perception complements are maximally headed by an AspP and not a TP and so the constraint against individual level predicates falls out from a difference in clause structure. More recently, the notion that eventivity is associated with structural configurations of AspP and $v$P is echoed in Embick (2004) where he accounts for the differences between verbal and adjectival passives in terms of the merge site of Asp$^0$: either below or above $v$. In his account, AspP is the locus of participle morphology, while the eventivity of the construction is determined by $v$. Though I believe a satisfactorily thorough explanation of the fact in (16) is beyond the scope of this dissertation and possibly unrelated to an explanation of the behavior of these verbs with regards to dialectal variation, I will follow the general trend in the literature and assume that the ban on individual level predicates in perception complements and some periphrastic causatives is a result of the internal aspectual composition of the complement clauses with regards to the properties of $v$ and AspP. I leave the specifics of this configuration to further research.

Felser (1999) also reports that causative *have* licenses what she calls an aspectual *be* in example (17a). Based on the remainder of her observations and arguments aspectual *be* is, as far as I can tell, supposed to be the auxiliary associated with progressive aspect in English.

(17) a. ? Mary had the frogs be entertaining the dwarfs.
b. Mary had the frogs entertaining the dwarfs.
c. Mary saw the frogs entertaining the dwarfs.

I have found however that a majority of informants find example (17a) to be unacceptable. This is especially true in comparison to the same sentence without *be* in example (17b). I have labeled the data in example (17a) with the symbol ? to show decreased acceptability by my informants. That said, several informants noted that inclusion of this *be* is alleviated by adverbial modification as in example (18).

(18) During the play, Mary had the frogs be entertaining the dwarfs.

To the extent that sentences like example (17a) and example (18) are acceptable they are only acceptable on an ACT BE interpretation. Following Schmitt (1996), this *be* is not the progressive auxiliary but rather a dummy verbal element which must be licensed by a temporal operator because it has no intrinsic temporal specification. Thus to the extent that these are acceptable they must always occur in the scope of a temporal operator. Note that the alleviation fact is left unexplained if we assume that the *be* in example (17a) and example (18) is the progressive aspectual *be* rather than ACT BE. This means that what Felser has really shown is that complements of causative *have* allow progressive *-ing* and to some extent ACT BE, but not the progressive aspectual *be*.

Aside from these c-selectional and semantic restrictions on the predicate, Ritter and Rosen (1993) also note that causative *have* can not take expletives as the subject of its complement clause. The same is not true for causative *make*. Again, some speakers of Standard American English find expletive subjects acceptable in the complement of causative *have*. They are labeled with ? to reflect degraded acceptability.

(19) a. John made it seem to be a problem.
b. ? John had it seem to be a problem.
c. John made there be computers available for the students.
d. ? John had there be computers available for the students.

I would like to add that expletive *it* in commonly termed weather-it constructions also seems to be marginally acceptable.

(20) ? Do you seriously believe God had it rain today?

Beyond these thematic issues, the actual argument structure of causative *have* also differs from other verbs. In example (21a), we see that causative *have* does not allow matrix passivization, while example (21b) shows that passivization of the embedded complement is possible.

(21) a. * John was had to wash the dishes.
b. John had the dishes washed.

Note that the behavior of *have* in these cases differs from the behavior of other periphrastic causatives which undergo matrix passivization.

(22) a. John was made to wash the dishes.
b. John was let go by the police.
c. John was helped to wash the dishes.

In minimalist terms, I take the fact in example (21) to reflect an underlying licensing selectional restriction which I will mention briefly here and revisit later in the analysis. I will argue that example (21a) shows that the syntactic head which is responsible for passivization never selects for the syntactic head which contains causative *have*. As we see in example (21b) however, it must be the case that causative *have* or some head embedded under it licenses the head which is responsible for passivization.

Finally, example (23b) shows that the complement of causative *have* does not license PRO.

(23) a. John had himself wash the dishes.
b. * John had PRO wash the dishes.

In summary, the evidence that we have seen so far indicates that causative *have* constructions denote one complex event and not two separate eventualities. Causative *have* only selects for stage-level predicates and never nominal objects. In terms of auxiliaries, causative *have* never allows aspectual auxiliaries in its complements and only marginally allows ACT BE. As for subjects, some speakers also allow expletive subjects in causative *have* complements but PRO is never licensed.

#### 2.2.2.2 Experiencer *have*

Experiencer *have* shares the majority of its syntactic properties with causative *have*. However, experiencer *have* forms require that the matrix subject of *have* be associated with some

anaphoric element in their complement. This does not change the basic nature of the complement, rather it is an extra restriction on constructing the meaning of experiencer *have*. Based on the shared core set of syntactic properties, I argue that causative and experiencer *have* should be treated as a structurally identical pair even though experiencer *have* is subject to this extra restriction. I briefly review the core set of syntactic properties shared with causative *have* before moving on to examine the specific restrictions on anaphoric elements in the complements of experiencer *have*.

Experiencer *have* constructions also seem to denote one complex eventuality in example (24). This reflects the fact that the complement is not independently referenceable by a pronominal form; unlike other event denoting complements.

(24) * John had a pet die on him and Bill had it too.

Like causative *have*, experiencer *have* disallows derived event nominal complements, example (25a). Events described in the complement of experiencer *have* can typically be thought of as results, example (25b), they are also typically stage-level, example (25c).

(25) a. * John had Mary's departure.
b. John had his wine sour on him.
c. * John had Mary like French Cooking on him.

The presence of aspectual *be* seems to be banned in experiencer *have*, shown in example (26). Informants who liked aspectual *be* in causative *have* report that *be* is banned in experiencer constructions.

(26) * John had the frogs be entertaining the dwarfs on him.

Similarly, expletives which were variably acceptable in causative *have* constructions are banned in experiencer *have* constructions, example (27).

(27) * John had it seem to be a lie on him.

However, it seems like weather expletives as in *We had it rain on us* are acceptable. Beyond these restrictions, the complements of experiencer *have* may be passivized but the

constructions can not undergo matrix passivization, shown in examples (28a) and (28b).

(28) a. John had his room dirtied on him.
b. * His room was had dirtied on him.

Finally, PRO subjects are banned in experiencer *have* complements like the one in (29) just as they are in causative *have* complements.

(29) * John had PRO wash the dishes on him.

One big difference between causative and experiencer *have* for Standard English speakers is that the experiencer interpretation of *have* is aided a great deal by the presence of the ethical dative "on X" (Harley, 1997). This fact does not hold for Appalachian English and in fact Harley shows that this fact is not always true of Standard English either as the example in 30 shows. What does seem to be required however is that some pronominal element which is anaphoric to the matrix subject.

(30) a. Luke had a storm trooper blow up his x-wing fighter.
b. Han had Leia kick him (on the shin).
c. Yoda had Luke make a mess in his hut.

She maintains that given a sufficiently strong context this pronominal element may be excluded entirely.

(31) a. Poor Mr. Chips had students walk out of class.
b. Do you think we'll have that loudmouth Rush drop in tonight?

Harley argues that this anaphoric relationship must be syntactic because it is not the case that any relationship will do. For instance, in example (31a) she argues that the experiencer *have* reading is only available if we take the *class* in question to be *Mr. Chip's class*. Similarly, example (31b) is only felicitous with a experiencer *have* interpretation if we take it to be *us* that Rush might drop in on.

Harley further rules out a semantic/pragmatic account of the anaphoric requirements on experiencer *have* by showing that SELF anaphors (Reinhart and Reuland, 1993) are

sufficiently discourse salient but yet are not sufficient to license an experiencer *have* interpretation. She highlights the following asymmetry in experiencer *have* complements.

(32) a. Asterix had goat's milk spilled on him.
b. Asterix had goat's milk spilled on himself. *experiencer

In example (32a) both an experiencer and a causative reading are available, while the reflexive pronoun in example (32b) blocks the experiencer reading. Again, a semantic/pragmatic context analysis leaves this distinction unexplained because the relationship in question between the reflexive and the matrix subjects is sufficiently salient and yet the experiencer reading is unavailable. Harley argues that anaphoric pronominal elements that are referential are always required and that SELF anaphors are logophoric rather than referential. I will assume the general distinctions made in Harley (1997) and in the next section I review an analysis which argues a single treatment for all versions of *have*.

The findings so far about SAE causative and experiencer *have* are summarized below.

(33)

| | causative | experiencer |
|---|---|---|
| independent reference | ✗ | ✗ |
| derived event nominals | ✗ | ✗ |
| only stage-level | ✓ | ✓ |
| aspectual *be* | ✗ | ✗ |
| embedded expletives | ? | ✓ |
| passivized complements | ✓ | ✓ |
| matrix passivization | ✗ | ✗ |
| PRO embedded subj | ✗ | ✗ |

### 2.2.3 Two *have*s, one analysis

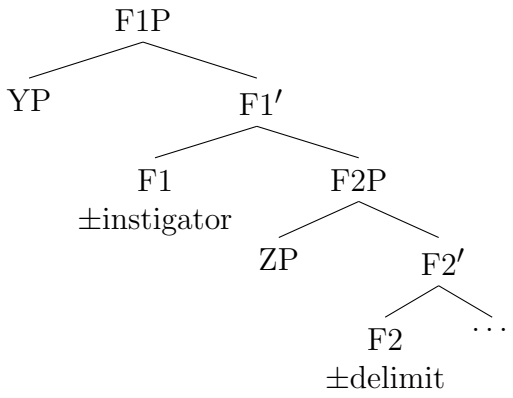
In this section, I discuss an analysis of causative *have* which fits well with the properties that were just summarized before moving on to my own analysis of causative and experiencer *have*. Ritter & Rosen (1997) provide a uniform analysis not only of causative and experiencer *have* but of other uses of *have* as well. This stems from a thread in the wider literature on *have* and *be* where the two are thought to be share a common derivation (see Freeze, 1992; Kayne, 1993). Ritter & Rosen argue however, that *have* is not reducible to *be* and that the

two do not share a common derivation. On the other hand they argue that all instances of *have* do share a common derivation. This means that *have* is lexically different from the copula. This split between *have* and *be* is not as drastic as it might seem at first. They posit a syntax which is similar to structures proposed in earlier work. Since I argue for an identical syntax of at least two *have*s, I will review their analysis in some detail. They propose that different senses of *have* below are all derived from an identical syntax.

| | | |
|---|---|---|
| (34) a. | John had the students write three letters. | causative |
| b. | John had his car stolen | experiencer |
| c. | John had a party. | nominal event |
| d. | John has a hat on today. | locational |
| e. | John has a sister. | possessive |
| f. | John has read the New York Times. | auxiliary |

Though the analysis is proposed for all meanings of *have*, I will focus on the analysis of the relevant experiencer and causative *have*. They propose that *have* is synthetic and is a complex predicate composed of more than one syntactic head. Ritter & Rosen argue for the structure example (35) where *have* is both heads F1 and F2.

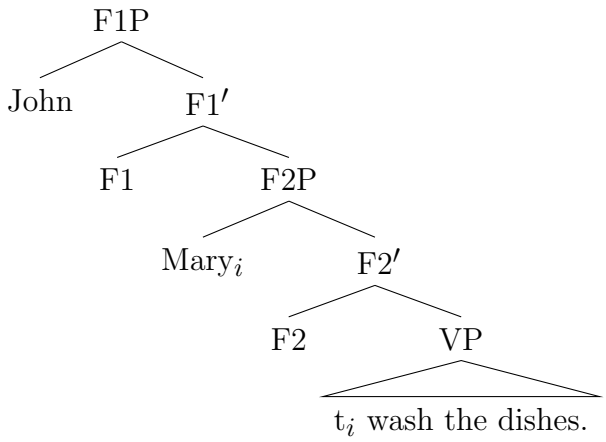
(35)




They argue that these two heads are specified for the features ±instigator and ±delimiter respectively. These featural specifications determine what semantic or thematic roles will be assigned to the elements in their respective specifiers. For instance, +instigator is associated with a *causative* semantic role which is assigned to a DP in its specifier. Conversely −instigator might be associated with a *experiencer* role in the case of a non-causation predicate. The lower projection provides the measure or delimitation of the embedded eventuality.

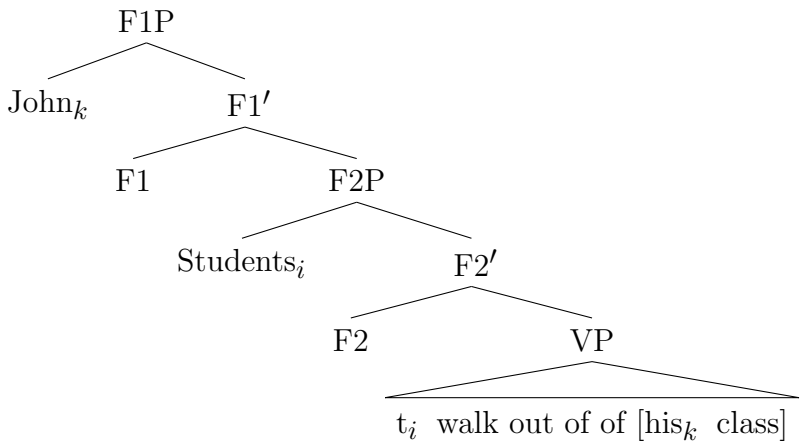
Ritter & Rosen argue that these features and corresponding semantic relationships are determined by properties of an embedded VP small clause. Consider their derivation of causative *have* in *John had Mary wash the dishes.*

(36)




Assuming a uniform syntax, experiencer *have* is generated by an identical structure whose feature content is determined by its embedded complement. Like Harley (1997), they argue the difference between causative and experiencer *have* is that the complement of experiencer *have* must contain an element that is anaphoric to the matrix argument. Specifically for Ritter & Rosen it must be anaphoric to the argument merged into the specifier of F1. Consider experiencer *have* in *John had students walk out of his class* below.

(37)




Though I will argue for an identical syntax for experiencer and causative *have*, I do not assume that their syntax can be extended to other instances of *have* for reasons which will be made apparent below. I will however follow Ritter & Rosen (1997) and Harley (1997) in

assuming that causative and experiencer *have* differ minimally in the type of thematic role that they assign to the subjects in their specifiers and that this is reflected in the feature content of that head. Under the restructuring analysis that I will propose there is no reason to assume that *have* is synthetic. In fact, the shared behaviors that causative and experiencer *have* exhibit indicate quite explicitly that a uniform analysis of *have* as proposed by (Ritter & Rosen, 1997) is not entirely possible, a conclusion that Ritter & Rosen discuss in some detail. Consider the case of auxiliary or perfect *have* and T to C movement in example (38). In order make a yes/no question out of the sentence in example (38a) perfect *have* obligatorily undergoes T to C movement as in example (38b), when no other auxiliaries preceede it in a clause.

(38) a. John has drunk all my whiskey.
b. Has$_i$ John t$_i$ drunk all my whiskey?

Neither causative or experiencer *have* undergo T to C movement in yes/no questions. This is shown in examples (39a) to (39d). Examples (39e) and (39f) show us that forming a yes/no question with causative and experiencer *have* is done with do-support.

(39) a. John had Mary wash the dishes.
b. John had glasses break on him.
c. * Had John Mary wash the dishes?
d. * Had John glasses break on him?
e. Did John have Mary wash the dishes?
f. Did John have glasses break on him?

This reflects a fundamental structural difference between auxiliary *have* on one hand and causative and experiencer *have* on the other. That is, auxiliary *have* eventually ends up in T and is a candidate for T to C movement while causative and experiencer *have* do not. Further, Ritter & Rosen note that auxiliary *have* does not add an extra argument, fails to assign case, contracts with a subject, and takes negation. In the next section, I argue for the placement of causative and experiencer *have* in the larger class of restructuring verbs.

### 2.2.4 Causative and experiencer *have* as restructuring verbs

So far, we have covered what little there is to say about *have + to* constructions in Appalachian English, the general properties of both forms which just so happen to be the same across dialects, and one analysis which attempts to provide a unified treatment. The final question to be answered before I begin my analysis of causative and experiencer *have* is how these two verbs and their properties square with a larger class of verbs. Where do they fit in with respect to other types of verbs?

Causative and experiencer *have* are restructuring verbs. That is to say, being restructuring verbs the infinitives that they select are transparent for particular syntactic operations that are otherwise thought to be subject to locality constraints or clause boundedness (Wurmbrand, 2001). One classic example of inter-clausal transparency effects is commonly referred to as auxiliary switch. Consider the following examples taken from Roberts (1997), in Italian the choice of auxiliary is determined locally. The transitive non-restructuring use of the verb *voluto* 'want' requires the auxiliary *avere* 'have' as shown in example (40).

(40) Piero ha/*è voluto questo libro.
Piero has/is wanted this book
'Pierre wanted this book.'

However, Roberts notes that this restriction disappears when the complement of *voluto* contains an infinitival unaccusative verb like *venire* 'to come' which usually takes *essere* 'to be' rather than *avere*.

(41) Piero ha/è voluto venire con noi.
piero has/is wanted to-come with us
'Pierre wanted to come with us.'

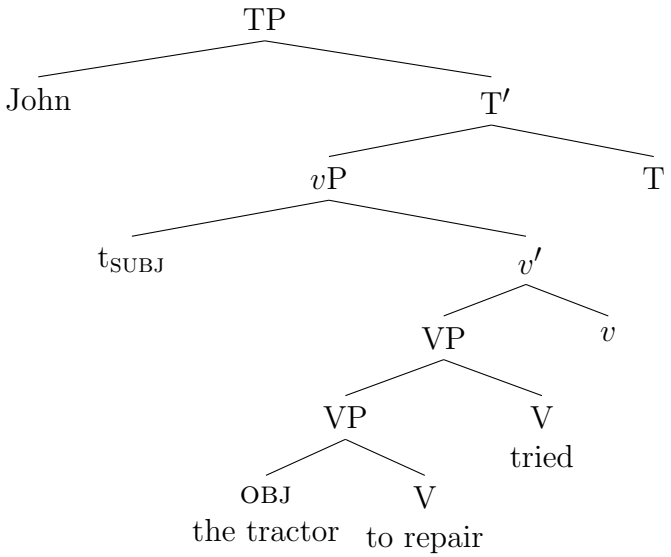
Thus Roberts claims that in the infinitival construction there is a restructuring effect when the embedded infinitive determines the auxiliary in the matrix clause. In simpler terms, when the *è* of *essere* appears as the auxiliary of the verb *voluto* in example (41) it appears as though the clause boundary has become *transparent* and the auxiliary type is no longer determined by the matrix verb. Transparency effects are not limited to instances of auxiliary

switch but cover a range of phenomena in the Romance and Germanic language families much to broad to cover explicitly here. In addition to auxiliary switch, transparency effects in Romance languages includes clitic climbing and object preposing. In Germanic languages transparency effects include long distance scrambling, the long passive, and verb raising.

In the rest of this study and throughout the rest of this work, I will assume an analysis along the lines of Wurmbrand (2001) to account for similar transparency effects in causative and experiencer *have*. Her overarching argument concerns the complement structure of verbs in general but is formulated specifically to deal with restructuring verbs. She argues that infinitival complements are not uniform in their clause structure; some infinitival complements are even as small as VPs. Specifically, she argues that infinitival complements like those in example (42a) are 'true' lexical restructuring configurations which have the syntax in (42b).

(42) a. weil Hans den Traktor zu reparieren versuchte.
since John the tractor-ACC to repair tried
'since John tried to repair the tractor'

b.




Thus *versuchen* 'to try' is considered a restructuring verb. It is a lexical verb which selects another lexical VP as its complement. The object of the embedded verb will always receive accusative case from the 'matrix' $v$, while the subject is generated normally in spec,$v$P where it is assigned a theta-role and will be interpreted as the agent of both verbs by virtue of the close relationship between the two VPs. The subject subsequently moves to spec,TP.

She argues that this syntactic analysis accounts for a specific set of properties and that the proposed clause structure leads to semantic and syntactic differences in the behavior of these verbs and their complements. For instance, lexical restructuring predicates do not license embedded PRO subjects or assign structural case. They do not exhibit tense or sentential negation. They are the counterparts of what are traditionally called obligatory control complements and they frequently occur with strong implicatives, aspectuals, irrealis predicates. They allow long object movement (matrix passivization), scrambling, and pronoun fronting. They prohibit extraposition of the infinitive and relative clause pied-piping.

Wurmbrand notes that while this list of properties may serve as a guide to the classification of restructuring complements, not all languages can be expected to have exactly this configuration of properties or prohibitions associated with restructuring. Her analysis of lexical restructuring complements is specifically built around German.

Further, she notes that although there is some variation in which specific verbs exhibit restructuring properties across languages, there is a general core set which seems to be repeated.

(43)

| Verb type | example verbs |
|---|---|
| Modal | *must*, *may*, *can*, *want* |
| Motion | *come*, *go*, *return* |
| Aspectual | *begin*, *continue*, *finish* |
| Causative | *let*, *make* |

Wurmbrand argues that restructuring predicates are determined both by their semantic or thematic properties which may delineate them as a coherent group and by lexical properties assigned to specific sets of infinitives in certain languages. For example, the modal verbs *must, may* and *can* fall into the class of functional restructuring predicates. This means that they are generated only in the functional structure of the clause; in the auxiliary space under tense and above the lexical structure of the verb phrase. As such, they do not assign thematic roles. This particular configuration of syntax and semantics leads to the properties that we generally associate with modal auxiliaries.

For Wurmbrand, restructuring predicates are essentially mono-clausal, even though they contain two verbs. This assumption separates the complements of non-restructuring predicates which are clausal and propositional (CP/TP) from those of restructuring predicates which are generated as complements smaller than those headed by tense. This assumption is less than surprising for modal auxiliaries because we do not commonly assume that clauses which contain modal auxiliaries are bi-clausal. However, this is a somewhat surprising claim to be made about main verbs. Main or lexical verbs which exhibit matrix passivization among other things, fall under the class of *lexical* restructuring predicates generated in V. Like other verbs, *lexical* restructuring predicates have normal theta-assigning properties but select VPs as complements. Thus lexical restructuring predicates are the true set of restructuring predicates in Wurmbrand's account. In general, Wurmbrand's account and classification of restructuring verbs is a pertinent guide for the investigation of misbehaving clauses.

She notes several advantages to a mono-clausal approach to restructuring infinitives. The first advantage is that no mechanism of restructuring is required. This contrasts with bi-clausal approaches which require (i) some way of reducing the infinitival clause through a structure altering operation, or (ii) a movement operation which allows syntactic objects to evade the clausal boundaries. It would seem that any approach which assumes uniformity of clause structure across infinitival complements requires a mechanism to alter the structure of those predicates which exhibit restructuring effects. Beyond this, Wurmbrand notes that under a mono-clausal approach to restructuring no specific assumptions need to be made to account for transparency effects. For example, no mechanisms need posited to account for the ban on infinitival-*to* in causative and experiencer *have* in SAE if we just assume that the clause is smaller than T. Basically, under a mono-clausal approach the boundaries which are thought to prevent inter-clausal syntactic operations simply don't exist. Finally, the bi-clausal approaches may appeal in terms of uniformity of all complement structure but they are burdened with providing evidence for the initial fully clausal state of the complement of

the restructuring predicate.

With regards to what motivates restructuring, proponents of the mono-clausal approach such as Cinque (2004) or Wurmbrand (2001) assume that restructuring verbs are more like auxiliaries than main verbs (for an extensive list see Wurmbrand, 2001:pg. 11). They are sometimes thought to have less thematic content than main verbs or assumed to be less like lexical verbs and share more properties with auxiliaries and functional structure. Wurmbrand notes that proponents of the bi-clausal approach must frame the question in a different way. They must ask why restructuring mechanisms apply to only a subset of infinitival constructions.

In my analysis, I will show that causative and experiencer *have* are best analyzed as what Wurmbrand calls *semi-functional* restructuring predicates. Wurmbrand argues that *semi-functional* restructuring predicates are syntactically functional but thematically lexical. Generally, they are bare events or actions which do not license PRO and whose complements lack any manifestations of tense, sentential negation, or complementizers. While the semi-functional restructuring verb itself is able to assign thematic roles to its arguments they generally do not allow matrix passivization. In short, they are projections of a matrix $v$P which sits atop some FP. We have already seen evidence that causative and experiencer *have* assign a CAUSE and EXPERIENCER role to their external arguments (Ritter & Rosen, 1997; Harley, 1997). I present further evidence that causative and experiencer *have* assign thematic roles to their subjects and argue that the verbs themselves are inserted into $v$P and show that their complements are maximally headed by an aspectual auxiliary phrase since their complements lack properties associated with T.

## 2.3 Analysis

With the basic properties of causative and experiencer *have* in mind we can more forward with the analysis of the variation in the bare infinitive found between Appalachian English and Standard American English. I will assume for the time being that causative and expe-

riencer *have* fit with Wurmbrand's analysis of semi-functional restructuring predicates and I will show how this classification falls out from my analysis. In the introduction to the chapter, I suggested that the structures of the Appalachian English versions of causative and experiencer *have* in examples (44a) and (45a), are syntactically identical to each other and to their bare infinitive Standard American English counterparts in examples (44b) and (45b).

(44) experiencer *have*
  a. They had glasses *to* break (on them). AppE
  b. They had glasses break on them. SAE

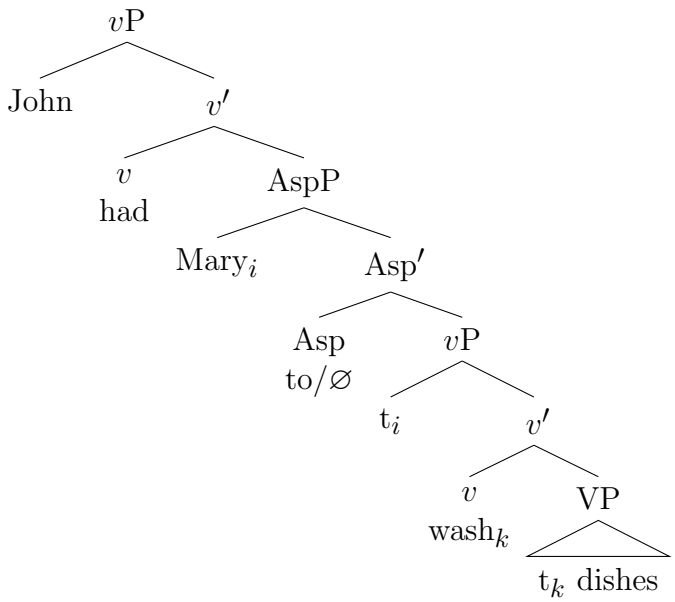
(45) causative *have*
  a. I had Mary *to* wash the dishes. AppE
  b. I had Mary wash the dishes. SAE

Under the assumption that *to* in the AppE cases is a vocabulary item with a corresponding insertion site in the syntactic derivation, comparison of the data across dialects reveals a syntactic head position above the embedded verb into which infinitival-*to* is inserted. I assume that this structure is phonologically null in SAE. Consider this shown with causative *have* in examples (46a) and (46b).

(46) a. I had Mary *to* wash the dishes. AppE
  b. I had Mary ∅ wash the dishes. SAE

In what follows, I will argue that the syntactic position of *to* and ∅ is an aspectual head and that it is the maximal projection of the embedded complement. I will argue that the underlying structure of causative and experiencer *have* across dialects is shown below in the phrase *John had Mary to/∅ wash dishes*.

(47)




I will show that *have* is generated in $v$ and selects for complements headed by AspP. This in turn means that the infinitival-*to* which appears in the Appalachian examples (44a) and (45a) and is present in Asp$^0$ of example (47) is not the familiar infinitival-*to* which is associated with T$^0$ in either dialect. This infinitival-*to* is the result of the lexical insertion rule which is present in the lexicon of AppE speakers, but not in the lexicon of SAE speakers.

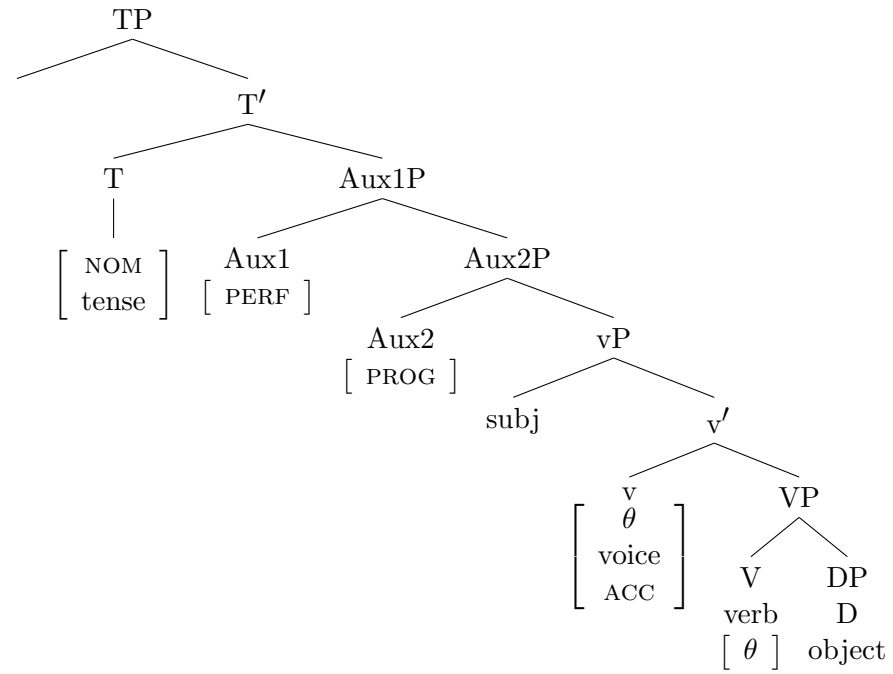
In the rest of this section, I will provide evidence which shows that *have* is generated in $v$, and assigns a theta-role to its specifier. Then I will argue for a complement maximally headed by an aspect phrase. Next, I will say a bit about the nature of the covert aspectual head and argue that in general aspectual heads in English only exhibit auxiliary insertion in the presence of morphology assigned by a higher head. This suggests a separation in the morphological licensing features of a given aspectual head and its candidacy for vocabulary insertion in a string of auxiliaries. Finally, I will briefly present a cross linguistic instance of a causative restructuring verb in Salentino Italian which appears with overt infinitival morphology in an almost identical situation. This provides precedent for asserting a default insertion rule for infinitival-*to* in these restructuring contexts.

### 2.3.1 *Have* is in $v$

The position of causative and experiencer *have* can be inferred by examining their distribution relative to fully articulated auxiliary structure, the lack of obligatory T to C movement in question formation, the lack of matrix passivization, and a ban on expletive subjects in the matrix clause.

First, I assume the following basic structure of the English clause.

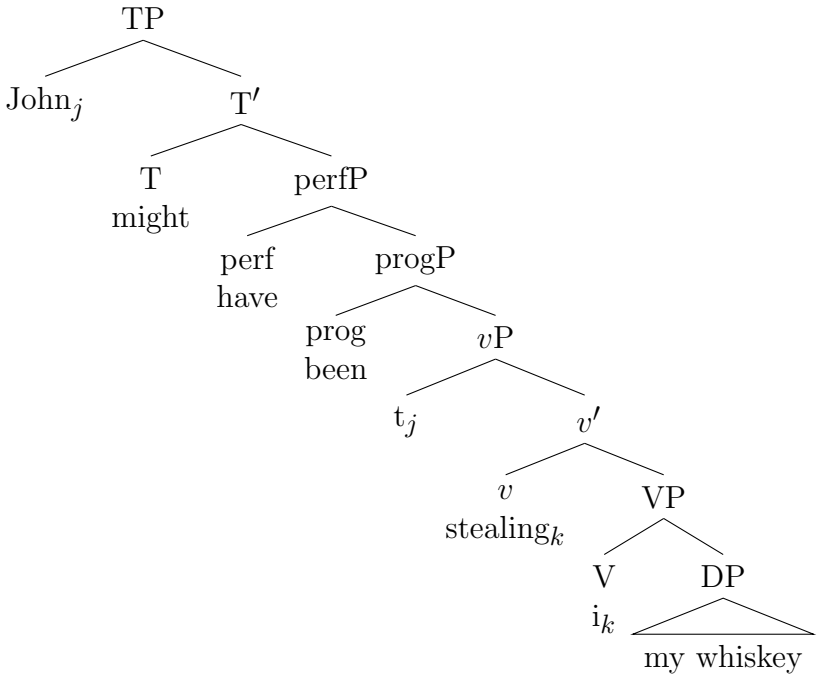
(48)




Following common assumptions of the Minimalist Program (Chomsky, 1995), I assume that the verb assigns a $\theta$-role or thematic-role to the object or internal argument in its complement. Similarly, $\theta$-roles generally associated with agentive or active voice subjects are assigned by $v$ via a spec-head relationship. Thus external arguments are merged in spec,$v$P. Common assumptions about case-assignment tell us that $v$ is responsible for assigning accusative case to DPs in its domain. I will also assume that nominative case is similarly assigned by $T^0$.

A fully articulated string of the modal/aux domain is found in example (49a) with the structure in example (49b).

(49) a. John might have been stealing my whiskey.

b. 


It stands to reason that any lexical item that appears below a fully articulated set of auxiliaries in English must be in a syntactic position below the lowest auxiliary, namely it must be in $v$P or lower. Causative and experiencer *have* appear below a full set of auxiliaries. Again, since I am arguing for an identical syntax across dialects, I will include both the AppE *to* and its SAE counterpart ∅ in the derivations. Thus to/∅ represents the same head in both dialects.

(50) a. John might [$_{\text{perfP}}$ have [$_{\text{progP}}$ been [$_{v\text{P}}$ stealing my whisky.

b. John might [$_{\text{perfP}}$ have [$_{\text{progP}}$ been [$_{v\text{P}}$ having Mary to/∅ wash dishes.

Notice that *have* in example (50b) appears to be in the same position as the verb *stealing* in the previous derivation. They even both express the progressive *-ing* morphology of the preceding progressive head. I will argue below that causative *have* in example (50b) is a semi-functional verb base generated in $v$, while *stealing* is a lexical verb generated in V, eventually undergoing movement to $v$.

Another piece of evidence that *have* is not in an auxiliary position comes from the fact that both causative and experiencer *have* require do-support for yes/no question formation

and do not move from T to C themselves. Many types of non-subject questions trigger T to C movement in English and as we previously saw for yes/no questions in example (39) repeated below in example (51), causative and experiencer *have* do not undergo T to C movement but they require do-support.

(51) a. John had Mary wash the dishes.
b. John had glasses break on him.
c. * Had John Mary wash the dishes?
d. * Had John glasses break on him?
e. Did John have Mary wash the dishes?
f. Did John have glasses break on him?

This shows that causative and experiencer *have* do not behave like auxiliaries in English. If they were auxiliaries generated above $v$P in some aspectual head then we would expect them to pattern with the aspectual auxiliaries *have* and *be* which, as we can see from example (52), obligatorily undergo T to C movement.

(52) a. John has drank all my whiskey.
b. Has$_i$ John t$_i$ drank all my whiskey?
c. John is drinking all my whiskey.
d. Is$_i$ John t$_i$ drinking all my whiskey?

Beyond distributional evidence, there are several theta-role related factors which bear on the distribution of causative and experiencer *have* with $v$. Remember that according to the clause structure of English assumed here, external arguments are assigned theta-roles by $v$. Traditional raising verbs like *seem* are not thought to assign theta-roles to external arguments and this is reflected in the fact that they license expletive subjects like *there* and *it* in example (53). The exact mechanics of where and how these dummy subjects enter the derivation may be set aside for our purposes here. Suffice it to say that such subjects are barred from appearing with verbs which assign theta-roles.

(53) a. There seemed to be someone washing the dishes.
b. It seemed that Mary was washing the dishes.

Like traditional raising verbs, auxiliaries in English also do not assign theta-roles. This is evident in that they impose no restrictions on the licensing of expletives in raising predicates.

(54) a. There had seemed to be someone washing the dishes.
b. It was seeming more and more like Mary was washing the dishes.

It would follow that if causative and experiencer *have* are more auxiliary-like then they would also fail to impose restrictions on the presence of expletive subjects. However, causative and experiencer *have* do not allow expletive subjects presumably because they must assign agent and experiencer theta-roles.

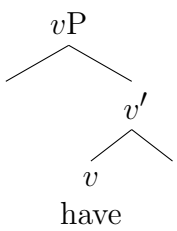
(55) a. John had Mary to/∅ seem to be washing the dishes.
b. * There had Mary to/∅ seem to be washing the dishes.
c. * It had Mary to/∅ seem to be washing the dishes.

Finally, I would like to suggest following Wurmbrand (2001) that causative and experiencer *have* in example (56) do not allow matrix passivization because they are in competition with passive $v$.

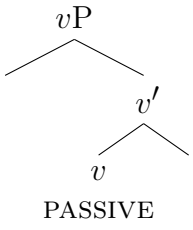
(56) a. * Mary was had to/∅ wash dishes.
b. * The dishes were had to/∅ break on themselves.

Assuming the passive and unaccusative locus of the verbal domain is $v$ means that passivization and merger of either experiencer or causative *have* are in direct competition for merger.

(57) causative/experiencer *have*




(58) passive



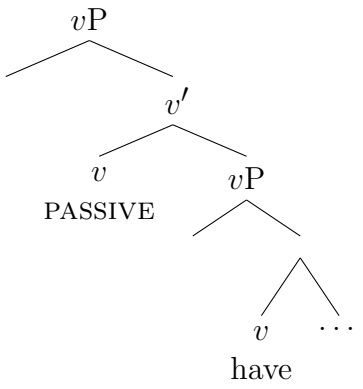

Certainly, they are opposites in terms of what effect they have on argument structure. Passivization arguably reduces the number of arguments of a predicate while causative and

experiencer *have* add an extra argument to an already saturated predicate. Another possible explanation can be gleaned directly from this fact. Simply put, the passive $v$P is not a semi-functional restructuring predicate. Rather it is functional structure which either suppresses or simply does not assign a theta-role and it is always associated with lexical verb. There is also no evidence to suggest that passive $v$P in the verbal domain ever selects anything other than a VP in English. In passivized English sentences passive *-en* morphology always appears on the verb, presumably licensed by $v$.

(59) John's whiskey$_i$ [$_{\text{perfP}}$ had [$_{\text{progP}}$ been [$_{\text{passP}}$ being [$_{\text{vP:passive}}$ stolen t$_i$.]]]]

This means that passive $v$P will never select a $v$P complement containing causative or experiencer *have* as in example (60).

(60) *




Yet another possibility is that causative and experiencer *have* are actually lexical verbs in V$^0$. On purely syntactic grounds, this possibility resurrects the question of why these verbs do not passivize. Setting semantic considerations aside, if causative and experiencer *have* were fully lexical verbs then one could argue that they should passivize but they don't for some non-syntactic reason. The fact that they do not would have to be argued on other grounds. Assuming that causative and experiencer *have* are in V only pushes the problem back a step. Under the analysis forwarded here, the $v$ of causative and experiencer *have* is in competition with the passive and the passive can not select *have* because the passive only ever selects for a VP. If *have* is in V then we lose Wurmbrand's competition generalization and require stipulation as to why in this very specific case, the passive $v$ can not select this

small set of lexical verbs.

Lastly passivization facts show us that although matrix passivization is disallowed, the embedded passivization in example (61) is acceptable and we should therefore minimally posit $v$P layer in the complement clause.

(61) John had the dishes washed.

In summary, we can know the syntactic position of causative and experiencer *have* based on their position with respect to the English auxiliary system. More specific evidence for the position of these verbs comes from common assumptions about thematic role assignment in English. Causative and experiencer *have* behave like lexical versions of $v$ which assign causative and experiencer theta-roles to their specifiers. We assume they are in $v$ as opposed to V on theoretical grounds. Assuming that *have* is lexical and in V deprives us of the competition account of the ban on matrix passivization and requires unnecessary stipulation to account for the facts. This again is evidence that they occur below the auxiliary system and above the lexical verb phrase.

### 2.3.2 *Have* selects an AspP complement

While the types of morphology that appear in complements of causative and experiencer *have* are few, this constraint is itself informative. Part of what it means for *have* to be a semi-functional restructuring verb in Wurmbrand's account, is that the complement that it selects for is larger than the bare VP found with full lexical restructuring verbs. Ultimately it must be a complement without any TP or CP structure. In the previous section, we briefly saw evidence that the complements of causative and experiencer *have* can be passivized and this indeed shows that the complements of these verbs must be larger than a bare VP. On the other end of the clausal scale though, there is some reason to believe that not all instances causative and experiencer *have* are always restructuring. For instance, Butters and Stettler (1986) note the acceptability of causative *have* followed by a *for-to* complement for some

speakers in North Carolina, this configuration is also acceptable in the Appalachian English of Eastern Kentucky.

(62) John had for Mary to wash the dishes.

However, such configurations fall outside the class of restructuring predicates as a whole and therefore will not be dealt with in this analysis, except to show that they are non-restructuring predicates. The non-restructuring causative and experiencer *have* predicates must be set aside in order to provide coherent and convincing arguments for a causative and experiencer *have* restructuring configuration. Subsequently, we will discuss the makeup of the complements under *have* restructuring predicates along with their respective properties in detail.

As shown in example (63a), the clausal *for-to* versions of these predicates in AppE license perfect morphology on the verb along with perfect *have*. The restructuring predicates in examples (63b) and (63c) do not license perfect morphology either with or without the auxiliary in a bare infinitival form. For the sake of clarity, I will contrast the clausal version of these verbs with the restructuring *have* in Standard English. Keep in mind that examples (63b) and (63c) are restructuring complements.

(63) a. John had for Mary to have washed the dishes by the time...
b. * John had Mary washed the dishes by the time...
c. * John had Mary have washed the dishes by the time...

This shows that the perfect is banned in restructuring versions of causative and experiencer *have*. If perfect *have* is present then complementizer *for* is also available and the constructions must be non-restructuring.

Furthermore, ACT BE is acceptable in for-to clauses and is noticeably worse in the restructuring versions of these predicates. Recall that the instances of *be* in these examples only receive ACT BE interpretations and they are not instances of an overt progressive auxiliary. Again consider the contrast with the SAE restructuring verb in example (64b).

(64) a. John had for Mary to be washing dishes.
b. ? John had Mary be washing dishes.

What we see is that overt perfect auxiliary co-occurs with a TP and a higher CP and that ACT BE likewise is more acceptable in a full for-to clause. Thus the infinitival-*to* which appears with overt auxiliaries is actually located in T. Making this division we can move on, setting aside instances of causative and experiencer *have* which contain tense and a complementizer layer as non-restructuring verbs. This sets the stage to show that the *to* present in restructuring cases in AppE is not located in the tense layer of the restructuring complement.

#### 2.3.2.1 The status of *to* under restructuring *have* in AppE

As is the case with other semi-functional restructuring predicates most things associated with tense are non-existent in the complement of the restructuring varieties of causative and experiencer *have*. First, as we have previously seen, expletive-*there* is banned in the complements of causative and experiencer *have*, repeated below in example (65). Remember the sentences in this section correspond to the SAE version without *to*.

(65) a. * John had there to seem to be a problem.
b. * John had there to seem to be a problem on him.

PRO is also banned as the subject of complements embedded under causative and experiencer *have*. The causative in example (66a) is unacceptable on a causative reading though an obligational reading available. Although I speculate obligational *have* may be reducible to the same syntax as the non-restructuring version of causative and experiencer *have*, this is beyond the scope of this work. It is sufficient that causative *have* does not license PRO as the subject of its complement.

(66) a. * John had PRO to wash dishes.
b. * John had PRO to wash dishes on him.

This fact falls out from a basic theory of PRO in which it requires null case. Under the assumptions that I have made here about the articulation of causative and experiencer *have* clauses, PRO is only in the position to receive accusative case from the $v$ above it. So, even if we were to assume that T assigns null case per Martin (2001) it would not be assigned in the context of these restructuring complements as they are not maximally headed by T. Beyond this, I remain agnostic as to a theory of PRO, especially considering that AppE is at least a partial *for-to* dialect.

Finally, auxiliary *have* and *be* associated with the progressive and the perfect are degraded in restructuring complements.

(67) a. * John had Mary to have washed dishes.
b. * John had Mary to be washing dishes.

In Appalachian English this argument is a bit trickier to make. With the SAE bare-infinitive counterparts we said that any instance of auxiliary *have* requires overt infinitival-*to* in T and that this entails the possibility of inserting a *for* complementizer. This argument does not hold so clearly here. Fortunately, insertion of complementizer *for* alleviates the unacceptability and reveals a distinction between the unacceptability of example (67) and example (68) below.

(68) a. John had for Mary to have washed dishes.
b. John had for Mary to be washing dishes.

Crucially, only the morphological markers shown in example (69) are acceptable in the restructuring instances of *have*. Since, I am assuming a uniform treatment and causative and experiencer *have* don't differ on these facts, only causative *have* is shown for clarity.

(69) a. John had Mary ∅ wash the dishes. bare-infinitive
b. John had Mary washing dishes. progressive
c. John had the dishes washed. passive

This leaves the Appalachian English *to* in example (70) as a dialectal variant of the SAE bare-infinitive in example (69a).

(70) John had Mary to wash the dishes. default *to*

The evidence that T and overt auxiliaries are banned in restructuring *have* complements combined with the fact that only the progressive *-ing*, the passive *-en*, and the pre-verbal *to* are allowed in the restructuring cases indicates that these complements are maximally headed by and aspectual phrase which licenses the morphology on the verb and that same head acts as the insertion site for *to* in AppE. This leads to the conclusion that the AppE *to* is the result of a default insertion rule which is triggered in the absence of inflectional morphology on the embedded AspP head.

### 2.3.3 Default infinitival morphology

In this section, I discuss the precedent for the notion that there is a default insertion rule in Appalachian English assuming that syntax that I have just argued for. Then I will show how it is implemented using the framework of Distributed Morphology. First, I will briefly present some restructuring data from a dialect of Italian where an identical default insertion rule has been proposed for just these situations.

Consider the case of one causative restructuring verb in Salentino Italian shown in example (71) from Calabrese (1997).

(71) ntʃi addʒu fattu kkattare lu milune
to.him have-1s made buy-inf the melon
'I made him buy the melon.'

Notice that the causative *fattu* or 'make' is followed by a verb which bears infinitival morphology. Calabrese (1997:48) argues that "modal/aspectual verb + infinitive sequences should be treated as mono-sentential verbal complexes where the infinitive is responsible for determining the argument structure of the sentence and its basic sentential configuration." A notion that I repeat and one that is reflected in many of the works mentioned so far (see Ritter & Rosen, 1997; Harley, 1997; Wurmbrand, 2001). To capture this for Italian, Calabrese posits the rule in example (72) following a similar set of facts found in Catalan (Picallo, 1990). The

rule is applied when the verbs are embedded in structure where they receive no inflectional agreement.

(72) $[\varnothing] \leftrightarrow$ infinitive

#### 2.3.3.1 The assignment of English verbal morphology

In this section, I will briefly discuss Halle and Marantz (1993) which proposes an account of the morphology of English verbal inflection which is relevant to the morphosyntax of causative and experiencer *have*. Using this base to work from I will then present and argue for the vocabulary insertion rules for the verbal morphology found in the complements of causative and experiencer *have* in Standard and Appalachian English.

English verbal inflection is the result of the combination of morphosyntactic features that may be generated either in the terminal node of the tense layer or at some terminal inflectional node in the IP constituent, Halle and Marantz (1993). I will assume this is the aspectual auxiliary system in English located between $v$P and T as this must be the case for our smaller than TP restructuring complements.

They divide the verbal inflection system into five parts.

(73)

| | | | | |
|---|---|---|---|---|
| past participle | beat-en | put | dwel-t | play-ed |
| past finite | beat | put | dwel-t | play-ed |
| nonpast finite 3rd sg | beat-s | put-s | dwell-s | play-s |
| nonpast participle | beat-ing | putt-ing | dwell-ing | play-ing |
| nonpast finite | beat | put | dwell | play |

Thus assuming that vocabulary items will be inserted onto a fused head bearing both tense and agreement features Halle and Marantz posit the following tense/aspect related features to account for the distribution of verbal morphology: [±past] and [+participle]. This five feature system is cashed out in the following vocabulary insertion rules for T head.

(74) I = *fused tense and agr*

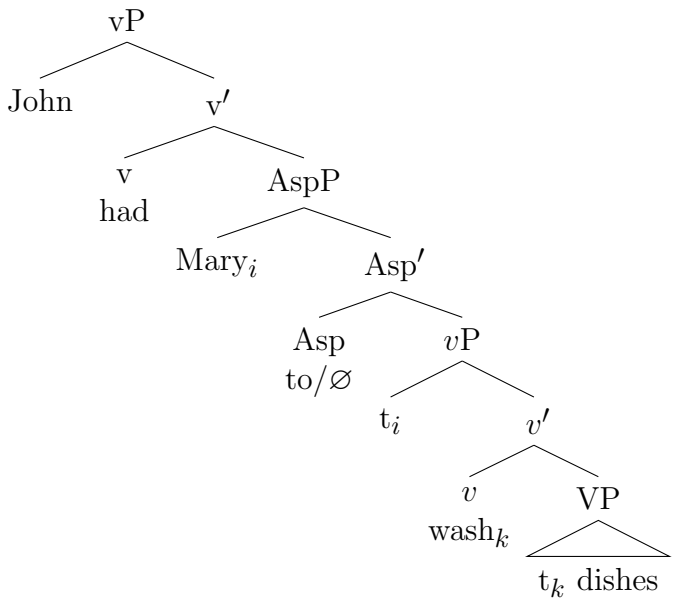
| | | |
|---|---|---|
| [+participle, +past] | ↔ | /-n/ / X + ____<br>where X = *hew, go, beat, ...* |
| [+past] | ↔ | ∅ / Y + ____<br>where Y = *beat, drive, bind, sing, ...* |
| [+past] | ↔ | /-t/ / Z + ____<br>where Z = *dwell, buy, send, ...* |
| [+past] | ↔ | /-d/ |
| [+participle] | ↔ | /-ing/ |
| [3sg] | ↔ | /-z/ |
| | ↔ | ∅ |

The list is ordered from complex to least complex feature sets. Verbs ending in participle *-en* have features comprised of [+participle, +past] while verbs with other forms are licensed by [+past] morphology which is differentiated by virtue of disjoint lists of specific verbs in the lexicon. Of interest for our analysis is the fact that the past and progressive participle differ by only [+past]. Presumably under this analysis the [+past] feature is licensed in the syntax by T, but in our restructuring clauses which are maximally headed by AspP there is no evidence that such a feature is ever present. Hence, to maintain the distinctions that a two feature system grants us we would have to make some slight readjustments to any vocabulary insertion rules that are applicable in the smaller than TP restructuring contexts. However, I will simply state that the feature [+past] is a cover term for whatever the real feature might be and continue to use it for ease of exposition and translation between this system and the list of vocabulary items that I will propose for Appalachian English.

#### 2.3.3.2 The assignment of verbal morphology in restructuring complements

Here I will argue for a distributed morphology account of the verbal morphology in restructuring contexts. First, let's reconsider the structure in question, repeated below.

(75)



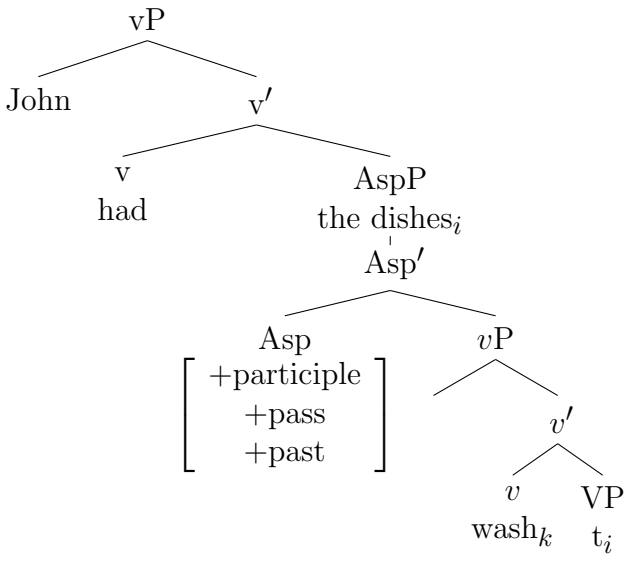

Following Halle and Marantz (1993), we will consider the spell-out of verbal morphology on the verb in these cases to be the result of merger of Asp$^0$ and $v$ under structural adjacency Marantz (1988; 1989). Further, we must assume that actual tense is not present but that we are using [+past] as a feature which will let us maintain the distinctions in the featural content of the auxiliary system of full TP clauses as well as those found in restructuring complements. For Standard English, we saw that these complements can only be passive, progressive, or bare. The assumption that [+past] is simply a cover term for the actual feature involved allows us to implement exactly the list of rules for vocabulary insertion even though T is absent. Further, assuming person and number agreement is specified on T means that they play no part the spell out of morphology in restructuring contexts as we expect.

(76) $v$ = *fused Asp*$^0$ *and* $v$

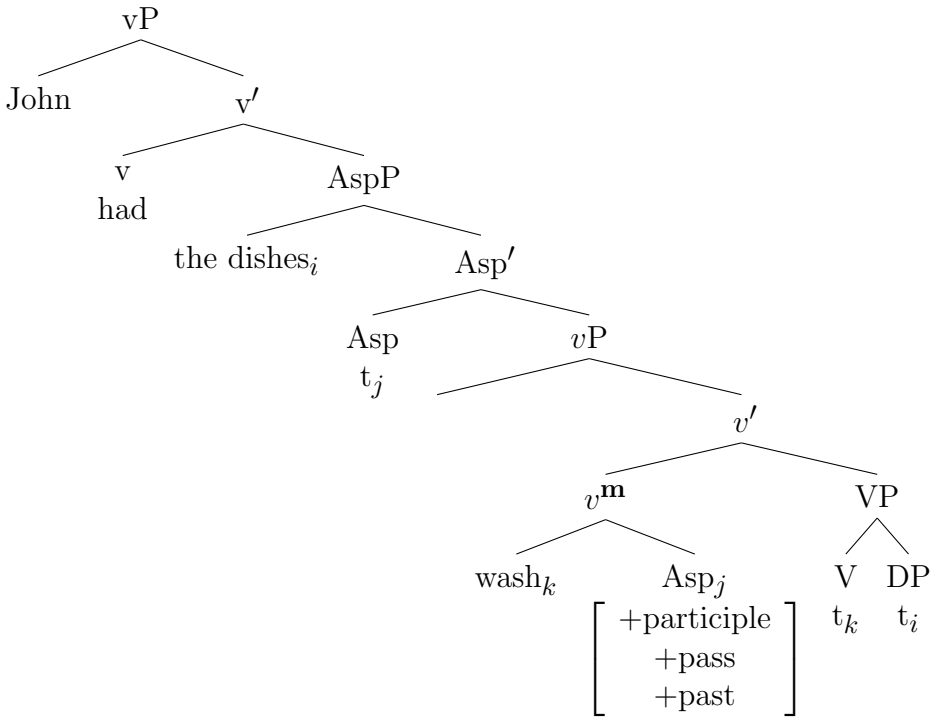
| | | |
|---|---|---|
| [+participle, +past] | ↔ | /-n/ / X + ____<br>where X = *hew, go, beat, . . .* |
| [+past] | ↔ | ∅ / Y + ____<br>where Y = *beat, drive, bind, sing, . . .* |
| [+past] | ↔ | /-t/ / Z + ____<br>where Z = *dwell, buy, send, . . .* |
| [+past] | ↔ | /-d/ |
| [+participle] | ↔ | /-ing/ |
| | ↔ | ∅ |

Lets consider the morphological merger in the context of the passive in example (77) for the sentence *John had the dishes washed* where we will assume following Halle and Marantz (1993) that merger is represented by downward movement.

(77) a.




b.




At this point, I will assume that features below the level of $v$ constitute a morphological word and as such are an insertion point for phonological exponents. This is represented by **m** in the derivation. The modified rules in example (76) will now account for the passive, progressive,

and bare morphology that we see in SAE in the complements of causative and experiencer *have*. We now need only to account for the AppE cases which include *to*. Note that I will also assume that the bare infinitive is also possible in AppE for ease of transposition, but I do not wish to make any claims about the state of the grammar for AppE speakers who find both *to* and bare variants acceptable.

Under the system presented here, I take the variation that occurs in AppE to mean that for Appalachian speakers the process of morphological merger is optional. In the case where speakers morphologically merge AspP and $v$ the results will be just like those in SAE, complete with a bare infinitive form. The aspectual-*to* case then falls out of the sytem as an the result of a lack of merger of the requisite heads. In such cases, the verb will remain in $v$ where it will receive no features via merger and appear in the verb's bare form according to example (76). This is explicitly repeated in a rule specifically for $v$ below.

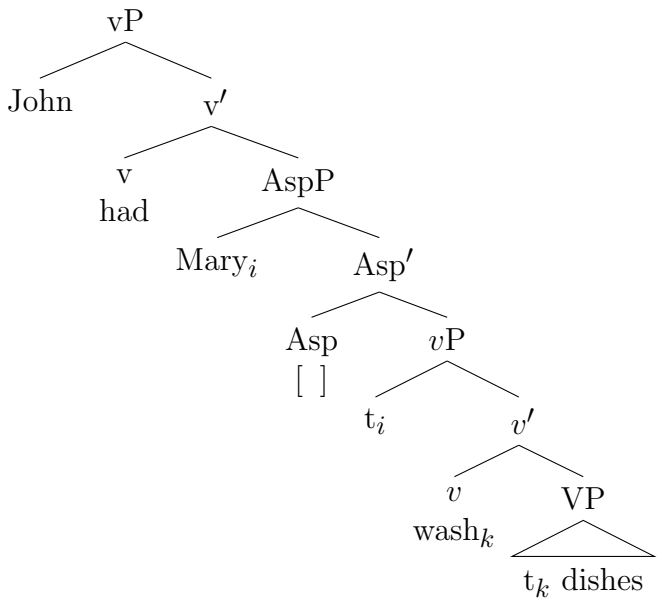
(78) $v$ = no morphological merger
[ ] $\leftrightarrow$ $\varnothing$

Similarly, if there is no morphological merger then $\text{Asp}^0$ will also be evaluated in the absence of external morphological features, and *to* will be inserted.

(79) $\text{Asp}^0$ = no morphological merger
[ ] $\leftrightarrow$ /to/

Example (78) and example (79) are illustrated in on tree below, where the empty brackets [ ] represent the site of vocabulary insertion for *to* in AppE versions of causative and experiencer *have*. It serves as an example of default infinitival morphology similar to cases in Salentino Italian and Catalan.

(80)




The question remains as to why AppE speakers have this infinitival-*to* insertion rule to begin with. I speculate that it might serve to satisfy a prosodic constraint but this is of course beyond the scope of this dissertation. I leave this question to further research.

## 2.4 Summary

Though the surface forms differ and speakers of SAE often find the AppE version of causative and experiencer *have* unintelligable, I have argued that the syntax for causative and experiencer *have* in SAE and AppE is identical. This uniform treatment of causative and experiencer *have* also supports a mono-clausal approach to restructuring verbs and this has implications for theories of non-finite complementation in language. I argued that causative and experiencer *have* are an excellent fit for the class of semi-functional restructuring predicates as outlined in Wurmbrand (2001). These verbs generally have some thematic role assigning properties but behave somewhat like heads which are more functional and less like true lexical verbs. Specifically, these two versions of *have* are shown to be in $v$ and select complements maximally headed by AspP. As we would expect, the causative and experiencer *have* in AppE which allow infinitival-*to* were shown to have none of the usual properties associated with a true infinitival-*to*. This in turn means that the presence of the infinitival-*to*

in AppE (as opposed to the bare infinitive in SAE) is the result of a morphosyntactic rule, $Asp^0$:[ ] $\leftrightarrow$ *to* which inserts infinitival-*to* onto aspectual heads which fail to receive feature content from higher up the tense/auxiliary chain or via morphological merger. This situation in AppE is similar to those described in Catalan (Picallo, 1990) and Salentino Italian (Calabrese, 1997). Finally, This examination of micro-syntactic variation has shown implications for how we understand features of the tense and auxiliary system in English more broadly. It requires that the features assumed by Halle and Marantz (1993) to account for verbal inflection in English be slightly readjusted to account for the lack of tense features in the context of restructuring complements.

# CHAPTER 3

# PERCEPTION VERBS AND THEIR COMPLEMENTS

## 3.1 Introduction

In Standard American English (SAE), infinitival-*to* is absent in active perception complements and required in passive perception complements, as shown in example (1). The passive is shown in example (2). This asymmetry in English complement clauses is peculiar to perception complements and some causation complements (Hornstein et al., 2008).

(1) Active SAE
   a. John saw Mary leave.
   b. * John saw Mary to leave.

(2) Passive SAE
   a. * Mary was seen leave.
   b. Mary was seen to leave.

Perception complements in Appalachian English exhibit a different pattern. They show us that they are not subject to the same restrictions as those in Standard American English. As shown in (3), AppE allows infinitival-*to* along with the bare infinitive in the active. Similarly in (4), AppE allows both bare complements and those headed by infinitival-*to* in passive contexts. In comparing these two dialects, we find yet another point at which Appalachian English varies from the standard in infinitival complementation.

(3) Active AppE
   a. John saw Mary leave.
   b. John saw Mary to leave.

(4) Passive AppE
   a. Mary was seen leave.
   b. Mary was seen to leave.

While the requirement of the bare infinitive in active perception complements in SAE as shown in (1) has been described in terms of c-selectional constraints on the verb, the constraint on the passive in SAE shown in (2) is commonly assumed to be a product of special properties of the passive and the passive participle.

Following the notion that the passive participle is involved in the ban on matrix passivization, we find that many linguists have argued that the passive participle 'disallows' the establishment of some relation between the matrix and embedded clauses. For illustrative purposes suppose, following Bennis and Hoekstra (1989/2004), that this relation has to do with the establishment of a single tense domain for both clauses. In example (5a), both the matrix and the embedded tense layer have identical indices. Assume that this denotes the establishment of a single tense domain. Now suppose that in example (5b) the generation of the passive participle has interrupted the process of establishing a single tense domain; the embedded T remains un-indexed.

(5) a. $[_{T_i}$ John saw $[_{T_i}$ Mary leave]]
b. $[_{T_i}$ Mary was se-**en** $[_{T}$ t leave]] *SAE

Interestingly, a majority of the analyses of perception complements include some version of the stipulation that the passive morpheme, *-en* blocks the establishment of some syntactic relationship. For Hornstein et al. (2008), perception complements in English fail to passivize because the passive *-en* participle bears phi-features which prevent the successful probe and consequent agreement with various embedded elements. Bennis and Hoekstra (1989/2004) argue that the passive participle blocks proper establishment of tense relations between the matrix and embedded clauses; the situation illustrated by example (5). Finally, Felser (1999) argues that passivized verb itself blocks the establishment of relations between event variables in the matrix and the embedded clause. These three analyses all share the common assumption that the passive morphology is the culprit responsible for the unacceptability of example (5b). Recall that Wurmbrand's analysis of the lack of matrix passivization in perception complements is quite different. She assumes that some verbs are more a part of the functional structure of the clause and generated in $v$ while others are purely lexical and are generated in V. Additionally, she posits a host of embedded complement sizes. As we saw in the previous chapter, she predicts the unacceptability of example (5b) by placing the set of semi-functional restructuring verbs (motion verbs, causatives, perception complements) in

a type of complementary distribution for merge with passive $v$P. For the rest of this chapter, I will assume Wurmbrand's approach to the ban on matrix passivization in semi-functional restructuring complements to hold. This does not however preclude the possibility that lexical restructuring verbs in V are not subject to further constraints against passivization induced by the passive participle as many authors have claimed. For that reason, I will also provide a solution to the problem of matrix passivization of perception complements which takes into account the commonly observed effect of the passive participle.

I will argue that the variation which exists in perception complements in AppE in examples (3) and (4) is the result of two properties of the language. First, matrix passives of bare PCs are possible in AppE because syntactic properties of passive participle are different. To put it simply, participles are transparent and allow for the proper establishment of relations between clauses. As such, the passive morphology no longer makes the embedded clause opaque for syntactic operations. Such claims are consistent with the fact that Appalachian English is a dialect whose verbal paradigms have undergone severe leveling. Paradigm leveling in AppE irregular forms is ubiquitous and is occurs in both the passive and perfect participle contexts. For instance in example (6a), the verb *broke* appears in a verbal passive without the passive *-en* morphology. Likewise, in example (6b), the verb also appears in a perfect construction with an overt perfect auxiliary without the requisite participle morphology.

(6) a. It was broke by somebody.
    b. I had broke it before they arrived.

This configuration of verbal morphology and the restructuring analysis that I propose here have implications for theories other than those of complementation. The facts require that we question basic assumptions that we have about the composition of non-standard grammars as well as the acquisition such purportedly 'variably leveled' forms for speakers of those non-standard grammars. Specifically, in terms of leveling of certain grammatical paradigms it reveals certain egocentrics views about how similar non-standard dialects are to standard

dialects.

Second, since the focus of this work is on non-finite complementation in the context of restructuring predicates, I have less to say about the why AppE allows infinitival-*to* in the active versions of perception complements. I will however show that they are non-restructuring predicates and that the infinitival-*to* that appears there is an actual manifestation of T. I have even less to say about this should be the case beyond c-selectional restrictions and I will show that even SAE allows these to occur with with expletive subjects in a very restricted set of cases.

Finally, I will compare the analysis of causative and experiencer *have* to the syntax of perception complements in AppE and argue that the Wurmbrandian approach to restructuring verbs alone is insufficient to account for the differntial behavior of these two classes of verbs.

This chapter is structured as follows. In the next section, I discuss the main types and properties of perception complements as found in Standard English before discussing those types in light of the Appalachian English data. Then in section section 3.3, I review three previous analyses in which the passive participle is the culprit behind the constraint against matrix passivization of perception complements. In section 3.4, I propose my analysis. It is a synthesis of Wurmbrandian style mono-clausal restructuring approaches and approaches which assume that the passive participle still prevents matrix passivization. Successful analysis of the facts requires an extensive detour into the morphology of participles in Appalachian English. Section 3.5 is a comparison of the analyses of causative and experiencer *have* and perception complements in AppE which leads the to conclusion that external mechanisms such as head-movement and semantic constraints are also relevant in micro-variationist analyses of restructuring complements. Section 3.6 is a brief summary and conclusion.

## 3.2 Properties of perception complements

### 3.2.1 Types of perception

Perception complements have two basic types of interpretation. They come in *direct* perception form which seem to denote bare events and correspond to what we have been calling restructuring predicates and in a *indirect* perception form which are propositional and correspond to what we have called non-restructuring predicates. The propositional perception complements are realized as tensed complements in English and are exemplary of *indirect* perception

(7) Indirect or epistemic perception complements
   a. John saw that Mary left.
   b. John heard that John drank all my whiskey.
   c. John felt that Mary was being mean.

In indirect perception complements, the *perception* event and the event perceived are not required to overlap in the time. For instance, in example (7a), The utterance is felicitous with a situation where the *seeing* event that holds of John is located after the point in time at which Mary *leaving* event is completed. More colloquially, Imagine that John arrived home after Mary had left. He was aware that she had reason to leave and he saw that she left because all of her things were missing. Because of this interpretation fact, these propositional complements are considered to be *indirect* perception. Further, indirect perception *see* often reflect the notion of "discovery". Consider the comparison below where *see* and *discover* share an interpretation.

(8) a. John saw that Mary left.
   b. John discovered that Mary left.

On the other hand, *direct* perception complements pattern with restructuring verbs. They require that the two events that comprise such utterances overlap in the time course of events.

(9) Direct perception complements
   a. John saw Mary leave.
   b. Mary heard the bone break.
   c. John felt the ground shake.

For instance, the *seeing* event in example (9a) and the *leaving* event of its complement must overlap in a time course of events. The sentence is simply infelicitous if *John's seeing* and *Mary's leaving* do not overlap in time. Felser (1999) refers to this fact as the constraint on temporal simultaneity. These bare perception complements never license a complementizer or elements associated with tense.

#### 3.2.1.1 Direct perception

Given Wurmbrand's diagnostics for the properties which divide predicates into restructuring and non-restructuring predicates, it seems that *direct* perception verbs simply take different complements than *indirect* perception verbs. Following Felser (1999) and Wurmbrand (2001), I assume that these two types of complements are not related derivationally. More specifically, we could say that *direct* perception complements in SAE are semi-functional restructuring complements just like causative and experiencer *have* and set *indirect* perception complements aside as non-restructuring complements. In what follows, I describe the behavior of *direct* perception complements. True to form with restructuring verbs, direct perception complements ban most things associated with Tense. The list of properties in this section have been adapted from Felser (1999) unless otherwise noted.

First, note that *direct* perception complements ban sentential negation.

(10) * John saw Mary not hit Bill.

Example (10) is unacceptable under a sentential negation interpretation which is associated with tense. It does not mean *John saw Mary didn't hit Bill.* The only possible interpretation is one of constituent negation which can appear regardless of tense. For instance, with a continuation phrase *John saw Mary not hit Bill but kiss him instead* is quite acceptable

but not on a sentential negation interpretation. It only allows a reading where the verbal constituent in the complement is negated and contrasted with another constituent of the same type.

Since direct perception complements are restructuring verbs they pattern with other restructuring verbs in that they do not license modal auxiliaries. Example (11) below shows that epistemic modal *might* is not licensed.

(11) * John saw them might hit Bill.

Similarly, aspectual *have* and *be* which correspond to the perfect and the progressive auxiliaries are also banned in direct perception complements just at they were banned in the complements of causative and experiencer *have*.

(12) a. * We heard Bill be talking to himself.
b. * We saw Mary have finished her breakfast.

Note that just as we saw with causative and experiencer *have*, the only possible interpretation of example (12a) is the ACT BE reading which requires agentivity on the part of the embedded subject. This is not the same reading that we find with the progressive. To my knowledge there are no felicitous interpretations of the sentence in example (12b).

Not surprisingly, since direct perception verbs pattern with restructuring verbs in terms of their properties, they do not license infinitival-*to* associated with T or the default *to* outlined in the last chapter. I will return to a discussion of this fact towards the end of the analysis section.

(13) * John saw Mary to hit Bill.

Finally, direct perception complements do not license expletive subjects.

(14) * John saw there be an accident Bill.

In summary, direct perception complements seem to lack a tense layer and should therefore be thought of as restructuring predicates. They do not allow elements associated with

tense such as sentential negation interpretations, modal auxiliaries, infinitival-*to* of any sort, or expletive subjects. They also do not allow any aspectual auxiliaries. All in all, the diagnostics so far reveal a configuration that is similar to causative and experiencer *have*.

#### 3.2.1.2 Indirect perception

Indirect perception complements are quite different from direct perception complements and may be characterized by an epistemic reading along with the fact that they do not require temporal event overlap. For instance in example (15), John's *seeing* event need not overlap in a time course of events with and event of *Mary smoking*.

(15) John saw that Mary smoked.

Beyond this, indirect perception complements correspond to non-restructuring predicates because they commonly allow disjoint tense interpretations between matrix and embedded clauses, sentential negation in the embedded clause, complementizers, and other phenomenon associated with the presence of an embedded tense layer. Again the list of properties which follows is adapted from Felser (1999).

Given that these complements are non-restructuring complements we expect that interpretations of sentential negation are allowed in indirect perception complements.

(16) John heard that Mary didn't like sushi.

We can see that the most natural interpretation of example (16) is one of sentential negation. In fact, special prosodic focus is required on the verb in order to force a different contrastive interpretation, *John heard that Mary didn't LIKE sushi, he heard she loved it.*

Modal auxiliaries and aspectual *have* and *be* are licit in indirect perception complements. This is indicative of T/Aux structure which is present in non-restructuring predicates.

(17) a. John saw that Mary might hit Bill.
b. We heard that Bill was talking to himself.
c. We saw that Mary had finished her breakfast.

Example (17a) shows that modal auxiliaries are possible in indirect perception complements but they are indicative of a tense layer and may co-occur with complementizers. In example (17b) and example (17c), we see that the progressive and perfect auxiliaries are also allowed.

Finally, tense marking and expletive there subjects are also allowed in the complements of indirect perception complements. Again, these are indicative of a tense layer in the embedded clause.

(18) a. John saw that Mary slapped Bill.
b. We saw that there was a need for security guards.

### 3.2.2 Direct and indirect perception complements in AppE

We have seen some of the properties that distinguish *direct* perception complements from *indirect* perception complements in Standard English and in this section I discuss those differences in terms of the Appalachian English data. This means that the bare infinitivals constitute restructuring predicates and the infinitival-*to* predicates are non-restructuring predicates, regardless of whether they appear in active or passive voice.

#### 3.2.2.1 Direct perception in AppE

Direct perception complements in AppE differ from their SAE counterparts only in that they are allowed in both the active and the passive. Consider the bare forms in both dialects repeated below.

(19) AppE
a. John saw Mary leave.
b. Mary was seen leave.

(20) SAE
a. John saw Mary leave.
b. * Mary was seen leave.

The most intuitive analysis of these facts and the one I adopt here, is that the set of perception complements in example (19) are true lexical restructuring predicates while the set of

perception complements in example (20a) are semi-functional complements. For Wurmbrand this explains why the sentence in example (20b) resists passivization. This analysis fits with the previous restructuring analysis of causative and experiencer *have*. Recall that neither causative nor experiencer *have* allow matrix passivization because they are semi-functional restructuring predicates. Under this analysis they pattern almost exactly like bare perception complements in Standard English. Such mono-clausal approaches to restructuring also automatically require us to assume that the two types of clauses are not derivationally related. Rather, in SAE we must say that the semi-functional restructuring verb in example (21a) is generated in $v$, while the non-restructuring predicate in example (21b) is verb which selects a non-restructuring complement with a full TP.

(21) SAE

a. John saw Mary leave. semi-functional restructuring PC

b. Mary was seen to leave. non-restructuring PC

In fact, if we take Wurmbrands's analysis of German restructuring predicates seriously and apply it to English, then matrix passivization may be the only visible feature which defines *lexical* restructuring predicates as a subset of restructuring predicate for English. Under Wurmbrand's analysis the assumption that Standard English perception complements are related and somehow defective between the active and passive thereby causing alternations in the presence or absence of infinitival-*to* disappears. Instead, Standard English perception complements are simply not representative of a full set as compared to those in other dialects such as Appalachian English.

Meanwhile, Appalachian English has a lexical restructuring version of *see* because they may undergo matrix passivization as shown in example (22) and a non-restructuring *see* shown in example (23) which allows both active and passive non-restructuring complements.

(22) Lexical restructuring PCs in AppE

a. John saw Mary leave.

b. Mary was seen leave.

(23) Non-restructuring PCs in AppE

a. John saw Mary to leave.

b. Mary was seen to leave.

The question of why SAE seems to be missing an active non-restructuring complement with infinitival-*to* is beyond the scope of this work, and I will set it aside for further research.

#### 3.2.2.2 Indirect perception in AppE

Indirect perception in Appalachian English proceeds for the most part as it does in SAE as we saw in section 3.2.1.2. However, it seems that AppE allows indirect perception for both the active and passive versions of perception complements via infinitival-*to*. In this section, I show that active indirect perception complements with infinitival-*to* in AppE are actual instances of *to* in T as opposed to the default infinitival-*to* discussed in previous chapter.

(24) a. John saw Mary to have drank all the whiskey. active
b. Mary was seen to have drank all the whiskey. passive

Thus, Appalachian English appears to have an extra way of signifying indirect perception via infinitival-*to*. Unlike the infinitival-*to* that we have previously seen with causative and experiencer *have*, the presence of infinitival-*to* in perception complements corresponds to a difference in meaning. Specifically, it corresponds to indirect perception and as such relegates these forms to being non-restructuring complements which minimally contain a tense layer. Evidence for the notion that this infinitival-*to* is actually representative of a TP layer in the embedded clause can be seen by the fact that aspectual *have* is only licensed by an overt infinitival-*to*. Example (25a) shows that *have* is licit with the infinitival-*to* and example (25b) shows that aspectual *have* is illicit without an infinitival-*to*. Example (25c) and example (25d) show that the same fact about infinitival-*to* in the passive.

(25) AppE
a. John saw Mary to have left.
b. * John saw Mary have left.
c. Mary was seen to have left.
d. * Mary was seen have left.

Further evidence that this infinitival-*to* is in fact representative of T comes from the related set of facts for causative and experiencer *have*. Only non-restructuring causative and ex-

periencer *have* allow aspectual *have* in their complements. Recall in example (26a) that in restructuring causative and experiencer *have*, infinitival-*to* is optional for AppE speakers. However, example (26b) shows that the optionality of infinitival-*to* disappears when *have* is is licensed. Furthermore, in all of the cases where *have* is licensed a *for* complementizer is optionally licensed.

(26) a. Mary had John (to) leave. restructuring
b. Mary had (for) John *(to) have left. non-restructuring

Returning to the case at hand, if the infinitival-*to* in active indirect perception complements were the default infinitival-*to* of causative and experiencer *have* then we would expect it to be optional and we might expect it to license the *for* complementizer.

This caveat aside, those elements which are were not admissible under direct perception complements are admissible in Appalachian English active indirect perception complements. For example, sentential negation interpretations are licensed in indirect perception complements.

(27) John heard Mary to not like sushi.

Example (27) may be interpreted as having a sentential negation reading as in *John heard that Mary didn't like sushi*.

Beyond this, these non-restructuring, indirect perception complements also license both the progressive and the perfect auxiliaries in Appalachian English when infinitival-*to* is present. As we saw above, the infinitival-*to* is required.

(28) a. We heard Bill to be talking to himself.
b. * We heard Bill be talking to himself
c. We saw Mary to have finished her breakfast.
d. * We saw Mary have finished her breakfast.

Further, we can apply the analysis of auxiliary insertion from the previous chapter which says that auxiliary insertion is only licit as the result of agreement with some higher auxiliary

head or T. This explains why T is required in these cases. If there was not a tense layer then *have* would not be licensed.

Finally, we see that expletive *there* is not banned in indirect perception complements.

(29) We saw there to arise a great haze over the valley.

(30) We heard there to be a great commotion in the next room.

The findings thus far are summarized below.

### 3.2.3 Interim Summary

According to the diagnostics presented here, it seems clear that there is a set of perception verbs in both dialects which have direct perception interpretations and require temporal overlap for the events described in each clause. These verbs can be thought of as restructuring predicates because neither set's complements exhibit properties associated with a tense layer; they disallow complementizers, auxiliary and nominal elements associated with tense, and sentential negation. Then we can split this set of restructuring predicates along dialect boundaries for whether or not they allow passivization. I take this to be evidence for Wurmbrand's split in the classification of restructuring verbs into semi-functional restructuring predicates and 'true' lexical restructuring predicates which allow passivization. With regards to indirect perception complements which have epistemic and 'discovery' interpretations, they fit neatly into classification as non-restructuring predicates as they allow elements which are banned under their direct perception counterparts. Because they are propositional in nature and are non-restructuring predicates they must be set aside for the current discussion.

## 3.3 Previous Analyses

In this section, I will lay out three previous analyses of perception verbs and their complements which, among other things, seek to explain the constraint against the passive for

Standard English.

### 3.3.1 Bennis and Hoekstra (1989/2004)

The patterning of Dutch perception complements with respect to the active/passive asymmetry is similar to Standard English. Example (31) repeats the familiar English data showing the ban on matrix passivization along with the same data in Dutch. Dutch patterns with English in disallowing the matrix passivization of perception complements.

(31) a. * Kaatje$_i$ was heard [$_{\text{AGRP}}$ t$_i$ [$_{\text{VP}}$ sing a song]]
b. * Kaatje$_i$ werd [$_{\text{AGRP}}$ t$_i$ [$_{\text{VP}}$ een liedje t$_k$ ]] gehoord zingen$_k$

It should be said here that without explicitly naming it as such, Bennis and Hoekstra assume a type of mono-clausal restructuring analysis for perception and causation complements. Specifically, they argue the now familiar point that these complements are maximally headed by a phrase smaller than T. They argue that these clauses are maximally headed by an agreement phrase AgrP and crucially not headed by T. As mentioned this structure constitutes a type of restructuring clause under the Wurmbrand framework. The main argument however is based on the idea that all verbs must be identified by tense, either in their own clause in the case of full TP/CP clauses, or by the matrix tense in the case of embedded restructuring clauses which lack a local TP. The second piece of the argument is that this identification relationship between matrix and embedded verbs in restructuring contexts is interrupted by the passive participle in both Dutch and English. In the remainder of this section, I will review the basic mechanics of the T-linking analysis and then review the evidence for the status of the passive participle as a non-t-linking element.

#### 3.3.1.1 T-linking

As mentioned earlier, this account is based on the principle of T-linking which requires that all verbs in clause be identified by tense in a tense chain or t-chain. This is formulated as the condition in example (32).

(32) T-linking: A verb must be identified by tense.

Any T-chain must have the form in (33) where each P is locally connected to the next and no non-t-linking elements may intervene.

(33) (tense, $P_1$, ..., $P_n$, V)

Because the base position of tense itself varies across languages, they argue that the base of T-chains vary across languages. For instance, there is good reason to believe that tense is situated in T for languages like English while it seems to be based in C for verb-second languages like Dutch. Languages may also vary on how they implement the establishment of t-chains. They may either be established by overt verb movement as evidenced by languages like Dutch, or in languages without overt verb movement they are established by feature percolation down the tree. In general, the chain ranges from the left edge of a clause (originating in T in English) and through any heads between tense and the verb. They assume the following structure for a fully articulated clause.

(34) $[_{\text{CP}}$ C $[_{\text{TP}}$ T $[_{\text{AGRP}}$ Agr $[_{\text{VP}}$ V $]]]]$

T-linking as formulated, is a condition on the output of a derivation which the authors claim to be the underlying factor in determining verb movement rules cross-linguistically. Take for instance one possibility for verb movement in French (Pollock, 1989) as illustrated by Bennis and Hoekstra.

(35) a. (Jean a décidé de) ne pas souvent $[_{\text{V}}$ lire $]$ un livre.
John has decided to not often read a book

b. (Jean a decide de) ne pas $[_{\text{AGR}}0$ $\text{lire}_i$ $]$ souvent $[_{\text{V}}$ $\text{t}_i$ $]$ un livre.
John has decided to not read often a book

This example shows us that in French, the verb in example (35a) may move from its base position in V to a higher position $\text{Agr}^0$ in example (35b). AgrP is an agreement head which was commonly thought to be located between T and V in early versions of the Minimalist Program. It was responsible for handling various types of agreement. In English however,

that same movement of the verb is not licensed. Consider a simplified version of the French sentence below.

(36) a. John has often [$_{V}$ decided ] to read books.
b. * John has [$_{?P}$ decided ] often [$_{V}$ $t_i$ ] to read books.

This shows that whatever mechanism allows for such movement in the French examples is not active in English.

#### 3.3.1.2 Perception complements and t-linking in Dutch

The idea with perception complements then is that they do not contain their own clause internal tense layer and given the condition on t-linking in example (32) which requires verbs to be identified by tense, they must be tense-linked to the higher clause. In Dutch, this requirement is usually satisfied by overt verb movement. In the next few paragraphs, I will lay out the supporting evidence for the T-linking account in Dutch.

Perception and causation verbs in Dutch require verb raising (VR) of the embedded verb to that matrix tense phrase. In example (37) notice that the verb *eten* 'eat' has moved from the embedded clause to the right of the matrix verb *hoort/ziet/laat* 'hears/sees/lets'.

(37) dat Jan [Marie een appel $t_i$] hoort/ziet/laat eten$_i$
that Jan Marie an apple $t_i$ hears/sees/lets eat$_i$

Crucially in perception and causation complements in Dutch, the embedded verb obligatorily undergoes verb movement as shown in example (37). Failure to undergo VR results in ungrammaticality for these constructions. Below in example (38a), we see that the verb can not remain in situ nor can the entire embedded clause be extraposed as shown in example (38b).

(38) a. * dat Jan [Marie een appel eten] hoort/ziet/laat — in situ
b. * dat Jan hoort/ziet/laat [Marie een appel eten] — extraposition

Given the requirements for overt verb movement as opposed to percolation, the Dutch data is a bit more telling in terms of the cause of the unacceptability of such constructions.

Taken alone this data is not too revealing. However, once we place this observation in the context verbal participles we start to see interesting effects. Though VR is required in all complements of perception and causation in Dutch, when participle assigning auxiliaries are involved in matrix clause, everything changes. In the case of past participle morphology, the verb still raises as per the requirement of VR, but only if the matrix verb is infinitival form. This is called the *infinitivus pro participio* 'infinitive for participle' or IPP effect. This means that in cases where we expect the past participle form of the verb, we see the infinitival form of the verb appearing instead.

(39) a. dat Jan mij heeft gehoord/*horen
that Jan me has heard/hears

b. dat Jan [ mij een liedje $t_i$ ] heeft *gehoord/horen zingen$_i$
that Jan [ me a song $t_i$ ] has *heard/hear sing$_i$

Example (39a) shows that in the derivation of a single clause, *heeft* 'has' triggers perfect morphology on the verb requiring the participle form *gehoord* and effectively bans the infinitive *horen*. In the case of the restructuring verbs in example (39b) we see the opposite effect with respect to what morphology is required on the matrix verb. The participial form *gehoord* is unacceptable and the infinitive form is required instead. From this Bennis and Hoekstra conclude that infinitives are possible links in a t-chain. The passive participle as you might recall simply renders the derivation unacceptable. Thus, Bennis and Hoekstra argue that VR can not trigger verb movement to a verb which bears participle morphology. They argue explicitly from the requirement of IPP effects that participles may not be links in a T-chain.

Now, consider again the introductory data for Dutch and English which shows the ban on matrix passivization in (40b). If we assume that participles are not possible links in a t-chain, then the reason for the ungrammaticality of example (40b) is now parallel with the ungrammaticality of example (39b).

(40) a. * Kaatje$_i$ was heard [$_{\text{AGRP}}$ t$_i$ [$_{\text{VP}}$ sing a song]]
b. * Kaatje$_i$ werd [$_{\text{AGRP}}$ t$_i$ [$_{\text{VP}}$ een liedje t$_k$ ]] gehoord zingen$_k$
c. * Kaatje$_i$ werd [$_{\text{AGRP}}$ t$_i$ [$_{\text{VP}}$ een liedje t$_k$ ]] horen zingen$_k$

Remember that all verbs are required to be identified by tense. Perception complements in Dutch and English correspond roughly to what we have been calling restructuring complements which crucially lack a tense layer. This means that the embedded verb must be identified by matrix T via t-chain formation. The process of T-linking in Dutch perception complements is arguably established via movement where the embedded verb must move to the matrix clause in order to be identified. However, the data so far shows that VR while obligatory in perception complements, may never proceed if the matrix verb is in participle form. In the case of the perfective participle, VR may proceed if the matrix verb appears as an infinitive; as shown by IPP constructions. However, in the case of the passive participle not even IPP can save the derivation as shown by example (39b).

As for an explanation of why there should be such a split in the behavior of perfective and passive participle morphology, Bennis and Hoekstra (1989/2004:pg.140) speculate that IPP effects are the result of a 'marked rule of phonological deletion of participle morphology'. Further they argue that, in the case of past participles no unrecoverable material is deleted when the past participle morphology is left out. The passive participle, they argue, does contain unrecoverable material which must not be deleted. They argue that it is the bearer of the external theta-role following Roberts (1987) and Hoekstra (1986). Based on this, deletion of the passive participle morphology would violate the principle of recoverability of deletion. In turn, this requires that the explanation of the unacceptability of matrix passivization in perception complements is explained along the same lines. However, the notion that participles in general are not possible links in a t-chain comes solely from Dutch IPP and VR data.

#### 3.3.1.3 Implication for perception complements in AppE

This analysis is important because it highlights the relationship between obligatory verb movement in restructuring complements in Dutch which requires overt verb movement and its interaction with participial morphology; technical details of the mechanism aside. As for the finer details of the mechanism of percolation in the case of English, there seems to be no reason that one could could not update this system to a more modern syntax involving probe/goal agreement relations originating with T. In fact, all three analysis of perception complements that I discuss here might be updated in this way. Even so, the question would remain as to what exactly those agreeing 'features' might be. Again, the most important point raised by this analysis is the notion of the participle as an element which intervenes between intra-clausal relations, even in the mono-clausal context of restructuring verbs.

That said, regardless of the findings for Dutch, it can not be the case that the perfect morphology on the verb in English results in the verb being non-t-linking element.

(41) a. Mary had seen John drink whiskey before we arrived.
b. * Mary had see John drink whiskey before we arrived.
c. * Mary had to see John drink whiskey before we arrived.

In this exact situation we might expect some correlate of the Dutch IPP effects with English sentences however, there is no such correlation. Of course, it could be the case that the mechanism responsible for IPP effects only operates in the context of verb raising and not feature percolation. Regardless, it seems that the perfect participle is not only a t-linking element in English, it is absolutely required. This fact, coupled with the fact that matrix passivization is banned in English seems to indicate that the two participles do behave differently in English perceptions complements, if we take Bennis and Hoekstra seriously. This also means that since neither participle leads to ungrammaticality in AppE perception complements that neither participle is a non-t-linking element. The participles in Appalachian English must be different. The discussion of the status of participle morphology in Appalachian English will play a major role in my analysis and I will return to it in my analysis.

### 3.3.2 Felser (1999)

Claudia Felser's Event Control-Hypothesis is a slight variation on the theme that we just saw. Aside from being an amazingly complete descriptive work on the semantic and syntactic properties of perception complements in Standard American English, Felser offers another account of the constraint against matrix passivization in perception complements in English and across languages. Felser repeats the data that we are by this point so very familiar with.

(42) a. We saw John draw a circle
b. * John was seen draw a circle

The approach is a bit more technical in terms of syntactic details but the essentials of the argument, as compared with Bennis and Hoekstra (1989/2004), remain more or less the same. She posits a sort of linking requirement for both clauses and makes the now familiar claim that the passive verb interferes with the establishment of that requirement.

Felser argues following Kratzer (1995) that all stage-level predicates project an event variable. This event variable must be identified by tense locally, or by some other event variable which has been identified by T. She then argues that passivized perception complements are ruled out because the matrix passive does not project an event variable and therefore can not serve as a controller for the event variable of the embedded clause. Again the locus of the problem of deriving the constraint against the passive is located in some facet of the matrix passive.

#### 3.3.2.1 Felser's assumptions

In order to unpack her analysis, I will now review her relevant assumptions. She assumes the basics of a mono-clausal approach to restructuring complements by arguing that the complement of perception verbs lack a TP. Instead she claims that they are maximally headed by an aspectual phrase. She bases this claim on the fact that direct perception complements maximally allow the *-ing* progressive participle to appear on the embedded

verb. Compare example (43a) and example (43b) below and note that they both allow a direct perception interpretation, the latter just happens to also be in the progressive.

(43) SAE
  a. We saw John draw a circle.
  b. We saw John drawing a circle.

Rather than tying the requisite intra-clausal relationship directly to tense as in the previous account, Felser links the relationship to an event variable. Evidence that all perception complements project an event variable is argued from the fact that perception complements only license stage-level predicates and never license individual-level predicates. This is purportedly shown by the contrast in example (44) where the stage-level predicate *John be obnoxious* is fine as the complement of a perception verb but the individual level predicate *John be tall* is banned.

(44) a. We saw John be obnoxious.
  b. * We saw John be tall

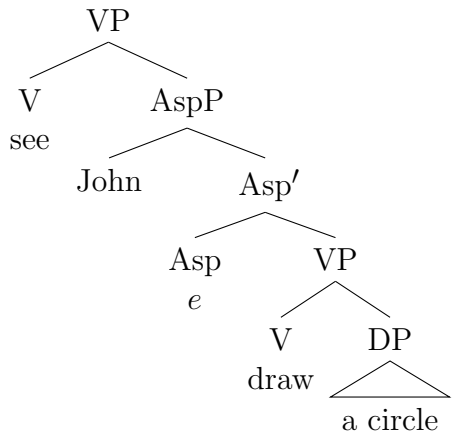
Unfortunately, this claim does not entirely hold. Schmitt (1996) has shown that some individual level predicates are licensed under perception complements, as in *We saw John be cruel*. However, for the sake of exposition I will simply note this fact and return to Felser's Analysis.

So if all stage-level predicates project event variables (Davidson, 1967; Higginbotham, 1985; Kratzer, 1995) as is commonly assumed and all perception complements are stage-level, then all perception complements project an event variable. Felser locates this event variable as being external to the external argument of the verbal complex.

(45) $[e\ [\text{Arg}_{external}\ [\text{Verb Arg}_{internal}]]]$

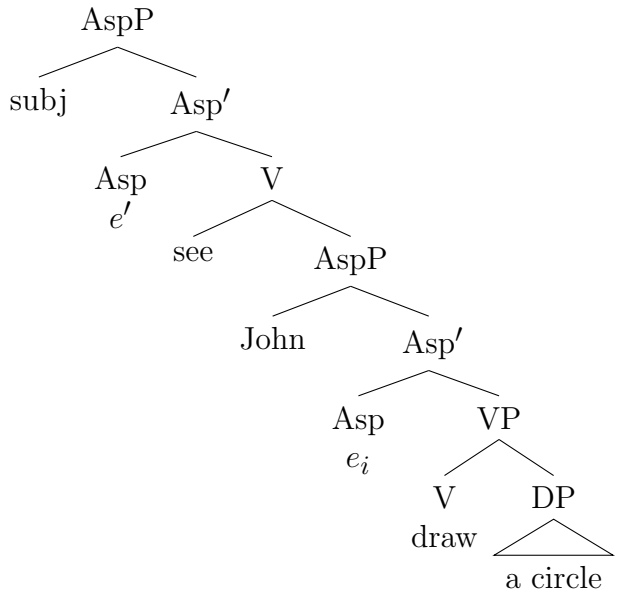
Specifically, she argues that this external event argument is located in the head of an aspectual phrase. Consider the reduced tree for *We saw John draw a circle*, where $e$ represents Felser's event variable.

(46)



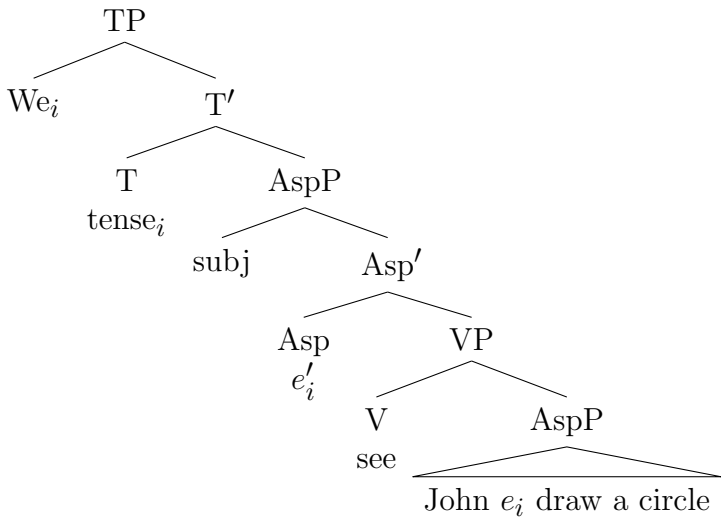

Per Felser's analysis, the perception complement structure in example (46), is projecting the event variable required of a stage-level predicate. However, since there is no tense in the embedded clause, it must undergo identification via entering into a control relationship with another event variable. Identification is indicated by subscript $i$.

(47)




Notice that in (47) the embedded event variable has entered into an identification relationship with the matrix event variable $e'$ which must now be identified by T. Recall that, similar to the requirement that verbs be linked to tense in a T-chain, Felser argues that an event variable otherwise unidentified, must be identified by tense. The indexing of the matrix event variable with T is shown below.

(48)




With her basic assumptions about the derivation of perception complements and the mechanism of event-control out of the way, we are in a position to describe how Felser derives the constraint against the passive.

#### 3.3.2.2 Event-control and matrix passivization

To illustrate how Event-Control can account for the constraint against the passive, Felser makes several assumptions about the passive in Standard English with regards to the eventivity and the architecture of the passive vP/VP shell. In this section, We see how her assumptions about the status of passives with regards to eventivity are founded on shaky theoretical and empirical ground and how her assumptions about the vP/VP shell are in opposition to current minimalist assumptions concerning the structure of passives. In what follows, I ultimately reject Felser's argument that passivized PCs lack the appropriate controller, in favor of the idea that the passive interferes with temporal indexing of the embedded event argument by the matrix event argument.

The claim is that passivized direct PCs are ungrammatical because they do not contain the right controller. Notice the lack of an event variable in the matrix clause of the unacceptable passive in (49).

(49) a. We $e'_i$ saw [$_{AspP}$ $e_i$ John draw a circle.]
b. * John$_k$ was seen [$_{AspP}$ t$_k$ $e$ draw a circle.]

In example (49a) the embedded event variable has been identified with the matrix event variable which has been identified with T in the matrix clause. This allows the derivation to converge. On the other hand, example (49b) depicts a situation where the embedded event variable is unidentified by the matrix variable because the matrix clause simply lacks an event variable.

Felser notes that passive constructions either do not have an external argument or suppress their external argument, and following Burzio's Generalization, they do not check objective case (Burzio, 1986). Further, she takes the lack of an external theta or argument role to mean that passive VPs do not project a vP shell. Felser also suggests, that passive VPs are individual level predicates and therefore they do not inherently project an AspP or an event argument. She states that "This claim is consistent with the fact that passive clauses are often considered to be stative in character" (Felser, 1999:pg.187) Felser ties the claim that passives do not inherently project an aspect phrase to the fact that if a "predicate projected from a past participle or from an adjective is to be used in the progressive, an auxiliary must be inserted as the carrier of progressive morphology," (Felser, 1999:pg.187).

(50) a. John was *being* obnoxious.
b. Mary was *being* questioned.

She claims that when the auxiliary is "inserted" it brings an event argument with it, but since the auxiliary introduces the event argument, it is not a "designated argument of the participle or participial VP" (Felser, 1999:pg.188) and therefore it is not able to act as a controller for other event arguments.

First, I will address the idea that an event variable is "inserted" by the auxiliary before moving on to address the status of passives with regards to their eventivity. The auxiliary that Felser assumes to be inserted as a carrier of the progressive morphology, is not "inserted" in the way she claims. The auxiliary in italics (at least in 50b) must be in passP and not AspP and therefore is not evidence of an "inserted" event variable. Under the common assumptions about English auxiliaries the head that *being* appears on must always be there.

So it is not the case that a head is inserted. Further, if we take my proposal that auxiliary "insertion" is only the result of agreement with a higher auxiliary head or T then this is reduced to an agreement phenomenon. Specifically it is an agreement phenomenon which only has implications for morphological component post spellout. Minimally, her claim is merely indicative of the hierarchy of projections for English. Consider the following examples with both passive and progressive morphology.

(51) a. [$_{TP}$The ball [$_{T}$ was$_{j}$ [$_{passP}$ $j$ [$_{vP}$ thrown ]]]] passive
b. [$_{TP}$The ball [$_{T}$ was$_{j}$ [$_{aspP}$ $j$ [$_{vP}$ rolling ]]]] progressive

The morphological marking of both the passive and aspectual heads appears on the verbs that they have respectively selected for, while the auxiliary has presumably moved to T to check tense. If we assume this basic ordering of functional heads then a derivation involving both the passive and the progressive should reveal their ordering with regards to each other, (52).

(52) [$_{TP}$The ball [$_{T}$ was$_{j}$ [$_{aspP}$ $j$ [$_{passP}$ being [$_{vP}$ thrown ]]]] passive progressive

The verb *throw* is inflected with the participial *-en* associated with the passive. Likewise, the passive auxiliary *be* has been inflected for the progressive with *-ing* and the auxiliary in the aspectual phrase has presumably moved to T for tense reasons. If morphology is any indication, then the heads that auxiliaries appear on are not 'inserted' as carriers of morphology, but rather computed derivationaly in a manner consistent with the C-selectional features of the heads higher in the derivation.

Furthermore, I propose that if in fact event variables are found in AspP then any eventive predicate would project one, and in turn I propose that Felser's own diagnostics for assuming the presence of an event variable can be applied to passivized direct perception complements to show that they do indeed have an event variable.

This leads us to the second problematic assumption that Felser makes about the eventivity of passive clauses. She claims that passive clauses are often thought of as being stative in nature. One problem with this claim is that they easily admit the progressive as we saw

earlier and they do so in a normal, derivationaly consistent way. Felser herself also claims that certain types of aspectual adverbs like *frequently* and *gradually* are licensed by the aspectual phrase. Assuming this is the case, then the following sentences are indicative of passive clauses with adverbs either in the specifier of, or adjoined to, AspP.

(53) a. Mary was *frequently* seen in the office.
b. John was *gradually* seen in the fog.

It is also commonly noted that stage level predicates exhibit prepositional phrase ambiguities, while individual level predicates generally do not. Example (54) is ambiguous with regards to which event happened *from school*. Either the *seeing* took place from the school, or the *shooting* event took place from the school.

(54) Mary saw Bill shoot John from school.

Now contrast this with example (55), in which the main clause is stative and does not exhibit an event/prepositional phrase ambiguity, instead *from school* can only modify the *shooting* event or the DP *John*.

(55) Mary knew Bill shot John from school.

If passive clauses were less eventive than their active counterparts then we might expect that passivization would disambiguate sentences like the one in (56) in AppE.

(56) Bill was seen shoot John from school.

However, both events can still be modified by the PP *from school* exactly as in (54). Both interpretations are repeated below.

(57) a. Someone watching from the school saw Bill shoot John.
b. Bill was at the school and someone saw him shoot John.

This means that passive clauses do not behave like individual level predicates in terms of event and prepositional phrase ambiguities.

I have shown Felser's key assumptions about the passive to be unfounded. Passive clauses pass eventivity tests, including the ability to appear in the progressive and the ability to

admit adverbs that by Felser's own work must originate in the specifier of AspP. Furthermore, passivized perception complements pattern with eventive predicates with regards to event/PP ambiguities and not with stative predicates which do not exhibit the ambiguities.

So if the structure is not missing as Felser suggests, then the ban on matrix passivization of direct PCs must be accounted for in another way. Fortunately evidence that the passive interferes with temporal indexing can be gleaned from other research and it seems at this point that we are left with the t-linking hypothesis of Bennis and Hoekstra. However, there may be some reason to believe that the relationship that is required between the clauses has to do with case checking. Suppose that the passive is an argument that receives a theta role and supporesses the external argument as in (Bennis and Hoekstra, 1989/2004) but also gets checked for case, (Baker et al., 1989; Hornstein et al., 2008). Further if we assume that case is the realization of an unvalued tense feature on D (Pesetsky and Torrego, 2004), then perhaps *-en* is receiving a t-index and interfering with the control relationship between the event arguments. The catch would be that all of the arguments involving temporal identification would have to be reduced to case checking. This clarifies how we might build a connection between passive *-en* and the possibility that it alters the way that temporal indexing of arguments proceeds in passive derivations. In fact, this line of inquiry leads to the final account of the constraint on passivization in English perception complements.

### 3.3.3 Hornstein et al. (2008)

Hornstein, Martins, and Nunes (or henceforth HMN) make use of yet another mechanism for deriving the syntax of perception complements and the constraint against the passive. In a nutshell they argue that we can account for the syntax of perception and causation verbs and their unique set of passivization constraints by assuming a multiple agree approach. The concept of multiple agree means that a probe may agree with elements other than the primary goal. As per normal agree, uninterpretable features may probe down into a structure in search of a goal which contains one or a set of interpretable features. However,

a probe which exhibits multiple agree will agree with one or more sub-goals which contain a non-exhaustive set of features contained in the probe. Or in English, multiple agree assumes that one probe may trigger agreement with various items on the way to its goal until all features on the probe head are satisfied. HMN assume that under multiple agree, a probe is active until the maximal feature *person* or the full set of features are checked and the probe is deactivated.

They combine this syntactic mechanism with the notion that perception complements contain an embedded but extremely deficient T. Strictly speaking this is not a mono-clausal approach to perception complements. As noted by Wurmbrand, any non-restructuring approach bears the burden of providing evidence that structures like the purported deficient T exists in the first place. This final account of the syntax of perception complements varies slightly from the last two in that the authors argue that the main relationship that is established between the two clauses is reducible to requirements on case checking. Temporal requirements and information about the two clauses simply do not figure into the account and it largely ignores the rich set of properties that perception complements have. In this sense, HMN's analysis is a purely syntactic account. However, their account shares the general spirit of the previous accounts in that they propose that the passive morpheme is the culprit responsible for the impossibility of establishing intra-clausal case checking relationship.

In the next few sections, I will discuss and review the basic assumptions that HMN make about the nature of perception complements in Standard English, before moving on to a discussion of their analysis.

#### 3.3.3.1 The active and passive as derivationally related

HMN assume that the derivation of an active bare perception complement like the one in (58a) is derivationally related to the form in example (58b) where *(to) indicates that *to* is not optional.

(58) SAE
   a. John saw Mary leave.
   b. Mary was seen *(*to*) leave.

HMN assume that active bare complements and the infinitival-*to* passive complements are related. They argue that the infinitival-*to* in (58b) appears as a repair strategy in order to 'rescue' the derivation. They set aside other types of perception complements assuming that they are full propositional CP complements. Keep in mind that this is a departure from the analysis presented by Felser, Wurmbrand, and the analysis presented in this chapter. I argued that Standard English has a set of non-restructuring perception complements which contain both CP and TP layers and which allow matrix passivization and a set of semi-functional restructuring complements which correspond to what we have been calling direct perception complements. Hornstein et al. assume that all other non-bare instances of perception complements are propositional and set them aside.

#### 3.3.3.2 The role of case bearing elements

HMN's argument reduces to the claim that passive -*en* morphology blocks the checking of case on a severely deficient non-finite T in the embedded clause. In order for this to work of course, both the passive -*en* and non-finite T must bear an uninterpretable case feature which must be checked before spellout. The evidence for both of these claims and their plausibility for English is scarce to say the least.

HMN, assume -*en* has uninterpretable case because of the association made between case and agreement made in Kayne (1989). However, Kayne's analysis is concerned with cases where perfect participles in French agree with cliticized objects.

(59) a. Paul a repeint les chaises.
   Paul has repainted the chairs
   b. * Paul a repeintes les chaises.
   c. Paul les a repeintes.

Example (59a) shows the required agreement facts for a non-cliticized object in French. As you can see there is no agreement between the object and the verb in the context of the auxiliary *a* 'has'. However, when the object undergoes cliticization there is agreement between the cliticized object *les* and the verb which is now inflected for feminine plural. The assumption of phi and case features on the participle in English is supposed to follow from agreement facts where the object clitic and verb agree in the context of the auxiliary and participle form of the verb.

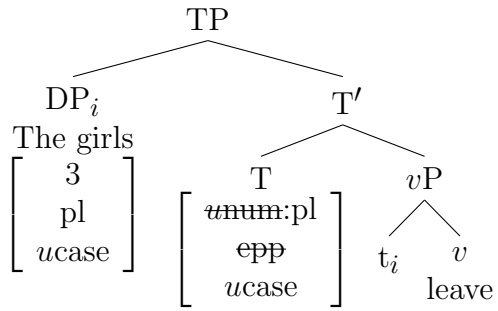
Ignoring the proposed evidence, there is precedent in the literature for the nominal nature of the passive morphology. The reasoning is simple. Nominal arguments receive theta-roles from the verb. So you can either assume that passive verbs are different and do not discharge an external theta-role or, you can assume that all verbs are the same in terms of their event structure and the passive morphology absorbs the theta-role of the external argument. If the passive morphology can receive a theta-role then it must be nominal in nature. This is similar to the line of reasoning put forward in Bennis and Hoekstra (1989/2004) to explain why passive morphology seems to be different. HMN attempt to strengthen their argument with phi-feature data from languages like Brazilian Portuguese in which the passive participle inflects for number and gender. There is unfortunately no evidence like this in Standard English as the passive morphology does not show any overt agreement morphology.

The claim that the non-finite T bears a case feature comes from Raposo (1987) which shows that certain infinitive structures in Romance languages seem to inflect for various agreement patterns. Specifically, he shows that inflected infinitives in Portuguese behave like nominals and may only appear in positions where case is licensed. Nunes (1995) takes the infinitive as nominal projection idea a step further and argues the same for English infinitives from the historical record. Again, there is no overt evidence that Modern English infinitives are case bearing projections.

#### 3.3.3.3 The *Case* of the constraint against the passive

Keeping these assumptions in mind, consider the derivation of **The girls were seen leave* under HMN's account step by step. Example (60) shows movement of the embedded DP *The girls* to the specifier of the embedded T. Uninterpretable number on embedded T has probed down the tree to the DP and agrees with it for plural. The EPP feature on embedded T then requires movement of the DP to its specifier.

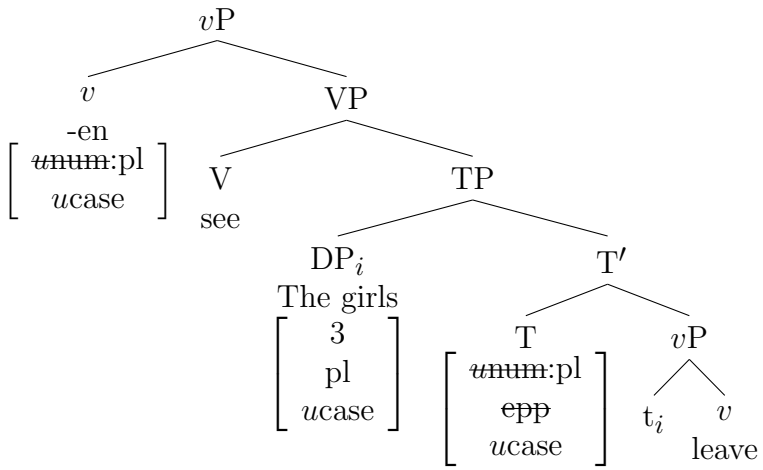
(60)




These two operations are shown to be complete by strike-through and the appearance of the corresponding feature where applicable. Since embedded T is non-finite and does not have interpretable case, both case features remain unvalued.

Next we add the verb *see* and the passive participle *-en* to the derivation. I have relabeled HMN's passP as *vP* and omitted the passive auxiliary head for simplicity.

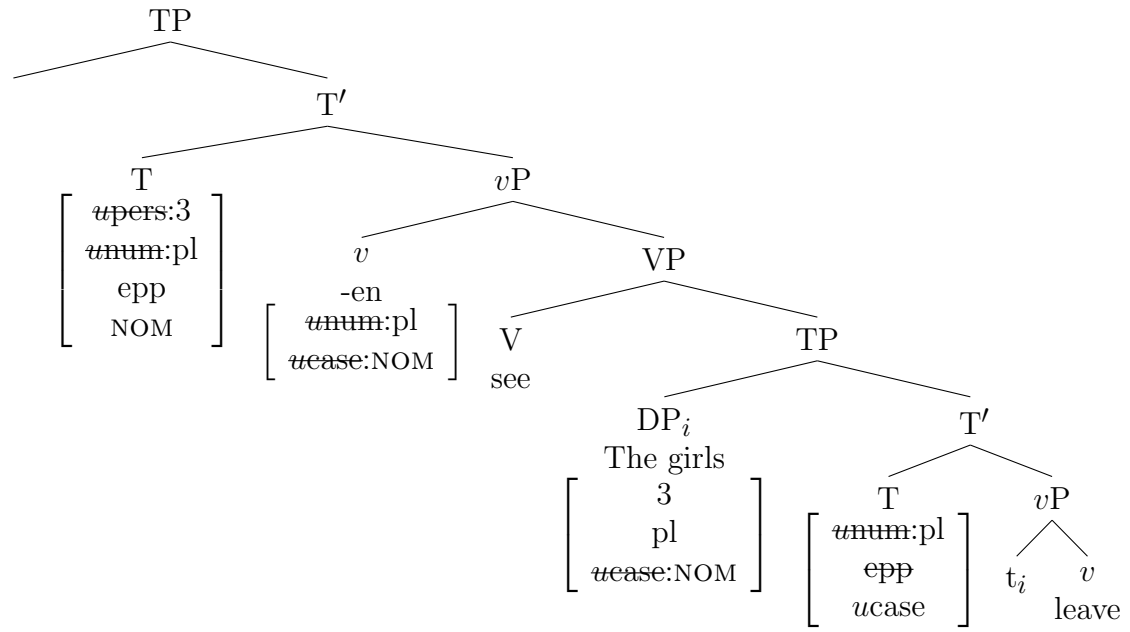
(61)




The structure in example (61) shows the addition of the verb *see* along with the participle *-en*. Note that at this point the uninterpretable number feature on *-en* has probed down the tree and has been valued for plural by the interpretable number feature on the DP. Crucially,

all three case bearing elements remain unvalued for case. Below in example (62), the matrix T is merged.

(62)




At this point in the derivation, uninterpretable person and number on T probe down the tree passing over the participle to receive a value from the DP goal. Now, HMN argue that the participle is valued for nominative case by virtue of having all of its phi-features previously valued when the probe bearing interpretable nominative case passes through it. The crux of the ban on passivized perception complements is that both the DP and non-finite T require case checking via a probe/goal relationship in example (62). They are also both equidistant from the matrix T probe.

HMN argue that though they are equidistant, non-finite T is passed over in terms of case checking because it shares a valued number feature with the participle and this essentially renders it invisible as a goal for the probe from matrix T. Because of this, the person feature on the probe is valued and the probe values the goal for nominative case. Finally, the EPP feature will trigger movement of the DP to spec,TP. The non-finite T remains unvalued for case and the derivation crashes.

The derivation of the acceptable perception complement passive in Standard English which includes the infinitival-*to*, for HMN, is the result of a repair strategy which is triggered

as last resort to save the derivation from crashing. They argue that *to* insertion is enough to satisfy the unvalued case feature on non-finite T. This means that derivations like *The girls were seen to leave* all have as their basic form the unacceptable **The girls were seen leave.* However, *to*-insertion is a viable last resort option and it rescues the derivation. Reconsider the AppE data and note that if we take this account as it is, it makes no clear predictions about the AppE data.

(63) AppE
  a. John saw Mary hit Bill.
  b. John saw Mary to hit Bill.
  c. Mary was seen hit Bill.
  d. Mary was seen to hit bill

The idea that Appalachian English would make use of this repair strategy in both active and passive complements in this way is incoherent and raises more questions than it answers. For example, what do we make of an optional repair strategy? Moreover, if the repair strategy is truly optional then what triggers it? Crucially, this problem disappears if we do not assume the two are derivationally related. This is just another reason to treat the complements of perception complements separately and use Wurmbrand's classification in conjunction with an HMN-style analysis which solves the seemingly special behavior of the passive participle.

### 3.3.4 Summary of previous analyses

In this section, I have discussed three approaches to understanding the ban on matrix passivization in perception complements. Though all three approaches assume different syntactic mechanisms underlying the behavior of perception complements, they share a common thread. They all assume that the passive is in some way responsible for the ban on matrix passivization. For Bennis and Hoekstra (1989/2004) the ban on matrix passivization is tied to the passive participle and its status as a non-t-linking element. Thus the passive participle interrupts the establishment of a tense domain inclusive of the untensed embedded clause. The primary problem with this analysis lies in finding some principled reason that the par-

ticiple should interupt t-linking. Beyong this consideration, it might simply be updated to current agree based, probe/goal syntax much like the one found in Hornstein et al.. Felser (1999) argues that passive participles lack an event variable and hence interrupt control relations between matrix and complement clauses in perception verbs. Finally, Hornstein et al. (2008) express the special status of the passive participle and its relationship to perception complements in a multiple agree case based approach to establishing what is essentially clause union. Under this approach, the participle is argued to be a nominal element which contains features such that it is an intervener in the probe/goal relationships between T and other nominal elements in the clause.

## 3.4 Analysis of AppE perception complements

I will argue for a syntax of perception complements using the syntactic framework of Hornstein et al. (2008). Passivization of direct PCs in AppE are admissible because *-en* does not block case checking in AppE. Specifically, passive *-en* lacks phi-features. Ultimately, I remain agnostic on the nature of the features that need to be established between the matrix and embedded clauses.

I will however assume that perception complements come in restructuring and non-restructuring flavors and may be classified as in Felser (1999) and Wurmbrand (2001). That is, I will not assume that the bare and non-bare perception complements are derivationally related or related by the last resort process of *to*-insertion. I intend a hybrid analysis where we assume Wurmbrandian style complementation but also show that the passive participle behaves differently in Appalachian English. This would reveal how passivization of perception complements proceed in a language like AppE while thoroughly illuminating the particular structures involved in these complements. It will also require a major detour into the morphosyntax of participles in AppE as well as the mechanisms and consequences of participle leveling. Finally, once I have argued for a particular syntax of these clauses, I will compare it to the syntax that I proposed for causative and experiencer *have* in order to show

that mechanisms of restructuring might not only be helpful but necessary to distinguish between types of restructuring clauses. In fact we will see that according to the diagnostics used here, there are virtually no discernible differences in the structure of the previous *have* complements and perception complements in AppE. Thus, I will posit head movement as a restructuring mechanism.

### 3.4.1 Reiteration of theoretical assumptions

#### 3.4.1.1 The classification of perception complements in AppE

Bare perception complements in Appalachian English are *lexical* restructuring predicates. Following Wurmbrand's classification, *lexical* restructuring predicates are those predicates which allow matrix passivization. They are base generated as lexical verbs in V. Semantically, they always allow a direct perception interpretation.

(64) a. Mary saw John drink all the whiskey. active
b. John was seen drink all the whiskey. passive

Being *lexical* restructuring complements, these bare perception complements lack any properties associated with Tense. They are shown in the active for simplicity.

(65) a. * Mary saw John not drink whiskey. sentential negation
b. * Mary saw John might hit Bill. modal auxiliaries
c. * Mary saw John have drank the whiskey. aspectual have
d. * Mary saw John be drinking the whiskey. aspectual be
e. * Mary saw there be a problem. expletive subjects

We can contrast these findings with the fact that Appalachian English also allows the non-restructuring forms to appear with infinitival-*to* in the active.

(66) Mary saw John to have drank all the whiskey.

I would like remind the reader that SAE allows these in the passive in (67a) and in highly restricted cases of certain expletive-*there* complements in (67b). However since the main

goal of this work is the syntax of restructuring, I will set these non-restructuring cases aside in both dialects.

(67) SAE
  a. Mary was seen to leave to party around midnight.
  b. We saw there to be a need for more bourbon.

We know that perception complements with infinitival-*to* are structurally distinct because properties normally associated with T which are banned in direct PCs are admissible in indirect complements in AppE. Thus, infinitival-*to* in these cases is actually representative of a tense layer and are therefore non-restructuring.

### 3.4.2 The restructuring verb and its complement

It should be relatively clear by now that because bare perception complements in AppE may undergo matrix passivization they are lexical restructuring predicates and are generated in V.

I will also assume that complements of direct perception verbs are maximally headed by an aspectual phrase, AspP as indicated by the presence of progressive morphology.

(68) SAE
  a. We saw [$_{AspP}$ John draw a circle.] –progressive
  b. We saw [$_{AspP}$ John drawing a circle.] +progressive

Keep in mind that according to the analysis of auxiliaries laid out in the last chapter, the auxiliary head responsible for assigning progressive morphology is only overt in the case that it has agreed with some higher head. Further agreement with that higher head has nothing to do with its ability to assign morphology to lower heads.

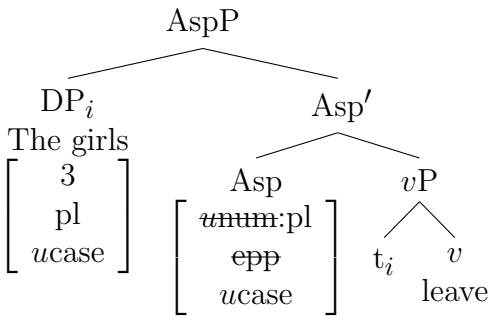
### 3.4.3 Derivation of lexical restructuring perception complements in AppE

As predicted by HMN's analysis, if passive *-en* does not bear the same (or any) $\phi$-features as embedded T, then the derivation can converge. Below, I argue just that. I will provide

an analysis which assumes that the passive participle in AppE has no $\phi$-features that might interrupt probe/goal relations. In the section immediately following, I discuss evidence from Appalachian English which is consistent with such assumptions. Consider the derivation of *The girls were seen leave*.

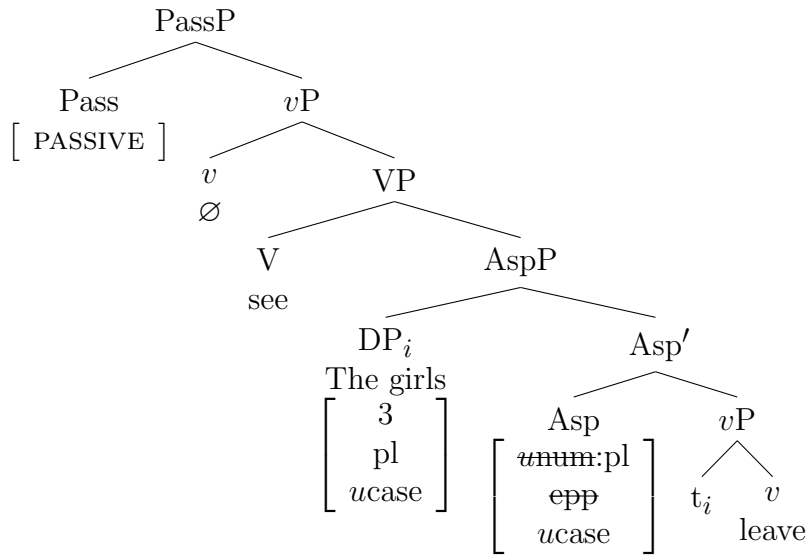
I have implemented the assumption that these complements are headed by AspP below and will continue to use agreement between case features as the driving mechanism although I am agnostic about the exact nature of the features involved. The main line of my argument may be implemented using the probe/goal machinery of Hornstein et al., or in terms of Bennis and Hoekstra's t-linking. I have chosen to use the probe/goal system Hornstein et al. in spite of the weak claims about the nominal nature of the passive *-en* morpheme and the embedded T, mainly because it is more widely recognized and more technically fleshed out. As before the uninterpretable feature on $\text{Asp}^0$ will probe down and find a value on the DP before the DP moves to spec,Asp to satisfy the EPP feature.

(69)



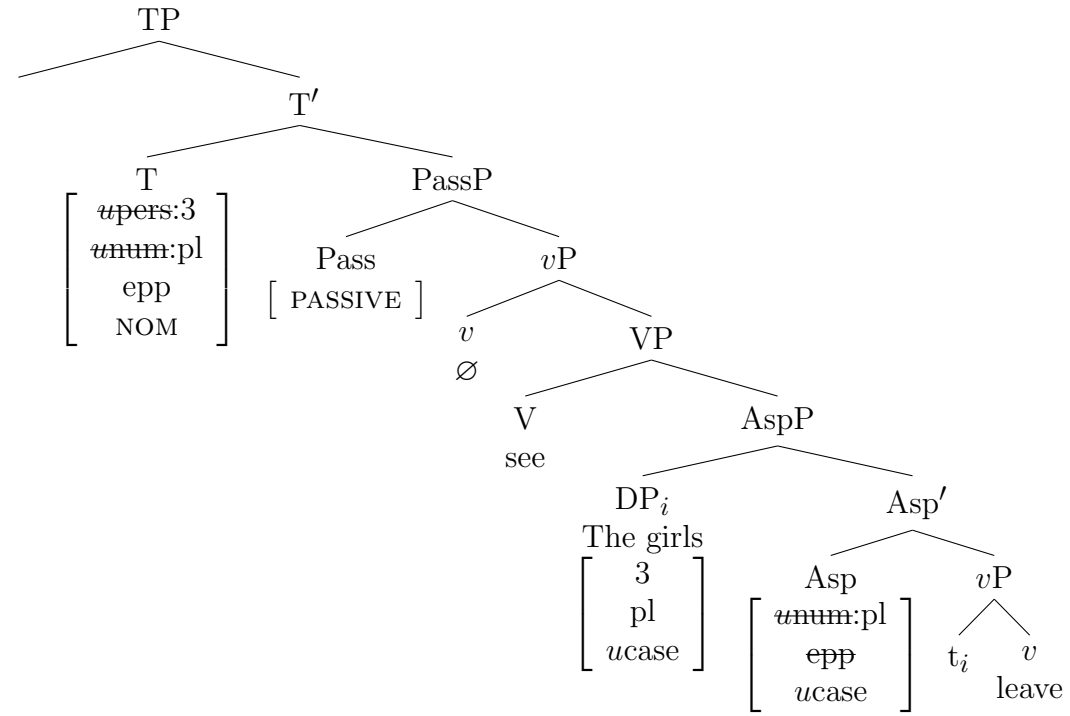

Next we will add verb *see*, the passive $v$P, and the passive auxiliary head to the derivation. I have abstracted away from the inflectional features found on the passive auxiliary and $v$ in order to highlight the case relations.

(70)




The structure in example (70) shows the addition of the verb *see* along with the participle-less passive $v$P. Crucially for AppE, the passivized $v$P has none of the relevant features and both case bearing elements remain unvalued. Below in example (71), matrix T is merged.

(71)




Upon merger of matrix T, the uninterpretable features will probe down the tree and since both the case-bearing DP and AspP are equidistant, the probe will value both uninterpretable case features there while simultaneously receiving a value for person and number. The EPP

feature on T will then trigger movement of the DP to spec,TP. The derivation converges.

### 3.4.4 The status of participle morphology in AppE

Since all three of the major works reviewed here and my own analysis of perception complements rely on the passive participle either having or not having a particular set of features, it is again necessary to delve into the morphosyntax of verbal participles in Appalachian English. What is the evidence that passive participles in AppE are different from those in SAE? Recall that for Bennis and Hoekstra the passive participle had special status in English and Dutch because it was responsible for bearing the external argument of the verb. In Dutch the passive participle is required for felicitous interpretation of passive contexts in a way that the past participle, as evidenced by IPP effects, is not. They argue that this difference between the participles is the result of some 'principle of recoverability of deleted material'. Next, recall that Felser argued that the passive participle prevented matrix passivization in perception complements because they are individual-level predicates and failed to project an event variable to act as a controller for the embedded event variable. A claim that, as far as I can tell, simply does not hold. Finally in Hornstein et al., we saw an account where the participle morphology was argued to be nominal enough in nature that it bears an uninterpretable case and phi-feature which interferes with the case checking of elements further down the tree. Based solely on these three analyses it is clear that, if there were differences in the properties of the participle in a given dialect then we might expect that passivized perception complements would be acceptable.

### 3.4.5 Examples of leveling in AppE

It just so happens that the participle in irregular verbs in Appalachian English has undergone severe paradigm leveling (see Wolfram and Christian, 1976). Morphological forms of the bare, past, and participle that were once distinct in the Standard Dialect have come to be indistinct in AppE. Specifically, there no longer seems to be a three way distinction; irregular forms

now only maximally exhibit a two way distinction. In the next few paragraphs, I provide examples of the types of leveling which can be found in Appalachian English in order to show just why there is no evidence to support a syntactic distinction between past and participle form of the verb. Such distinctions are only made periphrastically with auxiliaries. Thus passivization is only signified overtly by the passive auxiliary head, though it is most likely still partially semantically encoded on $v$.

In Standard English the verb *eat* has the following forms in the present (bare form), past, and past participle.

(72)

| inflection | SAE verb |
|---|---|
| bare | eat |
| past | ate |
| participle | eaten |

Much like the verb *hit* has only one form in Standard English, an extended set of verbs in Appalachian English have leveled in this manner (Wolfram and Christian, 1976), losing the distinction between bare, past, and participle forms. They are all felicitously represented as the same form. This is what is meant by paradigm leveling.

(73)

| inflection | AppE verb |
|---|---|
| bare | eat |
| past | eat |
| participle | eat |

Just to be clear, it is possible to use one form for the verb *eat* in Appalachian English regardless of the normal inflection pattern in more standard varieties.

(74) a. We eat cornbread and soupbeans every Thursday. present
b. We eat cornbread and soupbeans two hours ago. past
c. We had eat all the cornbread and soupbeans before y'all got here. participle

Leveling of this type, where the base form of the word appears unchanged is not the only type that is found in the dialect. There are forms which have been leveled from participle to past in example (75a) and from past to participle as in example (75b). It is these forms that are most relevant to the discussion at hand.

(75) a. That kind of bottle has broke on more than one occasion.
b. They seen each other yesterday at the party.

It should also be noted that the participle can be leveled in both passive and perfect contexts in (76a) and (76b), as well as adjectival contexts in (76c).

(76) a. The bottle was broke over my head.
b. The bottle had broke before it fell.
c. The broke bottle was on the floor.

#### 3.4.5.1 Participle forms in AppE are not distinct

Thus for Appalachian English, the participle morphology on irregular verbs is not distinct. Moreover, it seems to be optional in all of the cases that it should not be, if it was as important as a 'principle of recoverability of deleted material' would have us believe. In fact, AppE blatantly violates such a principle in a way that SAE does not. That is, on irregular verbs neither participle seems to have any special status and neither is required for the derivation and proper interpretation of the sentences to converge. This has serious implications for the accounts of Bennis and Hoekstra and Hornstein et al.. Although SAE certainly has verbs like *hit* which exemplify a similar lack of morphological forms, it differs from AppE in that it is not the case that all irregular verbs may be leveled. For instance in SAE, it seems as thought a majority of irregular forms maintain the distinction of the participle, especially in passive contexts. The fact that there are irregular verbs in SAE which do not level, requires that distinct lists of vocabulary items, with distinct vocabulary insertion rules, which map to distinct feature sets on syntactic heads are maintained. As we will see below, with no such requirements in AppE, there is no reason to posit distinguishing features associated with the passive morpheme in the syntax or in any corresponding vocabulary lists in AppE.

Assuming an account like Bennis and Hoekstra (1989/2004) for AppE, we are forced into saying that passive morphology has no adverse effect on T-linking because the participles have no special status. As for what the specific status of the participle forms in AppE might

be, I argue that they are either minimally optional, resulting from variable leveling or they simply do not exist in the dialect and any appearance is the result of second language contact with the standard dialect. Either way, I argue that this is evidence that we can not assume that the participle morpheme plays a special role in the absorption of case or bearing of external theta-roles in AppE.

In terms of HMN, participle morphology on irregular verbs in AppE is not distinct form past morphology and has no phi-features which require a distinct participle form, something which the analysis requires if it is to hold. The participles should have no uninterpretable features associated with case and thus passive morphology in AppE never interferes with case agreement between a probe and its goal. This falls out of Hornstein et al.'s own assumptions about the tight co-occurrence of case and phi-features found in Chomsky (2001).

In the next section, I describe in more detail the participle system of Appalachian English in from the point of view of Distributed Morphology in order to clarify just how Appalachian verbal morphology differs from the Standard Dialect.

### 3.4.6 The features of participles in AppE

With the basic analysis in place we are now in a position to inquire more closely into to the nature of the participle morphology in Appalachian English. Lets return to the basic paradigm for participle morphology in the English auxiliary system (Halle and Marantz, 1993) and be explicit about the nature of the participle system in AppE. Again, it is crucial to keep in mind that [+past] here is not meant in the sense of tense but is used as a cover term for the relevant morphological feature in the syntax that provides the distinction.

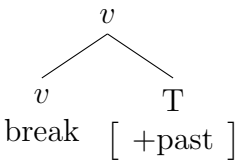
(77) *v = fused Auxiliary/T and v*

| | | |
|---|---|---|
| [+participle, +past] | ↔ | /-n/ / X + ____ |
| | | where X = *hew, go, beat, ...* |
| [+past] | ↔ | ∅ / Y + ____ |
| | | where Y = *beat, drive, bind, sing, ...* |
| [+past] | ↔ | /-t/ / Z + ____ |
| | | where Z = *dwell, buy, send, ...* |
| [+past] | ↔ | /-d/ |
| [+participle] | ↔ | /-ing/ |
| | ↔ | ∅ |

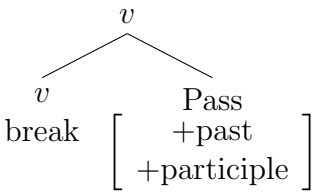
In terms of phonological features, notice that the only distinguishing feature between any of the past morphology only exists for the set of *-en* participles. For Halle and Marantz this distinguishing feature is [+participle] in addition to [+past]. The other distinctions are handled by separate lists. Recall from the last chapter our assumptions about how auxiliary morphology is assigned. After all syntactic operations are complete the relevant chunk is sent to PF for morpho-phonological operations. This assumes that the verb has moved to *v* in the syntax and at the level of PF we assumed that the morphology assigning head immediately above it is merged with *v* in a process of morphological merger. Here specifically, I again assume it is a type of morphological lowering.

The past and participle form of a verb like *broke* in Standard English has the following configuration for vocabulary insertion post syntax.

(78) broke



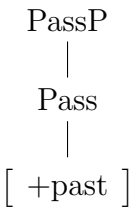

(79) broken



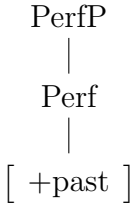

Example (78) shows that only the [+past] feature is necessary for the insertion of *broke* as opposed to *break* and example (79) shows that the feature bundle [+past, +participle] allows for the insertion of *broken*.

There are several different possibilities for the locus of variation in Appalachian English at this point. I argue that passive and perfect heads in Appalachian English syntax only contribute a [+past] feature to the derivation. This assumption is minimal and conservative considering the leveling data, which indicates the lack of a distinct passive or perfect morpheme. Consider the morphemes of the passive and perfect heads below.

(80) Passive Head




(81) Perfect head




This forces the notion that any *-en* form participle morphology in the speech of Appalachian speakers is non-native and the result of dialect contact with the Standard. Again, such distinctions are not available from the syntax of AppE. Put simply, I would argue that speakers who have the participle forms have acquired morphological doublets of the passive and perfect heads which contain the [+participle] feature of the standard variety. These doublets would contain the extra feature and undergo morphological merger as in example (79). I want to be clear however, that such acquisitions need only be superficial in nature.

While this appears to be a straightforward process for a verb like *break* which has undergone leveling to the preterite form, we need to understand what has happened to verbs which level to the participle. Note that *see* in Appalachian English is just such a verb and has undergone leveling to the participle form as in *I seen him yesterday.* To handle this case we just need to assume that the form *seen* and others like it belong to a different list for Appalachian speakers. It is entirely possible that they have replace the preterite form *saw.* This is not as bold a move as one might first think. If all participle forms of irregular lexical verbs exhibit leveling, this questions the need for a specific participle list in AppE at all. Consider the revised set of vocabulary insertion rules.

(82) *Revised Insertion Rules for AppE*

| | | |
|---|---|---|
| [+past] | ↔ | ∅ / Y + ____ |
| | | where Y = *beat, drive, bind, sing, ...* |
| [+past] | ↔ | /-t/ / Z + ____ |
| | | where Z = *dwell, buy, send, ...* |
| [+past] | ↔ | /-d/ |
| [+participle] | ↔ | /-ing/ |
| | ↔ | ∅ |

Notice that have removed the following rule from the list.

(83) [+participle, +past] ↔ /-n/ / X + ____
where X = *hew, go, beat, ...*

We can remove the rule because it is completely unnecessary. All verbs like *hew*, *go*, and *beat* have either leveled or have been regularized. Because of this fact it is plausible to assume that Appalachian speakers have redistributed the items on this list to other lists. For example, *hew* has been regularized while verbs like *go* have been leveled to the participle and verbs like *beat* have been leveled to the preterit.

(84) a. His head was hewed clear off.
b. He had went into town.
c. He was beat within an inch of his life.

In, this section I have argued for a particular structure of the Appalachian English lexicon in terms of what heads the syntax has access to and one possibility for what the feature content of those heads might actually be. I took a strict view of the AppE lexicon which said that speakers of AppE simply do not have separate vocabulary insertion rules for the past participle and that the perfect and past heads which assign such morphology are different. It is possible that they are morphological doublets with those in Standard English and this difference is grammaticalized in the lexicon of AppE speakers. Thus, morphologically distinct past participle forms in Appalachian English do not exist. The expression of semantic notions associated with the perfect and passive participles are only expressed on the perfect or passive auxiliary head. This means that neither the Appalachian English leveled past/participle forms nor any standard morphological doublets acquired by AppE speakers need be any

more than superficially related to participle forms in the grammar of Standard English in terms of underlying syntaco-semantic features like case. Though the standard participle forms in English may have some special status in the form of specific features, this need not be the case for Appalachian English. Thus apparent participle forms in AppE are, depending on your favorite analysis, not non-t-linking elements or bearers of phi-features that might interrupt case checking.

Before moving on to compare the final structure for causative and experiencer *have* to the structure proposed for perception complements in Appalachian English, I would like to take a moment to comment on the assumed directionality of leveling in non-standard dialects.

### 3.4.7 Impoverishment and presumptions about the grammatical baseline

The presence of variably leveled forms in the grammar requires variation in the input. I speculate that the creation of morphological doublets like the ones described above begins with a process similar to variable leveling. Variable leveling is said to apply in cases where speakers variably level from standard forms to dialect forms. In fact, most linguists assume variable leveling from standard to dialect as the basic state of affairs in the grammar of non-standard dialects like Appalachian English. The point of this section is to question and raise awareness about the directionality of leveling. The main problem with this assumption presupposes that children acquiring Appalachian English are aware of the standard or that standard forms are salient enough in the input to be encoded. However, If we assume that child language acquisition is a more conservative process, then children might discard information in the input that is too variable or not salient enough. Awareness and integration of standard dialect forms into the grammar may come later rather than earlier in the acquisition process.

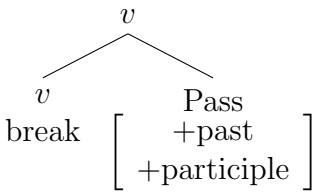
In order to illustrate the directionality problem, I will describe one mechanism which has been proposed to handle variable leveling and illustrate just how it makes this standard dialect centric assumption. I will then provide a rough sketch of an alternative mechanism

which assumes the dialect form itself as a baseline. It also assumes that any standard forms are added to the grammar later through an opposite process that I have termed morphological enrichment.

#### 3.4.7.1 Leveling via Impoverishment

Variable leveling has been modeled in the framework of Distributed Morphology by variable impoverishment rules (Nevins and Parrott, 2007; 2010). These rules are post-syntactic morphological rules which apply with variable probability to delete morphological features on heads. This allows the insertion of less specific forms. If we take the variation in AppE past participles as an example, an impoverishment theory of leveling would proceed as follows. The syntactic spell out of the sentence *The vase was broke by the children* is identical to Standard English. Remember that we are interested in how the standard *broken* becomes *broke*. Under impoverishment, everything proceeds as usual and at the level of phonological form we are left with the output of a standard syntax of english shown in example (85).

(85) broken




However, the morphology of the dialect also contains a variable rule shown in example (88). The rule states that the feature [+participle] is deleted in the case where it appear in the specific context of the feature bundle [+participle, +past], (Munn, 2013).

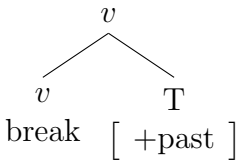
(86) Impoverishment rule for participle leveling in AppE
[+participle] → ∅ / [+participle, +past]

Applied variably, this rule would replicate the production of variably leveled forms in the dialect. When applied, the only remaining feature would be [+past]. So, in the case of a verb like *break*, *broke* and not *broken* would be selected from the list of vocabulary items and

inserted. While this system works if we assume that speakers have native speaker knowledge of standard paradigms, there is no reason to assume that they do. Ultimately, it is an empirical question.

On the other hand, one could just as easily imagine a process of variable enrichment for speakers of non-standard dialects. It would handle the same cases as variable impoverishment but assume a different set of 'baseline' features in the syntax. If a sentence like *The vase was broken by the children* was produced by a speaker of a severely leveled dialect, we could assume that morphological enrichment is at work. It could even apply variably. Post syntax, the insertion site for the verb would have the features in example (87).

(87) broke




Assuming a conservative representation of their grammar we might assume that dialect speakers might represent such 'special' standard forms with a cover feature $\phi$ that refers to a special standard vocabulary list and ensures the more feature specific form *broken*.

(88) Enrichment rule for participles in AppE
[+past] $\rightarrow$ [$\phi$, +past] / [+past]

The vocabulary insertion rule for more standard *-en* forms like *broken* would be as follows.

(89) [$\phi$, +past] $\leftrightarrow$ /-n/ / X + ____
where X = *hew, go, beat, ...*

In summary, I argued that assumptions about the nature of the grammar and how grammars vary has led to some standard-centric assumptions about how variation in grammars is represented and derived. Depending on the dialect specific condition, children might acquire morphological doublets as per my analysis, they might acquire all of the features of the standard only to delete them via impoverishment, or they might only acquire the features they can depend on in their dialect and tack on the standard later.

## 3.5 What's the difference? Causative *have* and perception complements

The complements of causative and experiencer *have* on one hand and perception complements on the other share more syntactic properties than not. We saw that both *have* complements and perception complements are maximally headed by an AspP and both sets of complements pass similar tests for showing that they lack elements associated with embedded T. They differ in two ways. First, causative and experiencer *have* are generated in $v$ and their complements are classifiable as semi-functional restructuring complements, while perception verbs are generated in V and their complements are classifiable as lexical restructuring complements. To my knowledge this distinction in English hinges solely on whether or not matrix passivization is allowed. Secondly, the *have* complements may optionally contain a default *to* and the perception complements can not.

(90) a. John had Mary to wash the dishes.
b. John had Mary to leave on him.
c. John saw Mary (*to) leave the party.
d. Mary was seen (*to) leave the party.

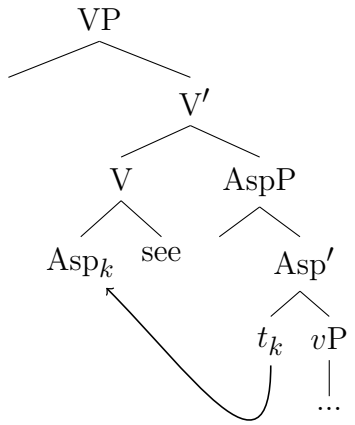
If the complement clauses of these verbs have identical syntaxes then why should there be a difference in the presence or absence of the default *to*. After all, I argued that the insertion of the *to* is a post syntactic morphological rule which inserts *to* on an auxiliary head which does not enter into agreement with higher auxiliary heads. The real question is, what prevents insertion of default *to* in the perception complement cases in examples (90c) and (90d).

I argue that this is evidence the classification system proposed by Wurmbrand for restructuring complements breaks down for English. Specifically, this is direct evidence that external mechanisms such as head movement or agree are necessary components of restructuring in addition to the differential clause size approach of Wurmbrand.

I would argue that the different temporal and semantic constraints on these verbs coupled with their respective syntactic categories is the cause of this difference. In bare perception

complements default *to* does not appear because Asp$^0$ head moves into the verb to ensure temporal simultaneity between clauses.

(91)

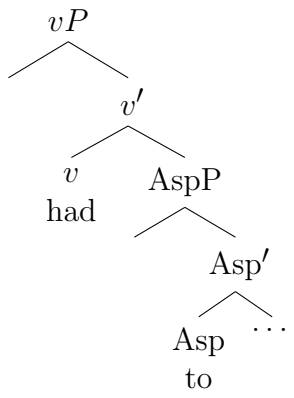



While the same fact does not hold for the Appalachian English version of causative and experiencer *have*. Causation complements differ minimally in that they do not require event overlap.

(92) Last Wednesday, John had Bill to buy him a ticket this Thursday.

Thus, head movement of Asp$^0$ to $v$ is not necessary and *to* may be inserted as the default on the unmoved aspectual head.

(93)



## 3.6 Conclusion

In this chapter, I showed that Appalachian English perception complements are best analyzed according to Wurmbrand's lexical restructuring predicate classification. Thus the lexical restructuring verb itself is base generated in V. Their complements ban most things associated with T and are maximally headed by an aspectual phrase. This classification also separates them from the class of semi-functional restructuring predicates like causative and experiencer *have* which do not undergo matrix passivization. We reviewed three different accounts of the syntax of perception complements which sought to explain the ban on matrix passivization of perception complements in Standard American English. While one suffered from some empirical issues, two remain viable analyses. Though the ban on matrix passivization of perception complements falls out of Wurmbrand's classification for 'free', it is not particularly explanatory. For that reason we focused on an analysis of the morphosyntax of the passive in Appalachian English. It is the one element crucial to all three previous analyses of the ban on passivization. I showed that the heads which license passive and perfect in Appalachian English are different from those of Standard English based on the fact that the dialect has undergone extreme leveling. As such, we would predict that Appalachian English would behave in exactly the way that is does by allowing passivization of perception complements under those two analyses which remained viable. With the analysis in place, I explicitly outlined the morphosyntax of the AppE past participle (or lack thereof) and raised the question of 'standard dialect centrism'. Given that at least one recent analysis of leveling via variable impoverishment rules assumes that leveling is leveling from the standard form to the dialect form (Nevins and Parrott, 2007; 2010), it is important to realize that such assumed baselines are just that, assumptions. The answer to such questions of course lies in empirical work done in the field. Finally, I compared the proposed syntax of causative and experiencer *have* to that of perception complements in this chapter. We saw that the two types of complement clauses appear virtually identical except in the application of a default insertion rule and this requires that we rethink Wurmbrand's differential clause size

only approach. I proposed that head-movement motivated by semantic constraints as one way we might differentiate these clauses.

# CHAPTER 4

# INFINITIVAL CONTRACTION AS RESTRUCTURING

## 4.1 Introduction

Appalachian English makes use of restructuring complements not only in perception and causation complements but also in describing approximative events, or events which come close to happening but are never instantiated. Example (1a) shows that Standard English (as well as AppE) expresses a similar meaning with adverbial *almost*. The Appalachian English approximative *liketa* is listed below this in example (1b).

(1) a. John had almost punched Bill before you arrived.
b. John had liketa punched Bill before you arrived.

Keep in mind that the meaning of *liketa* is similar to that of *almost* in Standard English and example (1b) can be paraphrased as *John came close to punching Bill last night but the did not punch Bill last night.*

Now consider the non-contracted form of *liketa* which has the uncontracted structure in (2).

(2) John had liked to have punched Bill before you arrived.

For all intents and purposes the meaning is the same in the contracted and uncontracted form. I take the difference in normally paced speech to be in the reduction of the high back vowel [u] of infinitival-*to* or [tu] in the non-contracted form to schwa in the contracted form [lɑktə]. Both forms require that the embedded clause is marked for perfect aspect. In the uncontracted form, perfect *have* and the past participle morphology on the verb are required.

(3) a. John had liked to have punched Bill before you arrived.
b. * John had liked to have punch Bill before you arrived.
c. * John had liked to punched Bill before you arrived.

Example (3b) shows us that the past participle is required, while example (3c) shows us that the auxiliary *have* is required.

In the contracted form only the participle morphology is present on the embedded verb and it is required. Example (4b) shows that omission of the past morphology results in unacceptability.

(4) a. John had liketa punched Bill before you arrived.
b. * John had liketa punch Bill before you arrived.

The perfect auxiliary is not licensed as a standalone lexical item in the embedded clause of the contracted form.

(5) * John had liketa have punched Bill before you arrived.

This is especially interesting considering that no such restriction holds of *want* contraction where *want to* is contracted to *wanna*.

(6) I wanna have eaten before they arrive.

In this chapter, I will present a syntax for the contracted and uncontracted forms of *liketa*. Contracted *liketa* is a restructuring verb and the constraint on the embedded *have* can be derived from common assumptions about restructuring properties in conjunction with aspectual constraints on the forms which possibly stem from the semantics of the past participle. The analysis provides evidence for the importance of taking semantic requirements into account when trying to determine the nature of restructuring predicates. I would argue in general that this is important whether they are the unique semantic constraints of perception, causation, or approximativity and whether or not the verbs are formed from contractions or not.

This chapter has the following structure. In what follows, I explore the syntax of both the contracted and uncontracted forms of *liketa* via observations made primarily in the sociolinguistic literature. I will supplement these observations with native speaker acceptability judgments. Since, *liketa* is an understudied form with extremely complex semantic interpre-

tations, I will describe those interpretations as clearly as possible and in a bit more detail than the verbs in previous chapters. This is done by comparing interpretations about *liketa* to existing research on the interpretations of *almost*. As for the syntax of *liketa*, I argue that it is a verb rather than an adverb based on the fact that *liketa* seems to have more verb-like properties than adverbial properties. In addition, I provide evidence that *liketa* is a raising verb. I briefly discuss the structure of uncontracted *liketa* and propose a syntax for it. With these basics covered, I review a head movement analysis of contractions as restructuring predicates and extend it to contracted *liketa*. Finally, I treat *liketa* in the now familiar style of Wurmbrand and advance a new analysis that speaks to the assumptions made in previous chapters about the morphosyntax of verbal morphology in restructuring complements. I show that we can make sense of the relationship between the two forms and the ban on overt auxiliaries in terms of either of the two restructuring analyses. Finally, I compare the two analyses with each other in an attempt to make broader theoretical headway for theories of restructuring.

## 4.2 Previous observations

In this section, I discuss the few observations that have been made about *liketa* beginning with Walt Wolfram and Donna Christian's observations from Appalachian English in West Virginia and moving outwards to observations about *liketa* in African American Vernacular English of New York from Labov, and Corky Feagin's observations from Southern English in Alabama. Lastly, I present some observations gleaned from various written language corpora.

### 4.2.1 Observations about *liketa* in Appalachian English

Wolfram and Christian (1976) discuss some usages and constraints on *liketa* as it occurred in sociolinguistic interviews carried out in Mercer and Monroe counties in southwestern West Virginia. They note that *liketa* occurs in both positive and negative contexts.

(7) (Wolfram and Christian, 1976)
   a. And I knew what I'd done and boy it liketa scared me to death.
   b. That thing looked exactly like a real mouse and I liketa went through the roof.
   c. When we got there, we liketa never got waited on.
   d. I liketa never went to sleep that night.

Wolfram and Christian note that the only negative element that occurs under the scope of *liketa* is *never* as shown in examples (7c) and (7d). I take this as evidence that the truth value of a proposition under *liketa* can be negated.

They also note that the past form of the verb is required, as I mentioned in the introduction, but they assume that the verb embedded under *liketa* is the only tense bearing element in the clause. This can only mean that they assume that it is receiving tense information from T. They also note that there were no instances of *liketa* appearing in question form or in embedded clauses.

Similarly, *liketa* in African American English of New York does not take tense marking or undergo inversion in yes/no questions (Labov, 1972). For these reasons, the Wolfram and Christian assume that *liketa* is an adverb. Consider the following evidence.

(8) a. * John had liketa-ed punched Bill before you arrived.
   b. * Liketa John had punched Bill before you arrived.

Finally, Wolfram and Christian note that *liketa* is said to resemble *almost* only in the cases where *almost* scopes over the entire proposition. Example (9a) is an example in which *almost* scopes over the proposition of *John building a chair*.

(9) a. John almost built a chair but he didn't even start.
   b. John liketa built a chair but he didn't even start.

*Liketa* shares this interpretation, and it can be paraphrased as *John came close to starting to build a chair but he didn't start*. However, the interpretation available below in example (10a) is one where John has begun but not finished building a chair; an interpretation where *almost* is not scoping over the entire proposition. This interpretation is not available in example (10b) with *liketa*. The symbol # expresses an infelicitous interpretation.

(10) a. John had almost built a chair but he hadn't finished it before we arrived.
b. # John had liketa built a chair but he hadn't finished it before we arrived.

In summary, the only negation allowed under *liketa* is the negative time adverbial *never*. The verb under *liketa* must be marked for past and there are no observed instances of *liketa* appearing in questions or embedded contexts. Labov noted that *liketa* itself also does not show overt tense marking or invert in questions, ruling it out as an auxiliary verb form. Finally, *liketa* only means *almost* in cases where *almost* scopes over the entire proposition.

### 4.2.2 *Liketa* in Alabama English

Feagin (1979) offers and extremely detailed sketch of the occurrence of *liketa* in the Southern English of Anniston, Alabama. Feagin suggests that *liketa* is derived either from the transitive verb *liken* '*to see, mention, or show as like or similar*' or from the adjective *like*. As noted for Appalachian English, Feagin's *liketa* forms must also always appear with past participle morphology on the embedded verb. Feagin also repeats the notion that *liketa* never occurs in questions but adds that *liketa* never occurs in commands. Feagin suggests that the form in example (11) is the underlying form of *liketa* in general.

(11) like to have V-ed

Though she makes no mention of contracted *liketa* versus uncontracted *liked to* themselves, she does explicitly mention fluctuation in the appearance of perfect *have* in the embedded clause. She notes that the perfect auxiliary either appeared in the data in its full form in (12a), a contracted form as in (12b), or deleted as in (12c).

(12) a. She liketa have died! (Diane B. W15:38.II.120)
b. An' that just liketa've killed him. (Virginia L. U60)
c. She liketa killed me! She was so mad! (Diane B. W15:38.II.120)

As far as the observation that *liketa* in Alabama English occurs in both positive and negative contexts, Feagin observes that *liketa* occurred with the negative *not* one time (13a) and with the negative adverbial *never* a total of four times in examples (13b) to (13d).

(13) a. They liketa not got any food or anything to 'em. (Sam C. W70:34.I.236)
b. They liketa never git them needles up! (Myrtice J. W62)
c. And I like never to have found her (Frances B. U59)
d. You like never got material to fix it. (Ella B. W:37.I.361)

Ultimately, I find the presence of full *have* in the complement of *liketa* in Alabama English to be evidence of different trajectories of grammaticalization. We have to keep in mind that the dialect spoken in Anniston, Alabama and the dialect spoken in Pike County, Kentucky are not the same dialect even if they happen to share cognate lexical items. We should expect them to behave differently. Aside from this, I believe an explanation of this form might be found in Feagin's data. Out of 70 total tokens of *liketa* only 7 are found with the full auxiliary *have*. If we look at the social distribution of those 7 we see that all but two of them were produced by teenage females. Of the remaining 2 one was produced by a female in the range of 20 to 60 years old and the final token occurred in the speech of a female in the 60+ group. Thus it is possible that *liketa* with full auxiliary *have* was reintroduced into the community as an innovation. I believe similar arguments could be made for the appearance of the negative adverbial *not*. Recall that Wolfram and Christian found no occurrences of *not* under *liketa* in Appalachian English.

### 4.2.3 *Liketa* in the historical record

There is a long historical record of the usage of *liketa* in various British and American English corpora Kytö and Romaine (2005). Kytö and Romaine find that uncontracted *liketa* constructions like *have/had liked to + V*, are found as far back as the mid-fifteenth century in conditional *if* clauses.

(14) (Kytö and Romaine, 2005)

a. by on of the mynysteris of the said Cathedrall Churche was sette afire, and began to brenne, and **yf hit hadde had his course lyke to have sette a fyre and brende the cheif and grete parte of the citee** (1447, Helsinki ME4, John Shillingford, Letters and Papers of John Shillingford, p. 87).

b. 'One of the minsters of the said Cathedral church was set afire and began to burn, and **if it had had its course, would have come close to setting a fire and burning the chief and great part of the city**'.

Though the main concern of their paper is one of determining the trajectory of grammaticalization of 'constructions' the Kytö and Romaine take *liketa* to have its roots in adjectival *like* with a meaning of imminent likelihood and probability. They also point out that throughout the corpora under consideration uncontracted forms of *liketa* also appear alongside a non-perfect *be like to + V* which only variably has a counterfactual interpretation. All instances of *liketa* which occur with perfect auxiliaries are counterfactual in nature. They have the interpretation of *almost*.

## 4.3 Properties of *liketa*

Here I will discuss the semantic and syntactic properties of *liketa*. Because of the semantic similarities that *liketa* shares with *almost*, the relative wealth of semantic work done on *almost*, and the lack of semantic work done on *liketa*, I will begin by comparing interpretations of *liketa* to semantic interpretations of *almost* noted in the literature. Since it is probably the best paraphrase for *liketa* it lends itself to being a logical starting point for understanding the semantics of *liketa*. The result of this comparison is the finding that *liketa* only has a subset of the interpretations available to *almost*. Then I will turn to syntactic properties of the constructions where I will provide evidence that *liketa* is in fact a restructuring verb. *Liketa*'s location in the main clause and the architecture of its complement will be compared to the restructuring *have*s and perception verbs of the two previous chapters.

### 4.3.1 Semantic properties

#### 4.3.1.1 Comparison with *almost*

Because there are basically no analyses of the semantics of *liketa* this section is largely an endeavor to compare and contrast *liketa* and *almost*. In doing so, I hope to thoroughly outline the ways in which interpretations of *liketa* differ from those of *almost*, in an exact a manner as possible. In the formal semantic literature, lexical items like *liketa* and *almost* are commonly termed *approximatives*. Approximatives are commonly assumed to have both a proximal and polar component to their meanings (see Sadock, 1981; Rapp and von Stechow, 1999; Morzycki, 2001; Penka, 2006; Nouwen, 2006). The proximal or 'closeness' component and the polar 'negation' component for the sentence in example (15) are given below.

(15) John liketa/almost punched Bill.
   a. *John came close to punching Bill.* proximal
   b. *John did not punch Bill.* polar

As you can see, the proximal component implies closeness or imminence of the eventuality located under the approximative, while the polar component negates the proposition. *Liketa* shares this two part conventional meaning with *almost*. However the possible interpretations do not stop there. Its widely known that interpretations of approximatives involving these two components give rise to various interpretations depending on what type of verb *almost* modifies. For example, the verb *kill* is thought to be decomposable into 'atomic' components.

Rapp and von Stechow (1999) assume that an approximative like *almost* has at least the following three interpretations based on scope possibilities in a decomposed verb following McCawley (1971).

(16) Johns almost killed Harry
   a. **almost**(ACT(John) CAUSE BECOME dead(Harry)) counterfactual
   b. ACT(John) **almost**(CAUSE BECOME dead(Harry)) scalar
   c. ACT(John) CAUSE BECOME **almost**(dead(Harry)) resultative

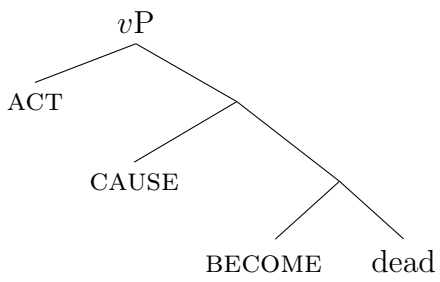
Each configuration of *almost* scoping between particular elements is thought to have a different interpretation. The verb is composed of has an agentive component or ACT, a causative component or CAUSE, and a change of state component labeled BECOME. The last component was considered to be the core lexical content of the verb. The verb *kill* was thought have the lexical semantic core meaning of *die* combined with the other atomic pieces mentioned above. The interpretations which correspond to the counterfactual, scalar, and resultative configurations shown above are paraphrased below for the phrase *John almost killed Harry*.

(17) *counterfactual:* John almost does something that causes Harry to die.
*scalar:* John does something that almost causes Harry to die.
*resultative:* John does something that causes Harry to almost die.

If *almost* has wide scope with respect to ACT then it is said to have a counterfactual interpretation. Under the counterfactual interpretation it is generally the case that no action is initiated by the agent of the sentence. When the approximative scopes just under ACT it is said to give rise to scalar interpretation. Scalar interpretations are those where some action was initiated by the agent of the clause. Finally, resultative interpretations arise when the approximative scopes just under BECOME. Resultative interpretations are those which involve an agent which has initiated a change of state which fails to be manifested.

The atomic components of the decomposed verb *kill*, represented in (16), translate into the following structure.

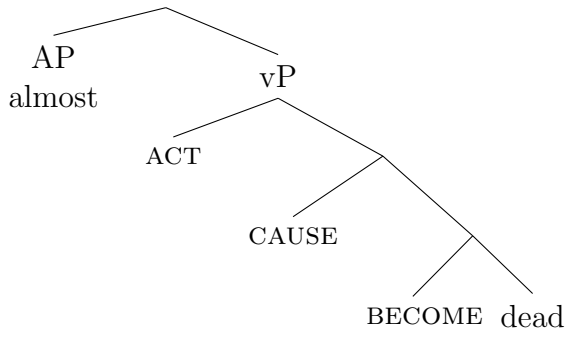
(18)



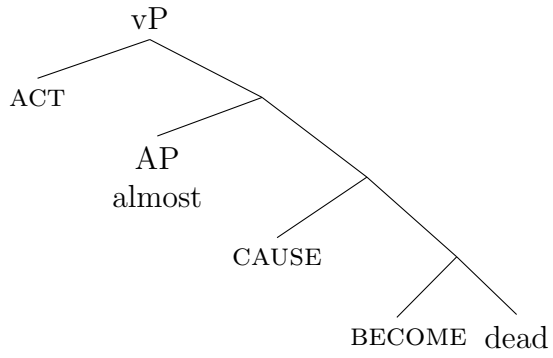

Given common assumptions about theta role assignment the maximal projection of a decomposed agentive verb would roughly correspond to *v*P, where the external argument is merged.

Rapp and von Stechow (1999) argue that the observations made in example (16) translate directly into the syntax of decomposed verbs which we represented in (18). Based on evidence from German *fast* 'almost', Rapp and von Stechow (1999) find evidence for two of the three interpretations mentioned by McCawley. They argue that the counterfactual interpretation arises in German and English when *fast* or *almost* scopes above ACT and when it scopes just under ACT, it gives rise to a scalar interpretation. The position of *almost* in example (19) corresponds to the counterfactual interpretation and the structural configuration corresponding to the scalar interpretation is in example (20).

(19) counterfactual




(20) scalar




They argue that the resultative is not discernible from scope relations and verbal decomposition in their particular dialect of German, even though it is available in other dialects of German and with English *almost*. Though it is not represented above, the position corresponding to the resultative reading is argued to be even lower in such structures. Thus for Rapp and von Stechow, the difference between the counterfactual and scalar interpretations comes down to whether *fast* scopes under or over ACT.

This finding allows us to make a theoretical prediction about *liketa* which might scale up to the set of approximatives in general. If *liketa* is an adverb then there is no principled reason that it should not give rise to the same set of readings as *almost*. However, if *liketa* is a verb in a higher clause, as I will argue in this chapter, then we would expect the set of readings that arise with *liketa* to be different from the interpretations of *almost*. I take the determination of syntactic category of an element like *liketa* to be as straightforward as comparing a list of properties associated with that element to properties we know are associated with a given syntactic category.

For example, it is well known that adverbs are generally less restricted in their distribution than verbs are. Compare the possible distribution of *almost* below to *liketa*.

(21) a. John *almost* died.
b. John died *almost*.
c. John liketa died.
d. * John died *liketa*.

This data shows that *liketa* is not able to appear in different positions in the sentence. Though this is certainly not a property of all adverbs in English it is certainly a hallmark property of the majority of them.

Similarly, another commonly assumed property of adverbs is that they are licensed as standalone responses to questions. *Liketa* is not a possible response to the question, while *almost* is a possible response to the question.

(22) Did you finish your work?
a. *Almost*
b. * *Liketa*

Although *liketa* is more constrained in the types of auxiliaries that are licensed on either side of it, we can still learn about *liketa*'s syntactic category by looking at its distribution in a hierarchy of projections, much like we did for causative and experiencer *have*. Notice that in its uncontracted form, *liketa* can appear between two perfect auxiliaries.

(23) a. John had *like to* have finished his work.
b. * John had *almost* have finished his work.

*Almost* is unacceptable in the same position.

The situation is only slightly different for the contracted form. Though the perfect is not licensed as a stand alone lexical item, a pro-clitic corresponding to the perfect is licensed on the verb.

(24) a. John had *liketa* a'finished his work.
b. * John had *almost* a'finished his work.

Though a proper analysis of pro-cliticization of the perfect is beyond the scope of the current work, it is worth mentioning that it actually supports rather than poses a problem for the larger analysis proposed here. Recall the claim from the previous chapters, that auxiliary insertion in English is the result of the morphology assigning head entering into an agreement relationship with a higher inflection assigning head. I will argue in this case that there is no such higher head which the embedded perfect head may enter into an agreement relationship with. The head therefore would not undergo auxiliary insertion. However, it is still possible for the features to become associated with the embedded verb and expressed there as a bound morpheme if the appropriate phonological form pro-clitic form is available in the lexicon.

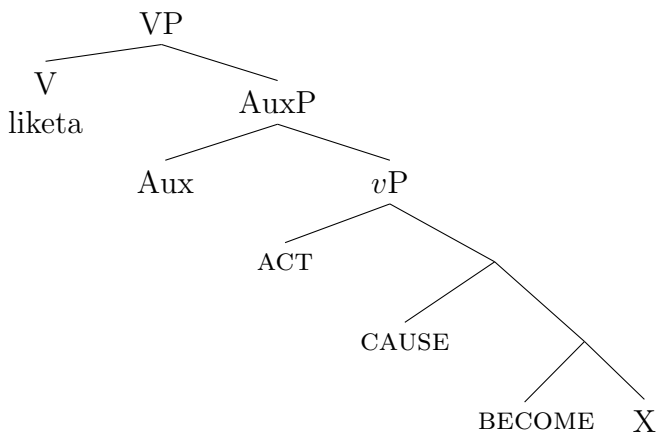
Finally, *liketa* allows expletive subjects in its matrix clause and this indicates that it is a raising verb.

(25) a. There had *liketa* been a man killed in the mines today.
b. It had *liketa* rained.

Based on these observations, I propose that *liketa* is verbal and not adverbial. It can not be moved like many adverbs and it is not a felicitous response to a yes/no question. Further, *liketa* appears in a verbal position between two perfect auxiliary heads and it licenses expletive subjects like a raising predicate.

*Liketa* as a verb is depicted in example (26). This structure constrains the distribution of *liketa* to that of a matrix verb and assuming Rapp and von Stechow, it predicts that *liketa* should only ever get a counterfactual interpretation. I have included an auxiliary phrase above the verb shell as the assigner of participle morphology to more accurately represent the distance between *liketa* and the embedded verbal shell. Explicit arguments for the embedded perfect are presented later in the analysis.

(26)




Specifically, this is because there is no evidence that verbal elements in English may scope inside the verbal shell of the verb in an embedded clause. In other words, under the assumptions presented here, there is no way for *liketa* to be interpreted as if it were located under ACT with a scalar interpretation.

#### 4.3.1.2 Semantic interpretations of *liketa*

Now that we have discussed at least one of the accounts of the structure and semantic interpretations of *almost* we can see just how *liketa* measures up to its more standard counterpart.

It is clear from the data in the introduction and from the observations made by Wolfram and Christian that *liketa* is minimally interpretable as having a counterfactual interpretation. The introductory data also indicates that *liketa* does not receive a resultative interpretation. Examples (27a) and (27b) repeated from the introduction below show that a counterfactual interpretation is possible while a resultative interpretation is not possible. Recall that the

symbol # marks an unavailable interpretation.

(27) John liketa built a chair.
  a. John came close to starting to build the chair but he did not start.
  b. # John started building a chair but he didn't finish it.

The truth or falsity of the prediction that I highlighted from Rapp and von Stechow's analysis hinges on acceptability of the scalar interpretation with *liketa*. *Liketa* resists their analysis because it is acceptable with both the counterfactual and the scalar interpretation, yet does not originate inside of the embedded verb. A *liketa* phrase and the acceptability of all three interpretations with the incremental theme verb *build* are repeated below.

(28) John liketa built a chair.
  a. John came close to starting to build a chair but he did not start. CF
  b. John did something that came close to building a chair but he didn't. SC
  c. # John started building a chair but he didn't finish it. RS

This data shows that the verbal decomposition approach is not feasible with *liketa*. *Liketa*, which does not scope under ACT in its complement, receives a counterfactual and a scalar interpretation. This is not predicted by Rapp and von Stechow's analysis. I also propose that the verbal decomposition analysis in conjunction with a verbal analysis of *liketa* are evidence that the counterfactual and the scalar reading are actually very similar if not stronger and weaker versions of the same interpretation. With *liketa* at least, it is the case for both readings that with a verb like *build*, the building eventuality can not have been initiated. Thus it seems only that the difference between these interpretations is found in whether or not the agent has undertaken some action which is felicitous with 'coming close to' initiating the event in question. If the counterfactual and scalar interpretations were separate and independent of each other then, we might expect to find a verb which only exhibits the scalar interpretation and not the counterfactual interpretation with *liketa* (Marcin Morzycki, p.c.). To my knowledge this is not the case.

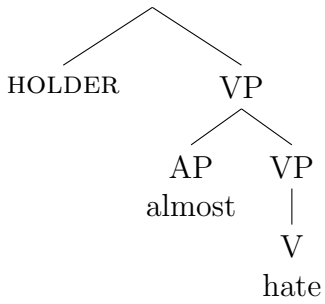
Moreover, there is evidence from psychological states and activities that the verbal decomposition approach is again insufficient for *liketa*. Rapp and von Stechow argue that

psychological states and activities also receive scalar interpretations when German *fast* or English *almost* scope under the HOLDER (the bearer of an emotional state) or ACT relations respectively. This of course assumes that HOLDER is structurally analogous to ACT for these verbs and that the interpretation that they receive is actually the same scalar interpretation that we see with telic verbs. The following data shows that both *liketa* and *almost* phrases have the same interpretation with psychological states and activities.

(29) John *liketa*/*almost* hated his teacher.
*John felt something that was close to hating his teacher, but he didn't hate his teacher.*

The authors follow Kratzer (1994) and argue that verbs like *hate* have the decomposition below.

(30)




From (29) we know that *liketa* also gets a scalar interpretation with such verbs, yet presumably can not scope under HOLDER as in (30) any more than it can scope under ACT. Again, the verbal decomposition account, as it stands, can not account for the *liketa* data.

I want to make one further point about scalar interpretations. For the purposes clarity in description, I will make a point of differentiating between the interpretation of the scalar reading with atelic psychological states and activities from other scalar readings for the following reason. There is a difference between scalar interpretations with telic phrases or phrases which depict events with natural endpoints like *build a chair* and with atelic psychological states and activities like *hate his teacher* and *gallop* which do not seem to have naturally terminating endpoints.

Notice that the scalar interpretation in (29) is an interpretation of resemblance. That is to say, whatever John feels, it must be 'close to' or resemble hating. In a sense, this

presupposes that John is in a state which resembles hating to begin with, specifically for that salient instant in time that the *liketa* phrase refers to. On the other hand, there is no requirement of resemblance with telic verbs like *build*. In fact, if we look back to the scalar interpretations with *build* the only requirement seems to be that the eventuality has not been initiated and that the agent has done something which does not preclude initiation of the eventuality in question. To my knowledge, this distinction is not mentioned in the literature. I speculate that a proper analysis of the interpretations of *liketa* and other approximatives should reflect this difference via a semantics of imprecision similar to Morzycki (2011).

Finally, a minor modification to the introductory data poses another problem for the verbal decomposition approach. Why should it be the case that the resultative interpretation is infelicitous except in cases which involve number? I would speculate that *almost* can actually scope inside of the verb in order to operate over those individual bits of events that are meted out by incremental theme verbs like *build*, while *liketa* cannot. Remember that the resultative interpretation in (28c) is not allowed with *liketa* in (28). However, when objects are modified by number then the resultative interpretation is possible.

(31) John *liketa* built 5 chairs
   a. John came close to but didn't start building 5 chairs.
   b. John started building 5 chairs and though he came close he didn't finish.

Under a decomposition analysis its not clear what the addition of number to an object DP could be doing to license a particular interpretation, especially when those interpretations are supposedly determined by the scope of the approximative relative to decomposed heads of the verb.

In brief, *liketa* sentences license both a counterfactual and scalar reading with incremental theme verbs like *build* and if the object of an incremental theme verb happens to include a numeral then it will license a resultative interpretation as well. With regards to psychological state and activity verb *liketa* patterns more or less like *almost* in that two interpretations are available. One is the familiar counterfactual interpretation while the other

is an interpretations of resemblance. I differentiated between Rapp and von Stechow's scalar reading in the context of psychological states and activities a resemblance reading because the so called 'scalar' interpretation with these verbs has an extra requirement that the action or emotion instantiated at the time of utterance must resemble the eventuality in the complement clause. No such resemblance restrictions hold of the scalar interpretation with building for instance.

### 4.3.2 Syntactic properties

Though *liketa* has been deemed an adverb in previous sociolinguistic research, I have argued that *liketa* is a verb.

### 4.3.3 Uncontracted *liketa* as a non-restructuring predicate

In its uncontracted form *liketa* is not a restructuring predicate in the sense that its complement contains an instance of infinitival-*to*. Of course, recalling my earlier proposal that AppE has a default *to* insertion rule in some restructuring contexts, it is necessary to point out that this instance of infinitival-*to* is actually associated with T and not some lower aspectual head. It is not an instance of default *to* insertion because it is not optional. Example (32a) shows that uncontracted *liketa* with infinitival-*to* is acceptable, while example (32b) shows that the uncontracted form is unacceptable without infinitival-*to*.

(32) a. They had liked to have froze to death last night.
b. * They had liked have froze to death last night.

That said, *liketa* in either form is the most restricted verb that we have looked at thus far in terms of semantic requirements placed upon its complements. For example without the past morphology in both clauses, the approximative reading disappears.

(33) a. They like to slap each other.
b. They liketa slap each other.

The sentence in example (33a) is basically Standard English and has the paraphrase, *they enjoy slapping each other*. Even in the case of the contracted form in example (33b), no counterfactual interpretation is available.

As we would expect the non-restructuring forms of *liketa* licenses sentential negation.

(34) a. It had liked to have not thawed out in time for supper.
b. It had liked to not have thawed out in time for supper.
c. *It is not the case that, It had liked to have thawed out in time for supper.*

Since the complements of uncontracted *liketa* are always infinitive, it is worth mentioning that they never license *for* complementizers.

(35) * They had liked for to have froze to death last night.

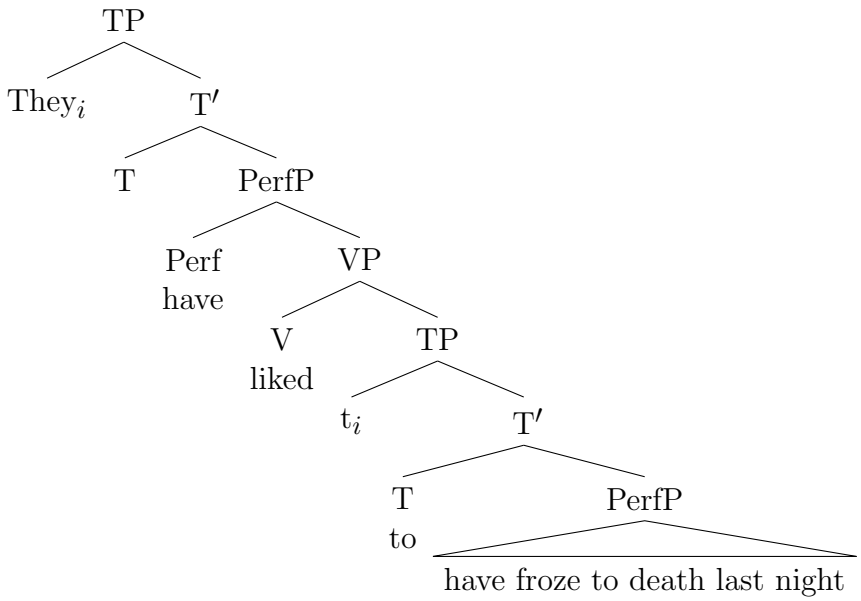
This indicates that they are maximally headed by TP, which is in itself enough to grant non-restructuring status.

The uncontracted form in example (36) shows that *liketa* is also a raising verb and licenses expletive subjects in much the same way that the contracted form does.

(36) There had liked to have been 3 men killed in the mines.

I take the structure of non-restructuring *liketa* to be uncontroversial. I will assume for the rest of this work that it is as shown below.

(37)




## 4.4 Contractions as restructuring complements

Goodall (1991; 2006) argues that infinitival contractions like *wanna* are restructuring predicates a notion that he attributes to Frantz (1977) and Postal and Pullum (1982). He notes that the class of verbs that exhibit restructuring properties are commonly modal or aspectual in nature. Consider the list of 'core' restructuring verbs and their corresponding semantic classes adapted here from Wurmbrand (2001).

(38)

| Verb type | Example verbs |
|---|---|
| modal | must may can want |
| motion | come go return |
| aspectual | begin continue finish |
| causative | let make |

With this in mind, the contraction *wanna* is surely a semantic fit with the set of restructuring verbs on the whole. Goodall goes on to note that plenty of verbal contractions which are arguably contractions of V + *to* are all either aspectual or modal in terms of their semantics.

(39)

| verb | contracted form | example |
|---|---|---|
| go | gonna | I'm gonna dance. |
| used | useta | I useta swim here. |
| have | hafta | I hafta eat something. |
| got | gotta | I gotta drink a beer. |
| supposed | suposta | I'm suposta meet her today. |

However, Wurmbrand and Goodall both note in their own ways that semantic class alone does not a restructuring verb make. They assert that a restructuring verb must also exhibit certain syntactic properties to be considered as such, a point that has surface and resurfaced throughout my own work here.

Goodall himself notes specifically that though verb class may be a coincidence there are other factors which make contractions and restructuring more likely to be the same thing or at least the result of similar mechanisms. Consider the following similarities that he proposes. The following data is adapted from Goodall (1991; 2006) via Postal and Pullum (1982).

*Wanna*, contraction is only possible when *to* is in the complement clause.

(40)
a. I don't want to flagellate oneself in public to become standard practice in this monastery.
b. * I don't wanna flagellate oneself in public to become standard practice in this monastery.
c. I don't want anyone who continues to want to stop wanting.
d. * I don't want anyone who continues to wanna stop wanting.
e. One must want (in order) to become an over-effective consumer.
f. * One must wanna (in order) to become an over-effective consumer.

In example (40) *to* is not part of the complement clause and contraction is not possible. Goodall also notes that contraction is blocked when *to* belongs to the main verb of a conjoined clause as in (41a) or when *to* belongs to the complement of a conjoined verb like *need or want* as in example (41c).

(41)
a. I want to dance and to sing.
b. * I wanna dance and to sing.
c. I don't need or want to hear about it.
d. * I don't need or wanna hear about it.

Goodall's point is that these constraints on *wanna* contraction are reflected in the constraints on restructuring phenomena. Assuming this mirroring of constraints, it should follow that restructuring is only possible between a verb and its complement clause.

He begins with examples of clitic climbing, a common restructuring phenomena in Romance languages where a cliticized argument of an embedded verb may raise and attach to a matrix verb. Consider Goodall's examples from Italian and Spanish. The remained of the examples in this section were taken as is from Goodall (2006)

(42) a. Lo voglio leggere. (Italian)
it want read
'I want to read it.'

b. Lo quiero leer. (Spanish)
it want read
'I want to read it.'

The crucial point for both examples is that the clitic form *lo* or 'it' is an argument of the embedded verb *read* in both sentences. However, in both examples it has moved to the left of even the matrix verb.

Goodall shows that clitic climbing of this sort is impossible if the matrix verb is contained in an adjunct clause. Example (43) shows that clitic climbing of *las* or 'them', which is an argument of the verb *comer*, to a spot adjacent to *quisiera* or 'want' in the adjunct clause is impossible. A situation that is parallels the same constraint on *wanna* contraction.

(43) a. Asun si quisiera, comer *las* no sería muy buena idea. (Spanish)

b. * Asun si *las* quisiera, comer no sería muy buena idea.
*Even if I wanted, to eat them would not be a very good idea.*

Both require that the embedded subject is co-referential with the matrix subject and thus they also commonly occur in control or raising structures. The constraint on co-referentiality is present for overt and null subjects. Consider the following data from Spanish.

(44) a. Juan quiere que María *las* compre. (Spanish)
b. * Juan *las* quiere que María compre.
*Juan wants Maria to buy them.*

(45) a. ¿Quién quieres que *las* compre? (Spanish)
b. * ¿Quién *las* quieres que compre?
Who do you want to buy them?

Notice that in example (44) the subject of the embedded clause is Maria and not Juan, which violates the co-referentiality constraint on clitic climbing. The same is true in example (45) where the subject of the embedded clause has undergone wh-movement and presumably left behind a wh-trace, regardless of this covertness the constraint on co-referentiality of the subject is violated and clitic climbing is disallowed. Goodall argues that this is exactly the same problem seen with basic *wanna* contraction data below.

(46) a. Who do you wanna see?
b. * Who do you wanna see Bill?

Restructuring as a phenomenon also seems only to affect verbs. Goodall observes that infinitival complements of nouns might also exhibit restructuring effects but they do not. The Spanish preposition *de* is always required in such complements.

(47) [$_{\text{NP}}$ deseos de salir ]
desire to leave
(Spanish)

The same is true of *wanna* contraction.

(48) a. The want to eat is felt by all.
b. * The wannna eat is felt by all.

Goodall notes one final parallel between the two phenomena concerning conjunction. Restructuring is not possible when two restructuring verbs are conjoined and one restructures with the complement that follows them. Again consider the clitic evidence from Spanish.

(49) a. Quiero y tengo que hacerlo. (Spanish)
b. * Quiero y lo tengo que hacer.
*I want and have to do it.*

In example (49a), there is no restructuring and the sentence is acceptable. However, if we try to move *lo* up and create a restructuring situation with the verb *tengo* the result is unacceptable. Similarly, if we try to conjoin to complements under a restructuring verb, then restructuring from one complement to the other is unacceptable.

(50) a. Quiero comprarlo y cocinarlo. (Spanish)
b. * Lo quiero comprarlo y cocinar.
c. * Lo quiero comprar y cocinarlo.
*I want to buy it and cook it.*

Again example (50a) shows that conjoined complements are acceptable under restructuring verbs. However, examples (50b) and (50c) show that restructuring between *quiero* and either of the complements is impossible. According to Goodall, these conjunction facts mirrors the *wanna* contraction facts in example (41).

### 4.4.1 *Liketa* contraction as restructuring

The question now becomes: does *liketa* pattern with *wanna* contraction it terms of sharing these four parallels with restructuring processes like clitic climbing? Here I will compare and contrast *liketa* with the list of parallels in (51) developed by Goodall in the last section.

(51) Goodall's restructuring and contraction parallels
a. The infinitival contraction is modal or aspectual in nature.
b. The infinitival must be a complement of the verbal host of the contraction.
c. The subject of the matrix and embedded clauses must be co-referential.
d. The host of the contraction must be a syntactic verb.
e. Infinitival contraction is not possible with conjoined verbs.
f. Infinitival contraction is not possible with conjoined complements.

I will argue that contracted *liketa* indeed patterns with *wanna* contraction and restructuring verbs.

First, we have already seen that the meaning of *liketa* is purely irrealis in nature and inextricably tied up with perfect aspect. Thus *liketa* follows the pattern of other infinitival contractions and restructuring verbs.

Likewise, in the case of *liketa*, the contraction is not possible if the infinitive is not a complement of the verb.

(52) a. Even if I had liked, to have drank all the whiskey in town would have been a bad thing.
b. * Even if I had *liketa* drank all the whiskey in town would have been a bad thing.
c. Even if I had liked to, to have drank all the whiskey in town would have been a bad thing.
d. * Even if I had *liketa* to a'drank all the whiskey in town would have been a bad thing.

Subjects must also be co-referential with *liketa* as they must with *wanna* contraction and clitic climbing.

(53) a. Who had you liketa seen?
b. * Who had you liketa seen Bill?

*Liketa* contraction is only possible if the syntactic category of *like* is verbal. This seems trivially true because only verbal *like* actually sub-categorizes for an infinitive. The problem is that not all contractions involving *like* and *to* are instances of approximative *liketa*.

(54) a. He likes bourbon now. — transitive verb
b. He likes to break things now. — transitive verb + infinitive
c. He likesta break things now. — transitive verb + infinitive
d. I liketa break things now. — transitive verb + infinitive
e. I liketa broke things yesterday. — restructuring *liketa*

Examples (54a) and (54b) show that normal transitive *like* in English may either take an object DP or a non-finite clause. Example (54c) shows that in quicker speech the infinitive can adjoin to the verb. Finally, examples (54d) and (54e) differ only in that approximative *liketa* requires past morphology in the verb. Needless to say, this is evidence that *liketa*

contraction is only possible with a verb. Moreover, *liketa* contraction resulting in the approximative is only possible when *like* has a perfect infinitive as its complement.

As in the *wanna* and restructuring cases, *liketa* is unacceptable when conjoined with another verb.

(55) a. I needed and liked to have heard those things.
b. * I needed and *liketa* heard those things.

Finally, conjoined complements are unacceptable under *liketa*.

(56) a. I had liked to have danced and to have sung.
b. * I had *liketa* danced and to have sung.

Thus *liketa* patterns exactly as *wanna* contraction does with respect to its parallels with respect to clitic climbing. As such *liketa* fits the class of verbs which exhibit contraction and restructuring effects; raising/control verbs of modal or aspectual nature, which take infinitival complements.

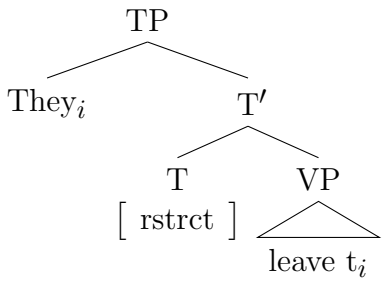
### 4.4.2 A head-movement analysis of contraction as restructuring

Roberts (1997) argues for a purely head-movement driven account of *wanna* contraction in English which is directly extendable to *liketa* and an account for the ban on the embedded perfect auxiliary in contracted *liketa* forms. In the next few paragraphs I will sketch out the relevant pieces of Roberts's analysis. A proper treatment of all facets and properties of *wanna* are beyond the scope of this work focusing on *liketa* but, see (Pullum, 1997; Roberts, 1997; Goodall, 2006) for an overview of the issues.

Similar to the ban on embedded *have* with contracted *liketa*, Roberts is interested in accounting for the presence or absence of embedded T and infinitival-*to*. His primary claim is that *wanna* and *want* are separate lexical items and that *wanna* is sub-categorized for a bare infinitive. He argues that the bare infinitive contains a restructuring feature which triggers head movement of the embedded T to the matrix verb. A sentence like *They wanna leave* has the following structure and I have taken the liberty of adapting Roberts' features

to a probe/goal feature checking system. Consider the derivation of the embedded clause below.

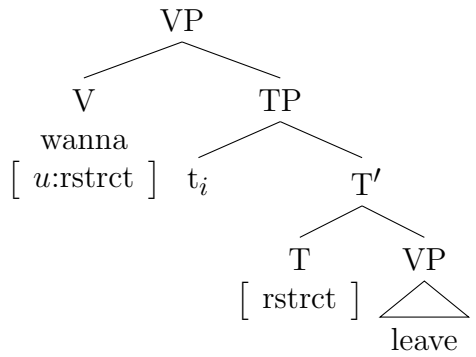
(57)




In example (57), the embedded TP has been created. The subject has been merged and no head movement has occurred. The resulting non-finite T has an interpretable restructuring feature and is phonologically null.

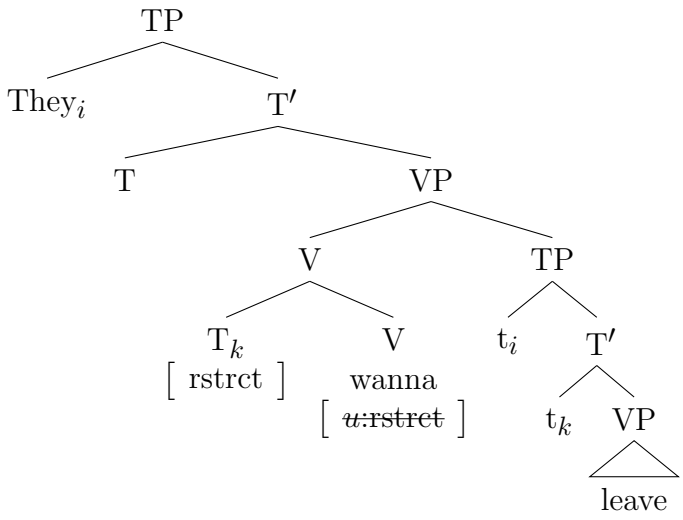
In the next structure we see that the matrix V is added.

(58)




At this point in the derivation the uninterpretable restructuring feature on matrix V will probe down the tree seeking satisfaction by its interpretable counterpart on T. Assuming the feature is strong and movement is required the embedded T will then head move and left adjoin to matrix V, following Kayne (1994), in order to satisfy the checking of a strong feature. Matrix T is added and the embedded subject must move to satisfy the EPP feature on matrix T. The resulting structure is below in example (59).

(59)




Finally, Roberts must stipulate a constraint on the matching of vocabulary to heads to ensure that infinitival-*to* is disallowed from appearing to the left of the V. This is achieved by the statement of an output condition on the spell out of morphological words. This statement is shown example (60) and in plain English it says that two lexical items may not be spelled out on the same syntactic head.

(60) * [X $W_1$ , $W_2$ ]

Mechanism aside, Pullum (1997) notes that the resulting structure proposed by Roberts and adapted in example (59) makes a prediction. It predicts that *wanna* contraction in VP fronting and ellipsis contexts would be unacceptable given those contexts require the presence of overt T and infinitival-*to*.

(61) a. I said I'd feel like climbing the mountain, and climb it I want to.
b. * I said I'd feel like climbing the mountain, and climb it I wanna.

It should be mentioned that both Pullum and Goodall mention that the VP fronting and ellipsis data is vague and even questionable. However, among Standard English informants that I have asked about this, there does seem to be a noticeable distinction in terms of acceptability of the two forms. In short, the prediction holds.

In summary, *wanna* contraction may be modeled syntactically using a head movement only approach to restructuring. Under such a model, the verb *want* and the contraction

*wanna* are separate lexical items with distinct properties of complementation; a notion that is definitely familiar given the forms and analyses proposed in this work. Restructuring *wanna* bears an uninterpretable restructuring feature and is sub-categorized for a bare infinitive TP which must contain an interpretable counterpart of the restructuring feature on the matrix verb. The uninterpretable feature on the matrix V then triggers head movement of the embedded T to left adjoin on matrix V via probe/goal feature checking. Infelicitous insertion of infinitival-*to* onto the adjoined T is barred by conditions on the spell out of more than one word per syntactic head.

### 4.4.3 A bi-clausal head-movement analysis of *liketa*

In this section, I break from the pattern of the last few sections where I have assumed Wurmbrandian style mono-clausal restructuring to explicitly consider *liketa* in terms of Roberts' head movement analysis of *wanna* before moving on to the primary analysis in the next section. Such analytical comparisons can only strengthen my claims that *liketa* behaves as a restructuring verb if it is amenable to analysis in not one but two different frameworks which account for restructuring. We can extend Roberts' analysis of *wanna* to *liketa* with a minimal modifications.

Recall that with *liketa* is it not only the case that infinitival-*to* does not show up in the complement of contracted *liketa* but the perfect auxiliary is also banned in Appalachian English.

(62) a. * John had liketa have punched Bill before you arrived.
b. John had liketa punched Bill before you arrived.

This is accounted for if the perfect and T head move into the matrix verb. We can now apply the same prediction to *liketa* that Pullum (1997) asserted for Robert's treatment of head movement under *wanna* contraction. Specifically, in a system where we assume head movement is the mechanism by which restructuring proceeds then, restructuring predicates in VP fronting and ellipsis contexts should be unacceptable.

(63) a. They swore they'd liketa died and died they'd liked to('ave).
b. * They swore they'd liketa died and died they'd liketa.
c. Mary'd liked to have slapped John and Sue had liked to('ave) too.
d. * Mary'd liked to have slapped John and Sue had *liketa too.

This means that *liketa* truly patterns with *wanna* contraction in terms of presence and absence of T in embedded clauses. Borrowing Robert's analysis, those unacceptable examples of the contractions in VP fronting and ellipsis contexts are unacceptable as compared to the uncontracted form because they do not actually contain an embedded T.

Now recall the fact that *liketa* complements must minimally contain past participle morphology.

(64) a. John had liked to have punched Bill before you arrived.
b. * John had liked to punch Bill before you arrived.
c. John had liketa punched Bill before you arrived.
d. * John had liketa punch Bill before you arrived.

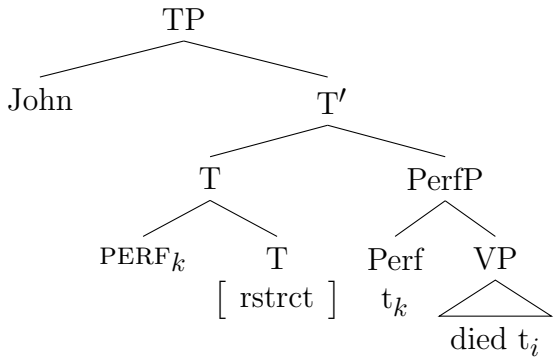
This fact coupled with the evidence from Pullum's VP fronting and ellipsis prediction which says that non-finite T is absent in infinitival contractions now explains the ban on overt *have* in the embedded complement of restructuring *liketa*. If restructuring complements do not contain an embedded T then we would expect auxiliary *have* to be banned in the complement of restructuring complements. To clarify, a mono-clausal restructuring approach also predicts the ban on embedded auxiliary *have*. This is especially interesting given the condition on *liketa* that the embedded clause must be perfect in combination with the lack of a non-finite T and in light of my claim that auxiliary insertion is the result of the morphology assigning head entering into an agreement relationship with a higher head.

Thus, we can argue that *liketa* selects for a perfect infinitive. This is operationalized by positing that *liketa* has both a restructuring feature and an uninterpretable perfect feature. This requires that the T selected by *liketa* must have both features. This is because the strong uninterpretable restructuring feature on *liketa* will trigger head movement as soon as its probe values its features against its interpretable counterpart. The probe, match, and

valuation will occur regardless of whether or not the perfect feature is available on T. We know descriptively that these complements are always perfect and ban auxiliary *have*. The only way to ensure that the T you are selecting for is restructuring and perfect is to have both features visible on the embedded T prior to being probed.

Consider the derivation of the embedded clause in *John liketa died* where Perf has already undergone head movement and adjoined to T.

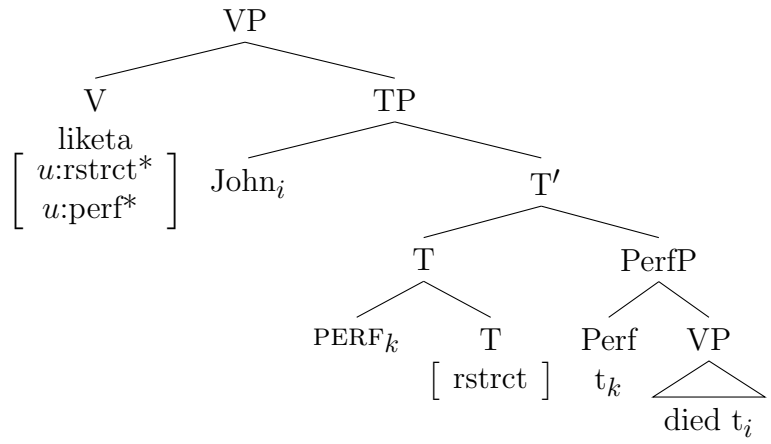
(65)




This partial derivation shows the head movement of the perfect head to embedded T where the perfect and restructuring feature will be simultaneously visible to the probe from matrix V in order for the derivation to converge. This is achieved via a previous head movement of Perf to T.

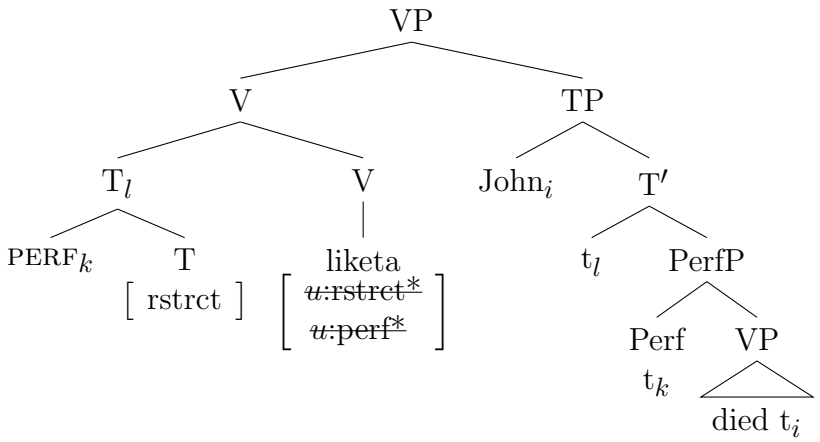
Next, *liketa* is added. Notice that it contains strong uninterpretable features which are required to be satisfied in the next operation lest they crash the derivation. Having undergone a previous head movement, all necessary features on non-finite T are in a position to be checked.

(66)




The strong uninterpretable features on the verb will probe down the tree and be satisfied simultaneously by T this is shown in example (67) .

(67)



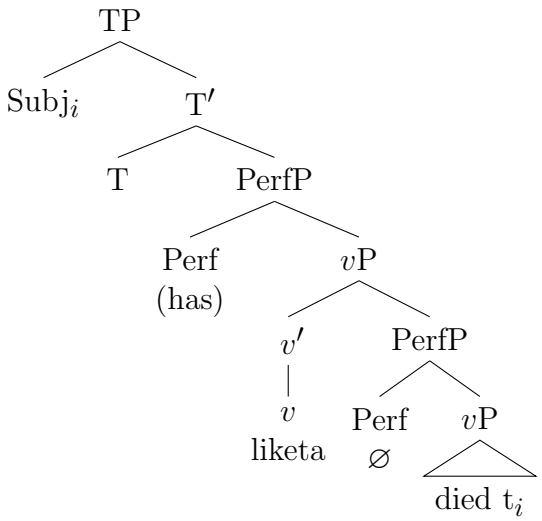

This is how *liketa* may be analyzed as having an almost identical derivation to *wanna* contraction assuming a head movement style analysis of restructuring. The final derivation shows how we might simultaneously get the required past morphology on the embedded verb, ban the insertion of the perfect auxiliary, and account for the fact that non-finite T seems to be non-existent in *liketa* complements according to VP fronting and ellipsis tests. It also shows why *wanna* contraction does not bar auxiliary *have* in example (68a). Presumably, the perfect auxiliary head is not 'rolled up' with the T via a previous head movement operation. Moreover, example (68b) shows that *wanna* definitively does not select for a perfect infinitive. If it did, we would expect the appearance of participle morphology on the verb in the absence of the overt auxiliary in (68b) to be acceptable.

(68) a. I wanna have eaten before you arrive.
b. * I wanna eaten before you arrived.

## 4.5 Analysis

Given *liketa*'s similarities to *wanna* contraction and its general list of properties, the contracted form is is best analyzed as a restructuring verb. Given the success of Roberts' head movement account any further account of the properties of *liketa* should attempt to cover more theoretical ground with less theoretical machinery and/or stipulated conditions. So any account of *liketa* must now minimally and naturally account for the ban on perfect auxiliary in the embedded clause. In this section, I will continue with the general spirit of the previous analyses of restructuring predicates and make use of Wurmbrand's mono-clausal approach to the classification of restructuring verbs in order to provide another analysis of contracted *liketa*. Once, We have the primary analysis in place, I will compare and contrast the two ways of approaching restructuring predicates. In what follows, I will argue for the following structure for contracted *liketa*.

(69)




Though we have seen that *liketa* patterns with *wanna* contraction and shares properties with other restructuring phenomena, I will provide further evidence from the perspective of Wurmbrand (2001) that *liketa* is a restructuring verb. Then in line with previous chapters I

will argue that the embedded clause of *liketa* complements are maximally headed by PerfP. Next, I will derive the ban on the perfect auxiliary. In the last section of the analysis, I will compare this approach to the head-movement approach.

### 4.5.1 *Liketa* is a restructuring verb generated in $v$

Aside from the parallels that I have drawn from Goodall's observations, *Liketa* contractions have a majority of the other properties that we have come to associate with restructuring predicates. They do not contain sentential negation associated with T, they never license complementizers, and though they might show embedded aspectual marking, they never show overt tense marking.

Let us first locate *liketa* itself in the matrix clause. Recall that one main argument of Wurmbrand (2001) is that ability of the verb to undergo matrix passivization is an indicator of belonging to the class of verbs which she terms true lexical restructuring predicates. *Liketa* does not undergo matrix passivization.

(70) a. * The whiskey was liketa drank.
b. * The whiskey had been liketa drank.

Thus *liketa* patterns with causative and experiencer *have* in that it is not a true restructuring predicate in terms of matrix passivization. I take this as evidence that *liketa* is not a lexical verb in V but, must either be in $v$ or an auxiliary head since it is not an adverb.

The question of whether or not *liketa* is an auxiliary can be answered by once again looking at its distribution relative to other auxiliary heads. We know from Kytö and Romaine (2005) that *liketa* is historically found preceded by the perfect *have* and this is still the case. Although in AppE the overtness of the matrix auxiliary seems to be optional.

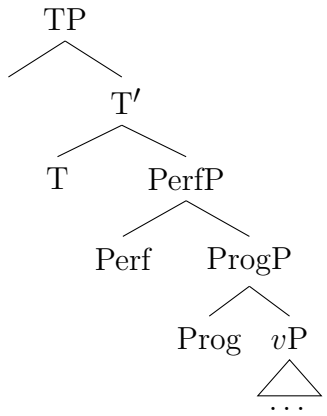
(71) a. John (had) liketa drank the whiskey by the time we arrived.

Further evidence of the presence of a spot for the matrix perfect auxiliary is that *liketa* only exists as a question where a matrix perfect has undergone T to C wh-movement.

(72) Had you liketa drank all that whiskey before we got there?

I take these two facts to indicate the presence of a perfect head in the auxiliary space located above contracted *liketa*. If we take the passivization facts into consideration as well, it seems *liketa* must be located above V and below PerfP. In a fully articulated English clause the only two heads that appear between these positions are ProgP which assigns progressive morphology and $v$ which licenses external arguments and theta-roles. For reference, I assume the basic functional structure in (73) for Standard English and AppE clauses.

(73)

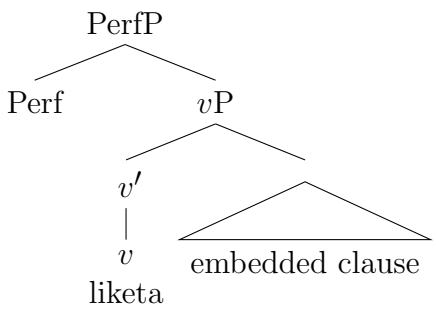



Crucially, *liketa* never occurs with progressive aspect. Example (74) illustrates this fact for both matrix and embedded clauses.

(74) a. * John had been liketa drank my whiskey.
b. * John had liketa been drinking my whiskey.

Give the basic clause structure in (73) and the evidence that *liketa* may never appear with the progressive aspect in (74), we can conclude that *liketa* is located in $v$.

(75)



If *liketa* were an auxiliary then we would expect it to undergo auxiliary inversion in yes/no questions. Again, this is not the case.

(76) * Liketa John drank the whiskey?

Of the standard auxiliaries it seems that only modal auxiliary *might* resists T to C movement in matrix yes/no questions. However, *might* and *liketa* can co-occur in an utterance and they are generated at different points in a hierarchy of projections. The ordering is *might* < *have* < *liketa*.

(77) He might'a liketa been killed.

Further evidence for a *liketa* in $v$ configuration is the fact that *liketa* is only available in questions with the perfect auxiliary. To be clear example (78a) shows that *liketa* is unacceptable in yes/no questions assuming do-support as noted by Labov (1972); Wolfram and Christian (1976); Feagin (1979). However as shown in example (78b), it is possible for *liketa* to appear in questions if they involve the perfect auxiliary.

(78) a. * Did John liketa drank the whiskey?
b. Had John liketa drank the whiskey by the time you arrived?

The verb *liketa* patterns with causative and experiencer *have*. However, we face contradictory evidence in deciding whether *liketa* is base generated in $v$ or V. If we follow Wurmbrand's classification system then semi-functional verbs located in $v$ do not undergo passivization because they are in a type of complementary distribution with passive $v$. On the other hand traditional raising structures are commonly assumed to be missing a case-assigning $v$ in the matrix clause because embedded subjects appear in the matrix clause with nominative case. They never appear marked for accusative case. Combine this observation with the fact that raising verbs do not assign an external argument theta-role and the evidence seems to support a $v$P-less analysis of raising structures. This is why expletive subjects are licensed as the subjects of raising verbs.

Recall that *liketa* licenses expletive subjects.

(79) There liketa been 3 men killed in the mines.

From here the evidence for a $v$ vs. V generation point for *liketa* only becomes more complicated. Wurmbrand suggests that traditional raising verbs like German *scheinen* 'to seem' are generated as low auxiliaries. At first glance this proves enticing for English as well but the problem remains that auxiliaries in English usually undergo subject auxiliary inversion and *liketa* clearly does not. I believe the best solution is to assume that *liketa* is base generated in an unaccusative $v$.

This captures the fact that *liketa* resists matrix passivization and allows the fact to fall naturally out of the familiar claim about semi-functional restructuring verbs being base generated in a $v$. The only difference is that semi-functional restructuring verbs generated in unaccusative $v$ do not assign a semantic role to their external arguments and license expletive subjects.

Aside from the properties common to restructuring complements, the major pieces of evidence for the architecture of clauses embedded under *liketa* come from the scant appearance of past participle morphology. For clarity, I will reiterate those properties of *liketa* that Wurmbrand claims are common to all restructuring complements before discussing the perfect aspectual requirements of the clause.

*Liketa* does not license sentential negation associated with T. Example (80) show that neither stand alone *not* nor *didn't* forms are licensed.

(80) a. * John had liketa not drank my whiskey.
b. * John liketa didn't drink all my whiskey.

The simplest explanation of this fact is that both forms are parasitic on the presence of T and they are unacceptable in these examples because T is not present. *Liketa* only ever admits the negative adverbial *never*. which I take to be a negative constituent which crucially does not rely on the presence or absence of T in a clause. Specifically, adverbial *never* does not require attachment to TP, (Zanuttini, 1996).

Further, *liketa* phrases containing adverbial *never* do not pass the *not even a little* continuation test for sentential negation, (Klima, 1964). Consider the test operating on a normal sentence with a sentential negation interpretation.

(81) John didn't drink any whiskey, not even a little.

Now consider, this test in a *liketa* phrase containing adverbial *never.*

(82) John liketa never drank any whiskey...
  a. # not even a little.
  b. except once every long while.

The continuation in example (82a) is infelicitous here. To unpack this we must remind ourselves of what *liketa* phrases actually means. The positive version of this phrase *John liketa drank some whiskey* is only true if he came close to drinking some whiskey but did not actually drink any whiskey. Now, for the phrase in (82) to be judged true, it must be the case that John did drink some whiskey if only rarely. Hence the second continuation in example (82b) is felicitous with example (82). Thus it seems that the inclusion of *never* in *liketa* constructions only reverses the negation found inherently in the polar component of *liketa*'s conventional meaning. Though this type of negation seems to negate the proposition that *liketa* operates on, it is not the negation associated with T. Since it is not negation associated with T, the appearance of adverbial *never* poses no problems for the claim that *liketa* complements are not maximally headed by T.

The eventuality described by *liketa* and the eventuality described in the complement clause are temporally inseparable.

(83) * Last Monday, John had liketa drank my whiskey the next day.

This is not too surprising since *liketa* has a proximal or *closeness* component as part of its conventional meaning. The eventualities described must be sufficiently close enough in a time course of events, if not contiguous.

Finally, as I mentioned earlier complementizers are never licensed by *liketa*. Even though *liketa* has a peculiar form and strict semantic requirements it passes the basic diagnostics required of restructuring complements.

### 4.5.2 Complements of *liketa* are headed by PerfP

The past participle is the only morphology that appears in *liketa*'s complement. So, I contend that *liketa* clauses are headed by perfect phrases which license participle morphology. In example (84a), past morphology is licensed on the verb but progressive morphology is not licensed.

(84) a. Mary had liketa slapped John.
b. * Mary had liketa slapping John

Further evidence that PerfP heads the embedded clause is shown in passivized *liketa* complements. Example (85a) shows a normal perfect passive complement under *liketa*, while example (85b) shows that the perfect complement is required. Lastly, example (85c) shows that the *be* of the infinitival passive is also unacceptable.

(85) a. John had liketa been slapped.
b. * John had liketa was slapped.
c. * John had liketa be slapped.

The acceptable case shows that the passive head *been* is marked for the perfect. One could argue that this is simply showing that the matrix perfect *had* in all cases is required to mark the embedded auxiliary *be* for perfect. However if this were the case then it is not clear why removing auxiliary *had* does not result in acceptability.

(86) a. John liketa been slapped.
b. * John liketa was slapped.
c. * John liketa be slapped.

In sum, *liketa* complements lack a tense phrase and are maximally headed by a perfect phrase which we see the effects of even though it is banned as a stand alone lexical item.

### 4.5.3 Deriving the ban on the perfect auxiliary

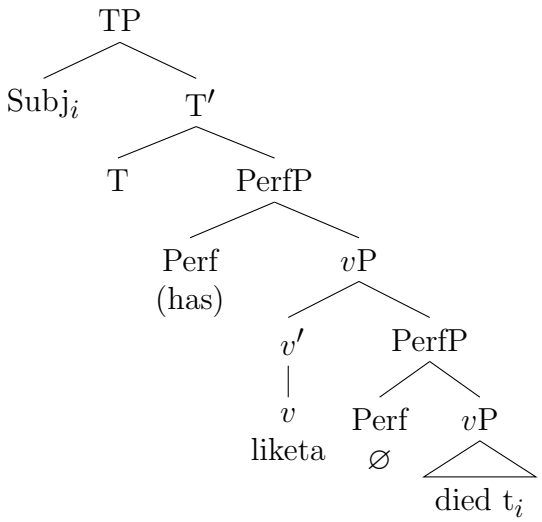
Reconsider this data from the introduction which illustrates the ban on over auxiliary *have* in the complement of *liketa* clauses; an interesting and unexpected fact given the acceptability of an over perfect auxiliary in the uncontracted form.

(87) * John had liketa *have* punched Joe, by the time...

(88) John had liketa punched Joe, by the time...

We are finally in a position to analyze this constraint as the result of unique aspectual properties of *liketa* in conjunction with the structural requirements of complements of restructuring verbs. As argued for in the previous sections of this analysis, contracted *liketa* has the structure repeated in example (89). It is a semi-functional restructuring verb base generated in $v$ which selects a complement maximally headed by a perfect phrase.

(89)




Given our previous assumptions about auxiliary insertion, the ban on the insertion of an embedded perfect is expected from this structure. In both previous analyses, I argued that auxiliary heads may do double duty. They are capable of assigning morphology to a lower auxiliary or verbal element and they themselves may bear the morphology of some higher morphology assigning head. The overtness of the head itself is the result of having entered into an agreement relation with a higher morphology assigning head. Taking this into account, the overt auxiliary *have* is banned because its insertion would require the

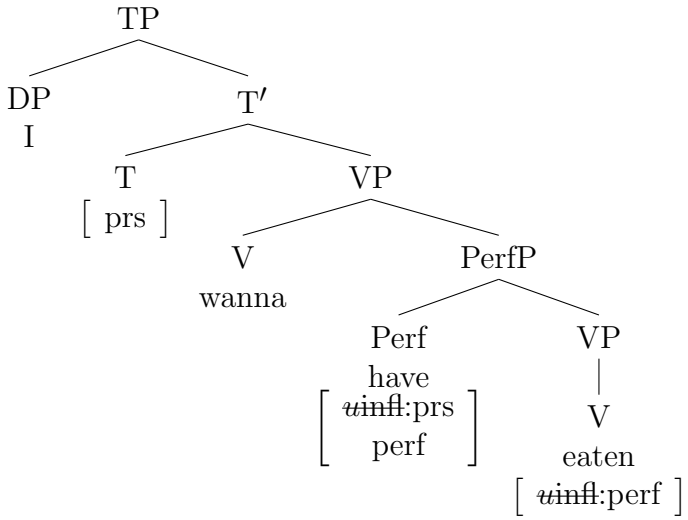
perfect head to enter into an agreement relationship with a higher head, presumably T. In short, since only T is ever above PerfP in the hierarchy of projections in the English T/Aux system, the absence of T in a restructuring verb predicts the absence of overt auxiliary have.

However, not all restructuring verbs exhibit the same restrictions on auxiliary licensing. Keep in mind that other restructuring contracted forms do not show this constraint.

(90) I wanna have eaten before you arrive.

I argue that this must be an example of 'exceptional' auxiliary licensing. The derivation in example (91) shows that matrix T must satisfy the uninterpretable inflection feature on the embedded auxiliary head.

(91)




Evidence for such a relation can be seen in the fact that *wanna* never exhibits and agreement and is incompatible with morphology assigning heads.

(92)
a. * I wanna-ed eat. past
b. * I had wanna eat. perfect
c. * I am wanna eat. progressive
d. * I was wanna eat. passive
e. * He wanna eat. 3.sg

Further, these agreement facts are not just semantic or c-selectional restrictions in disguise because *wanna* is compatible with them if agreement is handled elsewhere.

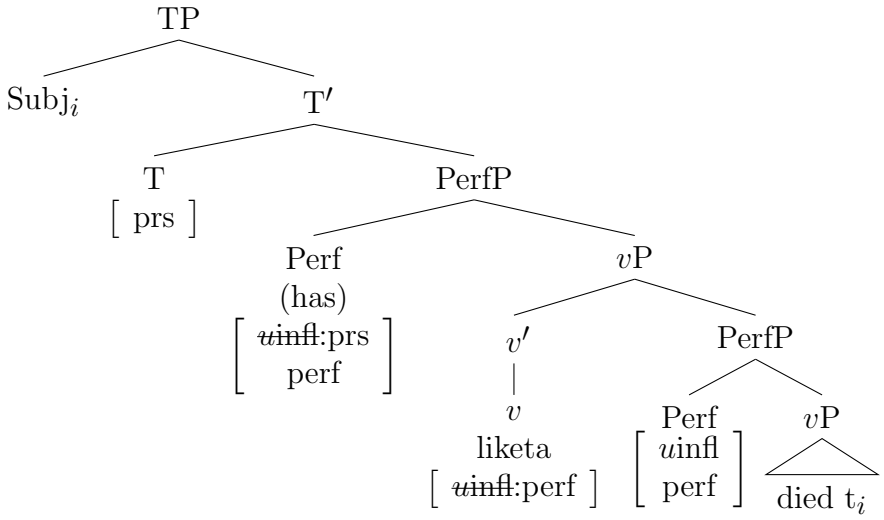
(93) a. Did I wanna eat? past
b. Does he wanna eat? 3.sg
c. He will wanna eat. future
d. He might wanna eat. modal

Finally, perfect *have* under *liketa* is not licensed in this way because of locality conditions on Agree and intervention effects (Chomsky, 2001).

(94) Intervention:
If probe P matches inactive K that is closer to P than matching M, this bars Agree (P,M).

Intervention effects arise in the case of *liketa* then because unlike *wanna*, *liketa* is compatible with morphology assigning auxiliaries like the perfect. I take this as evidence that *liketa* takes part in the exchange of inflectional features which are commonly assumed to occur between T, auxiliaries, and verbs. Consider the derivation below in which the embedded auxiliary head remains unvalued by matrix T because *liketa* has the requisite feature which forces it to act as an intervener.

(95)




### 4.5.4 Accounting for variation in *liketa* complements

Having outlined in depth the properties of restructuring *liketa* and having accounted for its behavior with via two separate restructuring frameworks, I would now like to account for

variation in the form of the complements that we have encountered along the way. Consider the following instances of variation.

(96) a. He liketa a'died.
b. I liketa didn't win.
c. She liketa have died! (Diane B. W15:38.II.120)
d. They liketa not got any food or anything to 'em. (Sam C. W70:34.I.236)

Under the analysis forwarded here, the prefixed *a* form in example (96a) is not the result of auxiliary insertion. Given there is no embedded T, it is reasonable to assume that *a'* might be the result of a default insertion rule on the perfect head. Assuming [+past,+participle] are the standard features on a perfect head following Halle and Marantz (1993).

(97) $Perf$ = default insertion rule
[+past, +part] $\leftrightarrow$ a'

This is not to be confused with the actual auxiliary insertion rule which requires the presence of T, a higher agreeing head. Assuming T agrees with embedded perfect heads for a feature $\phi$ then the feature set resulting in auxiliary insertion is as follows. Again [+past] in both cases is simply a cover term for the distinguishing feature which separates past and past participle morphology; it is not tense.

(98) $Perf$ = auxiliary insertion rule
[+*phi*, +past, +part] $\leftrightarrow$ have

As for examples (96b) and (96c), I would argue that they are not restructuring predicates. The presence of *didn't* and *have* are indicative of an embedded tense layer. It is possible that in these dialects, *liketa* has been grammaticalized as an adverb. Example (96b) is reported by a speaker who has *liketa* in their dialect in south eastern Ohio, and (96c) was reported by Feagin. Again, There is no reason to believe that for every speaker who has the lexical item *liketa*, it should be grammaticalized in exactly the same manner. I am not a speaker of Alabama English or the English of southeastern Ohio and so I can make no judgments about these forms aside from saying that I find them unacceptable.

Finally, I would argue that the negative *not* in example (96d) is possibly constituent negation. Again this example is from Alabama English and I do not believe it is appropriate to subject it to analysis by my intuitions. I can only offer speculation. However, example (99) it is the case in more standard varieties of English that negation using *not* requires an over auxiliary.

(99) a. I could not see.
b. * I not see.
c. I did not eat.
d. * I not eat.

However, constituent negation is not subject to this constraint.

(100) a. I saw not one beer but two.
b. I got not food but water.

Though these variations in the complement of *liketa* are indeed interesting and require further study, They do not pose a problem for my analysis. In fact, if we assuming a strong version of the Chomsky-Borer Conjecture (Borer, 1984; Chomsky, 1995), whereby syntactic variation is essentially reducible to differences in the lexicon, we should expect just such slight micro-variations in nearby dialects. Ultimately, I leave these forms to further study.

### 4.5.5 Mono vs. bi-clausal approaches to restructuring

Restructuring *liketa* and its unique set of properties may be captured by both the bi-clausal head movement approach to restructuring or by the mono-clausal variation in complement size approach. Comparing the two approaches using the same form, highlights the strengths and weaknesses of both approaches. The mono-clausal approach to restructuring suffers from a general explosion in the size, properties, and types of complement clauses. This is mirrored by a loss in uniformity of those same clauses. Moreover, this seems to require a general explosion in the lexicon as well. Suppose a speaker has not just the contracted and uncontracted forms of *liketa* but also a contracted form which seems to be non-restructuring.

The mono-clausal approach, having zero syntactic mechanisms by which to derive those 3 forms requires at minimum three possible entries for the syntax of *liketa* alone. This is a disconcerting thought to those who worry about issues of learnability and an overly syntax-ified lexicon. This is a natural extension of Wurmbrand's own criticism of the loss of uniformity of complement clauses under her approach.

Beyond this, we saw in the last chapter that the mono-clausal approach to restructuring only has a certain level of resolution and it must be the case that post syntactic morphological processes must bear at least part of the burden as I have argued in the past two chapters.

On the other hand, the head-movement approach of Roberts (1997) requires extra machinery but it provides us with a way to effect smaller changes and operations in the syntax before derivations are sent off to be interpreted at spell out. The grand finding in terms of restructuring thus far is that we must pay attention to minute morphological processes in the context of restructuring clauses but even then and even under the operational simplicity of a mono-clausal approach, some external processes such as head movement are inescapable.

## 4.6 Conclusion

This chapter provided an analysis of the Appalachian English approximative form *liketa*. It have shown that *liketa* is best analyzed as a verb in both its contracted and uncontracted forms. Such an analysis allows us to understand the relationship between the two forms and their respective syntactic properties in terms of restructuring. For example, the ban on the embedded auxiliary in contracted *liketa* is argued to fall out from this a restructuring analysis. Following arguments which show that *wanna* contractions are actually examples of restructuring in English, I argued that *liketa* should be included in this class. Infinitival contractions are fertile ground for restructuring effects. Finally, I analyzed *liketa* according to two different frameworks which capture restructuring effects.

# CHAPTER 5

# NON-FINITE *HOW COME*

## 5.1 Introduction

In this chapter, I explore one final infinitival form found in Appalachian English. Consider the standard finite form of the wh-word *how come* in example (1a) and the non-finite form in example (1b) available in Appalachian English.

(1) a. How come he left the party?
b. How come him to leave the party?
WH 3s.acc inf leave the party
'How come he left the party?'

This chapter is an exploration of the syntax of what I have termed non-finite *how come*. Current analyses of the syntax of finite *how come* indicate that it is best analyzed as being a single syntactic unit merged directly into the left periphery of the clause. I will argue that non-finite *how come* is slightly different. I will revive and apply an analysis in which non-finite *how come* is not a single syntactic unit but rather a reduced clause. I propose that non-finite *how come* as it exists today in AppE originally occurred with null expletives in a verb second configuration in many English dialects. Interestingly, none of the diagnostics used to differentiate finite *how come* from its counterpart *why* reveal any contrasts between the two forms of *how come*. Further, the properties of *how come* which have been claimed as evidence of its status as a single lexical item are actually compatible with the possibility that the form is actually phrasal. This supports an analysis in which the matrix clause is the result of clause reduction. In this sense then, this chapter is a continuation of the investigation of restructuring found throughout this work. However, this final investigation of restructuring and clause reduction switches focus from the embedded clause to the matrix clause.

This chapter has the following structure: First, I lay out what little information there is on non-finite *how come* before moving on to discuss the literature on finite *how come*. *How come* is predominantly talked about in comparison to other forms from *what for* to *why*, to other wh-adjunct phrases like *why the hell*. In the analysis, I show that non-finite *how come* behaves almost exactly like finite *how come* and that the clause embedded under *how come* in non-finite *how come* is a full CP clause. Then, I revive the reduced clause analysis of non-finite *how come* by examining how case is assigned, the behavior of *come* in modern English, and the assumption that non-finite *how come* is a relic verb second form which involves null expletives, and evidence from the behavior of *how* when it is used for asking about cause in Chinese. Finally, I show how the proposed structure derives all of the properties associated with *how come* as well as accounting for the ability of non-finite *how come* to allow for some lexical material to intervene between *how* and *come*.

## 5.2 Background

In this section, I will provide a general context for non-finite *how come* as well as discuss properties of non-finite *how come* as compared with properties of *how come*. In the final few sections, I will discuss previous analyses of finite *how come*.

### 5.2.1 Non-finite *how come* in context

Non-finite *how come* was present in literary works from at least the turn of the 20th century until the late 1930's.

(2) a. She heard Miss Euphemia wonderin' the other day *how come* the right shoulder of her black silk dress *to* wear out.

(Stuart, 1899)

b. That's *how come* him *to* have appetite for a nip o' pore old Betsy.

(Rawlings, 1938/1985)

It also appears throughout the south in general as show in the transcribed interviews with former slaves (PBS, 2013).

(3) a. JHF: And he'd round up the votes, and that's how come them to kill him.
b. JHF: Well what I was, what I'm trying to, to find out is, how come him to kill your husband. Was it over politics?

## 5.3 Previous analyses of *how come*

To my knowledge there are no previous analyses of non-finite *how come*. In fact, it is commonly assumed that *how come* only exists with finite complements (Culicover, 1999; Collins, 1991). For these reasons, it is necessary to discuss in detail the previous syntactic analyses of *how come*. The next few subsections are a discussion of the properties of *how come* as they are mentioned in the literature along with the analyses they were used to support.

### 5.3.1 *How come* and *what for*

Zwicky and Zwicky (1971) make the following observation that *how come* is used solely for questioning reasons and not purpose. The question and response pairs in example (4) shows us a split between questions about *cause* on one hand and *purpose* on the other.

(4) a. Question:
i. Why don't I read you this letter?
ii. Wouldn't you like to have me read you this letter?
iii. Will you let me read you this letter?
b. Answer:
i. What for?
ii. # How come?

The argument is that the wh-word *what for* is used to question purpose and it is licensed in situations where the relation between the actions of an agent and an intended state of affairs are questioned. The wh-word *how come* on the other hand is not licensed in such situations.

Zwicky and Zwicky argue that *cause* interpretations are the relationship between one state of affairs and another state of affairs. Thus *how come* is not felicitous when asking about the intentions of an agent, it is only felicitous when asking about reasons.

In the remaining portion of this section, I will lay out the syntactic properties of *how come* as noted by Zwicky and Zwicky.

#### 5.3.1.1 *How come* bars subject/aux inversion

Turning to more syntactic observations Zwicky and Zwicky also note that *how come* fails to trigger subject auxiliary inversion as compared to *what for*, *why*, and the lone *how*.

(5) a. What has she read the book for?
b. Why has she read the book?
c. How has she read the book?

Example (5) shows that the wh-words *what*, *why*, and *how* trigger the normal subject auxiliary inversion that we expect in matrix questions in English. The example below in (6a) show that *how come* is unacceptable with and does not trigger subject auxiliary inversion. Example (6b) shows that *why* questions are unacceptable without subject auxiliary inversion.

(6) a. * How come has she read the book?
b. * Why she has read the book?

Zwicky and Zwicky take this to be evidence that clauses embedded under *how come* appear to be more like embedded clauses than interrogative matrix clauses. Specifically, they argue that *how come* is diachronically derived from *how has it came about that*.

#### 5.3.1.2 *How come* blocks long distance contstrual

Moreover, Zwicky and Zwicky suggest that a bi-clausal origin in the phrase *how has it came about that* accounts for the fact that *how come* is only allowed to be interpreted relative to the proposition in its own clause. *Why* and *what for* do not behave this way, since they allow embedded clause construals.

(7) a. Why did Herman say Gwen ate the goldfish?
   i. *Why did Herman say this?*
   ii. *Why did Gwen eat the goldfish?*
   b. What did Herman say Gwen ate the goldfish for?
   i. *What did Herman say that for?*
   ii. *What did Gwen eat the goldfish for?*

For example, example (7a) shows that *why* may be construed as questioning the reason that *Herman made the statement* in (7a-i) or the reason that *Gwen ate the fish* in (7a-ii). Similarly, (7b) also shows that *what for* may also be construed as questioning the matrix or embedded clauses represented as questions in examples (7b-i) and (7b-ii).

In spite of the behavior of the other two wh-words, *how come* may not be construed with the embedded clause. Specifically, *how come* in example (8) is only able to be paraphrased as *What is the reason that Herman said that Gwen ate the goldfish.*

(8) How come Herman said Gwen ate the goldfish?
   a. *How come Herman said that?*
   b. * *How come Gwen ate the goldfish?*

Relatedly, they observe that the lack of long distance construal is not a quirk of main clause phenomena as *how come* clauses may be embedded.

(9) a. Margaret wondered how come Herbert said Bill grew piranhas.
   b. I realized that Margaret knew how come Herbert said Bill grew piranhas.

Finally, they note that colloquial variants of *how come* do in fact sometimes occur with an overt complementizer *that*, a fact which I would argue is evidence of a C.

(10) How come that she has read the book?

In summary, Zwicky and Zwicky argue that *how come* is used to question *cause* as opposed to *purpose*. It is a syntactic unit derived from *how has it came about that*, which suggests a retention of its original clausal nature in the sense that it never moves. Thus it does not undergo subject auxiliary inversion or allow for long distance construal with embedded clauses yet may be an embedded clause itself. Given that Zwicky and Zwicky

claim that *how come* may occur with an overt complementizer, it would then be located above C in a normally articulated clause, either as a single unanalyzed constituent or as a phrase.

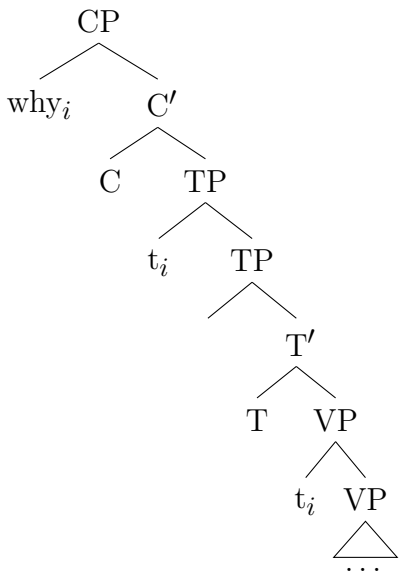
### 5.3.2 *Why* and *how come*

In comparing, *why* and *how come* Collins (1991) argues the *how come* is a syntactic unit merged in C. Specifically, he argues that *how come* is best analyzed as a wh-complementizer. He also adds to the list of properties unique to *how come*. In addition to Zwicky and Zwicky's observations that *how come* does not exhibit subject auxiliary inversion, he also notes a lack of quantifier scope ambiguities and the inability of *how come* to appear in multiple wh-questions.

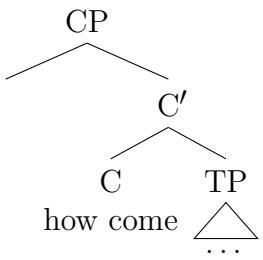
#### 5.3.2.1 *How come* as a syntactic unit merged in C

Collins (1991) claims that the differences between *why* and *how come* can be captured with two basic assumptions. First, he assumes that *why* is base generated adjoined below C to either VP or TP and ends up undergoing wh-movement to end up in spec,CP as in example (11). Second, Collins assume that *how come* is base generated in C as in example (12) and never moves or binds a trace.

(11)




(12)



Crucially, then in English *why* is in spec,CP while *how come* is in C. The primary reason for this claim comes from the fact that *how come* does not undergo subject auxiliary inversion, repeated below.

(13) a. Why did John leave?
b. How come John left?

Notice that, if *how come* is actually in C then it would block any further movement to that head. Collins also argues that the *how come* in C analysis explains a myriad of other differences between *why* and *how come*. These are presented in the next few sections.

Recall the constraint against long distance construal or LDC for *how come*. The *why* sentence in example (14) has two possible interpretations. You can either intend to ask about the *John's reasons for saying* or *Mary's reasons for leaving*. The same is not true for the *how come* question. The only interpretation available is one in where you inquire about *John's reasons for saying*.

(14) a. Why did John say Mary left?
b. How come John said Mary left?

Collins argues that this falls out directly of the assumption that *why* has the ability to merge low and bind a wh-trace. Consider the following bracketed representation adapted from Collin's work which shows the points in the derivation at which *why* might be merged in the lower clause to get the LDC interpretation.

(15) [$_{\text{CP}}$ Why$_i$ [ did [$_{\text{TP}}$ John say [$_{\text{CP}}$ t$_i$ [$_{\text{TP}}$ t$_i$ [$_{\text{TP}}$ Mary left ]]]

Notice that in example (15), the indices show the possible merge points for *why* the lower clause, according to Collins. Similarly, if *how come* were to garner a LDC interpretation it would require that it be merged low as indicated by the trace below.

(16) $_{\text{CP}}$ How come$_i$ [$_{\text{CP}}$ John say [$_{\text{CP}}$ [$_{\text{C}}$ t$_i$ [$_{\text{TP}}$ Mary left ]]

Collins claims that the structure is illicit because the movement depicted is a violation of the head-movement constraint (Travis, 1984) which states that such movement may only occur

if no heads intervene.

Collins argues that the complementizer/wh-word distinction between *how come* and *why* respectively, also accounts for the fact that tenseless *why* clauses are licit while tenseless *how come* clauses are not.

(17) a. [$_{VP}$ Why [$_{VP}$ go to the store, when there is juice at home?]]
b. * [ $_{VP}$ How come [$_{VP}$ go to the store?]]

He claims that if we assume that the phrase *go to the store* in (17a) is a bare VP then *why* and not *how come* has a viable merge point. The claim is that *how come* is unacceptable in the same situation because it is a complementizer in C.

#### 5.3.2.2 *How come* is illicit in multiple wh-questions

Collins also points out that *why* and not *how come* may occur in multiple wh questions.

(18) a. Why did John eat what?
b. * How come John ate what?

He assumes Chomsky's condition on question interpretation which requires that all wh-words not in CP must be associated with CP and be interpreted as uniformly binding a wh-trace (Chomsky, 1973).

(19) Condition on Question Interpretation
Assign a wh-phrase not in COMP to some higher structure [COMP +wh] and interpret as in [(20)] where the interpretation is uniform in this COMP node.

(20) All wh-quantifiers interpreted by a given C must bind a trace.

Accordingly, both *why* and *what* in example (18a) are thought to end up in COMP and from this position they will both uniformly bind their traces. Example (18b) on the other hand is different because *how come* occupies C and does not bind a trace, therefore it simply can not be uniformly interpreted at the level of logical form per the condition on question interpretation. Consider this difference in example (21)

(21) a. [$_{CP}$ Why$_j$ what$_i$ [C did] John t$_j$ eat t$_i$]
b. * [$_{CP}$ what$_i$ [$_C$How-come] John ate t$_i$]

#### 5.3.2.3 *How come* does not interact with quantifier scope

Finally, as further evidence that *why* binds a trace lower in the structure and *how come* is base generated in C, Collins notes that *why* exhibits quantifier scope ambiguities while *how come* does not. Consider the following sentence.

(22) Why did everybody hate John?

Example (22) has two interpretations. They are shown in (23).

(23) a. For each person $x$, Why does $x$ hate John? $\forall > \text{WH}$
b. Why does the whole group of people hate John? $\text{WH} > \forall$

For clarity, I will refer to the interpretation in (23a) as the *distributed* reading and the interpretation in (23b) as the *collective* reading. The overarching assumption that Collins makes about scope ambiguities is that they are indicative of movement and may be useful in determining the origins of elements that interact with quantifiers. Specifically he assumes that *why* is base generated as adjoined to VP. When it moves to CP it will leave a wh-trace. Thus a quantifier may scope over the trace of the wh-word. This would only require that the quantifier is associated with an element which c-commands the wh-trace. This is represented by the scope relation $\forall > \text{WH}$ associated with example (23a). Likewise, if the quantifier *everybody* does not c-command the wh-word at any point then, this gives rise to the *collective* reading. This scope relation, represented by $\text{WH} > \forall$, is associated with example (23b).

Now consider example (24), where it is not possible for the quantifier to scope over the wh-word even with the wh-word *why*.

(24) Why did John hate everybody?

This sentence can only have the *collective* interpretation in example (23b). Because the object *everybody* never has the possibility of scoping over a wh-trace, the distributed config-

uration is impossible.

Now keeping these facts in mind and turning our attention back to *how come* we see that it does not show quantifier/scope ambiguities.

(25) a. How come everybody hates John? WH > ∀
*∀ > WH

b. How come John hates everybody? WH > ∀

For either sentence in (25), there is only the possibility for the *collective* interpretation. This is exactly what we would expect if we assume that *how come* is base generated in C. The quantifier *everybody* may be associated with either the subject or object position. Since C is higher in the structure than both of these positions, *how come* and quantifiers may never interact.

#### 5.3.2.4 Against *how come* as a reduced clause

Collins also argues explicitly against the 'reduced clause' analysis of *how come* suggested by Zwicky and Zwicky (1971). He argues that speakers who accept instances of *how come* occurring with an overt complementizer such as *how come that* have further grammaticalized the complementizer as part of the *how come* constituent. Thus the complementizer *that* along with the wh-word is in C. Secondly, he observes that the *how* portion of *how come* is not able to be extracted. This is contrary to what we might think, if *how come* were truly a reduced clause. Finally, he argues that though *how* may be modified by *else*, it may not intervene in *how come* as in the unacceptable **How else come John left.*

To sum up the discussion, Collins argues that *how come* is a syntactic unit base generated in C. As a wh-complementizer, it never binds a trace and thus never interacts with quantifiers to create ambiguities which arise from scope ambiguities. In addition, a *how come* in C analysis also predicts that subject/auxiliary inversion and multiple wh questions will also be unacceptable.

### 5.3.3 *How come* as a secondary wh-adjunct

Ochi (2004) argues that *how come* in English shares a majority of its properties with wh-adjuncts like *why the hell* forming a group that of what he calls secondary wh-adjuncts. Ochi also attempts to carve out a set of cross-linguistic counterparts to *how come* which also share these properties but appear as the lexical item analagous to *what*. Ochi notes that the term secondary wh-adjunct is meant to carve out a class for *how come*, *why the hell*, and *what* used for asking reasons in other languages. Secondary wh-adjuncts as a class do not behave like normal *why* adjuncts.

Ochi's analysis is based closely on the findings of Collins (1991). He adopts the majority of Collins' observations repeated below.

(26) *How come* ...
  a. does not allow long distance construal.
  b. does not occur in multiple wh-questions.
  c. does not interact with scope to create ambiguities.

However, Ochi rejects the hypothesis that *how come* is an interrogative complementizer in C. This is because the properties in example (26) are shared by other objects which are used for asking reasons like *why the hell* and its cross-linguistic counterparts, none of which are possible complementizers in C.

#### 5.3.3.1 *Why the hell* as a secondary wh-adjunct

Before jumping into the cross-linguistic data, consider the properties of *how come* as applied to the aggressively non-d-linked phrase *why the hell* (see Pesetsky, 1987; Lasnik and Saito, 1994:for relevant discussion). Example (27) shows that though *why* may be construed long distance, the phrase *why the hell* may not be and it patterns with *how come*.

(27) a. Why did you say that John is mad?
  b. Why the hell did you say that John is mad?

Ochi notes that the embedded reading *Why the hell is John mad?* may not be entirely unacceptable but is definitely not preferred in (27b).

Like *how come*, the phrase *why the hell* is unacceptable with multiple wh questions.

(28) a. Why did you eat what?
b. * Why the hell did you eat what?

Finally, *why the hell* does not yield scope ambiguities with quantifiers.

(29) a. Why does everyone hate John? (every > why, why > every)
b. Why the hell does everyone hate John? (*every > why, why > every)

As is indicated by Ochi's in-line description, example (29b) may only be interpreted as asking about the *collective* reason that everyone hates John. The *distributed* interpretation is not permitted. Finally, Ochi points out that the phrase *why the hell* also triggers subject auxiliary inversion and is therefore not a complementizer. *Why the hell* must be merged above C.

#### 5.3.3.2 *What* as a secondary wh-adjunct across languages

Now I turn to the cross-linguistic data in which the wh-word corresponding to English *what* is used to ask, rather emphatically, about the cause of a particular state of affairs. Following Ochi, I will refer to this cross-linguistic counterpart as WHAT. In German, Hungarian, and Serbo-Croatian WHAT or *was/mit/šta* respectively, may be used to ask about cause.

(30) Was schläfst du so lange? (German)
WHAT sleeps you so long
'Why are you sleeping so long?'

(31) a. Mit/miert ulsz itt? (Hungarian)
WHAT-acc/why sit-2sg here
'Why are you sitting here?'
b. Mit/miert fenyegeted a gyerekeket?
WHAT-acc/why threaten-2sg the kids-acc
'Why are you threatening the kids?'

(32) Zašto/Šta si ustao tako rano? (Serbo-Croatian)
why/WHAT have get up so early
'Why did you get up so early?'

Ochi points out that these secondary wh-adjunct WHAT questions are true questions and not rhetorical questions because they can appear as the complements of verbs that select for interrogative clauses.

(33) a. Ich frage mich, was Hans so gestresst ist. (German)
I ask myself WHAT Hans that stressed is
'I wonder why Hans is so stressed.'

b. Nem tudtuk hogy mit ulsz itt. (Hungarian)
not knew-1pl that WHAT sit-2sg here
'We didn't know why you're sitting here.'

c. Zanima me zašto/šta se Ivan pokunjio. (Serbo-Croatian)
it-interests me why/WHAT self Ivan got-depressed
'I would like to know why Ivan got depressed.'

Further, neither the WHAT or *why the hell* adjuncts are identical in meaning to *why*. In use they both carry what Ochi calls an 'emotional connotation' in which the speaker is emotionally affected in some way.

The next relevant properties of WHAT are their abilities to be construed long distance, occur with multiple wh-questions, and their ability to induce quantifier scope ambiguities. The acceptability of long distance construal with cross-linguistic WHAT adjuncts in shown in examples (34) to (36). Each example in the data shows an ambiguous *why* questions and a non-ambiguous WHAT question.

(34) German

a. Warum glaubst du, daβ er so lange schläft? (ambiguous)
why believe you that he so long sleeps
'Why do you believe that he sleeps so long?'

b. Was glaubst du, daβ er so lange schläft? (matrix only)
WHAT believe you that he so long sleeps
'Why do you believe that he sleeps so long?'

(35) Hungarian

a. Kati miert gondolta hogy fenyegeted a gyerekeket? (ambiguous)
Cathy why thought that threaten-2sg the kids-acc
'Why did Cathy think that you are threatening the kids?'

b. Kati mit gondolta hogy fenyegeted a yerekeket? (matrix only)
Cathy WHAT-Acc thought that threaten-2sg the kids-acc
'Why did Cathy think that you are threatening the kids ?'

(36) Serbo-Croatian

a. Zašto Petar tvrdi da se Ivan pokunjio? (ambiguous)
why Peter claims that self Ivan got-depressed
'Why does Peter claim that Ivan is depressed ?'

b. Šta Petar tvrdi da se Ivan pokunjio? (matrix only)
WHAT Peter claims that self Ivan got-depressed
'Why does Peter claim that Ivan is depressed ?'

The unacceptability of WHAT interrogatives in multiple wh-questions is shown in examples (37) to (39). For these examples I have distilled Ochi's data down to the minimum relevant examples, for the full set of data which represents other possible word orderings see Ochi (2004:37).

(37) Wer schläft warum so lange? (German)
who sleeps why so long
'*Who is sleeping why so long?'

(38) a. Ki miert fenyegeti a gyerekeket? (Hungarian)
who-Nom why threatens the kids
'Who is threatening the kids why?'

b. *Ki mit fenyegeti a gyerekeket?
who-Nom WHAT-Acc threatens the kids

(39) Ko se zašto pokunjio? (Serbo-Croatian)
who self why get-depressed
'*Who is depressed why?'

WHAT in German and Serbo-Croatian also shows a lack of quantifier interactions. Ochi notes that this property of secondary wh-adjuncts is not found in Hungarian for independent reasons.

(40) German

a. Warum seid ihr alle gestresst? (ok pair-list)
Why be-2nd.pl you-2nd.pl all stressed
'Why are you all stressed?'

b. Was seid ihr alle gestresst? (*pair-list)
WHAT be-2nd.pl you-2nd.pl all stressed

(41) Serbo-Croatian

a. Zašto je svako toliko nervozan danas? (why > every, every > why)
why is everyone so nervous today
'Why is everyone depressed today?'

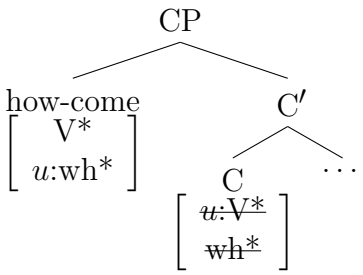
b. Šta je svako toliko nervozan danas? (why > every, ??every > why)
WHAT is everyone so nervous today?

Finally, Ochi argues that WHAT is a phrasal element in CP because anything to the left of the verb in V2 languages like German are assumed to be in CP. Moreover, the Hungarian version of WHAT or *mit* always appears bearing case, and complementizers do not bear case.

#### 5.3.3.3 The syntax of secondary wh-adjuncts

According to Ochi (2004), *how come* along with WHAT and *what the hell* each behave as a unit and are merged in spec CP. *How come* differs from *why* and other wh-words in that its strength is argued to co-vary with the strength of the interrogative head in a given language. That is, if C in a given language has strong uninterpretable features then *how come* and WHAT should also have strong uninterpretable features. For instance, in English the interrogative head C is argued to have a strong uninterpretable wh-feature, in turn *how come* also is argued to have a strong uninterpretable wh-feature. All aspects of *how come*'s behavior are captured via the requirement that it also checks the strong V feature of C. These mechanisms also capture the behavior of secondary wh-adjuncts as well. In the partial derivation below, I show how *how come* is merged into spec-CP along with the requisite feature specifications.

(42)

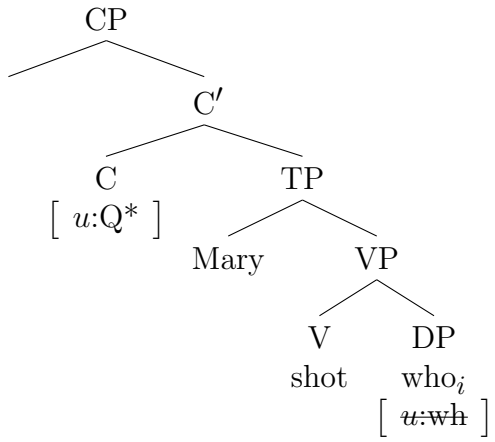



The strong feature on the wh-phrase *how come* ensures that the distribution of *how come* is constrained as opposed to *why*. Ochi finds that these patterns are replicated with aggressively non-d-linked wh-phrases like *why the hell* and with what he terms secondary

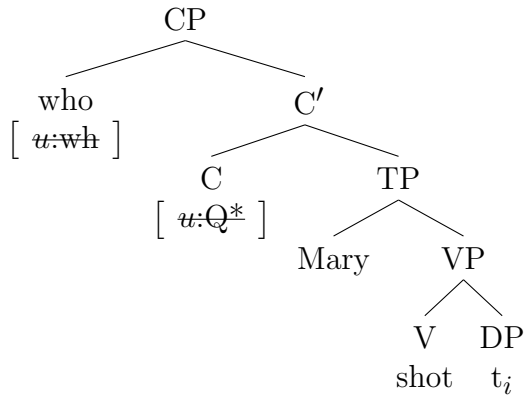
adjunct phrases like HC cross-linguistically. In the next few paragraphs, I walk through the necessary theoretical assumptions which lead to the structure in example (42).

Ochi assumes that the familiar probe/goal system of feature valuation and the standard Chomskyan assumption that wh-phrases have an uninterpretable wh-feature which must be checked off against the interrogative head specifically C in English (Chomsky, 2000). Under such a system, agree establishes a long distance relation between the wh-phrase and C. This relationship values the uninterpretable wh-feature of the wh-phrase and the uninterpretable Q or question feature on C. The movement of the wh-phrase to the spec,CP is commonly attributed to the strong feature strength of the interrogative head. This is illustrated below for the embedded clause in the sentence *I wonder who Mary shot*.

(43)




(44)




Ochi amends this basic configuration with the following proposal.

(45) Amendment to feature strength
  a. A strong feature must be checked off...
    i. by the next operation and...
    ii. in a local configuration

(46) Amendment to the nature of wh-phrases
  a. Regular adjunct and arguement wh-phrases
    i. The strength of the wh-feature is [-strong].
  b. Secondary adjunct wh-phrases
    i. The strength of the wh-feature is [$\alpha$ strong] and co-varies with the feature strength of the interrogative head for a given language.

Ochi argues that secondary wh-adjuncts are specified as [+strong]. As such, the feature must be checked off in the next operation and in a local configuration. This essentially bars *how come* from being merged anywhere but in the specifier of CP. Merger of *how come* in any position in the derivation which is not a local configuration of CP would lead to an unacceptable derivation.

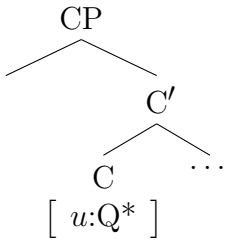
From these assumptions, Ochi derives all of the constraints on the syntax of *how come* and the other secondary wh-adjuncts. Consider the standard assumptions about the features and their strength along with Ochi's amendments to those assumptions below.

(47)

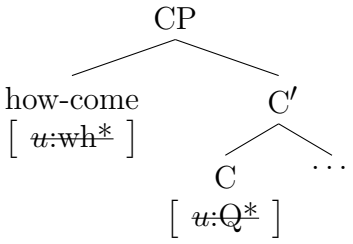
| | Chomsky (2000) | Ochi (2004) |
|---|---|---|
| Interrogative H | $C_{[u:Q^*]}$ | $C_{[u:Q^*]}$ |
| primary wh-phrases/adjuncts | $who/why_{[u:wh]}$ | $who/why_{[u:wh]}$ |
| secondary wh-adjuncts | | $how\ come_{[u:wh^*]}$ |

Thus we are left again with the structure from the beginning of this section with a very similar featural configuration. The lack of long distance construal is ruled out straightforwardly by the fact that *how come* can only be merged directly into spec,CP.

(48) a.




b.

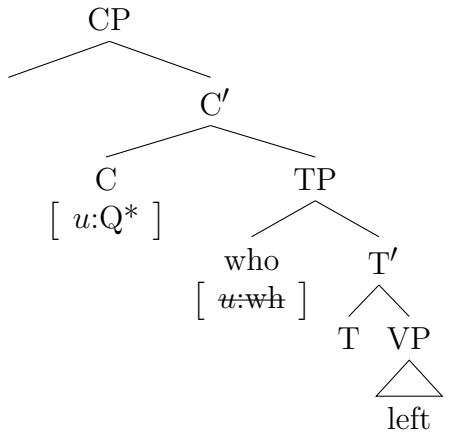



If *how come* were to be merged in a lower argument position then, by Ochi's amendment to feature strength and the assumption that secondary wh-adjuncts have a strong uninterpretable wh-feature, the derivation would crash directly after merge. Under either Chomsky's or Ochi's system, wh-phrases originating outside of CP must first agree with a higher interrogative head and then move into a spec-head configuration as a result of the strong feature on that head. This option is not available in the case of secondary wh-adjuncts. *How come* requires that its strong features be satisfied upon merge, and the only way to achieve this is by direct merger into the specifier of CP.

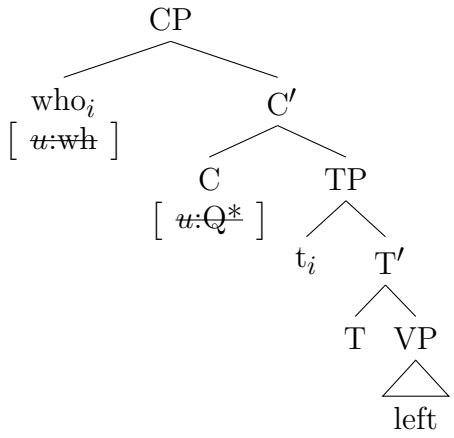
The lack of interaction with quantifiers falls out from similar assumptions. Because *how come* is only mergable in the specifier of CP, it has no trace which quantifiers may scope over.

The ban on *how come* in multiple wh-questions falls out from the strict constraint on possible merge sites imposed by the strong features on both C and the secondary wh-adjunct. I turn to Ochi's explanation. Take the phrase *I wonder who left.* The embedded portion of this sentence has the following structure.

(49)

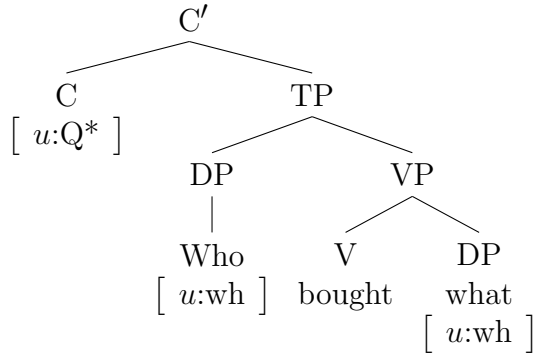



(50)




This illustrates how normal wh-movement works under Ochi's system. Crucially, the wh-word *who* has a weak uninterpretable wh-feature and the derivation proceeds as normal. Regular multiple wh-word phrases work in a similar fashion. Consider the derivation of the phrase *Who bought what?*.

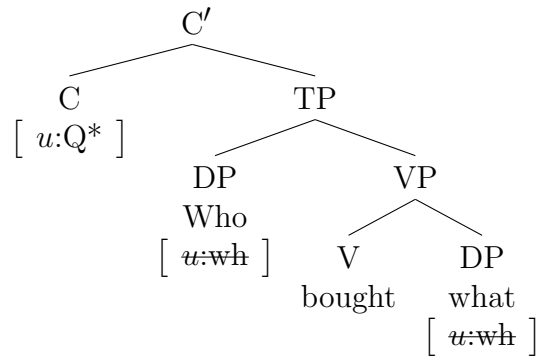
(51)



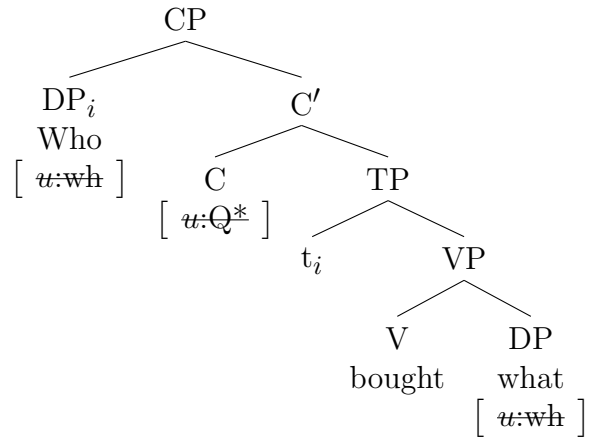

At this point in the derivation the uninterpretable question feature on C will probe into the derivation and agree with both wh-words in (52). Next, the strong uninterpretable question

feature on C requires that some wh-word satisfies its uninterpretable features directly in a local spec-head relationship shown in (53).

(52)




(53)

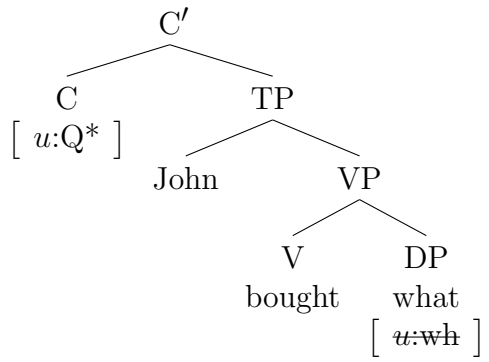



All features are checked and the derivation may converge.

The crucial case for us is found in the unacceptable derivation of **How come John bought what*. I will adopt Ochi's examples directly. At the point where C is merged two things might happen, (i) either C agrees with the embedded wh, in which case *how come* can not be merged without causing the strong feature of C to not be checked of in the next step of the derivation, or (ii) *how come* is merged satisfying the strong features both on *how come* and C, leaving the wh-features on the embedded wh-phrase unvalued.

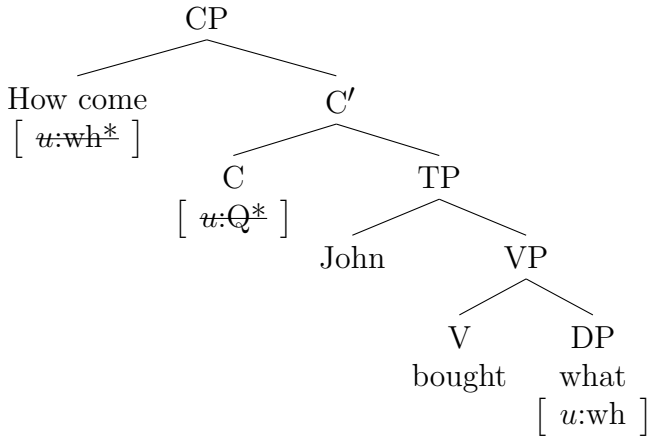
Following Ochi's reasoning, let's consider the first case. Consider the derivation of **How come John bought what* at the point where C is merged with TP. In example (54), C has agreed with the wh-feature of the embedded wh-phrase as indicated by strike-out on the feature.

(54) *




With regards to the constraints imposed by the strong Q feature on C, if the next operation does not involve movement of the embedded wh-word to spec,CP then the derivation will crash. As for the second case, if we were to merge *how come* as in example (55), the wh-feature on the embedded wh-word remains unvalued and crash the derivation.

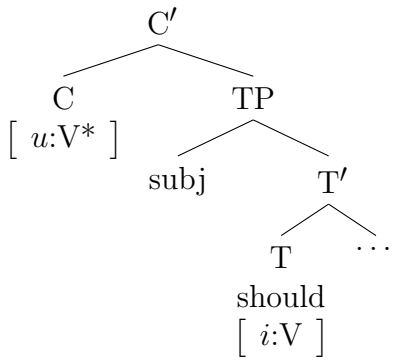
(55) *



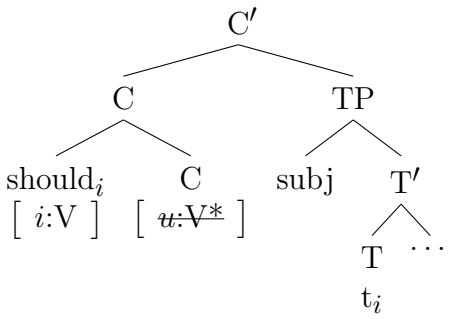

#### 5.3.3.4 Accounting for the lack of auxiliary inversion

Ochi's assumptions thus far do not account for the fact that *how come* fails to trigger subject auxiliary inversion. Ochi theorizes that subject/auxiliary inversion is the result of a strong uninterpretable V feature on C. Thus in the case of normal cases of subject/aux inversion, C has attracted the closest V feature in the derivation; specifically, those contained on T. This is illustrated below.

(56) a.

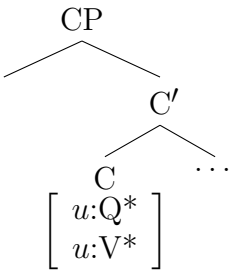



b.

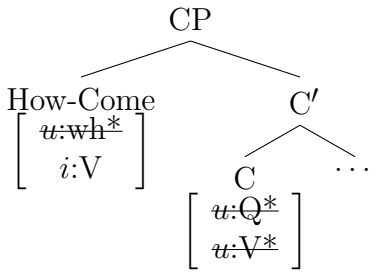



With regards to *how come*, he speculates that the combined word *how come* has properties not only of wh-phrases but of verbs as well. Thus if *how come* is in the specifier of CP the local spec-head relationship would suffice to satisfy the strong V feature of C. *How come* checks off two features of the interrogative head: a strong V feature as well as the strong Q feature. Thus we can update the features on the structural representation of the insertion of *how come* in example (48) below in example (57).

(57) a.




b.




Thus Ochi's analysis accounts for all of the properties of finite *how come* in English and sets them equal in behavior to *what* phrases in other languages and *why the hell* phrases in English.

#### 5.3.3.5 The issue of finiteness

An extension of Ochi's analysis to Appalachian English is unsatisfactory for two main reasons. First, such an extension does not provide any further explanation about how the syntax differentiates between the finite and non-finite forms of *how come*. Second, it fails to predict the unacceptabiligy of non-finite *how come* in Standard English. To be fair, no one could

have expected Ochi's analysis to account for non-finite *how come* to without knowledge of it.

For the sake of argument, consider a straightforward extension of Ochi's analysis to non-finite *how come* through the addition of the necessary features to *come*. Such an analysis requires that there are two lexical items *how come* and SAE speakers have the finite version while AppE speakers have the non-finite version. Moreover, the secondary wh-adjunct analysis fails to explain why non-finite *how come* is not available in Standard English in any principled way. Nothing about the Ochi's analysis constrains *how come* to being base generated solely in the specifier of finite C as opposed to non-finite C.

Ochi suggested that the ban on subject-auxiliary inversion is a result of the retention of a verbal feature on *come* in *how come*. This verbal feature would satisfy strong V features on T itself rather than have them satisfied by auxiliary inversion. Since we don't usually assume that specifiers are in the business of selecting the complements for phrases that they occupy, one might imagine that non-finite *how come* is a single syntactic unit and has whatever features are associated with root clauses in addition to this verbal feature. Such a configuration would only require that the unit *how come* has retained some c-selectional feature of the matrix clause which requires agreement with a non-finite C. At this point we should ask ourselves, what is the difference in stipulating a feature that grants clause selection properties and simply positing a type of reduced clause. I would argue that such a feature may only be justified by showing unequivocally that non-finite *how come* is a unanalyzable syntactic unit and is in fact not bi-clausal. Support for this claim even requires more evidence that we have previously seen, because as I will argue below, none hallmark properties of *how come* actually preclude a bi-clausal analysis.

This is exactly how this line of questioning is similar to the set of questions raised by restructuring predicates. Restructuring is concerned with clauses that were traditionally analyzed as two clauses behaving like one. Minimally, non-finite *how come* forces us to assume that the phrase *how come* contains features that license root phenomena and select for

embedded clauses. The case of non-finite *how come* seems to indicate that a phrase in what has been analyzed as a single clause seems to lend it the properties of two clauses. The main piece of evidence for this is that there is no evidence that English ever licenses independent matrix infinitives which are not root infinitives. Again framed by restructuring the question returns, what is the difference between a phrase which undoubtedly has matrix features and a syntactic unit which contains the necessary features to license root phenomena. For these reasons, I will argue that there is only ground to be gained by rejecting the secondary wh-adjunct analysis of non-finite *how come* and reviving a reduced clause analysis.

## 5.4 Analysis

The analysis has the following structure. First, I will discuss the basic properties of non-finite *how come* and show that it behaves like finite *how come* in addition to providing evidence that non-finite *how come* selects for a non-restructuring complement. Following discussion of the properties of non-finite *how come*, I will argue that a proper syntactic analysis of non-finite *how come* requires that we revive the bi-clausal or reduced clause analysis; a proposal with origins in Zwicky and Zwicky (1971). Revival of the bi-clausal analysis means that non-finite *how come* is not analyzable as a syntactic unit. Thus I will investigate the relevant properties of the matrix clause, including properties of *come*, the location of how *how*, and the general structure of the matrix clause. I will then use the proposed syntax to derive all of the core properties shared between finite and non-finite *how come*.

### 5.4.1 Properties of non-finite *how come*

Though we have seen analyses for finite *how come*, there are no syntactic analyses of non-finite *how come*. Oddly enough, we will see that the basic properties of these clauses seem to be the same; a fact which has its own implications for existing analyses of *how come*. Non-finite *how come* differs in behavior from *how come* only in finiteness. Both forms share

all of the core properties that have been described thus far in the previous literature on *how come*. With respect to restructuring, the infinitival-*to* complement of non-finite *how come* is just what it seems; a non-finite complement maximally headed by CP. This distinction is important for several reasons. It shows us that the complement is not a reduced complement and hence not a restructuring predicate under the mono-clausal approach followed throughout this work. It is also a necessary point to make in terms of distinguishing what appears to be a matrix infinitive and the host of properties and phenomena associated with root infinitives. With regard to the restructuring theme of this work, non-finite *how come* is of interest because I will show that it appears to be a reduced matrix clause. Given the fundamental assumption that restructuring is about reduced clauses, non-finite *how come* allows us to examine one possible configuration of a reduced matrix clause. This is important for theories of restructuring because they almost entirely focus on embedded clauses. In this analysis, I will revive the reduced clause approach based on the fact that non-finite *how come* appears to have clausal properties in that it can select for a non-finite clause.

#### 5.4.1.1 Non-finite *how come* behaves like finite *how come*

Non-finite *how come*, being comprised of a non-finite complement, does not exhibit subject auxiliary inversion. This is expected as infinitival-*to* never exhibits subject/aux inversion in English.

(58) a. How come them to leave?
b. * How come to them leave?

The sentences in example (58) show that it is unacceptable for infinitival-*to* to appear in a position consistent with the result T to C movement.

Like *how come*, non-finite *how come* does not exhibit long distance construal.

(59) How come John to say Mary left.
a. What is the reason for John's saying that Mary left.
b. * What is the reason that Mary left.

Notice that in example (59) non-finite *how come* can only be associated with the matrix clause and never the embedded clause.

Non-finite *how come* is not licensed in multiple wh-questions, while other wh-words may appear in multiple wh-questions.

(60) a. * How come John to eat what?
b. Who bought what?

Finally, non-finite *how come* does not exhibit scope ambiguities with quantifiers.

(61) How come everybody to hate John?
*What is the sole reason that everyone hates John?* WH > ∀
*What are all the reasons that each person hates John?* *∀ > WH

Crucially, only the collective interpretation is available under non-finite *how come*. The distributed interpretation is unavailable. In conclusion, non-finite *how come* shares these core properties with finite *how come*.

#### 5.4.1.2 Non-finite *how come* selects non-restructuring complements

Since I intend to revive what is essentially a bi-clausal analysis of non-finite *how come*, it is necessary to show that the embedded clause is actually a full non-restructuring clause. Showing that the embedded clause of non-finite *how come* is virtually identical to finite *how come* clauses, means that any possible explanation of the differences between *how come* and non-finite *how come* must be a difference in the syntactic structures represented by the phrase *how come* in both cases. The infinitival-*to* in the complements of non-finite *how come* clauses is not optional. Recall from the first chapter that in some restructuring complements AppE allows the insertion of an infinitival-*to* form which is the result of a default morphological rule and not the result of normal *to*-insertion on T. Keep in mind that the default infinitival-*to* is always optional.

(62) a. How come them to leave?
b. * How come them leave?

Thus verbs embedded under non-finite *how come* are not reduced in a restructuring sense. At this point, evidence suggests that they are at least headed by T.

As we would expect, sentential negation is available and is licensed by T. Application of the previously used *not even a little* continuation as a test for sentential negation shows us that sentential negation is available.

(63) a. How come them not to leave? AppE
How come they didn't leave? SAE
b. How come her not to drink this whiskey? AppE
. . . not even a little.
c. How come she didn't drink this whiskey? SAE
. . . not even a little.

For the sake of clarity of distinction between sentential negation and constituent negation, compare the judgments above with non-sentential negation presented below.

(64) How come her to not drink one shot but two?
# . . . not even a little.

Further evidence of a tense layer is found in the presence of expletive subjects. These subjects are in fact possible as the subject of non-finite *how come* clauses.

(65) How come there to seem to be a problem?

Finally, complementizers are marginally acceptable with non-finite *how come* in AppE. This suggests that non-finite *how come* occurs to the left of a complementizer located in C.

(66) ? How come for him to drink all my bourbon?

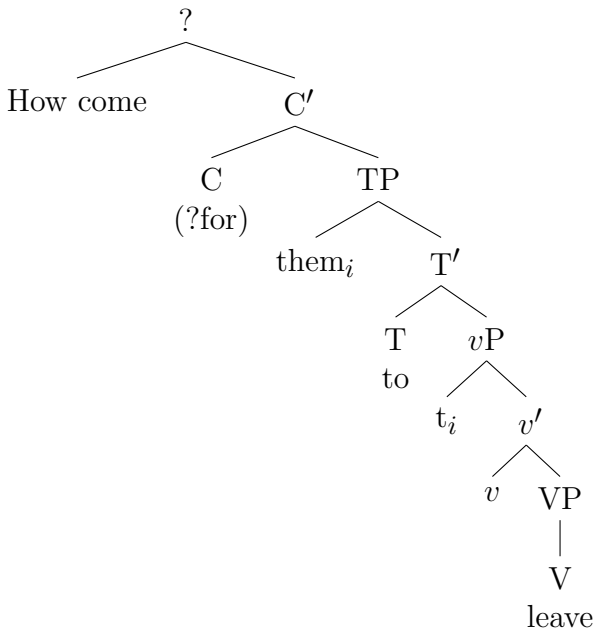
Based on the data in this section it is rather clear that the complement of non-finite *how come* is a non-restructuring complement in the sense of Wurmbrand (2001).

### 5.4.2 The syntax of non-finite *how come*

Combining the findings of the previous two sections leaves us with the following tentative structure in example (67). It reflects the notion that non-finite *how come* clauses are non-

restructuring. They are headed by a CP. This indicates that the phrase *how come* appears in some capacity at the left edge.

(67)




Moving beyond this tentative structure, I will argue piece by piece for one possible structure for the matrix clause of non-finite *how come* sentences. Non-finite *how come* is analyzed as a reduced matrix clause which licenses a non-finite CP complement. This analysis is primarily supported by the fact that when *how come* takes a non-finite clause in Appalachian English it must have root properties in addition to verbal properties. I propose a vestigial V2 syntax as a base for the possibly reduced structure that non-finite *how come* has now. This will account for its peculiar form. Such an analysis is compatible with all properties shared between finite and non-finite *how come* while simultaneously predicting the lack of intervening auxiliaries. I ultimately believe that non-finite *how come* as it exists today in Appalachian English is indicative of an earlier stage of grammaticalization on a trajectory somewhere between a full phrase and a single lexical item. As such, it provides unique insight into the properties of reduced matrix clauses. It also accounts for preliminary evidence that non-finite *how come* is in fact separable as compared with finite *how come*.

#### 5.4.2.1 Reviving the reduced matrix clause analysis

Before we can successfully begin to posit a syntax for non-finite *how come*, it is necessary to make some assumption about the phrase that it is reduced from. I will assume, based on intuitions of native speakers who were asked to elaborate on non-finite *how come*, that the non-finite *how come* phrase in example (68) is reduced from something like the sentences in examples (68a) and (68b).

(68) How come them to leave.
   a. How did it come for them to leave.
   b. How came it for them to leave.

I have included example (68a) as a more modern paraphrase of the sentence in example (68b) which I believe is most probable origin phrase for non-finite *how come* clauses. For the rest of this section, I will assume that non-finite *how come* is a reduction of example (68b) which I take to be an example of verb second *come*. This assumption will allow us to account for the general covertness of the complementizer *for*, as well as the lack of auxiliaries. Further, a V2 syntax provides the possibility that the lack of overt subjects in the matrix clause is linked to null expletives in older Englishes.

#### 5.4.2.2 Case assignment and the embedded subject

Recall the introductory data in example (69).

(69) a. How come him to leave the party?
   WH 3s.acc inf leave the party
   'How come he left the party?'
   b. * How come he to leave the party?

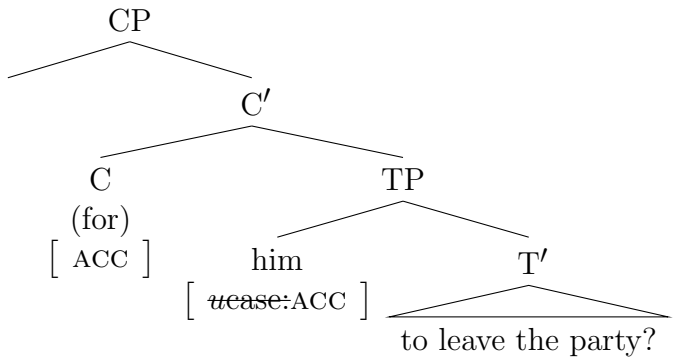
Note that accusative case on the matrix subject is required.

(70) * How come he to leave the party?

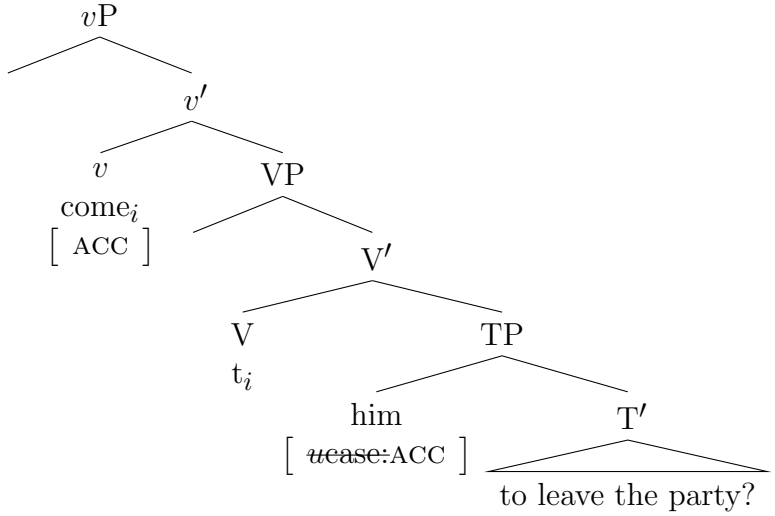
From the requirement of accusative case on the subject of non-finite *how come* clauses we can infer case assignment from a higher head. Under common minimalist assumptions

accusative case is either assigned clause internally by $C^0$ or by matrix $v$. Thus we begin our investigation with two possible options for accusative case assignment in non-finite *how come* clauses. The case assigning head has implications for the structure of the matrix clause.

(71) a.




b.




In example (71a), case is assigned from C to the embedded DP in subject position, while example (71b) illustrates ECM or exceptional case marking from matrix $v$. In what follows, I show that subjects of non-finite *how come* are not receiving accusative case from matrix $v$ but rather from C which contains null *for* as in Martin (2001)

#### 5.4.2.3 Properties of *come*

*Come* appears in various syntactic distributions and has many peculiar properties. It appears as a raising verb, it has vestigial verb second forms, an unaccusative usage, and it may appear as an semi-functional restructuring verb. However, *come* never assigns accusative case. If

we make the reasonable assumption that the lexical item *come* in non-finite *how come* is related to at least one of the other types of *come* then accusative case assignment must be somewhat independent of the verb itself. Thus, example (71a) where case is assigned by C, is the only possible case assignment configuration for non-finite *how come*.

The example below shows that *come* behaves identically to canonical raising verbs *seem*. As a raising predicate *come* does not assign accusative case.

(72) a. There seemed to be a problem around the house.
b. He seemed to be a problem around the house.
c. * Him seemed to be a problem around the house.

(73) a. There came to be a problem around the house.
b. He came to be a problem around the house.
c. * It came him to be a problem around the house.

Notice that just like the raising verb in example (72), the verb *come* in example (73) licenses expletive *there* and only licenses nominative case. This indicates that it does not assign a theta-role to its external argument and that the internal argument receives nominative case from matrix $T^0$.

Vestigial verb second *come* never appears with pronouns regardless of their case in either Standard American English or Appalachian English.

(74) Here comes the bourbon/*him/*he/*it!

Moreover, only the nominative pronouns are possible with the non-V2 variants of these sentences. This is what we would expect of an unaccusative verb.

(75) a. Here he/*him comes!
b. There she/*her goes!

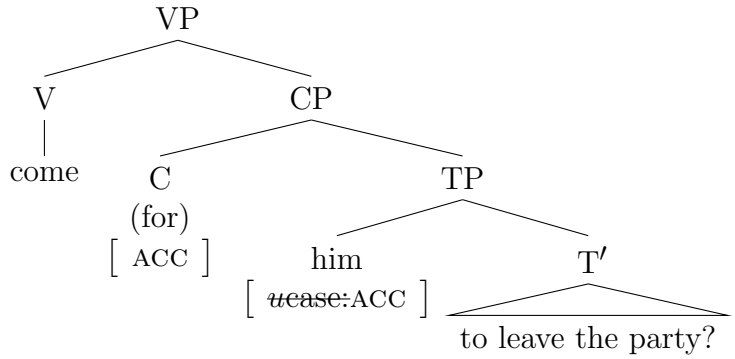
Finally, aspectual *come* never seems to take internal arguments (see Wurmbrand, 2001), though the verb directly under it may.

(76) a. You should come drink with us!
b. * You should come this time drink with us!
c. You should come drink it with us!

Assuming there is a similarity between come in non-finite *how come* and other types of the verb *come*, accusative case licensing is not a property of the reduced matrix clause in non-finite *how come* constructions. It is a property of the embedded clause itself. This is consistent with the body of data which shows *come* is now a raising predicate in both dialects and that accusative case is not assigned by the matrix verb. This however does not preclude different instances of *come* from selecting a case assigning C head or not.

Taking the case assigning properties of *come* in English into account, the verbal shell of non-finite *how come* with its complement is as follows. Note that since there is no evidence for a case assigning $v$P in these clauses, I will omit it completely for simplicity.

(77)




#### 5.4.2.4 Verb second and null expletives

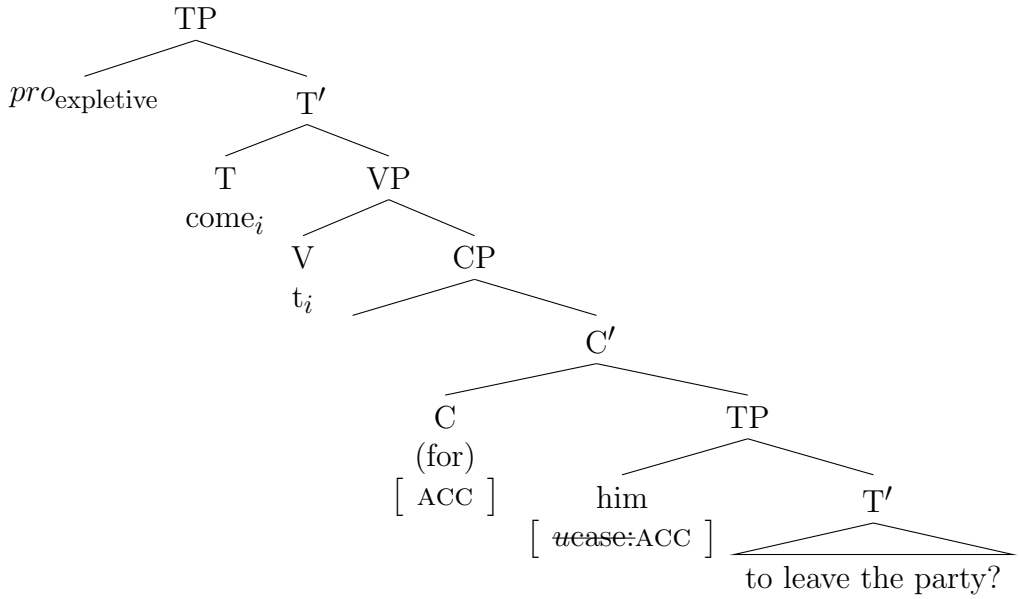
There is one particular state of affairs found in the history of English that simultaneously explains the lack of auxiliaries and the apparent lack of a matrix subject in non-finite *how come* sentences. Verb second phenomena seemed to be intrinsically tied to the ability of the grammar to license null expletives (Haeberli, 2002). Haeberli also notes that according to Hulk and van Kemenade (1995; 1997) the loss of empty expletives coincides with the loss of Old and Middle English type V2. Thus it is not so far a reach to claim that if a language retains some relic V2 structures, we might expect them to also retain null expletives in those structures as well. Finally, the converse of Haeberli's proposal that the loss of V2 in English is dependent upon the loss of null expletives would mean that the presence of a null expletive subject in so far as it was retained in any modern English dialect should tend to require V2

ordering. I argue that this is exactly what we see with non-finite *how come*.

This claim is tentative and given the fact that this is not a work of historical linguistics, I do not intend for it to be the definitive structural analysis of non-finite *how come*. Rather, I intend to make some connections about the possible nature of the subjects of non-finite *how come* to historical work which supports the analysis provided here, especially given the mounting evidence which supports a bi-clausal analysis and the confounding opacity of *how come* forms.

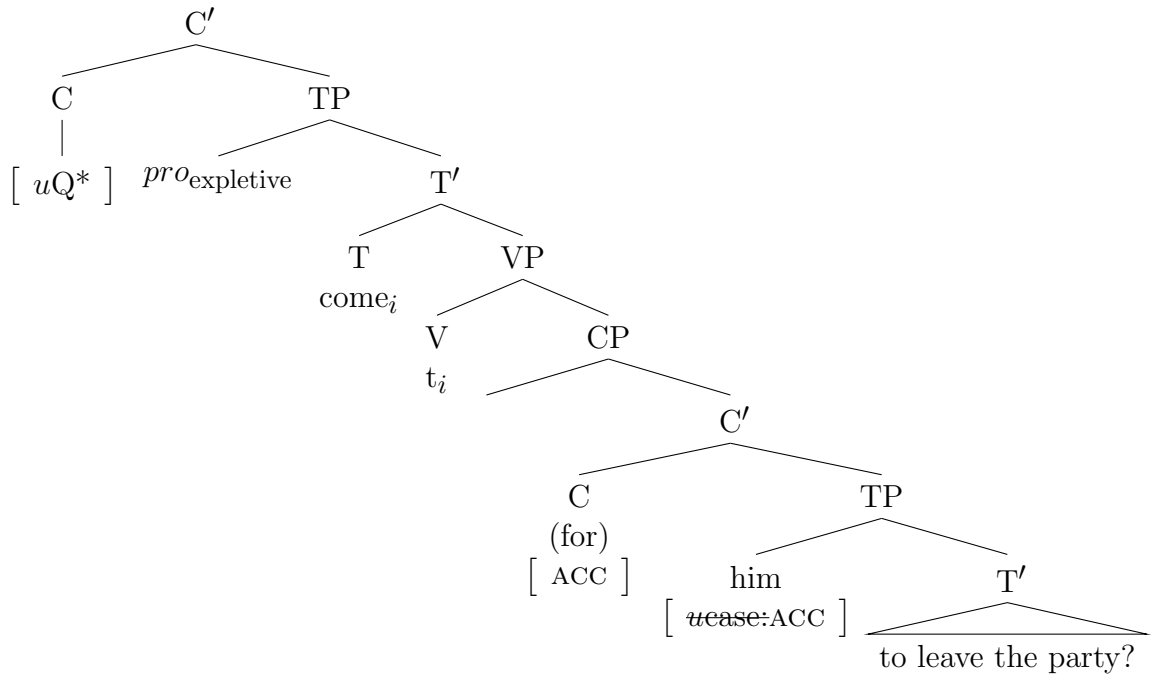
This aside, assuming null expletives, the next logical step is to add a TP to our structure which will provide matrix tense and house the expletive subject.

(78)



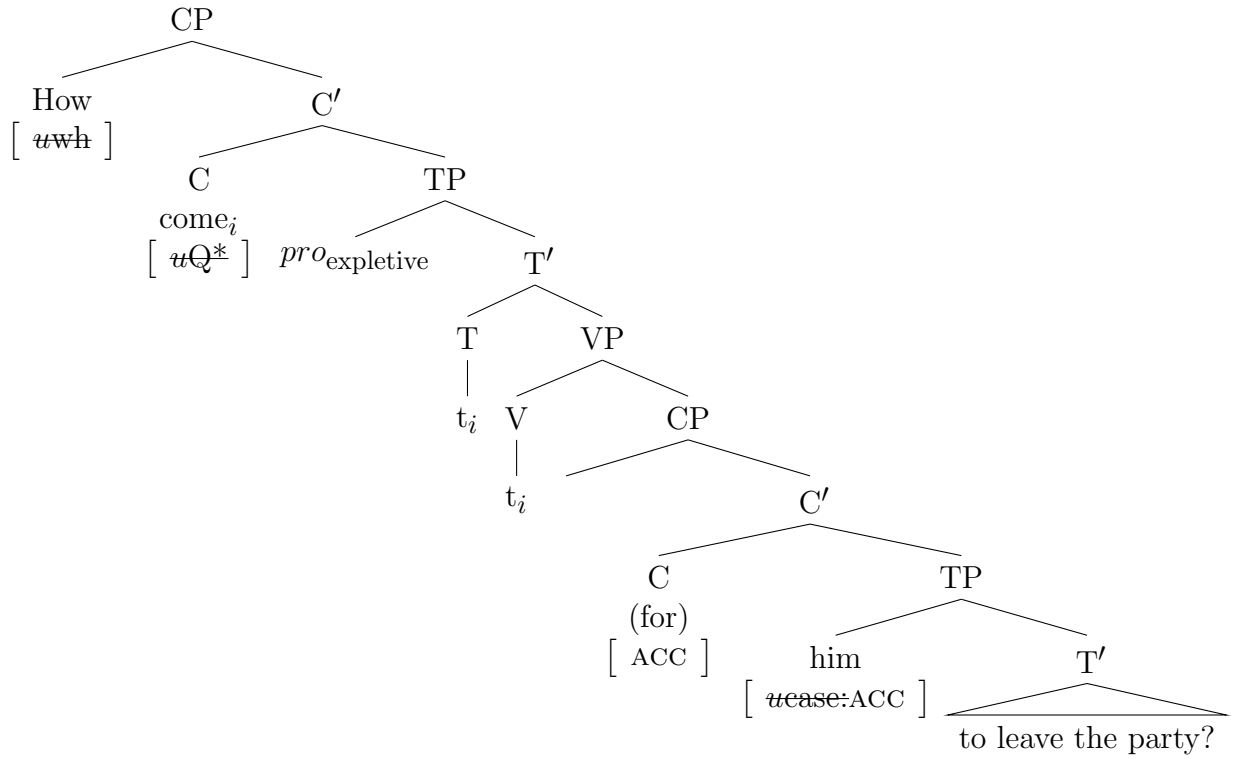

Assuming this null subject designating this structure as one which exhibits relic verb raising accounts for the fact that no auxiliaries intervene between *how* and *come*. Next, the interrogative head C is merged.

(79)




Finally, the wh-word *how* is merged in the spec,CP to satisfy the Q feature on C and the wh-feature on *how*.

(80)




As I mentioned, it is entirely possible that the actual structure of non-finite *how come* is a reduced form of this clause. One could imagine that whatever its structural interpretation

some or all of the derivationally opaque movements, heads, or features found in this structure have undergone reanalysis and no long exist in such a highly articulated form.

#### 5.4.2.5 The location of causal *how*: evidence from Chinese

Tsai (1999) shows that use of Chinese *zenme* 'how' in a sentence only results in a question about causation when it is base generated above T. Since, *how* of non-finite *how come* is not analyzed as a single lexical item under my analysis, it is necessary to provide some evidence that it should only be merged in CP given that it always results in a question about causation.

Consider Tsai's data from Chinese. In example (81), *zenme* is interpreted as asking about the manner or way in which the eventuality proceeded.

(81) a. Akiu zenme zou?
Akiu how leave
'By what means/way will Akiu leave?'
(Answer: by bus, by interstate 15, etc.)
b. Akiu (pingchang) zenme shuijiao?
Akiu usually how sleep
'With what style does Akiu (usually) sleep?'
(Answer: faceup, facedown, on one side, etc.)

However, when perfective aspect is added to the predicate, the manner/style reading dissappears and *zenme* may only be interpreted as causal. This is consistent with Tsai's eventual analysis where he argues that when *zenme* unambiguously appears to the left of elements which modify T they are consistently interpreted as being causal.

(82) a. Akiu zenme zou-le?
Akiu how leave-Prf/Inc
'Why has Akiu left?'
b. Akiu zenme shuijiao-le?
Akiu how sleep-Prf/Inc
'Why has Akiu slept?'

This basic difference is also supported by the fact that causal *zenme* scopes over modal verbs and sentential adverbs and manner *zenme* scopes under those same sentential elements. For

the sake of clarity and succinctness, I will only show the distinction using modal verbs but Tsai (see 1999:pp 4-10) for an exhaustive list and explanation of the data.

(83) Akiu zenme hui/bixu/neng/keyi/yinggai zou?
Akiu how will/must/can/may/should leave

a. # 'By what means will/must/can/may/should Akiu leave?'
b. # 'With what style will/must/can/may/should Akiu leave?'
c. 'Why would/must/can/may/should Akiu leave?'

(84) Akiu hui/bixu/neng/keyi/yinggai zenme zou?
Akiu will/must/can/may/should how leave

a. 'By what means will/must/can/may/should Akiu leave?'
b. # 'With what style will/must/can/may/should Akiu leave'
c. # 'Why will/must/can/may/should Akiu leave?'

Tsai also notes that these distinctions also hold for the Chinese lexical item *weishenme* 'why' as well. Therefore, if non-finite *how come* is truly bi-clausal it seems likely that *how* is merged in spec,CP. This is also supported by the fact that *how* in non-finite *how come* only ever exhibits a causal interpretation.

### 5.4.3 Deriving the core properties

A clausal analysis of non-finite *how come* captures all of the core properties that have been mentioned in the previous literature on *how come*. Interestingly, this indicates that we need some principled way by which we can differentiate the two forms and the fact that some dialects simply do not allow non-finite *how come*. Recall that finite and non-finite *how come* share all properties except finiteness, this includes the ban on long distance construal, multiple wh-questions, and quantifier scope ambiguities.

First, consider the case of long distance construal. Neither non-finite *how come* nor *how come* exhibit ambiguity in terms of whether they may be construed with the matrix or embedded clause, while *why* does exhibit this ambiguity.

(85) a. How come John to say Mary left the party.
b. How come John said Mary left the party.
c. Why did John say Mary left the party.
i. What are the reasons for John's saying? *why/how come*
ii. What are the reasons for Mary's leaving the party? *why/*how come*

As I will show below, this property is instantly explained for non-finite *how come* under the reduced clause approach. Under this assumption, non-finite *how come* is a tensed matrix clause which selects for an infinitival complement.

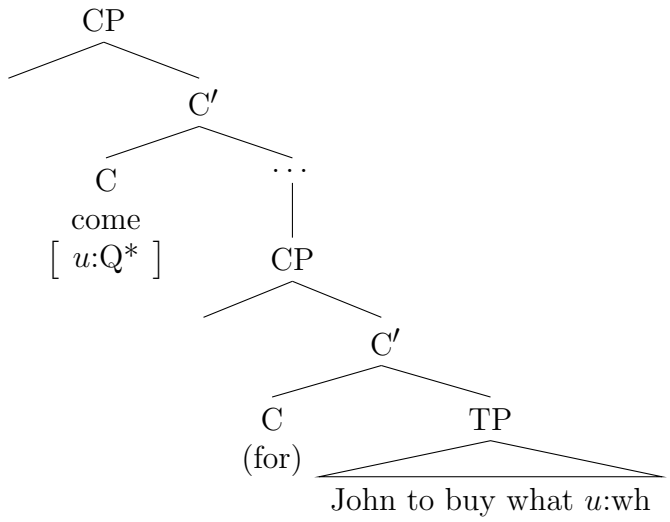
(86) [$_{CP}$ How come [$_{CP}$ John to say [$_{CP}$ Mary left the party]]].

This accounts for the fact that it may be base generated along with its infinitival complement under another finite clause or appear as a root clause, just as a normal tensed clause would.

(87) a. How come Mary to say Bill left.
b. John wondered how come Mary to say Bill left.
c. Mary left.
d. John said Mary left.

Once we conceive of non-finite *how come* as constituting a separate clause, the reason for the ban on multiple wh-questions becomes apparent. Although the matrix clause in non-finite *how come* is interrogative it never selects for an interrogative complement. In effect, the same logic that was used to account for the ban on multiple-wh questions with finite *how come* is applicable to the ban on multiple wh-questions with non-finite *how come*. Reconsider the case of the unacceptable *How come John bought what*, in light of the bi-clausal approach. In the following structure, I have omitted the functional structure of the matrix clause between the two CPs for the sake of space.

(88)




Since only the matrix clause is interrogative the only possibility for the embedded wh-word to satisfy its wh-feature lies with the matrix CP. However, just as Ochi explained for finite *how come* there are two possible options for proceeding and both of them crash the derivation. If the matrix C probes down the tree to establish an agree relation with the embedded wh-feature and triggers wh-movement in order to satisfy said features in a local relationship, the result is a wh-argument question and not a wh-adjunct question because *how come* is left in the numeration. On the other hand, if we arrive at the stage in the derivation depicted in example (88) and merge the adjunct *how* directly in spec,CP then the wh-feature on the embedded wh-word is left unsatisfied and crashes the derivation. Keep in mind though that for normal multiple wh-word questions like *Who bought what*, I follow Ochi in assuming that probe from C will simultaneously match all uninterpretable wh-features which exist in the derivation. The crucial piece of timing in Ochi's analysis must still apply.

Quantifier scope ambiguities also fall out of a bi-clausal analyis. Recall that sentences such as example (89) exhibit quantifier scope ambiguities with *why*. Example (90) shows that non-finite *how come* does not exhibit those ambiguities.

(89) Why does everyone hate John.

| | |
|---|---|
| *What is the sole reason that everyone hates John?* | WH $>$ $\forall$ |
| *What are all the reasons that each person hates John?* | $\forall$ $>$ WH |

(90) How come everybody to hate John?

WH > ∀
*∀ > WH

This fact is explained because the quantified argument originates in the embedded clause and *how* of non-finite *how come* is base generated in the specifier of the interrogative matrix CP. There is simply no way for the quantifier to scope over any position in the matrix clause.

To sum up, a reduced clause approach to non-finite *how come* allows us to account for all of the core properties that *how come* and non-finite *how come* share under the assumption that *come* in non-finite *how come* selects for a *for-to* complement.

#### 5.4.3.1 Evidence for the reduced root clause analysis

One nagging question remains. If non-finite *how come* truly constitutes its own clause why are intervening elements generally disallowed? To rephrase the critique of the reduced clause analysis mentioned in Collins (1991) why can the modifier *else* which is generally allowed to modify *how* not modify it in the case of *how come*? I argued above that the unique requirement of verb raising was enough to preclude any modal or aspectual auxiliaries in non-finite *how come* cases but what about *how else*? It is worth noting that examples (91) and (92) illustrate that *how else* is not used for questioning causation and as such it is possible, following Tsai (1999), that *else* only modifies manner *how* which originates below TP.

(91) How else did they drink the whiskey?
  a. * Because John made them.
  b. ...Like a bunch of jerks.

(92) How else did they leave?
  a. * Because the room was to smoky.
  b. ...Through the back door as well.

Thus we would not expect for *else* to be able to intervene between either finite or non-finite *how come*.

I would like to offer one piece of evidence in support of the reduced matrix clause analysis. There seems to be a distinction between finite and non-finite *how come* in terms of whether they allow secondary adjunct-like forms.

(93) a. * How the hell come they left?
b. How the hell come them to leave?
c. * How the fuck come they left?
d. How the fuck come them to leave?

Assuming this distinction between the two forms would indicate that finite *how come* is a single syntactic unit but that non-finite *how come* is not. As such the secondary wh-adjunct analysis would still apply to finite *how come*, and the reduced clause analysis would apply to non-finite *how come* especially since non-finite *how come* may itself occur with secondary wh-adjuncts.

## 5.5 Conclusion

In this chapter, I have analyzed the syntax of non-finite *how come*. The analysis indicates that non-finite *how come* is a bi-clausal structure because it exhibits root properties and licenses a non-finite embedded clause. I have argued that the matrix clause portion of non-finite *how come* sentences is a V2 relic which contains an expletive *pro* subject. This analysis not only accounts for the constrained form of the matrix clause but also accounts for the fact that finite and non-finite *how come* share all properties except finiteness. Finally, I offered some evidence from secondary wh-adjuncts to support my claim that the matrix clause of non-finite *how come* clauses is truly a clause.

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