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# ON THE DISTINCTION BETWEEN RAISING AND CONTROL

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# Abstract

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| Purpose: | The purpose of the present study is to investigate the successfulness of the traditional tests used to distinguish between Raising and Control predicates. Moreover, the study also aims to examine how well these tests comply with the movement theory on Control. |
| Theory: | The study is based on the Principles and Parameters approach to grammar. Since the aim of the study is to investigate these tests' compliance with the movement theory on Control, this theory is also discussed in the present study. |
| Method: | To investigate authentic uses of Raising and Control predicates a qualitative corpus method has been used. A total number of 1200 sentences have been studied. Furthermore, the native speaker's judgement task has been used to judge the grammaticality of a set of representative sentences. |
| Result: | The results show that the tests used to distinguish between Raising and Control predicates are at most times effective in fulfilling their task. However, some of these tests have their own limits which need to be taken into consideration. Moreover, the results also shows that the traditional tests comply with the movement theory on Control. |

# Contents

# Glossary of terms

A-movement = a syntactically motivated movement of arguments into a position with grammatical function.

Case = case assignment determined by syntactic structure, commonly referred to as abstract Case.

Co-index = two items which refer to the same individual.

Matrix clause = a clause which contains an embedded clause.

Minimalism = a program within generative grammar developed by Chomsky.

Principle and Parameters = a theory within generative grammar in which language is explained through general principles and specific parameters.

Thematicity = related to the theme and meaning of a word.

Theta-mark = to (mark) determine the arguments of a verb. Related to the theta role.

Theta role = the arguments required syntactically by a verb.

Trace = when moved to another position, the phrase leaves a trace at its original position.

PRO = a phonetically null pronoun.


# Abbreviations

DP = Determiner phrase

EPP = Extended projection principle

NP = Noun phrase

MTC = Movement theory on Control

TP = Tense phrase

VP = Verb phrase

# 1. Introduction

Over the past decades, considerable attention has been paid to the syntactic structure of non-finite clauses such as (1).

1. a. Margaret is likely to leave.
   b. Margaret is eager to leave.

Even though the sentences in (1) are similar on the surface, they are said to contain different syntactic structures. Sentence (1a) is a Raising to subject construction and as such, the subject is raised from the subject position of the embedded clause's predicate to the matrix clause. According to the traditional view on sentence (1b), it does not contain movement, rather the embedded clause includes an empty pronoun which is co-indexed with the subject of the matrix clause. This kind of construction is referred to as a subject Control construction due to the fact that the main clause's subject controls the empty pronoun PRO. There are different types of Raising and Control constructions, however the present study concerns itself with Raising to subject predicates and obligatory subject Control predicates.

Raising and Control have been discussed to a great length since the 1970s and a wide range of theories have been developed for these constructions. Davies and Dubinsky (2004: preface vii) explains that "understanding the analysis of these constructions in a particular framework requires understanding the key assumptions underlying that framework, which leads to a general understanding of the framework itself". Raising and Control constructions rely on a number of important syntactic phenomena and theories, which explains the importance and attention given to them. Understanding the syntactic concepts pertaining to Raising and Control results in a greater general understanding of generative grammar.

The distinction between Raising and Control constructions has been studied and debated since Rosenbaum 1967, Postal 1974 and Chomsky 1973 (Davies & Dubinsky 2004: preface viii). In recent years, the discussion on the syntactic difference between Raising and Control has changed focus. It has been argued that Control is a movement construction and thus the syntactic difference between Raising and Control is blurred (Hornstein 1999, 2003; Manzini & Roussou 2000; Boeckx & Hornstein 2004, 2006; Drummond & Hornstein 2014; Boeckx, Hornstein & Nunes 2014). This view has, by some, been considered rather controversial and arguments have been raised against it (Landua 2003; Culicover & Jackendoff 2001). The mainstream idea within generative grammar still is that the syntactic difference between Raising and Control must remain.

To distinguish between Raising and Control predicates a number of tests have been developed. Not only do these tests help us decide whether a non-finite clause is a Raising or a Control construction, but they also contribute to a deeper understanding of the differences between these constructions. The traditional tests assume some thematic difference between Raising and Control predicates, which is agreed upon among both theoretical stances on Control. Among the traditional tests are, (1) the thematic role assignment test, (2) the idiom test, (3) the pleonastic test, (4) the clausal subject test and (5) the passivization test. These tests all have, as will become obvious in the results section, their own peculiarities and rules pertaining to them.

## 2. Research aims

As part of the ongoing discussion on the differences and similarities between Raising to subject and subject Control, the present study aims at investigating the tests used to distinguish between these constructions. Relatively little is known about how these tests work on authentic texts which is a gap this study intends to fill. The tests are applied to authentic Raising and Control predicates with the intention of investigating their strengths and weaknesses. Moreover, the traditional Principles and Parameters approach to the Control module forms the theoretical foundation of this thesis.

However, at appropriate places a discussion on the results' relevance to the movement theory on Control (MTC) is included. The discussion has undergone some important changes during recent years and establishment of the contrast between Raising and Control predicates has become even more important. Hornstein (1999: 82-83) argues that the idiom test and the pleonastic test functions equally well with the movement theory on Control, which Landau (2003: 487-494) agrees with. Apart from Hornstein's and Landau's discussions, not much has been said about how well the traditional tests used to make a distinction between Raising and Control comply with the MTC. Thus, part of the aim of the present study is to make a contribution, however small, to the current Control discussion. Moreover, the study intends to answer the following research questions.

- How well do the traditional tests used to distinguish between Raising to subject and subject Control constructions work on authentic texts?
- What strengths and weaknesses can be found in these tests?

- How well do the tests used to distinguish between Raising and Control predicates comply with the movement theory on Control?

The study is based on a qualitative corpus approach, see section 4 for further discussion on the chosen methodology.

# 3. Background

The following section includes a discussion on Raising and Control constructions based on the Principles and Parameters framework on syntactic theory. Substantial research has been carried out on Raising and Control and to cover relevant aspects of previous research the following section is rather lengthy. However, this discussion makes no claim of covering all the research carried out on the topic. Due to the fact that the present study intends to contribute to the ongoing discussion on Control, the section pertaining to the syntax of Control constructions is essentially longer than the discussion on Raising predicates.

## 3.1 Raising constructions

To begin with, we will turn our attention to Raising to subject constructions. The type of Raising constructions which is investigated in this study are predicates followed by a non-finite clause.

2. Margaret is likely to leave.
3. Mr. Thornton seems to be ready.

Sentences (2) and (3) are both examples of Raising to subject sentences, (2) contains the Raising adjective *is likely* and (3) contains the Raising verb *seem*s. Carnie (2011: 263) defines Raising predicates as "predicates (like *seem*, *is likely*, *is certain* etc.) which take a non-finite TP complement, and move the embedded external argument into their own subject position". The non-finite TP complements in sentence (2) and (3) are *likely to leave* and *seems to be ready*.

The main predicate of a Raising construction does not assign an external theta role which is what separates Raising constructions from Control constructions. In (2) and (3) above there is no receiver of the external theta role. *Margaret* is not *likely*, rather she is likely *to leave* and *Mr. Thornton* is not *seeming*, rather what he seems is *to be ready*. Raising predicates, such as *seems* and *is likely*, assign only one theta role.

4. Margaret$_i$ is likely [t$_i$ to leave].

5. Mr. Thornton$_i$ seems [t$_i$ to be ready].

The sentences in (4) and (5) present the syntactic structure behind the Raising sentences (2) and (3). In Raising constructions the subject starts off as the subject of the non-finite clause where it leaves a trace and is subsequently moved to the subject position of the matrix clause. Radford (2004: 241) explains that "subjects originate internally within the Verb Phrase as arguments of verb, and are subsequently raised into the specifier position within TP, with the relevant movement operation being triggered by an [EPP] feature", which is traditionally known as A-movement.

According to the Extended Projection Principle (EPP) mentioned above, all clauses must have a subject (Carnie 2006: 229). Apparently, the embedded clauses in (2) and (3) do not provide subjects. *Margaret* receives its theta role from *leave* in the subordinate clause (Aarts 2001: 155). To check its EPP feature, the subject of the embedded clause, *Margaret*, is moved to the specifier of TP (Adger 2001: 317). The non-finite *to* checks its EPP feature through attracting *Margaret*.

However, the Case feature cannot be checked at this position. According to the Case filter all DPs must be marked with a Case and the nominative Case is checked in the specifier of T (Carnie 2006: 296). The DP *Margaret* cannot receive Case in the embedded clause and it must therefore undergo another movement to the specifier of T. The second raising of the DP from the lower clause to the higher is Case-driven (Haegeman 1994: 306). To summarize, the DP *Margaret* starts out in the specifier of VP in the embedded clause where it receives its theta role, then it moves to the specifier of the TP to satisfy the EPP requirements and finally it raises to the specifier of T to check nominative Case.


## 3.2 Control constructions

On the surface Control constructions are very similar to Raising constructions, however their syntactic structures are, as will become obvious, different.

6. Mr Thornton is eager to visit Margaret.

7. Mr Thornton promised to visit Margaret.

The reason behind the difference between Raising and Control constructions is to be found in the thematic properties of the predicates (Carnie 2006: 397). Control constructions, such as (6) and (7), do not involve A-movement. In (6) and (7) *Mr Thornton* is assigned two thematic

roles. He is *Margaret's* visitor and he is also eager in (6) and a promiser in (7). As such *Mr. Thornton* is the external argument of the matrix predicate and at the same time the external argument of the predicate in the embedded clause. The difference in assigning thematic properties is what differentiates Control constructions from Raising constructions. Unlike Raising predicates, such as *is likely* and *seems* which were investigated in section 3.1, a Control predicate assigns a theta role to its subject (Carnie 2006: 401).

The predicate of the embedded clause has to assign an external argument. As mentioned above, *Mr. Thornton* is the external argument of the predicate in the embedded clause as well as being the external argument of the matrix predicate. However, according to the theta criterion there must be a strict match between the number and types of arguments in a sentence and the theta grid. The theta criterion stipulates that:

(a) "Each argument is assigned one and only one theta role.
(b) Each theta role is assigned to one and only one argument" (Carnie 2006: 225).

Since each argument can only bear one theta role, movement into theta positions is prevented. This apparent contradiction has traditionally been solved through lexical insertion of the null pronoun PRO.

8. Mr. Thornton$_i$ is eager [PRO$_i$ to visit Margaret]

PRO is defined as "a non-overt NP, i.e. an NP which is syntactically active, but which has no overt manifestation" (Haegeman 1994: 253). It is referred to as a null pronoun due to the fact that it is not pronounced. Through the insertion of PRO the predicate of the embedded clause can assign a theta role. Furthermore, PRO is co-indexed with the subject of the matrix verb, in this case *Mr. Thornton*, to indicate that they have the same referent and that *Mr. Thornton* controls PRO.

The existence of PRO has been debated over the years and still is. To some, it appears to be a technical solution to a problem created by the restrictions set forth by the theta criterion. However, there is some sound evidence for the existence of PRO. Landau (2013: 69-78) has listed some of the empirical evidence for PRO's existence. Among the syntactic evidence for PRO is plural agreement. The syntactic structure behind plural agreement is dependent on a plural overt DP.

9. John$_i$ proposed to his uncle$_j$ [PRO$_{i+j}$ to be partners] (Landau 2013: 73).

The subject of the embedded clause in (9) is controlled by both *John* and *his uncle*. The absence of a plural DP suggests the presence of a non-overt DP, which licenses the plural agreement. Landau points out "that the null subject here cannot be a trace or an anaphor (rather than a logophor), as neither one accepts split antecedents" (Landau 2013: 73). Thus the conclusion which can be drawn from this example is that PRO must exist.

Furthermore, the existence of PRO in non-finite clauses cannot be used as evidence for the existence of PRO since such sentences function equally well with alternative interpretations. However, anaphor binding within non-obligatory Control is more difficult to explain without a non-overt pronoun. Landau (2013: 75) gives the following example.

10. [PRO$_i$ behaving oneself$_i$ in restaurants] would be necessary.

*Oneself* is an anaphor and as such it needs to refer back to an previously mentioned word or phrase. The only possible binder for *oneself* in (10) is PRO, which proves its existence.

One of the more indirect arguments for the presence of PRO is found in the observation that infinitives are clausal, which is deduced from the fact that they can be introduced by complementizers and *wh*-elements. Further evidence for a clausal interpretation of infinitives can be detected in that "control infinitives can be conjoined with indisputable clauses" (Landau 2013: 71). Conjunction of predicates normally functions in this manner, while conjunctions of arguments do not, which supports a clausal interpretation of infinitives. As mentioned in section 3.1, the extended projection principle demands that all clauses have subjects. If we arrive at the conclusion that infinitives are clausal, it becomes necessary to assume the existence of a null pronoun. For a more complete discussion on the empirical evidence for PRO, see Landau 2013 (69-78).

The phenomenon known as the PRO theorem stipulates the actual nature of PRO. According to the PRO theorem PRO is considered to be a pronominal anaphor. However, an anaphor must be bound, while a pronoun has to be free. This apparent contradiction is solved through not meeting the respective requirements, rather PRO is considered not to have a binding category. The conclusion is that PRO occurs in ungoverned positions and as such it cannot be cased marked (Boeckx, Hornstein & Nunes 2014: 11-12). However, most scholars on syntax have abandoned the idea that PRO occurs in ungoverned position and the current view in the Minimalist program is that PRO bears a special null-case (Landau 2006: 153). A more recent approach to PRO rejects the Case theory and suggests that PRO bears standard Case as any other DP (Landau 2006: 154-157). That the Control module has received a lot of attention is partly a result of the complex nature of PRO. Carnie (2006: 411) mentions in

relation to a discussion on PRO that the "Control theory is the bane of professional theoreticians and students alike. It is, quite simply, the least elegant part of syntactic theory".

### 3.2.1 The movement theory on Control (MTC)

The Control module has become the interest of many scholars during recent decades, mainly due to the fact that it involves some important theories within generative grammar such as the existence of PRO, the Case theory and thematicity. In recent years an alternative theory to the Control module has been developed. This theory rejects the existence of PRO and argues that obligatory Control is to be understood as a movement construction. As such, Control constructions would have a syntactic structure which is similar to that of Raising constructions. The theory has been named the movement theory on Control (MTC) by Boeckx and Hornstein (2004), and has been discussed in Hornstein (1999, 2003), Manzini and Roussou (2000), Boeckx and Hornstein (2004, 2006), Drummond and Hornstein (2014) and most recently in Boeckx, Hornstein and Nunes (2014).

Within the recent Principle and Parameters approach to syntax more basic operations are sought for than in previous theories. Such operations motivate a number of different constructions, which is conceived more beneficial than a "one-to-one relation between constructions and rules" (Boeckx, Hornstein & Nunes 2014: 38). Raising constructions and passives have traditionally been dealt with using the same theoretical apparatus, and according to the MTC Control constructions may also be interpreted through the same theory. Hornstein and Nunes (in Carnie, Siddiqi & Sato 2014: 240) compares the relationship between PRO and A-trace to the Duck Principle "If something walks, talks and defecates like a duck, the default position is that it is a duck: that is, if constructions a and b have the same properties the grammar should generate them in the same way". A-trace and PRO behave in the same manner and can therefore be interpreted as the same element. As pointed out in Boeckx, Hornstein and Nunes (2014: 39) there is no conceptual barrier which prevents a movement interpretation of Control.

Moreover, according to Hornstein (1999: 75) some significant problems can be traced in the Case theory described in the Control module. The null Case is designed to perfectly match PRO and only PRO, this means that only non-finite T's can check the null Case. Taking into consideration that the Case features of PRO and non-finite T are constructed to match each other, we must assume that if the data were to change so would also these two concepts need to do. As Carnie (2006: 405) mentions, PRO seems to be "a technical solution to a technical problem".

Thus Hornstein (1999: 78) argues that obligatory Control is not controlled by PRO, rather it is an instance of movement. This theory is based on the following assumptions:

    a.  "Theta-roles are features of verbs.

    b.  Greed is Enlightened Self-Interest.

    c.  A D/NP "receives" a theta-role by checking a theta-feature of a verbal/predicative phrase that it merges with.

    d.  There is no upper bound on the number of theta-roles a chain can have.

    e.  Sideward movement is permitted" (Hornstein 1999: 78).

These assumptions would make obligatory Control to a movement construction. The syntactic construction of Control is according to the movement theory on Control structured as sentence (11b).

    11. a. John hopes to leave.

        b. [$_{IP}$John [$_{VP}$John [hopes [$_{IP}$John to [$_{VP}$John leave]]]]] (Hornstein, 1999: 79)

*John* begins in the lower predicate and checks *leave's* theta-role. After this it raises to the specifier of TP to check the D-feature of the TP. Through a third raising *John* raises to the specifier of VP to check *hopes'* external features and at last it raises to the specifier of the higher TP to check nominative Case. Through this derivation, *John* receives two theta roles as the external argument of both *leave* and *hope*. According to the traditional Control module this operation cannot be possible since the theta criterion demands a strict one to one relationship between argument and theta role. Hornstein (1999: 79) argues that such a claim has to be supported by empirical evidence to be accepted and until that becomes a reality, assumption (d) nullifies the demands set forth in the theta criterion.

        The traditional distinction between Raising and Control predicates is based on the supposition that Raising constructions involve movement while Control constructions are controlled by the null pronoun PRO. Even though this distinction is blurred in MTC, the classical tests to distinguish between Raising and Control can still be applied. The pleonastic test and the idiom test, see section 3.3.3 and 3.3.2, are based on the idea that these may raise but they cannot be controlled. Control verbs assign an external theta role, however pleonastics and idiom chunks cannot bear theta roles due to their inherent properties. That the pleonastic test and the idiom test still works with the MTC depends on their inability to take theta roles and not on these tests' inability to control PRO (Hornstein 1999: 82-83).

### 3.2.2 Arguments raised against the MTC

The movement theory on Control has been, by some, considered rather controversial and thus it has gone through thorough investigation. Among the voices raised against the MTC we find, Landau (2003, 2006, 2007, and 2013), Culicover and Jackendoff (2001), Ndayiragije (2012) and Wood (2012). Landau (2003: 473) argues against MTC and defends the standard view on Control:

1. "PRO exists, and it is distinct from NP-trace.
2. Hence, control involves two argument chains, while raising involves one.
3. The control module exists". (Landau 2003: 473).

The main criticism placed on the MTC is that it is motivated by simplicity and not because the arguments for it "successfully explain a problematic set of data that previous theories have failed to accommodate" (Landau 2003: 494). Moreover, through elimination of the null pronoun PRO certain aspects of grammar is simplified. The concept and existence of PRO has been and still is discussed to a great length in Minimalist syntax, mainly due to the fact that it is, by some, conceived as an invented solution to an invented problem. For a more comprehensive discussion on the claimed problems with the MTC see Landau (2003: 474-484).

Since the movement theory on Control encourages usage of the same syntactic apparatus for Raising and Control, the distinction between them becomes less apparent. Landau (2003: 487-494) presents a discussion on how the MTC affects the distinction between Raising and Control predicates. Supporters of the movement theory have been accused of trivializing the importance of the well-known distinction between Raising and Control. The reason being that the only difference maintained by the movement approach to Control is that the raised DP is theta-marked once while the controlled DP is theta-marked twice. Thematic distinction forms the foundation for the most traditional tests used to distinguish between Raising and Control predicates, among them the idiom test and the pleonastic test, see section 3.3.2 and 3.3.3.

However, previous research has revealed other differences between Raising and Control constructions which are not based on the thematic distinction between these predicates. Among the differences between Raising and Control predicates is that "control 'breaks' the association of *each* with the lower NP, but raising does not" (Landau 2003: 491). Landau (2003: 491) presents the following examples:

12. a. One interpreter$_1$ each was assigned t$_1$ to the visiting diplomats.

b. One interpreter$_1$ each seemed [t$_1$ to have been assigned t$_1$ to the visiting diplomats].

c. *One interpreter$_1$ each tried [PRO$_1$ to be assigned t$_1$ to the visiting diplomats].

d. *One interpreter$_1$ each said that [he$_1$ had been assigned t$_1$ to the visiting diplomats].

The NP-trace in (12a-b) does not cause problems to this kind of construction, as these sentences are fully grammatical. However, (12c-d) are not judged as grammatical which is explained by the fact that PRO in (12c) and the overt pronoun *he* in (12d) interfere with the *each*-association. The relevance of this difference between Raising and Control predicates to our discussion lies in that is a distinction not based on the thematical difference between Raising and Control. Landau (2003: 491) concludes that this is a distinction which the movement theory on Control fails to recognize.

Landau (2003: 474-484), who is arguably the most prominent opponent to the movement theory on Control, lists a number of distinctions between Raising and Control which the MTC fails to explain, such as the above-mentioned distinction. To provide a more fair discussion on the MTC's perceived failure to derive these contrast, it should be mentioned that Boeckx and Hornstein (2004: 445-449) defend and explain how these contrasts are not a problem to the movement theory. However, the MTC successfully confirms the well-known thematicity contrast, derived from the idiom test and the pleonastic test. The basic difference between Raising and Control lies in their thematic content, which the MTC also establishes.

## 3.3 Tests used to distinguish between Raising and Control constructions

### 3.3.1 The thematic role assignment test

Meaning is important in deciding whether a predicate followed by a non-finite clause is a Raising or a Control construction. The thematic relationship is a set of semantic terms used to describe the argument's role in relation to the predicate (Carnie 2006: 221). The number of arguments a predicate takes depends on its meaning. The basic difference between Raising to subject predicates and subject Control predicates is that Raising predicates do not assign an external theta role, while Control predicates do. Consider the following example.

13. Margaret seemed to like the food.

14. Margaret tried to like the food.

In (13) *Margaret* is assigned the thematic role of the experiencer of *like*. *Margaret* is however not thematically related to the Raising verb *seemed*, which is explained by the fact that as a

Raising verb it does not assign an external theta role. Unlike (13), *Margaret* in (14) has two roles, one as the experiencer of *like* and one as the agent of *tried*. *Tried*, which is a Control verb, assigns a thematic role to its subject. The thematic difference makes it possible to distinguish between Raising and Control constructions through investigating the thematic roles the predicate assigns to its arguments.

### 3.3.2 The idiom test

One of the tests used to distinguish between Raising and Control constructions is derived from the behavior of idiomatic expressions. An idiomatic expression carries a non-literal meaning that cannot be deduced from the words in the phrase (Carnie 2011: 263). In (15), *the cat* does not refer to an actual cat.

15. The cat is out of the bag.

Rather, the non-literal idiomatic meaning (15) conveys is "the secret is widely known" (Carnie 2007: 404). For an idiom to maintain its idiomatic meaning, the thematic relationship between the predicate and the argument must be preserved (Aarts 2001: 245). The subjects in idioms are essential to the interpretation of these expressions as idiomatic, however it is only in connection with the remaining clause that the idiom acquires its non-literal meaning. Since Raising predicates do not assign a thematic relationship to their subjects, these constructions do not disturb the thematicity tied into the embedded clause. However, a Control predicate would disturb this relation due to the fact that the idiom chunk is assigned a thematic role by the Control verb (Butler & Tsoulas 2006: 14).

16. The cat is likely to be out of the bag.

17. The cat is eager to be out of the bag.

The idiomatic meaning is maintained in sentence (16), which proves it to be a Raising construction. However, in sentence (17) the non-literal idiomatic meaning has been lost and this sentence can only be interpreted literally and thus we can conclude that *eager* is a Control verb.

### 3.3.3 The pleonastic test

The pleonastic test is linked to the thematic role assignment test. The pleonastics (also commonly referred to as expletives) *it* and *there* are semantically empty and are used to fill the subject slot. Since they are semantically empty, no thematic role is assigned to them (Aarts 2001: 244). As mentioned above, a Raising verb does not need to assign a thematic role to its subject and thus Raising predicates can be preceded by the pleonastics *it* or *there*.

18. It seems that Mr Thornton likes pancakes.

19. *It is eager that Mr Thornton likes pancakes.

According to the discussion above, Raising constructions allow a pleonastic pronoun in the subject position of the main clause. Control predicates are thematically different to Raising predicates and can therefore not be preceded by a semantically empty pronoun (Carnie 2012: 268). The pleonastic test confirms that (18) is a Raising construction and that (19) is a Control construction.

### 3.3.4 The clausal subject test

The clausal subject test predicts that if a tensed version of the embedded clause can be used as the subject of a predicate, then it is a Raising construction (Carnie 2012: 265). However, Control constructions do not typically allow for such constructions.

20. a. Mr. Thornton is likely to visit Margaret.

    b. That Mr. Thornton visits Margaret is likely.

21. a. Mr. Thornton is eager to visit Margaret.

    b. *That Mr. Thornton visits Margaret is eager.

The clausal subject test predicts that sentence (20) includes a Raising predicate, while sentence (21) contains a Control predicate.

As discussed previously, Raising verbs do not have external theta roles. Thus, the specifier of TP is available and the embedded clause can move to its position. According to the Extended Projection Principle (EPP) all clauses must have subjects (Carnie 2006: 228) and through movement of the embedded clause to the specifier of TP, the clause receives a subject. Since the subject of the embedded clause does not have Case, it raises the specifier of TP to check Case. Moving the clausal subject to the specifier position is not possible for

Control constructions, the reason being that the Control verb assigns a theta role to its subject and thus the specifier of TP is already occupied (Carnie 2006: 399).

### 3.3.5 The passivization test

Another method to distinguish between Raising and Control constructions is to investigate their behavior when passivized (Davies & Dubinsky 2004: 5-6). A passive sentence with a Raising construction is synonymous with the same sentence with an active complement. However, the same does not apply for Control constructions.

22. a. Margaret seemed to have seen the movie=

    b. The movie seemed to have been seen by Margaret.

23. a. Margaret tried to see the movie≠

    b. The movie tried to be seen by Margaret.

Sentence (22a) and sentence (22b) paraphrase each other. Passivization of Raising construction creates semantically synonymous sentences, such as (22a) and (22b). The explanation behind the successfulness of this test is that since Raising predicates do not assign an external theta role, they are not sensitive to the kind of movement passivization contains. However, Control predicates do assign an external theta role and thus they cannot be passivized without failing to retain the intended meaning, which explains why (23a) and (23b) do not paraphrase each other.

# 4. Methodology and material

The present study is based on a corpus study and the chosen corpus is The Corpus of Contemporary American English. Moreover, the study takes a qualitative approach investigating authentic examples in which the tests used to distinguish between Raising and Control predicates are more and less successful. Section 4.1 includes a discussion on the material which has formed the foundation of this study. In sections 4.2 and 4.3, the methodological approach used in the present study is explained and discussed.

## 4.1 The Corpus of Contemporary American English

The Corpus of Contemporary American English (COCA) (Davies 2008) contains more than 450 million words, which makes it the largest freely available corpus of English. Furthermore, one of the strengths of the COCA is that it is constantly updated (Davies 2010: 447). A total number of 20 million new words are added to the corpus each year, making it truly contemporary (Davies 2010: 453). Moreover, the texts included in the corpus have been collected since 1990.

Furthermore, the COCA is equally divided among spoken language, fiction, popular magazines, newspapers, and academic texts. To preserve the genre balance all sections are equally updated each year (Davies 2010: 453). The texts included in the corpus are collected from electronic resources. Lee (2010: 110) points out that the spoken texts in the COCA do not include informal conversations and that this is one of its deficiencies.

The aim of the present study is to investigate Raising and Control constructions, thus not much concern has been paid to genre or to the year of collection. That the corpus is diachronic and includes texts from various genres is however considered an asset, since these factors contribute to a representative result. Moreover, the corpus has been selected for the purpose of this study for its accessibility and due to the possibility to easily search for collocates. As the corpus is constructed in such a way that it is possible to search for collocates within a ten-word window, words can be seen and understood in their actual context.

## 4.2 The corpus method

Empirical studies of grammar and syntax do not have a long tradition (Biber et al., 1998: 55). In the past, theoretical grammarians have traditionally based their studies on grammaticality judgments (see section 4.3 for further discussion). Such methods do not take language variation into account, which on the other hand is one of the strengths of corpus linguistics (Biber et al. 1998: 56). Furthermore corpus linguistics have contributed to the development of empirical methods to study grammar and syntax. Biber et al (1998: 56) point out that studies in theoretical grammar traditionally have been based on the researcher's own intuition, however the development of the corpus-based approach has managed to add empiricism to the field.

The present study takes a qualitative approach to investigating the tests used to distinguish between Raising and Control predicates. Eight predicates have been studied in

this essay, four Control predicates and four Raising predicates. The selection has been made based on the most commonly used predicates in describing Raising and Control constructions in syntax and grammar books. Thus, the Raising predicates which have been investigated in this study are *certain*, *likely, seem* and *believe*, and the Control predicates which have been investigated are *eager, reluctant, try* and *persuade.* In the process of selecting Control and Raising predicates an attempt has been made to make these categories as similar as possible. For that reason two adjectives and two verbs of each category have been chosen.

The aim of carefully selecting Raising and Control predicates is to study these tests on as many different types of constructions as possible. Conrad (2010: 228) mentions that "the great contribution of corpus linguistics to grammar is that it increases researchers' ability to systematically study the variation in a large collection of texts". Moreover, corpus linguistics can be used as a tool to describe speakers' and writers' grammatical choices (Conrad 2010: 237). Authors who explain the distinction between Raising and Control tend, for obvious reasons, to give the most clear and comprehensible examples. Through the corpus method both common and uncommon authentic uses of Raising and Control predicates have been found and studied.

Among the assets of the COCA is that users can easily search by collocates (Davies 2010: 462). The predicates in the current study have been searched for in the present tense together with the collocate *to* within the ten words to the right of the predicate. The collocate *to* has been added to ensure that as many hits as possible are Raising and Control constructions. Through allowing up to nine words between the predicate and the non-finite *to,* it has been possible to include sentences with phrases in the study.

The overload of data from the searches has been solved through a randomized selection of the data as suggested by Tribble (2010: 176). Thus 150 authentic uses of each predicate have been investigated and a total number of 1200 sentences constitutes the foundation of this study. The feature Key Words In Context (KWIC) in COCA arranges a list of the hits of the searched word. To decide on the included examples, the total number of hits in the KWIC have been divided by 150. For example, the Raising predicate *seem* with the collocate *to* had 52163 hits in the corpus. This amount divided by 150 gives the number 347 and thus every 347th sentence has been investigated. When necessary, additional examples have been searched for to provide a further platform for discussion.

Each Raising and Control sentence has been tested through the five tests mentioned in section 3.3; (1) the thematic role assignment test, (2) the idiom test, (3) the pleonastic test, (4)

the clausal subject test and (5) the passivization test. The following chart is an example of how two sentences, one Raising and one Control sentence, have been tested.

**Table 1: Example on how sentences have been tested.**

| Test | Raising construction | Control construction |
|---|---|---|
| | **They are more likely to actively participate in the proposed treatment.** | **The Air Force has been eager to build a long-range bomber to carry nukes.** |
| **Thematic role assignment test** | They are participating, but they are not likely. *They* is theta marked by *participate.* | The Air Force is building and it is eager. *The Air Force* is theta marked by *eager* and *build*. |
| **Idiom test** | The cat is likely to be out of the bag. | *The cat is eager to be out of the bag. |
| **Pleonastic test** | It is more likely that they actively participate in the proposed treatment | *It is eager that the Air Force has built a long-range bomber to carry nukes. |
| **Clausal subject test** | That they actively participated in the proposed treatment is likely. | *That the Air Force has built a long-range bomber to carry nukes is eager. |
| **Passivization test** | =The proposed treatment is more likely to be actively participated in by them | ≠A long-range bomber to carry nukes is eager to be built by the Air Force. |

## 4.3 The native speaker's intuition

The pleonastic test and the clausal subject test produce a number of grammatical and ungrammatical sentences, hence there is a need to describe and discuss the methodology used for determining the grammaticality of such sentences. The native-speaker judgment task or the grammaticality judgement task is "a method of gathering data whereby we ask a native speaker if a carefully constructed sentence is acceptable or not" (Carnie 2011: 14). Sentences are judged on both semantic and syntactic well-formedness. A semantically ill-formed

sentence is traditionally marked with a hash-mark and a syntactically ill-formed sentence is marked with an asterisk, which are also the conventions applied in this study.

The generative grammatical tradition has received some criticism for accepting intuition as a method. Conrad (2010: 237) mentions that "intuition can only provide insight into one person's individual grammar and thus analyses of corpora are important because they allow researchers to investigate what large numbers of people consider acceptable". Conrad (2010: 237) also considers intuition to be an outdated methodology. However, Carnie (2006: 13) argues that the concept of intuition has been misunderstood. Correctly applied, intuition as part of grammaticality judgments is not guessing, rather it is "tapping into subconscious knowledge" (Carnie 2006: 13). The word *intuition* usually suggest that we are dealing with something un-scientific, while in fact the opposite seems to be more close to the truth.

Corpus linguistics was chosen as the method to select the Raising and Control constructions to be tested, while grammaticality judgements based on intuition have been applied to the tested sentences. The aim of the study necessitates grammaticality judgements. However, it should be taken into account that these judgements have been based on the author's intuition which can be considered a limitation. To account for this limitation, grammaticality judgements have also been carried out by native speakers of English. Appendix 1 includes the form used for this task. Five native-speakers have contributed with their intuition and judgments. As mentioned in section 4.2, 1200 sentences forms the foundation of this study and among these a number of representative sentences have been chosen for grammatical judgements. Moreover, the informants were exclusively from England, mainly residents or former residents of Birmingham and London. The single criterion for inclusion was that the participants were native speakers of English. Davies (2004: 435) defines a native speaker as a person who "acquires the L1 of which she/he is a native speaker in childhood", which is also the definition applied in this study.

Highly related to the native speaker's intuition is the ability to acquire idiomatic language. Prodromou (2003: 45) points out that idiomaticity "is one of the acid-tests of native-speaker competence and distinguishes even the most sophisticated non-native user of the language from the native-speaker". Familiarity with idiomatic expressions is essential to the successfulness of the idiom test, see section 3.3.2. Therefore, the participants of this study have also been asked to judge whether or not the idiomaticity of the tested idioms is persevered.

# 5. Findings and discussion

The following section provides a presentation and discussion on the results found in this study. Each test is presented separately and discussed based on both the traditional Principle and Parameters approach to Control and on the movement theory on Control.

## 5.1 The thematic role assignment test

The thematic role assignment test is considered the most reliable method to distinguish between Raising and Control predicates, which is explained by the fact that thematic difference is what essentially differentiates Control from Raising (Carnie 2006: 403).

24. a. So he seems to see moves as more personal than business.

    b. The Rockets are certain to finish the season somewhere between the second and fifth seeds.

    c. They are likely to turn out like the woman in the New York article.

    d. I believe to create jobs, it helps to have created jobs.

25. a. Chaz Higgs tries to convince the jury he wouldn't kill his wife.

    b. Can they persuade Gordon to sign an extension at the end of the season?

    c. First patient, Ray Fearing, said he was reluctant to give up the kidney his sister donated.

    d. He was devoted to his father and eager to please him.

The main predicates in (24) do not assign an external theta role. For example, in sentence (24a) *he* does not *seem*, rather he *sees*. Thus, *he* is theta-marked by *see* and not by *seems*. Likewise, *they* in (24c) is theta-marked by *turn out* and not by *are likely*. Contrasting the sentences in (24) with those in (25), the difference between Raising and Control predicates becomes obvious. The matrix predicates in (25) assign external theta roles. In (25a), *Chaz Higgs* actually *tries* something thus *tries* theta-mark *Chaz Higgs*.

Some of the sentences examined in this study provide further evidence to the fact that Raising predicates do not assign an external theta role.

26. Seems to me being stronger than most others around you.

Even though this sentence does not have a subject it is judged as acceptable. The explanation for the acceptability of (26) and similar examples is traced to the fact that the matrix predicate *seem* is a Raising verb. The absence of a subject results from the thematical properties of

Raising verbs. Therefore a similar construction would not have been possible if the sentence had contained a Control verb.

27. *Reluctant to me being stronger than most others around you.
28. *Eager to me being stronger than most others around you.

Compare sentence (26) with sentences (27) and (28), which are identical to (26) with the exception that they include Control predicates instead of Raising predicates. While it is possible, however not very common, to start a sentence with a Raising predicate, it is not possible to begin a sentence with a Control predicate. The reasoning behind the different behavior of Raising and Control predicates is traced to the thematical differences between these predicates.

The traditional tests used to distinguish between Raising and Control predicates originate from the fact that Raising predicates are thematically different from Control predicates. As seen in section 3.2.1 and 3.2.2, claims have been raised against the Control module and according to Boeckx and Hornstein (2006: 119) the thematic difference is the only criterion we can use to distinguish between Raising and Control predicates. The thematic role assignment test depends on this difference and it is not dependent on the existence of PRO or on any other entity of the Control module. Thus we can conclude that the thematic role assignment test is a reliable test which can be applied regardless of the theoretical stance taken towards the Control module.

Although the thematical difference between Raising and Control predicates is the most essential distinguisher, it is commonly not referred to as a specific test. Davies and Dubinsky (2004: 4) however mention the thematic role assignment test as a method to distinguish between Raising and Control predicates. The purpose of the test is to prove the empirical differences between Raising and Control, but also to provide an accessible tool to distinguish between them. It can be questioned if deciding whether or not a predicate assigns an external theta role is considered an easy task. Making this decision requires prior knowledge about the structure of both Raising and Control constructions, as well as knowledge about other syntactic concepts. As we have seen above, the thematic role assignment test is reliable, however it is not as accessible as some of the other tests.

## 5.2 The idiom test

The idiom chunk evidence for distinguishing between Raising and Control constructions seems to be a rather reliable test and is therefore one of the most commonly mentioned. As explained in section 3.3.2, the idiom test is closely related to thematicity.

29. a. The cat is likely to be out of the bag.

  b. She seems to have a bee in her bonnet

  c. The shit appears to hit the fan.

  d. The fur is believed to fly.

30. a. The cat is reluctant to be out of the bag.

  b. She is eager to have a bee in her bonnet.

  c. The shit tries to hit the fan.

  d. The fur is persuaded to fly.

The sentences in (29) are all Raising constructions, while the sentences in (30) are Control constructions. The idiomatic meaning is preserved in (29a-d), due to the fact that the idiom chunk still receives its thematic role inside the embedded clause. The thematic position of the subject is within the embedded clause, as can be seen in (31).

31. The cat$_i$ is likely [t$_i$ to be out of the bag].

The syntactic construction of the sentences in (30) is different from those in (29). In (30a-d) the idiom chunks receive their thematic roles from the predicate in the matrix clause and thus they lose their idiomatic meaning.

32. The cat$_i$ is reluctant [PRO$_i$ to be out of the bag].

Since the explanation for the idiom test can be found in the thematicity of Raising and Control predicates, it is safe to assume that this test does not contradict the movement theory on Control. The external theta position of matrix verbs in Control constructions is not available regardless of which theoretical approach to Control we assume. Landau (2003: 488) confirms that the idiom test functions equally well with both theories.

The present study confirms the idiom test's success at distinguishing between Raising and Control constructions. However, in most textbooks on Raising and Control only a few standard idioms are presented. The idiom chunks presented here and in the literature are, of course, such idioms for which this test works fine. Arguments have however been raised

against this test claiming that it does not work with all idiom chunks and thus its reliability can be questioned (Butler & Tsoulas 2006: 14-16). Consider the following example,

33. a. A bird in the hand is likely to be worth two in the bush.

    b. A bird in the hand seems to be worth two in the bush.

According to Butler and Tsoulas (2006: 15), the idiomatic meaning in (33a-b) is lost even though they both include Raising predicates which should not affect the non-literal meaning. A non-idiomatic reading of (33) may however not be as obvious as wished for. Whether or not these sentences should be interpreted as carrying a non-literal meaning seems to depend on the reader's individual interpretation. Even though the reader might not agree with Butler and Tsoulas' (2006: 15) interpretation, the very fact that there exists a discussion on whether or not an idiom consisting of a Raising predicate should be interpreted idiomatically sheds some doubts on the test. Furthermore, Butler and Tsoulas (2006: 15) claim that if we manage to find the right examples, idiom chunks may retain their non-literal meaning even with Control predicates. However, finding an idiomatic expression which allows a Control predicate is rather difficult. Arguments of Control predicates must be animate and the majority of idioms take inanimate subjects (Nunberg et al. 1994: 518).

   The fact that most, or all, idiom chunks have inanimate extensions has been an argument raised against the existence of Control predicates in idiomatic expressions. Another strong argument is that idiom chunks do not carry meaning and Control is exclusively available to meaningful expressions (Schenk 1995: 260). The examples in (29a-d) and (30a-d) support the claim that Control predicates cannot exist within idiomatic expressions, while Raising predicates can. Until an idiom which allows a Control predicate is found, we have to content ourselves with this conclusion. However, the above mentioned discussion on Raising and Control predicates' relation to idioms should not be neglected and the reliability of the idiom test may have to be questioned.

## 5.3 The pleonastic test

The pleonastic test is highly related to thematicity, as seen in section 3.3.2. The absence of an external theta role in a Raising predicate allows it, as opposed to Control predicates, to take a semantically empty subjects, such as the pleonastics *it* and *there*.

34. a. After a couple of experiences like that, you're likely to give up on that button and use the remote's energywasting standby button.

b. It is likely that you will give up on that button and use the remote's energywasting standby button after a couple of experiences like that.

35. a. So he seems to see moves as more personal than business.

b. It seems that he sees moves as more personal than business.

The vast majority of Raising sentences tested in this study performed as predicted in the pleonastic test, as is evident in (34) and (35). The subject of the matrix predicate in sentence (34a) is *you*, however *you* is theta-marked by the predicate *give up* in the embedded clause and not by *are likely*. The thematical relationship, or the non-existence of it, between *you* and *are likely* makes it possible to insert the pleonastic *it* in the subject position of the matrix clause. The same explanation stands for (35).

However, a couple of sentences were more problematic to apply to the pleonastic test without distorting the meaning of the sentence.

36. What seems to be the trouble?

To insert the pleonastic *it* before a Raising predicate, such as *seems* in (36), is possible, however the problem in this sentence is to retain the meaning of the *wh*-question.

37. *What it seems that is the trouble?

The meaning of (36) is lost in (37), and the insertion of the pleonastic *it* causes problems to the meaning of this question. The problem does not seem to be the actual insertion of *it* in relation to *seems*, rather it is the insertion of an pleonastic after the *wh*-element. A similar problem has been traced in sentence (38).

38. See how blue the sea looks from up here? How calm it appears?

The Raising verb *appears* is preceded by *it* in this sentence, however this is not a pleonastic. In normal cases, the presence of the pronoun *it* does not cause any problems to the pleonastic test. Rather, the problem in this sentence lies in retaining its meaning while applying the pleonastic test.

39. See how blue the sea looks from up here? How it appears that it is calm?

The question in (38) does not entail the exact meaning of (39). The meaning of (38) is distorted through the insertion of the pleonastic *it* in (39). The problem does not lie in the

relationship between the pleonastic *it* and the Raising verb *appears*, rather this sentence, as well as (37), is problematic for other structural reasons.

Moving on to an investigation of the pleonastic test in relation to Control predicates, we find that the test fulfills its aims. A subject of a Control predicates must bear meaning, some even argued that it must be animate, which makes a semantically empty pleonastic impossible in the subject position (Radford 2004: 276).

40. a. Likewise, prosecutors and judges are reluctant to dwell on the religious beliefs of defendants.

b. *Likewise, it is reluctant that prosecutors and judges dwell on the religious beliefs of defendants.

41. a. Police from Baltimore's homicide unit try to track down a man who witnessed the murder of a local drug dealer.

b. *It tries that police from Baltimore's homicide unit track down a man who witnessed the murder of a local drug dealer.

In sentences (40) and (41) the pleonastic *it* cannot be placed in the subject slot of the Control predicates. The meaning in (40b) and (41b) is not only lost, these sentences are also ungrammatical.

As pointed out in section 3.2.1, the pleonastic test is supported by the movement theory on Control. The assignment of an external theta role is according to the MTC the only matter which distinguishes Control predicates from Raising predicates. Moreover, the effectiveness of the pleonastic test is not dependent on the existence of PRO, rather it is traced to the fact that pleonastics can raise but they cannot control. For the above mentioned reasons this test complies well with both the traditional Control module and the movement theory on Control.

## 5.4 The clausal subject test

As explained in section 3.3.4, the clausal subject test is related to the predicate's thematicity. The absence of an external theta role allows Raising predicates to take clausal subjects, while the existence of an external theta role prevents Control predicates from doing the same.

42. a. It's certain to become one of the most visited memorials in the United States.

b. That it will become one of the most visited memorials in the United States is certain.

43. a. The baby isn't likely to need to become attached to something else.

b. That the baby is attached to something else isn't likely.

44. a. Some believe Briscoe to be the natural son of the regent George and Mrs. Fitzherbert.

b. That Briscoe is the natural son of the regent George and Mrs. Fitzherbert is believed widely by some.

As we can see in the examples above, clausal subjects can be used for Raising predicates and in the above mentioned examples it creates grammatical sentences. However, the clausal subject test has appeared to be more problematic with the Raising verb *seem*.

45. a. There seems to be a clausal connection.

b. *That there is a clausal connection seems.

In (45b) *seem* does not act according to our prediction. The Raising predicate *seem*, as well as *appear*, are exceptions to the phenomenon of extraposition. Extraposition occurs when the subject clause appears in the end of the sentence. Most verbs can occur in both extraposed and non-extraposed sentences. However, *seem* and *appear* can only occur in extraposed constructions (Börjars & Burridge 2010: 232). Sentence (45a) contains extraposition and as such it is grammatical, while the non-extraposed version of the sentence in (45b) is not acceptable. That *seem* and *appear* have obligatory extraposition is explained by the fact that these verbs are intransitive (Brinton & Brinton 2010: 248).

The Raising predicate *seem* can also function as a linking verb. Aijmer (2009: 80) points out that "When *seem* occurs in constructions with an adjective or noun it is not an auxiliary such as *seem to* but it is similar to a copula".

46. That there is a clausal connection seems certain.

Used as a copular verb, as in (46), it is possible for *seem* to take clausal subjects. Thus, for the clausal subject test to be effective with the Raising predicate *seem*, it is important to make sure that it is used as a Raising predicate in the given sentence and not as a copular verb. The syntax and semantics of these constructions have been proved to be quite intricate but a detailed discussion of the finer points is beyond the scope of this essay. Having said that, despite any theoretical problems these constructions present for different paradigms, they did not cause any problems for the present study.

Unlike Raising predicates, a tensed version of the embedded clause cannot be used as the subject of a Control predicate. The embedded clause ends up in the subject position

through movement to the specifier of TP. However, since Control predicates assign an external theta role, the specifier of TP is not available and movement is prevented as the following examples illustrate.

47. a. Some Americans, unhappy with the Bush administration, are eager to witness Chavez's Bolivian revolution.

b. *That some Americans, unhappy with the Bush administration will witness Chavez's Bolivian revolution is eager.

48. a. Others have seemed reluctant to talk about my grief.

b. *That others seem to talk about my grief is reluctant.

49. a. We try to note where and how it lives.

b. *That we note where and how it lives tries.

None of the above sentences are judged grammatical. Through moving the embedded clause to the subject position of the predicate, the theta-marked subject is lost. In (47b) it is not *some Americans* which are *eager*, rather it is the whole embedded clause.

It is common that Raising and Control constructions contain adverbs, which also affect the result of the subject clausal test and further proves the distinction between Raising and Control.

50. a. Neighbors are always likely to take an unhealthy interest in any country with fissiparous tendencies.

b. That neighbors take an unhealthy interest in any country with fissiparous tendencies is always likely.

51. a. I'm always eager to tell a woman how fabulous she looks.

b. *That I tell a woman how fabulous she looks is always eager.

Sentence (50a) includes the Raising predicate *are likely* combined with the adverb *always*. The adverb *always* modifies *likely* and thus is can be moved together with the predicate and the meaning of the sentence is still retained. Movement of Control predicates cause, as our test predicts, ungrammatical sentences such as (51b). Had the adverbs in the above mentioned sentences been agent-oriented, further evidence for the distinction between Raising and Control would have been established. Since Raising predicates do not assign an external theta role, agent-oriented adverbs cannot be interpreted as modifying the Raising predicate (Edelstein 2013: 6). For this reason, a sentence containing a Raising construction retains its

meaning even if the Raising predicate is moved. However, Control predicates do assign external theta roles and thus adverbs are interpreted as modifying them and cannot be moved.

Similar to the tests investigated so far, the clausal subject test is highly related to thematicity. The absence of an external theta role allows Raising predicates to take a tensed form of the embedded clause as subject. Moreover the meaning of the embedded clause is preserved even though the matrix predicate is moved. However, the embedded clause in Control constructions is highly related to the matrix predicate, which prevents movement of the Control predicate. As the TP in a Control construction is already occupied by its external theta role, the embedded clause is prevented from entering this position.

Since the clausal subject test is not related in any way to PRO, there seems to be no reason to assume that this test would not comply with the movement theory on Control. The MTC, as well as the traditional Control module, stipulates that the most essential difference between Raising and Control is traced to their thematical difference. Since the clausal subject test aims at establishing whether or not there is a thematic relationship between a predicate and its argument, it is safe to argue that this test would not contradict a movement interpretation of Control.

## 5.5 The passivization test

The passivization test is suitable for distinguishing between Raising to subject and subject Control predicates. A Raising to subject sentence can be passivized and still retain its meaning. Consider the following sentences.

52. a. He seems to be experiencing something more than pain=
    b. Something more than pain seems to be experienced by him.
53. a. Mum will be certain to find it if he puts it in the wardrobe=
    b. If he puts it in the wardrobe it will be certain to be found by mum.

That passizivisation creates synonymous sentences can be explained by the thematicity of the Raising predicate. Since Raising predicates do not assign external theta roles, they are not sensitive to movement. *He* in (52a) is not theta-marked by *seems*, thus the subject *he* can be moved to the object position. Similarly, the non-finite complement *certain to* in (53a) does not take an external theta role and therefore *Mum* can appear in the object position.

In contrast to Raising predicates' ability to passivize, Control sentences cannot be passivized. A Control sentence with an active complement does not entail the same sentence in the passive form, as is obvious in the following examples.

54. a. most captured terrorists try to mislead investigators to protect themselves, their comrades and future plots ≠
    b. Investigators try to be misled by most captured terrorists to protect themselves, their comrades and future plots.
55. a. Others in Britain were eager to bury the incident and try to preserve Ottoman neutrality ≠
    b. #The incident was eager to be buried by others in Britain and try to preserve Ottoman neutrality.

The sentences in (54a-b) and (55a-b) are not synonymous. In (54a) *the terrorists* try to mislead *the investigators*, while in (54b) the *investigators* try to be misled. That *the terrorists try to mislead* does not entail that *the investigators* try to be misled by them, rather they are probably not trying to be misled in reality. Sentence (55), as well, receives an odd meaning when passivized, *the incident* cannot be *eager*. That Control sentences cannot be passivized is explained by the fact that Control predicates assign an external theta role and thus they cannot be freely moved around without losing the original meaning. The semantic relationship between the matrix predicate and the subject needs to be maintained, which it is not if the sentence is passivized.

Examples (54) and (55) illustrate that the passivization test makes a clear distinction between Raising predicates and Control predicates. As this test relies on thematicity and not on the existence of PRO, the movement theory on Control can also account for it (Landau 2003: 488). That the arguments in a Raising construction can be passivized, while Control predicates cannot, depends on distribution of theta roles. A passivized Raising construction retains its theta roles as can be observed in (52) and (53) contrary to Control constructions as in (54) and (55).

## 6. Conclusion

This study focused on the most commonly used tests to distinguish between Raising to subject predicates and obligatory subject Control predicates, namely (1) the thematic role assignment test, (2) the idiom test, (3) the pleonastic test, (4) the clausal subject test and (5)

the passivization test. As explained in section 2 the aim of the present study was to investigate the effectiveness of these tests on authentic examples. Even though the Principle and Parameters approach to syntax has been used as the theoretical foundation, the aim of the present study was also to investigate how well the traditional tests to distinguish between Raising and Control meet the terms in the movement theory on Control.

The results have shown that the tests are at most times successful in distinguishing between uses of Raising and Control predicates in authentic examples. Even though the merits of these tests have been discussed before, the effectiveness has not, according to the author's knowledge, been tested on genuine examples. Moreover the pleonastic test and the passivization test proved themselves to successfully distinguish between genuine examples of Raising and Control constructions. There is a discussion on the effectiveness of the idiom test, see section 5.2, which sheds some doubts on how successful it is in distinguishing between Raising and Control. However, the test fulfilled its promises with the idioms traditionally used for this purpose. Moreover, the clausal subject test proved its effectiveness with the exception of the Raising predicates *seem* and *appear*. As discussed in section 5.4, it is well-known that *seem* and *appear* are obligatorily extraposed and as such, they cannot take a clausal subject.

Of the five tests included in this study, the thematic role assignment test is the most reliable. However, it has proven itself to be not as accessible as the other tests included in this study. Had the thematic difference between Raising and Control predicates been easily detected, the remaining tests aimed at establishing this difference would not have been necessary. The aim has not been to compare the tests with each other or to decide on the most superior test. However, while evaluating these tests it should be taken into consideration that a potential user's restricted knowledge on syntax can affect the outcome of the thematic role assignment test.

The aim of the present study was likewise to investigate how well the tests used to distinguish between Raising and Control predicates comply with the movement theory on Control. As explained in section 3.2.1 the MTC considers the thematical difference between Raising and Control predicates to be the only true distinction between these constructions. Thematicity has also been the distinguishing factor in the investigated tests. The data in the present study support a movement interpretation of Control, and therefore we have to conclude that the tests are consistent with the MTC. It should however be noted that the aim of the present study was not either to confirm or disprove this theory. Nevertheless the fact

that the tests work equally well with the MTC supports an alternative interpretation on Control.

Moreover, the present study does not claim to be an exhaustive account of the distinction between Raising and Control and its relationship to the movement theory on Control. On the contrary, there are several areas within this field which need to be studied to arrive at a more stable conclusion. To begin with, this study has only concerned itself with Raising to subject and subject Control and entirely abandoned the distinction between Raising to object and object Control. Moreover, only commonly used Raising and Control predicates have been investigated in the present study. To better understand the distinguishing factors behind Raising and Control, authentic uses of less frequently studied predicates have to be included. A future study would also do well in investigating the differences between Raising and Control not based on thematicity to see how these comply with the movement theory on Control.

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# The native speaker's intuition task

**Part 1. Grammatical judgments.**

**Grammatical sentence**: not marked

**Ungrammatical sentence**: mark with (*)

**Semantically ill-formed sentence** (grammatical, however the meaning is strange): (#)

**Examples:**

The man with the red jacket came.

Man the came to the station *

The toothbrush likes to eat candy #

1. It tries that police from Baltimore's homicide unit track down a man who witnessed the murder of a local drug dealer.
2. That the baby is attached to something else isn't likely.
3. Seems to me being stronger than most others around you.
4. That there is a clausal connection seems certain
5. It is likely that you will give up on that button and use the remote's energywasting standby button after a couple of experiences like that.
6. That it will become one of the most visited memorials in the United States is certain.
7. It seems that he sees moves as more personal than business.
8. That Briscoe is the natural son of the regent George and Mrs. Fitzherbert is believed widely by some.
9. What it seems that is the trouble?
10. That I tell a woman how fabulous she looks is always eager.
11. Likewise, it is reluctant that prosecutors and judges dwell on the religious beliefs of defendants.
12. That some Americans, unhappy with the Bush administration will witness Chavez's Bolivian revolution is eager.
13. That others seem to talk about my grief is reluctant.
14. That we note where and how it lives tries.

15. That neighbors take an unhealthy interest in any country with fissiparous tendencies is always likely.

16. Reluctant to me being stronger than most others around you.

17. That there is a clausal connection seemed.

18. Eager to me being stronger than most others around you.


**Part 2. Idioms**

Examples 18-27 are common idiomatic expressions in which an extra verb or predicate have been placed. Please read these through and decide whether or not they still carry an idiomatic meaning, if they do not then mark them with (?).

19. The cat is likely to be out of the bag.

20. The fur is persuaded to fly.

21. She seems to have a bee in her bonnet.

22. The shit tries to hit the fan.

23. The shit appears to hit the fan.

24. The cat is reluctant to be out of the bag.

25. She is eager to have a bee in her bonnet.

26. A bird in the hand is likely to be worth two in the bushes.

27. The fur is believed to fly.

28. The cat is reluctant to be out of the bag.

29. A bird in the hand seems to be worth two in the bushes.