The Would-Chuck Construction

Grace Teuscher

Follow this and additional works at: https://openscholarship.wustl.edu/undergrad_etd

Part of the Other Linguistics Commons, and the Syntax Commons

Recommended Citation
https://openscholarship.wustl.edu/undergrad_etd/59

This Unrestricted is brought to you for free and open access by the Undergraduate Research at Washington University Open Scholarship. It has been accepted for inclusion in Senior Honors Papers / Undergraduate Theses by an authorized administrator of Washington University Open Scholarship. For more information, please contact digital@wumail.wustl.edu.
WASHINGTON UNIVERSITY IN ST. LOUIS

Linguistics Program

The Would-Chuck Construction

By

Grace Teuscher

A thesis presented to
the Linguistics Program
of Washington University in
partial fulfillment of the
requirements for the degree
of Bachelor of Arts

May 2023
St. Louis, Missouri
Table of Contents

List of Figures .......................................................................................................................... iii

List of Abbreviations ................................................................................................................ iv

Acknowledgements .................................................................................................................. v

Abstract .................................................................................................................................. vi

1. Introduction .......................................................................................................................... 1

2. The Would-Chuck Construction ......................................................................................... 2

3. Theoretical Analysis ............................................................................................................. 6
   3.1 Elsman & Dubinsky’s “One Have” Analysis ................................................................. 6
   3.2 Elsman & Dubinsky’s “Two Haves” Analysis ............................................................... 17
   3.3 Two Underlying Aspectual Phrases ............................................................................. 22
   3.4 Have-Insertion Repair Operation .............................................................................. 25

4. Experiment ............................................................................................................................ 36
   4.1 Predictions ..................................................................................................................... 36
   4.2 Materials and Stimuli ................................................................................................... 37
   4.3 Participants ................................................................................................................... 37
   4.4 Procedure .................................................................................................................... 37
   4.5 Data Analysis & Discussion ....................................................................................... 39

5. Conclusion ............................................................................................................................. 45

References .................................................................................................................................. 46
List of Figures

Ratings of all targets .................................................................................................................40

Ratings of target 4.3 ..................................................................................................................40

Ratings of target 4.8 ..................................................................................................................42
List of Abbreviations

DMC Double Modal Construction

FCGJT Forced Choice Grammaticality Judgement Task

GJT Grammaticality Judgement Task

IRB (WashU) Institutional Review Board

WCC Would-Chuck Construction

*SAE Standard American English

SAI Subject Auxiliary Inversion
Acknowledgements

This thesis has been a labor of love during my senior year. It is a testament to my love for linguistics, and my support system’s love for me. Without them, none of this would have been possible. This thesis is for my dad, who is the best grammarian and worst syntactician I know. I would not have found my passion if we never fought so much about why it was totally fine for me to say “Me and mom are heading out”. Your mother, bless her soul, would turn in her grave if she ever heard me say “I will’ve should’ve pet the cat.” This thesis is for my mom, who was never more than a phone call away, and believe me, I called lots. For Oliver, who is convinced he knows everything he needs to about language, considering he’s been using it his whole life. I obviously don’t agree. For Alex, who proofread every “scary” email Matt had sent me with comments on my writing and continues to make everything seem less daunting. This is for Cowboy, who sat curled in my lap while I typed the very thesis you are about to read. For my advisor, Dr. Kristin Van Engen, who was the first person I talked to at WashU, who has welcomed me into her lab and let me discover first-hand how much I love research. This is for Dr. Nick Danis and Dr. Brett Hyde, who have either let me bring a cat or have themselves brought a hawk to class. For Kate, who stayed up with me until 3am, watching horrible movies and trying to convince each other that we could do this. Spoiler alert: we did! For Kiana, Jhade, Arden, Jackson, and London, who always teased me for being busy with this project, but supported me nonetheless. Now that this is done, chill relaxing pool day? This is for my mentor, Dr. Matthew Barros, who guided me, taught me, believed in me, and most importantly, trusted me, even when I didn’t trust myself. Matt, this has taught me how to challenge and push myself past what I thought possible. Thank you for showing me what I was capable of.

I wish I had the room to thank everyone who shaped this thesis, but I would mention everyone who I have met during my years at WashU. There are pieces of all of you in this work, and I will forever be grateful.

I am very young and I am learning how to live.

- Heather Havrilesky, Ask Polly:
  Help, I'm The Loneliest Person in The World!
In Standard American English sentences, only one modal verb is typically allowed. However, in certain varieties of English, most notably the Double Modal Construction, spoken mainly in the American South, more than one modal is allowed. This thesis provides a syntactical analysis of a currently under-researched construction—the Would-Chuck Construction. Here, four modal verbs are allowed in the English middle field: first is typically will, followed by the perfect have, which is then followed by another modal and another perfect auxiliary. This results in a sentence resembling “I will have should have pet the cat.” When the linear order of the modal verbs is interrupted (by either negation, contraction, adverbs, or Subject-Auxiliary Inversion, the first have fails to appear, resulting in a sentence like “Will I should have pet the cat?” or “I will absolutely should have pet the cat.” To fully account for the patterns observed, the underlying structure must have only one true Aspectual Phrase, which is inserted into the tree in order to prevent a distinctness violation from occurring. When any of the above instances occur, and the linear order of the modal verbs is interrupted, no violation of a distinctness condition occurs, and the first Aspectual Phrase is not inserted into the tree. A survey of 64 participants demonstrated that 10.94% participants accept at least one instance of the Would-Chuck Construction.
1. INTRODUCTION

1.1 BACKGROUND. In Standard American English (*SAE), one modal verb is allowed per clause, like in the sentence “I should have read the book”. This rule is rarely broken. One notable exception for this rule is the Double Modal Construction (DMC), which is has been extensively researched (Battistella, 1995a; Elsman & Dubinsky, 2009; Williamson, 2016). In this construction, two modal verbs can appear next to each other:

(1) We might could…

This construction is prevalent within Southern varieties of English (Huang, 2011), but this is not the only construction in American English that allows more than one modal verb in the middle field, or everything between the subject of the sentence and the main verb. There is currently an English modal construction that is under-researched. In this construction, a modal verb, typically will, is followed by the perfect have, which is then followed by another modal and another perfect auxiliary, creating an utterance like the one seen in (2). This is what I call the “Would-Chuck: Construction”.

(2) “He will have should have gone to the store”

Standard American English typically only allows one tensed verb per clause and places modal verbs exclusively as the head of a TP. The construction shown in (2) seemingly abandons both of these constraints, allowing for two tensed elements to occur (namely will and a preterite modal, typically should or could). While both aspectual

---

2 How many haves could a will have should have have if a will have could have should haves?
"haves are required in the declarative form, one disappears when the structure undergoes
ey any type of subject auxiliary inversion, demonstrated below.

(3) “Will he should have gone to the store?”

(4) “Never will he should have gone to the store.”

To my knowledge, there is no analysis, either for the DMC or in general, that can
account for the patterns seen in the Would Chuck construction. This paper aims to
accurately describe the Would Chuck Construction in all its complexities, and propose a
novel analysis that is able to account for these patterns elegantly.

2. THE WOULD-CHUCK CONSTRUCTION

In the Would-Chuck construction, two modal verbs are allowed in the middle
field, as long as they are separated, usually by the aspectual verb have. An example of
this can be seen in (1).

(1) She will have should have read the book.

The Would Chuck Construction is used to reference a point in the future where
you will be talking about the past. The example shown in (1) conveys the meaning that,
by a certain point in the future, the subject should have finished reading a book. The
Would-Chuck construction follows a very specific framework for what is allowed and the
order in which it must appear. The first modal verb is nearly always will, followed by the
aspectual verb have, followed by a modal verb, typically, should or could (although any
preterite modal is allowed), followed by another aspectual have, and finally, the main
verb phrase. When any of these items are excluded or omitted in the declarative form, the utterance becomes ungrammatical.

(2) a. *She will should have read the book.
   b. *She will have should read the book.

However, there are certain ways to make one of the *haves* superfluous. When any other word interrupts the two modal verbs, the first-pronounced *have* must be deleted. Because a word instead of *have* blocks the modals from neighboring each other, and prevents the *have* from occurring, I will call these *have-blocking* situations. This can be seen when an adverb is added to the middle field. The sentence is degraded when both the adverb and the aspectual *have* it is replacing are present, as demonstrated in (3):

(3) a. She will probably should have read the book.
   b. ?/*She will probably have should have read the book.
   c. *She will have probably should have read the book.

The second pronounced *have* cannot be replaced in this same process, and, contrary to the first modal/have pair, an adverb can follow the second *have*.

(4) a. *She will have should probably read the book.
   b. *She will have should probably have read the book.
   c. She will have should have probably read the book.

Adverbs are not the only part of speech that can render a *have* unnecessary. Like adverbs, sentential negation blocks the first have from occurring:
(5) a. She will not should have read the book.
   b. She will not have should have read the book.
   c. She will have not should have read the book

Contrary to the utterances seen in (3), which utilized adverbs to interrupt the modals, but could not contain both a modal and an adverb, negation can either wholly replace or occur after the first have. It can also appear in the second half of the middle field. Here, it can appear in any position, but cannot fully replace the second aspectual have:

(6) a. She will have should not have read the book.
   b. ??She will have should have not read the book.
   c. ??She will have should not read the book.

Finally, contraction of the first modal verb to the subject, can take place in the declarative and the first have becomes optional, as demonstrated in (7):

(7) a. She’ll should have read the book.
   b. She’ll have should have read the book.

When the declarative sentence is negated, contraction can still take place between the will and not. When this occurs, the have is again made omissible. However, it can still appear in the sentence without making the statement ungrammatical.

(8) a. She won’t should have read the book.
   b. She won’t have should have read the book.

---

2 Example (5c) can be improved by adding emphasis on the negation.
To account for these patterns, I argue that a Distinctness Condition violation (Richards, 2010) prohibits two modal verbs from appearing adjacently; in simple declarative sentences that contain no adverbs, negations, or contractions, Would-Chuck must contain the aspectual verb *have* in order to separate the two modal verbs, resulting in a sentence with *four* verbs in the Middle Field. Importantly, in this analysis, there are only *three* verbs present in the underlying deep-structure, which looks like (9).

(9) Deep Structure:

If this structure goes through Spell-Out (Chomsky, 1995) and is linearized without *have* intervening between *will* and *should*, (i.e., the linear, pronounced, order of the utterance is finalized), the two adjacent modal verbs give rise to a distinctness violation.

Richards’s Distinctness Condition prevents syntactically similar objects from appearing next to each other after linearization. Importantly, under this analysis - *will*
does not originate as the head of TP, as in order for the distinctness violation to occur, the
two modal verbs must have the same labels, in this case, V. In the tree seen in (9), \textit{will}
originates as the head of a VP, functioning as an auxiliary modal that undergoes head
movement to T.

3. Theoretical Analysis

3.1 Elsman & Dubinsky’s “one have” analysis. The Would-Chuck construction
shows many similarities to the more well studied and familiar Double Modal
Construction. Like the DMC, the Would-Chuck construction allows two modal verbs in
the middle field, however their underlying structure separates them into two distinct
nonstandard constructions of English. In this section, I discuss the proposal for DMCs in
Elsman and Dubinsky (2009), and demonstrate that their proposal does not extend to the
would-chuck pattern.

In Elsman and Dubinsky’s original analysis, the first modal verb is a polarity modal
(P-Modal) and the secondary one is a V-modal. Also unique to their analysis, is the fact
that, in the deep structure, the modal verb that occurs first in the spoken order is actually
preceded and commanded by the modal verb that occurs second in the spoken order
(demonstrated in (2a)). This analysis differs from the previous analyses of the DMC that
were incapable of accounting for various patterns present in the DMC, as previous DMC
analyses argue that there is truly only one tensed modal or that the entire double-modal
sequence acts as a single tensed unit (Battistella, 1995b; Paolo, 1989; Van Gelderen,
2003). One of the constructions that the Elsman-Dubinsky Analysis accounts for is the
pattern of Aspectual Affixation, seen in (1):
(1) a. He mighta should’ve gotten home by now. (Huang, 2011)

b. He will’ve should’ve gotten home.

The surface structure of (1a) and the surface structure of the Would-Chuck Construction in (1b) appear structurally similar, assuming that the ‘a is analyzed as an instance of have (Kayne, 1997). Both the would-chuck construction and the double modals in (1) allow the following pattern:

(2) “modal ‘ve/‘a modal ‘ve/‘a”.

However, their underlying structures could not be more different. Before dissecting the example shown in (1a), it’s important to understand the general framework of the Elsman & Dubinksy (2009) analysis, to see where the differences lie. In this analysis, the DMC functions as a complex head as the result of a transformation, as seen in (3).

(3) He might should eat that.
a. Deep Structure:

```
CP
 /   \
C'   \
   /   \  
  C    TP
 null  
  /  \  
 DP   T'  
   /  \  
  He T  VP
 null  
  /  \  
 V    PolP
  /  \  
 should    Pol'
  /  \  
 Pol VP
   \  
    \  
     \  
      \  
       VP
        \  
         \  
          \  
           \  
            eat it
```

b. First step of head-movement:

```
CP
 /   \
C'   \
   /   \  
  C    TP
 null  
  /  \  
 DP   T'  
   /  \  
  He T  VP
 null  
  /  \  
 V    PolP
  /  \  
 Pol1 V  Pol'
   /  \  
 might should Pol VP
   /  \  
 t1 VP  
    \  
    \  
     \  
      \  
       eat it
```
c. Second step of head movement:

In Elsman and Dubinsky’s analysis, the modal that occurs first in the linear, spoken order, in this case *might*, originates below the modal that occurs second in the spoken order, *should* in the tree seen in (3a). This deep structure then goes through a series of transformations, where each head in the tree “rolls up” and creates a complex head with the head that immediately dominates it. In (3a), we see the deep structure of the phrase “he might should eat that”, with *should* C-commanding *might*. In (3b), we see *might* roll-up into the head of VP, and form the complex head *might-should*. When aspectual phrases are included in this analysis, they are complements to T. When the complex head moves into AspP on its way to T, the aspectual verb can either attach to either the complex head, or only the V-modal. The trees in (4) show how this process looks when the aspectual verb attaches to both parts of the complex head.
(4) a. Deep structure, after complex *might should* head is formed:

```
CP
| C'
|   C
|    null
|    DP
|    | T
|    |    He
|    |    T
|    |    null
|    |    AspP
|    |    | Asp'
|    |    | Asp
|    |    | have
|    |    V
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
|    |    | VP
|    |    PolP
|    |    | Pol'
|    |    | Pol
|    |    | V
```
The trees shown in (5) show how this process looks when the aspectual verb only attaches to the V-modal.

(5) a. Deep structure after complex head has been formed:
b. Complex head moving into Asp:

This means that both (6a) and (6b) are grammatical.

(6) a. He might should’ve eaten that. (pronunciation of 5b)

b. He might’ve should’ve eaten that. (pronunciation of 4b)

By analyzing the DMC in this manner, Elsman and Dubinsky can account for more patterns seen in DMC English than previous analyses have been able to, as the complex head allows for both modals to participate in tense-related processes, such as aspectual agreement, aspectual affixation, negation distribution, subject auxiliary inversion, and the placement of sentential adverbs.

At first glance, (6b) and (2) (from Section 1) seem to have a very similar surface structure, as both follow the pattern of modal asp.-verb modal asp.-verb. Furthermore, (6a) shows how the first have can occasionally fail to appear. However, this style of
analysis cannot accurately explain how the Would-Chuck Construction works. The Elsman & Dubinksy analysis applied to the WCC can be seen below. While it seems fine in the Deep Structure, this analysis fails in creating accurate derivations.

(7) Deep Structure:

The deep structure in (7) assumes that when the complex head consisting of *will should passes through the AspP, *have can be appended to either both modal verbs, resulting in (8c), or it can be appended to only *should, resulting in the declarative seen in (8a). The declarative seen in (8a) is ungrammatical, but it appears at first glance that if (8a) went through SAI, it would seemingly form the grammatical interrogative seen in (8b).

(8) a. *She will should have married him.

b. Will she should have married him?

c. She will have should have married him.
However, (8b) cannot be derived from the deep structure seen in (7), as *will* must originate in the lowest VP in the tree in order for the roll-up operation to result in (8a). When *will* originates in the lowest VP, it is impossible for it to raise to T (in order to undergo T-to-C movement) without first becoming a complex head with *should* and *have*, due to the head movement constraint, seen in (9e). Due to the ban on excorporation (Travis, 1984), once the complex lexical head is formed, parts of it cannot move to C independently.

The process of the complex *will should* head moving through Asp can be seen below:

(9) a. Deep Structure:
b. Complex head forming

```
CP
  | C''
  |  C
null  |  T
    |  null
    |  AspP
          |  Asp
            |  V
              |  have
                V
              V1  V
            will  should
                V
              t1  married him
```

c. Complex head moving into Asp:

```
CP
  | C''
  |  C
null  |  T
    |  null
    |  AspP
          |  Asp
            |  V
              |  have
                V
              V2  V
            will('ve)  should
                V
              t2  married him
```
d. Complex head moving into T:

More accurately, subject-auxiliary inversion under the one-have Elsman-Dubinksy analysis results in (10), which are both ungrammatical to the Would-Chuck speaker.
(10)  a. *Will should have she married him?

b. *Will have should have she married him?

3.2 ELSMAN & DUBINSKY’S “TWO HAVE” ANALYSIS. As shown above, Elsman & Dubinsky’s proposal does not correctly predict the patterns described in Section 3. A plausible modification of Elsman and Dubinsky’s analysis could posit both aspectual verbs in the deep structure, as this would accurately predict the declarative word order facts. This deep structure can be seen below in (11):

(11)

a. Deep Structure:
b. Creation of complex head:

```
CP
 | C'
  | null
  | TP
   | null
   | DP
    | T
     | null
     | Asp
      | Asp'
       | Asp
        | VP
         | V
          | V'
           | should
           | Asp
           | Asp'
           | Pol
           | Pol'
           | have
           | have
           | Pol
           | Pol'
           | married him
```

c. Movement into V:

```
CP
 | C'
  | null
  | TP
   | null
   | DP
    | T
     | null
     | Asp
      | Asp'
       | Asp
        | VP
         | V
          | V'
           | have
           | have
           | Pol
           | Pol'
           | Pol
           | Pol'
           | have
           | Pol
           | Pol'
           | married him
```
d. Movement into Asp:

```
CP
  ↘
   C
       null
       DP
           ↘
              She
                      T
                          null
                          AspP
                              Asp'
                                  V3
                                      Asp
                                          have
                                              V
                                                  t3
                                                      AspP
                                                          PolP
                                                              Pol'
                                                                  Pol
                                                                      t1
                                                                          married him
```

e. Movement into T:

```
CP
  ↘
   C
       null
       DP
           ↘
              She
                      T
                          null
                          AspP
                              Asp'
                                  V3
                                      Asp
                                          have
                                              V
                                                  t4
                                                      V
                                                          t3
                                                              AspP
                                                                  PolP
                                                                      Pol'
                                                                          Pol
                                                                              t1
                                                                                  married him
```
While the analysis seen in (11) forms the declarative correctly, it fails to accurately capture the result of subject auxiliary inversion and the possible deletion of a *have* after SAI, negation, contraction, or adverbial insertion. First, notice that the Elsman & Dubinsky style analysis cannot elegantly describe the systematic deletion of the first *have* when the structure undergoes SAI.

The way to grammatically form a yes-no Would-Chuck sentence is to just move the highest modal before the subject – with only a single “have” in the question as in (8b) above.

After the complex head is constructed, there is no possible way to single out any particular aspect of the head. When the structure in (11d) undergoes T-to-C movement, seen in (11e), the complex head moves as a singular unit. This incorrectly predicts that after the Would-Chuck Construction has undergone Subject-Auxillary Inversion, the surface structure will be:

(12) *Might’ve should’ve she …

This utterance is totally ungrammatical to the Would-Chuck speaker. The Elsman-Dubinsky style analysis cannot account for the first modal moving from T to C, as the roll-up movement results in a complex head that is once again incapable of being separated and treated as individual units (Baker, 1988). This can be seen in (13). Example (13a) shows the declarative form, after the roll-up movement has created a complex head.
(13)  a. Deep Structure:

```
cp
  | c'
  c
    | null
  tp
    | t
  dp
    | she
  t
    | asp
    | asp4
    | v3
    | asp
    | null
    | asp
    | t4
    | vp
    | v'
  asp
    | t3
    | asp
    | t2
    | pol
    | t1
  pol
  vp
  t1
married him
```

b. T-to-C movement:

```
cp
  | c'
  c
    | t5
  tp
    | c
    | null
    | asp
    | asp4
    | v3
    | asp
    | null
    | asp
    | t5
    | asp
    | t4
    | vp
    | v'
  asp
    | t3
    | asp
    | t2
    | pol
    | t1
  pol
  vp
  t1
married him
```
As example (13b) shows, when this construction goes through T-to-C movement, the entire head of TP moves into C. This then predicts ungrammatical utterances such as seen in (14):

(14) *Will’ve should’ve she married him?

3.3 TWO UNDERLYING ASPECTUAL PHRASES. As shown in the previous sections, Elsman & Dubinsky’s makes the wrong predictions for the Would-Chuck Construction. For Y/N questions, SAI targets the highest modal alone, which is inconsistent with E&D’s roll-up movement account. Their account also fails to account for the patterns discussed in section 3.0, where sometimes the WCC only allows one aspectual verb.

An analysis where both aspectual verbs are included in the deep structure also cannot accurately describe the patterns seen in Section 3.0. This structure can be seen below in (15):
Deep Structure:

(15) By analyzing the structure in this way, the declarative is easily formed, as I have previously shown. It requires no transformations or movement operations to produce the correct surface structure. However, this is the only data point that this analysis is able to account for. Because *will* is the only modal verb that occupies T, when T-to-C movement occurs, *will* will be the only item to move to the head of CP. This means that when this structure undergoes subject auxiliary inversion, it wrongly predicts that the final spoken form will be:

(16) *Will she have should have married him?*
This wrong prediction occurs as *will* is originally present as the head of TP. When the construction undergoes T-to-C movement, *will* is the only item raised to C, abandoning the rest of the middle field.

(17) T-to-C movement:

This analysis could be amended to fit the correct SAI form if one can explain the disappearance of the head of the first Aspectual Phrase. This disappearance could be the result of an ellipsis operation—where a phrase is omitted, but still understood. If this analysis were able to be amended, the declarative form would simply be the spoken deep structure, but whenever an item is present between the two modals, the first Aspectual Phrase is deleted. While this analysis works, it disregards the Backwards Anaphora Constraint (Langacker, 1969). This constraint states that the anaphoric elements may not command and linearly precede their antecedents. The head of the first AspP, the one that is deleted in analysis, both commands and precedes the remaining AspP, violating the constraint. This makes it unlikely that the spoken interrogative form is the result of an
ellipsis operation, rendering this analysis as ineffective for explaining the patterns seen in Section 3.

3.4 Have-insertion repair operation. As shown in the previous section, E&D’s analysis makes the wrong predictions for the would-chuck construction. So does an analysis of the deep structure where two aspectual phrases are present, with deletion of the first *have* under certain conditions. Due to the backwards anaphora constraint, I will also assume that there is no deletion/ellipsis operation at work in deleting “have” in have-blocking contexts such as in cases of SAI, or when adverbs and negation intervene between the modals. Instead, I argue that the deep structure only has one aspectual *have*; a copy of it is inserted and projects a new AspP between the two modal verbs as a rescue operation\(^3\) in order to fix a distinctness violation. I implement this here, seen below in (18).

\(^3\) Thanks to Veneeta Dayal (p.c.) for suggesting the idea that the first have repairs a distinctness violation.
a. Deep Structure with distinctness violation:

b. Have-insertion repair operation:
In Richards’ analysis, linearization is blind to the contents in the nodes of the tree, and therefore can only view the labels of the node. In order to analyze the Would-Chuck Construction, it is imperative that will does not originate as the head of TP (as category T). Following Elsman & Dubinksy’s analysis, I assume that will originates as the head of a VP, functioning as an auxiliary modal, as then both modal verbs will be labelled as +Modal and +V.

As the deep structure goes through Spell-Out (Chomsky, 1995), if the two modals were to be linearized adjacent to one another, a distinctness violation will occur. The insertion of another aspect marker have between the modals as demonstrated in the derivation in (18) would prevent such a distinctness violation.

Simply put, a Distinctness Violation prevents the two modal verbs from being neighboring terminal nodes. This analysis also explains why only one aspectual have is present when this construction undergoes Subject-Auxiliary Inversion.
(19) a. Deep Structure:

```
CP
  \--- C
       \--- TP
             \--- DP
                   \--- C
                         \--- null
                              \--- She

V-to-T raising:

   CP
     \--- C
         \--- TP
            \--- DP
                   \--- C
                         \--- null
                              \--- She

\--- T
      \--- VP
          \--- V
              \--- T
                  \--- VP
                      \--- V
                          \--- T
                              \--- V
                                  \--- V
                                      \--- V
                                          \--- V

\--- AspP
      \--- Asp
          \--- VP
              \--- V
                  \--- Asp
                      \--- VP
                          \--- V
                              \--- Asp
                                  \--- VP
                                      \--- V
                                          \--- V
```

b. V-to-T raising:
c. T-to-C movement:

When subject-auxiliary inversion occurs, *will*, the first modal verb moves from the head of TP to the head of CP. After this movement operation occurs, the two modal verbs are no longer neighboring terminal nodes and “have”-insertion would not be able to apply since there would be no distinctness violation to repair. This means that “have” insertion then only happens as a “last resort” repair operation. This analysis simply explains why “*They will could’ve…” is regarded as ungrammatical by speakers whose grammars contain Would-Chuck construction, but “Will they could’ve…” is considered an acceptable SAI-form.

This analysis also can explain how negation, adverbs, and contraction affect the aspectual verb. When any of these occur in the utterance, they interrupt the modal verbs’
adjacency. Similarly, to how T-to-C movement removes the need for a repair insertion operation, intervening negation and adverbs do the same. A tree for a sentence including negation can be seen below:

(20) Deep Structure:

As you can see in the tree in (20), *not* occurs in between the two modal verbs. Because the modal verbs are no longer neighboring in the tree, the have-insertion repair operation is no longer required to separate them. The inclusion of adverbs functions in a similar way, as seen in (21).
Essentially, it doesn’t matter what separates the two modal verbs, as long as something does. Furthermore, if the repair operation is not absolutely necessary in order to prevent a Distinctness Violation at Spell-Out, as is the case with negation and adverbial insertion, it cannot occur without rendering the whole sentence ungrammatical (due to its “last resort” nature). For example, (22a) is completely grammatical, while (22b) and (22c) are ungrammatical.

(22)  
   a. We will absolutely could have pet the cat.  
   b. *We will’ve absolutely could have pet the cat.  
   c. *We will absolutely have could have pet the cat.
While Subject-Auxiliary Inversion, negation, and adverbial insertion block the have-insertion repair operation, contraction is trickier. When there is auxiliary contraction in the declarative have-insertion appears to become optional:

(23)   a. I’ll should have pet the cat.

   b. I’ll have should have pet the cat.

The same pattern can be seen with negation contraction:

(24)   a. I won’t should’ve pet the cat.

   b. I won’t have should’ve pet the cat.

This pattern is indeed puzzling; what is it about contraction that causes have-insertion to suddenly become optional? Here, I sketch a solution; if we assume that the contractions I’ll and won’t act as have-blockers, the timing of the contraction is what determines if have-insertion should occur or not. If contraction happens before Spell-Out, have-insertion cannot happen, as the contraction prevents the Distinctness Condition from being violated. Conversely, if contraction happens post Spell-Out, then the two modals would be adjacent at Spell-Out, triggering a Distinctness violation, necessitating have-insertion.

If only (23a) and (24a) were considered grammatical, it would be evidence that the check for the distinctness violation (Spell-Out) occurs after the contraction appears. This is not the only way for the derivation to occur, as (23b) and (24b) are also considered grammatical.
If the contraction occurs before Spell-Out, you get the form seen in (24a). When contraction occurs before spell-out, *will* moves into NegP, and forms a complex head that is not considered a modal verb (seen in (25)).

(25) a. Deep Structure:
b. V moving into Neg:

```
CP
  | C'  
  |     
  |     
  |     C
  |     null
  |     TP
  |     DP
  |     T
  |     null
  |     NegP
  |     T'
  |     null
  |     Neg
  |     won't
  |     VP
  |     V
  |     V'
  |     V
  |     AspP
  |     Asp'
  |     Asp
  |     have
  |     pet the cat
```

c. V-to-T raising:

```
CP
  | C'  
  |     
  |     
  |     C
  |     null
  |     TP
  |     DP
  |     T
  |     null
  |     NegP
  |     T'
  |     null
  |     Neg
  |     won't
  |     VP
  |     V
  |     V'
  |     V
  |     V
  |     AspP
  |     Asp'
  |     Asp
  |     have
  |     pet the cat
```

34
In this case, because will moves into NegP before Spell-Out, the post-contraction form, won’t, is not parsed as a modal verb. When this construction goes through Spell-Out, there is no distinctness violation, as won’t is not considered a modal verb.

On the other hand, when contraction occurs after Spell-Out, will has not yet moved into NegP, so the two modal verbs appear next to each other at Spell-Out. When the uncontracted form goes through Spell-Out, the two modal verbs will and should are adjacent, violating the distinctness condition. This would motivate have-insertion prior to Spell-Out, giving rise to the forms seen in (23b) and (24b).

It’s not possible to argue that have-insertion occurs superfluously instead of the order of the contraction occurring, because I have already shown that if have-insertion is not explicitly needed, it cannot occur without causing the sentence to be ungrammatical, as in (22c).

The case is similar for I’ll: when will contracts with I, it is no longer considered a modal verb for the purposes of satisfying the distinctness condition, and have-insertion does not need to occur to break up two modal verbs next to each other. Whether or not have-insertion occurs is dependent on where in the derivation ‘ll contracts with I: either before or after Spell-Out.

In the declarative, will moves into and forms a complex head with T, and yet is still considered a modal verb. If a distinctness violation is phonological in nature, perhaps the reason the complex head formed with T still counts as a modal verb could be because
the head of TP is null, so will is the only item that is pronounced… a possibility I explore no further here.

The analysis that is the most capable of accounting for these patterns contains only one aspectual phrase in the deep structure, which is then doubled and inserted in order to prevent a distinctness violation at spell-out. This analysis explains why there are two haves in the declarative, and also why the first one can seemingly “disappear” in cases of Subject-Auxiliary Inversion, negation, and adverbial insertion. In Section Four, I discuss the acceptance of these patterns that were determined through an online Qualtrics experiment.

4. EXPERIMENT

4.1 PREDICTIONS. To further back up the claims that I have made in the previous section, I conducted a Qualtrics survey to see how widespread the construction is, and whether speakers who have it behave similarly with respect to have-blocking contexts. I predicted that a small, but not insignificant percentage of people would find the Would-Chuck Construction grammatical. I expected that people who accept the base declarative (“He will have should have…”) would apply operations in the same general ways. Similarly, I also expected to see participants who accept the declarative to find certain transformed sentences ungrammatical, due to the violation of certain constraints that will be discussed in Section Three.

I did not expect to see this construction’s acceptability to be tied to age, race, gender, sexuality, or education level, as in my personal observations, I did not see any of those factors correlate to the acceptance of the Would-Chuck construction. I also didn’t
expect acceptance of the Double Modal Construction to predict either the acceptance or rejection of the Would-Chuck Construction. The results of the experiment were largely in keeping with these expectations.

4.2 MATERIALS AND STIMULI. A Qualtrics survey was used to collect the data presented in the remainder of the study. As data collection took place entirely online, participants could use any device that could access the internet. The survey utilized a 1-7 Likert scale Grammaticality Judgement Task, a Production Task, and a Forced Choice Grammaticality Judgement Task.

4.3 PARTICIPANTS. Data collection took place online from September 20, 2022 to March 2, 2023. During this time period, data was collected from 64 participants, with an age range of 18 to 78. Participants were excluded if they responded that more than one of the five purposefully ungrammatical catch items were grammatical, or if they failed to respond to four or more out of the ten target Would-Chuck constructions. Sixteen participants identified as male or transmasculine, three as nonbinary, three declined to answer, and the remaining 42 identified as female.

4.4 PROCEDURE. Participants were recruited through web postings on Facebook. All participants were shown a short IRB consent page before the experiment began. Participants filled out a demographic and language questionnaire that provided information on their age, ethnicity, gender, sexuality, geographic, and linguistic background. The remainder of the survey was broken up into three blocks, the first of which determined whether or not the participant had the Would-Chuck Construction in their grammar.
After brief instructions and practice trials, participants completed grammaticality judgement tasks on a 1-7 Likert scale, where 1 was completely unacceptable and 7 was completely acceptable. There were ten target sentences that included the Would-Chuck construction, seven grammatical filler *SAE sentences, five Double Modal Constructions (DMC), and five “catch” questions. All were simple meaningful English sentences, and were presented in a random order. Participants were considered to have Would-Chuck construction if they rated one or more of the target sentences as a 5 or above. Participants were also considered to have the Double-Modal construction if they rated one or more of the DMC sentences as 5 or above. The five “catch” questions existed to determine whether or not participants were acting in good faith during the experiment, or answering the questions at random.

If participants were determined to have the Would-Chuck construction, they would move forward with the next two blocks of the experiment. In the second block, participants completed a production task after reading instructions and completing a few practice trials. In this production task, participants were given a sentence, either Would-Chuck or *SAE, and then asked to produce the corresponding interrogative form, negated form, or adverbial form. Once again there were ten target sentences, but unlike in block one, the remaining twenty sentences were grammatical *SAE sentences, and they contained neither “catch” items nor DMC items. These sentences were provided in a random order. This section was added to determine whether participants who showed that they accepted the declarative form of the WCC also performed transformations in ways that matched each other’s and my judgements.
In the third block, participants completed two different types of tasks: six forced choice grammaticality judgement tasks (FCGJT) and eleven Likert scale grammaticality judgement tasks (GJT), after a short instruction and practice session. These questions were presented at random. Only Would-Chuck Questions were used in this portion of the experiment. In the FCGJT, participants were given a declarative Would-Chuck sentence, and then told what desired operation was (with the same general structure in the second block). They were then presented with 5-9 options with the possible desired transformation applied, and instructed to choose whichever options they found grammatical. In the GJT, participants were given already transformed Would-Chuck sentences and asked to make 1-7 ratings on the presented sentence. The third block was included to test certain transformations of the declarative sentence.

The Likert scale GJT was included to determine if other individuals who accepted the declarative also rejected derivations where too many “blocking” words appear in a row, and the FCGJT was included to rate all possible derivations at once, as with four verbs in the middle field, there are a myriad of ways to add negation, contraction, interrogatives, and adverbs.

4.5 DATA ANALYSIS & DISCUSSION. Of the 64 participants, seven marked at least one instance of the Would-Chuck construction as grammatical, meaning 10.94% of the survey population responded in a way that shows their mental grammar may contain the Would-Chuck Construction.

Within the Would-Chuck population, the average grammaticality rating of the ten target sentences was 2.30, with a maximum of 7 and a minimum of 1. Even though this
average is not very high, it is higher than the average of the No-WC population, which was 1.20, with a maximum of 4 and a minimum of 1.

While this is not a large difference, it shows a trend of higher general ratings for the targets among speakers who accepted at least one instance of the Would-Chuck construction. It’s more illuminating to examine the results for specific target questions. Target 4.3 (“I’ll should have submitted the paper”) was the highest rated among the WC participants, with a maximum of 7, a minimum of 1, a mean of 6.14, and a median of 7.
For participants who did not have the Would-Chuck Construction, target 4.3 had a maximum rating of 3, a minimum of 1, an average of 1.4 and a median of 1. This particular item so excellently shows the discrepancy between WC and non-WC participants. In the WC population, 85.71% gave item 4.3 the highest possible grammaticality rating, showcasing that for people who accept the WCC, there was absolutely no question about the grammaticality of the statement, even though this is not a prototypical representative of the WCC, as it lacks a second *have*. On the other hand, in the non-WC population, nearly every participant gave the item the lowest possible grammaticality rating. This particular item demonstrates how strongly people with the WCC feel about the grammaticality of the construction, opposed to how nonsensical the construction appears to people without the construction.

Within the Would-Chuck population, grammaticality judgements within the target set of sentences and within participants varied. A possible explanation for the discrepancy within the ratings for different, yet structurally similar targets in the WC population could be anxiety about the survey setting, insecurity caused by conscious thinking of their own speech habits, or fatigue or confusion from the study. Target 4.3, “I’ll should have done that”, was the highest rated among WC speakers, as previously mentioned. However, an almost identical utterance, target 4.8, “He’ll should have made dinner”, was rated as grammatical by only two participants. These two sentences have near identical structures, but the mean for 4.3 was 6.14, while the mean for the near identical 4.8 was 2.83.
This demonstrates that participant’s ratings might not have been solely affected by grammaticality, as these two statements are structurally similar, yet have very different ratings. If ratings were not affected by any outside factors, I would expect to see these two have much more similar ratings.

The least grammatical WCC item was target 4.10, “James will’ve might have skipped class”, which had a highest rating of 1. This was the only of the ten target sentences that had no ratings higher than 1. The structure of 4.10 is similar to the structure of 4.4 and 4.7, “Erica will've might have gone to the concert” and “he will've might have gotten arrested”. Target 4.4 had a high rating of 6 and a low rating of 1, with the median and the mean both being 1. Target 4.7 had a high of 3, a low of 1, a mean of 1.66, and a median of 1.5. This once again shows that ratings were inconsistent for items that had similar structures, showing that participant fatigue or confusion could have played a role in their ratings.

Five of the target sentences (4.2, 4.5, 4.6, 4.7, 4.10) were not rated as grammatical by any of the seven WCC participants. There are no structural commonalities between
these five sentences that are also completely absent from the other five target sentences. Once again, participant anxiety, insecurity, or confusion could cause these discrepancies to appear.

The production task and FCGJT were not as insightful as anticipated. In the FCGJT, there were only two instances of participants demonstrating similar transformations of sentences, although one of the participants who matched my intuitions also had the DMC, which complicates the analysis. The one WCC participant who did not also have the DMC answered that “Mark will obviously should have gotten fired” was the only acceptable way to insert obviously into the declarative, removing the first have, matching my intuitions and predictions exactly. The same participant also rated the sentence “Will she could have gotten married” as a 5 in the Likert scale task in part three of the experiment. However, this participant did not choose “Will Adam should have studied” as a valid interrogative form of the statement “Adam will have should have studied”, and instead responded that they did not know how to express that sentence in question form.

Of the 7 WC respondents, one also marked that they found the Double Modal Construction acceptable. This is likely due to the fact that the surface structure of the DMC and WCC can be identical. This participant interestingly also responded that “John won’t have should have gone to the store” was the grammatical way to negate the sentence “John will have should have gone to the store”, which is notable, as this participant rated the un-negated form as completely ungrammatical in an earlier portion of the survey. In the FCGJT, the same participant said that “Will Adam should have studied?” is the correct way to form the interrogative of the sentence “Adam will have should have studied”, with the first have removed. In the first example, they kept the have
that could have been excluded. Because the WC analysis proposed that the first have is doubled and inserted to block two modal verbs from occurring next to each other, I assumed that the DMC and WCC would be mutually exclusive, and that the patterns this participant found grammatical most likely had more to with their acceptance of the DMC, instead of truly having the WCC. However, the Elsman & Dubinsky Analysis for the DMC cannot account for all the patterns seen in this participant, specifically the acceptance of “Will Adam should have studied”.

It’s important to note that anxiety about the formal setting of the survey could have led to participants tending to mark WC utterances as ungrammatical, even if they accept it in real-life speech. Most speakers are consciously unaware of the utterances they produce, and when asked explicitly about their speech patterns, tend describe their speech patterns as much more “standard” than they actually are. This would explain why there were a few outliers in the non-WC population who had answers hover around three for the target questions, when most people who rejected the WC construction gave the target sentences as ones across the board. For example, many people who did not answer any of the target questions as a five or above tended to not answer any above one, and the few who did overwhelmingly rated at least two targets as higher than 1. Every no-WC participant who rated a target sentence as 3 or above rated at least one other target sentences as a 2 or above. I believe that it is possible that several of these “no-WC” participants actually accept the Would-Chuck Construction, and were simply too anxious by the survey setting or thinking too hard about the grammaticality that they answered the questions as ungrammatical. Those participants could be people who would accept the WCC in real life, but when asked to consciously think about and describe their linguistic
habits, become self-conscious, and rate the target sentences as less grammatical than they typically would. Another very real possibility is that this variety of English is spoken by a small number of people.

5. CONCLUSION

This paper sets out to propose an analysis of an under-researched construction (which I have dubbed the Would-Chuck Construction), accurately describe the patterns seen in the construction, and then posit an analysis that is capable of describing all of the patterns seen. Using a Qualtrics survey, I have demonstrated that roughly 10% of the population could have the Would-Chuck construction. The analysis described in this thesis explains the patterns seen in the Would-Chuck Construction. Previous analyses of the similar Double Modal Construction fail to accurately capture the intricacies of the WCC. I assume that a distinctness violation prohibits two modals from being linearized adjacently, causing the head of the aspectual phrase, have, to double and be inserted in between the two modal verbs, resulting in a surface structure that shows four verbs in the middle field in a typical WCC. This fix for the distinctness violation is not always required, though—when contraction, negation, adverbs, or subject-auxiliary inversion occurs, the linear structure is broken up, and the repair operation is no longer necessary or possible.
REFERENCES


