

The *Tough*-Construction in Generative Syntax

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Chapter 1

Introduction

1.1 The purpose of this book

At some point nearly all aspiring syntacticians will encounter a sentence like (1) in their syntax classes.

(1) This book is easy to read __.

Depending on the formal background of the instructor, or how advanced a course it is, the syntactician-in-training will take away certain ideas about (1). Which ideas? It is possible that the student will learn that *this book* has moved from after *read* to its position as the subject of the sentence. Or it's possible that the student will learn that *easy to read* is a complex predicate, predicated of the subject. Or possibly the student will learn that there is a “mixed” movement chain, involving a step of A'-movement as well as A-movement. Maybe the student will be asked to analyze aspects of the sentence, by, say, providing tests showing a movement dependency between *this book* and the gap. Or maybe the student will be asked to look at whether there is a Control dependency in (1). The student might be tasked with comparing, say, *This painting is pretty to look at* __ with the example above, and providing an explanation of the differences and

similarities.

Whatever ideas the student takes away, it is unlikely that the student will have “solved” the various issues surrounding (1). This is because there is very little consensus on whether there *is* a correct analysis of (1). Indeed, if the student is anything like myself, they might come away more confused than when they started. The sentence in (1) displays an array of sometimes contradictory properties. It stands as a unique, and perplexing, area of syntactic study.

In this book, I will seek to lay out the empirical and theoretical issues surrounding the *tough*-construction, exemplified in (1). What makes the *tough*-construction so interesting and important is that it touches on some of the most fundamental aspects of syntactic theory. It raises questions like, What is the relationship between an argument and predicate? What does “predication” even mean, and which categories does this term apply to? How are long-distance dependencies formed? What are thematic roles, and what function do they serve in a sentence?

It is because of its unique status that the *tough*-constructions has played a role in the development of almost all generative syntactic frameworks. And despite decades of work, new discoveries continue to be made—in English and in other languages. Nonetheless, the facts remain murky. Beyond simply the disagreement about the correct theoretical approach, there is general disagreement about what is and is not grammatical when it comes to the *tough*-construction. The purpose of this book therefore to provide clarity on all fronts, both theoretical and empirical—where it can be found. In some cases, our knowledge is still lacking.

We begin our investigation in Chapter 2, where I will review the basic properties of the *tough*-constructions. There is a specific, universal “signature” that characterizes the *tough*-constructions across all languages. Besides the well-known “thematic displacement,” the *tough*-construction (including its sub-varieties) has a variety of identifiable traits, the cumulation

of which make it unique among syntactic constructions. In this chapter, we'll grapple with some of the trickier—and most debated—issues, like, Do *tough*-predicates project an experiencer argument? Does the nonfinite clause allow a subject position? Is there movement inside and outside of the nonfinite constituent? And does the subject bear a thematic role?

Chapter 3 expands the empirical domain beyond the “core” *tough*-predicates like *easy*, *tough*, *difficult*. We'll examine subclasses of these predicates, like the *rare* class of predicates and *take time*. As instances of the *tough*-construction, they shed light on the empirical discussion from Chapter 2, and demonstrate that the *tough*-“family” is wide and heterogenous. The second half of Chapter 3 is dedicated to “almost” *tough*-constructions, i.e., the neighbors of the *tough*-construction. We'll look at things closely related, like *pretty*-constructions, and things less closely related, like copy-raising. This chapter brings into focus our broader understanding of the definitional properties discussed in Chapter 2, and emphasizes the uniqueness of the construction.

Chapter 4 is dedicated to reviewing theoretical approaches. Formal work on the *tough*-construction extends back decades (though it is largely concerned with English). As theories have changed, so have analyses of the *tough*-construction. In many cases, the shift to a new theoretical model co-occurs with a shift to a different aspect of the *tough*-construction. In this chapter we will look at some of the successes, and failures, in explaining various properties of the *tough*-construction. In this chapter, we'll also look at ways researchers have tried to define what a *tough*-predicate is. These definitions range from lexical, argument structural, and semantic criteria. We will ask the question, What does it mean to be a *tough*-predicate?

Chapter 5 moves the discussion out of English, looking at the cross-linguistic picture. We will consider well-reported languages, like French, German, Japanese, and Korean, and also less well-reported languages like Thai and Modern Standard Arabic. This chapter will show that there is

indeed a universal “signature”, but also that there are numerous points of variation in the *tough*-construction. We will define precisely what those points of variation are, and the range of values that they may take across languages. In Chapter 6, we’ll conclude, discussing what we know, what still don’t know, and which theoretical approaches best capture the known facts and variation.

1.2 Terminology

A brief note on terminology is in order. In general, I find novel acronymic abbreviations abhorrent. I have therefore introduced only one in this book: “TC” standing for *tough*-construction. There are some other well-used phrases that will have a shorthand. I believe that they all are transparent, but for clarity’s sake, I provide their definitions here. First, I will mention the term “ToughPred” frequently. This refers to a member of the class of predicates that appear in a TC. Second, I will use the term “ToughSubject.” This is the main-clause subject in TC; it is the element that is connected to the gap. All other acronyms or shorthands are either (i) known from previous literature, or (ii) conventional standards.

1.3 Who should read this book?

This book is not an introductory syntax textbook. Readers are advised that some basic understanding of core issues and ideas in syntactic theory are necessary. While I have attempted to make the book accessible to mid- to advanced levels of syntacticians, certain concepts (e.g., Binding, Control, A'-movement, ...) will not be spelled-out in full.

Chapter 2

Properties of the English *tough*-construction

2.1 The Core *Tough*-Construction

In this chapter, we will grapple with the “signature” of the TC. Descriptively, all examples of the TC (across languages) seem to have the following three defining characteristics.¹

(2) **The signature of the *tough*-construction**

- a. The subject is *syntactically* the subject of the main-clause predicate, but *thematically* associated with the linked position in the subordinate constituent.
- b. The linked position is *not* the highest subject of the subordinate constituent.
- c. The subordinate constituent is nonfinite.

¹Note that I used the phrase “linked position” in (2). In English, this should be read as “gap,” since the TC requires a gap in the nonfinite constituent. But in other languages resumptive pronouns are possible instead of gaps. Thus the presence of a gap *per se* is not definitional to the TC.

These are of course not equivalent properties. The first property in (2a) is the most crucial defining feature; it is what makes the TC interesting from a theoretical perspective and the goal of all extant analyses of the TC is to explain this property. Excluding thematic displacement from (2), we derive the broader class of Complement Object Deletions, like *pretty*-constructions (subsection 3.2.1) and *too/enough*-clauses (subsection 3.2.2), shown respectively in (3).

- (3) a. That painting is pretty (to look __)
 b. Jeffrey is too angry (to drive __)

It is well documented that these kinds of sentences, though superficially identical, do not have the same core properties as the TC (Lasnik and Fiengo, 1974). The clearest difference is that the subject in the sentences in (3) is a thematic subject of the predicate (*pretty* and *angry*, respectively). The difference is empirically observed by the fact that omitting the nonfinite constituent preserves grammaticality. The TC on the other hand does not allow the same clausal omission. Absent the nonfinite constituent, TCs cannot be given an interpretation (out of a context; I return to this later).

- (4) a. That city is difficult ??(to get lost in __)
 b. That monster is impossible ??(to kill __)

Besides thematic displacement, the other two properties in (2b) and (2c) also seem to be characteristic of all reported TCs, but these are probably best considered as secondary after (2a).² First, the TC systematically does not permit subject gaps. Thus it is distinguished from both subject-to-subject-raising and subject Control.

- (5) a. Jeff is likely __ to get fired.
 b. Jeff is eager PRO to leave.

²A small qualification is necessary. There are two languages (Japanese and Thai) that are reported to have “unbounded” TCs which span tensed clauses. I’ll discuss these in Chapter 5.

Though the earliest attempts at analyzing the TC sought to group the TC together with (5a) or (5b) (see chapter 4), it is clear that it belongs to a different category. In part, this is observed through the distinct kinds of movement diagnostics that characterize the TC, as we will talk about later in subsection 2.2.7.

Finally, perhaps the most interesting property—and difficult to explain—is shown in (2c): the subordinate constituent must be nonfinite. Again, this is robustly true of all TCs across all languages. For instance, while *important* can take either a finite or nonfinite clause, the *tough*-construction is only found with the nonfinite version.

- (6) a. It was important that Mary read this article.
 b. * This article was important that Mary read __
 (Gluckman, 2021a)

Interestingly, I know of no broader construction that allows this kind of dependency, i.e., a thematic displacement of a non-subject out of a finite clause. Omitting (2c) simply leads to an (as yet) unattested construction.

The signature in (2) lists the properties that are shared by all TCs across all languages. But there are other characteristics of the TC which probably do not have crosslinguistic validity. The purpose of this chapter is to go into detail into the three properties above, as well as the additional properties that are characteristic of the *tough*-construction as it applies to English (i.e., they may not be universal). I discuss here the various peculiarities associated with the gap in the nonfinite clause, the ToughSubject, and their relationship.

2.2 Properties

The first few sections are broadly concerned with the argument structure of ToughPreds. As we look at the data below, one question we have to keep

in mind is whether the diatheses we see in (7) are *derived*. That is, is it the case that any of the three sentences in (7) is derived from any other?

- (7) a. To start this car is difficult.
 b. It is difficult to start this car.
 c. This car is difficult to start __.

It turns out that much of the literature answers this question in the positive: there *is* a derivational relationship between (at least some of) these sentences. Importantly, if the answer to this question is yes, then it implies that we can infer something about the analysis of (7c) from (7a) and/or (7b). Specifically, we might suppose that ToughPreds always project the same argument structure, that is, the nonfinite clause and the “experiencer” argument of the ToughPred (the implicit individual who experiences difficulty in (7)) are always projected. This is probably the null hypothesis—but it is by no means the only hypothesis. It is entirely possible that ToughPreds have three distinct frames, generating the three sentences above. Indeed, as we’ll see, individual ToughPreds can show considerable variation in their syntactic and semantic arguments. The takeaway message here is that not all of the data below—specifically those involving sentences like (7a) and (7b)—necessarily speak to the analysis of the TC in (7c).

2.2.1 Thematic displacement

The most well-cited aspect of the TC is the idea, noted above, that there is a thematic displacement. The ToughSubject is “in the wrong place.” This is evidenced above by the fact that omitting a nonfinite clause leads to a degraded status. (8) are repeated from above.

- (8) a. That city is difficult ??(to get lost in __)
 b. That monster is impossible ??(to kill __)

There are some caveats to this claim though. First, sometimes we have cases of lexical ambiguity. Some ToughPreds—indeed, most it would seem—are ambiguous in that they sometimes simply describe an individual. Thus, (9) are perfectly grammatical without the associated nonfinite constituent.

- (9) a. John is difficult (to please __)
 b. This teacher is tough (to please __)

But these sentences simply invoke a different meaning of these adjectives. *Difficult* and *tough* can be used to describe an individual's personality. Note that in this use, the sentences are read as stage-level predications, which is otherwise not available for TCs (??). The ambiguity can (sometimes) be controlled for with progressive aspect.

- (10) a. John is being easy to please __.
 b. * It is being easy to please John.

(Rothstein, 2004: 184)

For Lasnik and Fiengo (1974), this is due to a constraint on progressive *be*, which must have an animate subject. For Rothstein (2004), the progressive *be* in (10a) is “Agentive.” Whatever the explanation, it is clear that this does not extend to all ToughPreds. It is more likely that certain ToughPreds are ambiguous between ToughPreds proper and predicates that describe an individual.

A second caveat comes from sentences like (11).

- (11) The exam was easy/hard/tough. (Hornstein, 2001: 110)

These kinds of sentences also seem to suggest that ToughPreds can thematically license a subject. However, as I discuss in Gluckman (2021a: 467), the subject in (11) must be read *metonymically* here, meaning “taking the exam” or similar. This is possible with nouns that can readily stand for events. So nouns like *the test*, *contest*, *chore*, *task*, *errand*, *puzzle* easily

work in lieu of *the exam* in (11). But nouns which are not easily coerced into an eventive reading, *chair, house, cup, honesty, ...* are degraded as the subject without an associated nonfinite clause that can tell us how to interpret the role of the subject. It is exactly the same reason that certain nouns work under an aspectual verb like *begin* (Pustejovsky, 1996).

- (12) a. Mary began the test/contest/chore/task/errand/puzzle. (Gluckman, 2021a: 467, fn 19)
- b. ?? Mary began the city/chair/house/cup/honesty.

The reason that (12b) are degraded is that it is comparatively harder to coerce these nouns into events. But it is important to note that we are very *good* at such coercion when we have. Thus, (12b) and (8) are typically judged as questionable, rather than ungrammatical. The reason often given is that when we say ??*The city is difficult* or ??*Mary began the city*, we can accommodate an appropriate event

A final caveat about the claim that there is a thematic displacement comes from the multiple sources that have suggested that the ToughSubject is assigned a thematic role, but that thematic role is specific to the TC. I'll address these ideas in subsection 2.2.9.

2.2.2 No subject gaps

It is an empirical fact that no TC alternates a subject of the nonfinite clause with an expletive subject of the ToughPred. (I return in a moment to whether there even is a nonfinite subject in (13a).)

- (13) a. It's important for Sissy to do the laundry.
- b. * Sissy is important (for) __ to do the laundry.

Indeed, Stowell (1985) argues that the gap in the TC cannot *in general* be a subject, anywhere in the nonfinite constituent. This seems to be empirically correct, but the hypothesis is difficult to test. The reason is, it's not

clear whether this is due to the TC, or some other constraint(s) on subject extraction. For instance, (14) is ungrammatical, but extraction out of finite clauses is already degraded in the TC (as discussed next).

(14) * Erne is tough to think __ reads Tolstoy.

Moreover, extraction of the subject of a nonfinite clause is never possible, (15c).

- (15) a. It's important to be ready for the mailman to arrive.
 b. * The mailman is important to be ready (for) __ to arrive.
 c. * Who is it important to be ready (for) __ to arrive.

Finally, as we'll discuss in-depth later (subsubsection 2.2.8.4), ECM/Raising-to-Object is also barred. But whether these should count as true subjects is likely in the eye of the beholder. The same is true for small clause predications—which *do* allow gaps. Whether we want to think of those as involving a true subject is subjective; it depends in part of how we define the notion "subject."

Nonetheless, as a general empirical observation, Stowell is correct: the TC does not allow a subject gap *anywhere* in the nonfinite clause.

Bear in mind that there are constructions that do allow (something like) the alternation in (13), i.e., subject-to-subject raising. As we'll talk about below, these have a distinct signature from TCs proper in terms of their movement diagnostics.

2.2.3 Non-finiteness

In all known cases of the TC (across all languages), the highest embedded verb must be nonfinite.³

³I am aware of just one source that has claimed that the TC in English is available with certain finite clauses. Longenbaugh (2016) cites the following sentence as "marginally acceptable" (judgments from source are given).

- (16) a. * The money was tough for us to claim that John stole __.
 b. * The shoes were easy for us to convince her that the children needed __.

(Nanni, 1978: 79)

This fact is often taken for granted, but the ban on tensed clauses in the TC is quite striking. Note that, in principle, many ToughPreds may appear with finite clauses (Gluckman, 2021a).⁴

- (17) a. It was tough that Mary kicked you.
 b. It was tough for Mary to kick you.
 c. You were tough for Mary to kick __.
 d. * You were tough (that) Mary kicked __.

(Postal, 1974: 61, footnote 7)

- (18) a. It's important that Beni talk to Bernard.
 b. It's important for Beni to talk to Bernard.
 c. * Bernard is important that Beni talk to __.
 d. Bernard is important for Beni to talk to __.

This restriction on nonfinite clauses extends to when the nonfinite constituent is a subject. While some ToughPreds may appear with a finite

-
- (i) ?The schedule is important that we stick to __.

Longenbaugh suggests that the TC should be possible out of CPs that “do not induce a psych reading.” I do not share this judgment; for me (i) is strongly ungrammatical. I do note thought that Takita et al. (2022) claim that Japanese has a (variant) of the TC with a finite clause—though the data are also consistent with treating these “ToughSubjects” as Topics—possibly Broad Topics.

⁴It is worth noting that we sometimes see a correlation between clause type and particular interpretive effects, like factivity (Kiparsky and Kiparsky, 1971). The frame with the finite complement sometimes comes with a factive inference—suggesting that the ToughPreds in this case have a distinct semantic (and therefore syntactic) frame.

clausal subject, all ToughPreds can appear with nonfinite clausal subjects (Gluckman, 2021a).⁵

(19) For Beni to talk to Bernard was difficult/easy/important/fun/tough/...

As noted above, the restriction to a nonfinite clause makes the TC superficially similar to raising constructions, which are, in many languages, subject to a similar constraint on finiteness. However, it is worth noting that cases of raising out of a finite clause (i.e., Hyper-raising) are also reported in a few languages. In those languages, it does not appear to be the case that there is a comparable “Hyper-tough” construction—though more work would be needed to truly confirm this fact.

Importantly, the TC doesn’t just have a nonfinite clause, but it has a particular kind of nonfinite clause, one with a “tenseless” infinitive, in the sense of Stowell (1982). The nonfinite clause in the TC does not project its own tense value.

(20) * Yesterday, Mary was easy to kiss __ tomorrow.

(Kawai, 2011: 8)

This fact is often used as a diagnostic of a certain kind of Control relation, which I discuss next.

2.2.4 Control and infinitival subjects

The TC is sometimes thought of as an example of Exhaustive Control, a subtype of Obligatory Control (Landau, 2015). It is observed that with the core

⁵There is one peripheral case that I am aware of that might be a counterexample to this claim. The ToughPred *worth* (discussed in subsection 3.1.8) does not allow its associated nonfinite clause to appear as a subject without the addition of an expletive *object*.

(i) It was worth reading this book.

(ii) This book was worth reading __.

(iii) Reading this book was worth *(it).

As this seems to be the exception, rather than the rule, I’ll put these cases aside.

class of ToughPreds, the controller of PRO in the embedded clause must be the “experiencer” argument of the ToughPred. In (21), the individual who is experiencing fun, whether overt or implicit, is also, according to Landau, *necessarily* the individual who is watching cartoons. (We will see data below that suggests this argument need not obligatorily controlled PRO.)

(21) It is fun (for Bill) [PRO to watch cartoons]. (Landau, 2015: 69)

Importantly, the debate concerning Control points to a larger concern about whether the nonfinite clause allows a subject at all, be it PRO or an overt lexical subject. For many, the clause obligatorily lacks a subject position (Bresnan, 1971; Lasnik and Fiengo, 1974; Nanni, 1978); it is (roughly) a VP. For others, the clause retains the subject position (Berman and Szamosi, 1972; Authier, 1989; Levine and Hukari, 2006); it’s a CP. In this case, *for* is needed to case-mark the subject, which otherwise cannot get case in the nonfinite clause. The debate typically hinges on where to put the prepositional phrase headed by *for* in sentences like (22). The two most widely debated options are shown.

- (22) This book is difficult for Mary to read __.
- a. This book is difficult [_{PP} for Mary] [_{VP} to read __]
 - b. This book is difficult [_{CP} for Mary to read __]

It was observed in Brame (1977) that *both* a PP and full CP cannot exist in the TC.

- (23) a. It is pleasant for the rich for the poor immigrants to do the hard work.
- b. * The hard work is pleasant for the rich for the poor immigrants to do __.

(Brame, 1977: 382)

The question is, what makes (23b) ungrammatical? Is it the presence of a CP layer, which is required for case-marking the subject? If so, this is an example of a Specified Subject Condition (Chomsky, 1973). Or is the problem the PP, which is an “experiencer” argument of the ToughPred? If the PP is the intervener, this is a case of *Defective Intervention*, which I will discuss in subsection 2.2.7.11. This section will consider whether (22b) is a possible parse. However, before looking at evidence for an internal subject position, it is important to note that the availability of an overt PP is independent of whether or not the nonfinite constituent is a CP or VP. That is, it could be the case that in the TC an external “experiencer” PP is projected *in addition* to there being a full CP nonfinite clause. These issues often get conflated; in many works the presence of an experiencer is taken as evidence that the nonfinite constituent is smaller than a CP.

In fact, the debate between the VP-structure and CP-structure turns out

to be a fairly tricky issue.^{6,7} The answer to this question typically hinges on whether we can force the DP following *for* to be inside of the clause. A well-cited piece of evidence is concerned with expletive subjects, which are strongly degraded as subjects of the infinitive (see subsection 2.2.8.3). Since the expletive must be in the embedded clause—an expletive cannot be an “experiencer” selected by the adjective—the unacceptability of (24b) suggests the TC cannot appear when the embedded clause projects a subject.⁸

⁶Indeed, in Chomsky (1981), which dedicates a lot of space to the TC, Chomsky suggests a reanalysis derivation. The nonfinite clause starts as a full CP, but is later re-analyzed as smaller, forming a complex predicate with the higher clause. Thus, in this analysis, it can be said that the associated nonfinite constituent is *both* full and reduced, depending on the point in the derivation.

⁷I should mention that Levine and Hukari (2006) critically examine a number of distinct arguments concerning the size of the embedded clause, including (i) prosody (from Bresnan 1971); (ii) extraposition (from Bresnan 1971); (iii) PP-displacement (from Chomsky 1973 and Lasnik and Fiengo 1974). They forcefully argue that the nonfinite constituent *must* be a CP. A very clever argument from Guyanese Creole is shown in (i), (ii) below. They observe that in the *tough*-construction, the pronominal form that follows the preposition *fu* ‘for’ in TCs is invariably *nominative*, not the expected accusative that appears in “true” PPs, shown in (iii).

(i) *Savi haa fu i / *am fuul* __
Savi hard for he him fool

‘Savi is hard for him to fool __.’

(ii) *Jan iizi fu Mieri / i / *am biit* __
John easy for Mary she her beat

John is easy for Mary / her to beat __.

(iii) *we haad fu am / *i fu laas all dat moni*
it hard for him he for lose all that money

‘It’s hard on him to lose all that money.’ (Levine and Hukari, 2006: 347)

This strongly suggests that—at least in Guyanese Creole—a full CP is possible.

⁸The same point—and objection—extends to weather-expletives.

(i) It’d be annoying [_{CP} for it to rain at the party]

(ii) ?? The party would be annoying [_{CP} for it to rain at __] (Longenbaugh, 2016: 8)

This is likely a different “flavor” of *annoying*.

- (24) a. It's impossible for there to be a book about Max.
 b. * Max is impossible for there to be a book about __. (Lasnik and Fiengo, 1974: 550)

Since *there* cannot be an argument of the adjective, the example in (24b) is a strong argument in favor of the idea that the embedded clause cannot include a subject position, i.e., must be a VP. However, Lasnik and Fiengo (1974) note that this sense of *impossible*—the “denial” reading—does not appear in the TC in general. This is the reading whereby the expression is meant as a denial, like a response to “Did you hear that there’s a book about Max?” This contrasts with the ability reading, prevalent with an eventive verb like “It’s impossible to climb that tree.” According to Lasnik and Fiengo, when used in the TC, *impossible* only has the ability reading, not the denial reading.⁹

- (25) * It will be tough for there to be at least some students in class on time.

Bresnan (1971) further argues that the TC necessarily lacks a CP (“S”) layer, using data with inanimates to force the DP after *for* to be inside of the embedded clause.

- (26) a. (*) It would be tough for a book on Hittite to please John.
 (Bresnan, 1971: 264)

⁹Bresnan (1971: 265) actually makes the same point, arguing that all instances of expletive subjects in the embedded clause are ungrammatical. Bresnan (1971) argues that true ToughPreds *never* allow a sentential complement (i.e., a CP), even when not in the *tough*-frame. This seems unlikely given the availability of (23a), which clearly indicates the presence of a lower clause. So I will focus on the more specific question of whether in the TC proper the nonfinite constituent is or is not a CP. I note that this view is revised later in Berman and Szamosi (1972), who provide the following examples, suggesting the availability of a true CP at least sometimes.

- (i) For his wife to accept this view would be tough for John.
 (ii) It would be tough for John for his wife to accept this view. (Berman and Szamosi, 1972: 320, endnote 4.1)

- b. * John would be tough for a book on Hittite to please __.

Unfortunately, there are data that seem to indicate the opposite conclusion.

- (27) a. The Titanic is impossible/easy/hard/tough for any iceberg to sink __. (Berman, 1973: 305)
- b. That boulder would be impossible for any bulldozer to move __. (Chae, 1992: 93, attributed to David Dowty)
- c. (??) That amount of liquid was tough for the pitcher to hold __. (Chae, 1992: 129)

One particularly compelling argument in favor of treating the nonfinite constituent as a CP involves parasitic gaps. Consider the examples in (28), which demonstrate that the TC can license a parasitic gap in the *subject*. (This argument is originally from Hukari and Levine 1990.)

- (28) a. These books proved tough for critics of *pg* to praise __ sincerely.
- b. That hypothesis was easy for opponents of *pg* to poke holes in __
- c. Certainly it's the kind of policy that would be logical for supporters of *pg* to pretend to dislike __
- (Levine and Hukari, 2006: 352-353)

In general, then, I think it is fair to say that with the “core” class of Tough-Preds, the data are murky as to whether a full CP is possible in the TC. Some tests suggests a subject is possible, and some suggest that it is not possible. However, if we expand the data out a bit, the picture becomes much clearer. When we look at other members of the *tough*-family (discussed in more detail in Chapter 3), we find that the embedded clause must allow for a subject position. In these sentences, the *for*-phrase cannot be generated in the main clause, and so must be part of the nonfinite clause.

- (29) a. To chop this tree down took an hour (*for Karen).
 b. This tree took an hour for Karen to chop __ down.
- (30) a. To sell weed is illegal (*for John).
 b. Weed is illegal for John to sell __.
- (31) a. To find this kind of snack in the US is rare (*for someone)
 b. This kind of snack is rare for someone to find __ in the US.
 (Gluckman, 2018: 44)

More recently, Satik (2023) has claimed that there are universal correlations within languages about the size of nonfinite clauses. The claim is the following:

- (32) If a language has a *tough*-construction, then it has wh-infinitives or infinitival complementizers. (Satik, 2023: 29)

An implication of this claim is that TCs employ CPs, because otherwise, what would be the link between TCs and cases of infinitival CPs?

In general, then, the TC *can* include a subject position in the embedded clause, meaning that it is likely that the nonfinite constituent can be a CP. However, this does not entail that it *must* include a subject position. It is very possible that some examples of the TC have a “smaller” nonfinite clause. It may also be lexically conditioned in ways that we do not yet know.

Turning back to the example in (23b) with two *for*'s, we should probably conclude that the ungrammaticality of these sentences is due to the presence of the experiencer argument. I return to this topic in subsection 2.2.7.11.

2.2.5 The experiencer argument

The flip-side of this debate is concerned with whether we can uniquely identify the “experiencer” argument of the ToughPred. It is commonly as-

sumed that ToughPreds all project this kind of an argument (though this is not exactly true, as we'll discuss below). As we discussed above, the overt presence of this argument leads to ungrammaticality.

- (33) a. It would be good for Mary for her to learn karate.
 b. * Karate would be good for Mary for her to learn __.
 (Bresnan, 1971: 268)
- (34) a. It's easy for the rich for the poor to do the hard work.
 b. * The hard work is easy for the rich for the poor to do __.
 (Brame, 1977: 382).

The idea that experiencers lead to ungrammatical is substantiated by the facts discussed in Hartman (2011). The core observation there is that some ToughPreds introduce their experiencer argument with a preposition other than *for*. This provides one diagnostic for showing that the problem with (33b, 34b) above is the presence of the experiencer. (I'll return to the issue of *defective intervention* in subsection 2.2.7.11.)

- (35) a. It is important (to Mary) to avoid cholesterol.
 b. Cholesterol is important (*to Mary) to avoid __.
- (36) a. It is enjoyable (to John) to eat strawberries.
 b. Strawberries are enjoyable (*to John) to eat __.
 (Hartman, 2011: 125)

However, the blanket statement that TCs don't permit experiencer arguments is contradicted by a number of pieces of evidence. Instead, the core generalization is somewhat narrower: TCs can project an experiencer, but the experiencer can't be *between* the ToughSubject and the gap. For instance, Lasnik and Fiengo (1974) note that a *for*-DP can be moved away from in between the adjective and nonfinite constituent, suggesting that the issue is one of placement.

- (37) a. John is easy for Bill to please __.
 b. John is easy to please __, for Bill.
 c. For Bill, John is easy to please __.

A word of caution is need with respect to this data: it's not clear that *for Bill* in (37a) is the same as in the following two examples. As Levine and Hukari (2006) observe, these latter may just be base-generated *in situ*; they haven't been displaced. Nonetheless, Hartman's data using *to* instead of *for* demonstrate that the same displacement still leads to improved grammaticality.

- (38) a. To Mary, cholesterol is important to avoid __.
 b. To John, strawberries are enjoyable to eat __.

(Hartman, 2011: 125)

A similar concern is found in the *wh*-fronting data from Rezac (2006) (drawing on examples from Heycock 1994; see also Salzmann 2023).

- (39) a. [How difficult for George]₁ is Janice₂ __₁ to forget __₂.
 b. [How difficult]₁ is Janice __₁ for George to forget __₂.

(Rezac, 2006: 293)

As (39a) shows, a *for*-PP can form a constituent with the adjective in the presence of gap, as long as it has been fronted out of the way. This again strongly suggests that the *for*-PP is associated with the adjective, not the nonfinite constituent, and moreover, this experiencer is possible in a TC.

Finally, Jacobson (1992) notes that the *for*-NP and nonfinite verb can act as a constituent in ellipsis contexts—though they are reported as slightly degraded.¹⁰

¹⁰It is also possible to elide the *for*-NP as well, suggesting that it can be grouped with the nonfinite verb as well.

(i) This rock is impossible for me to move __, and that one is equally impossible <for me to move>.

- (40) a. ? This rock is impossible for me to move __, and that one is impossible for John <to move>.
 b. ? This rock is hard for me to move __, but that one is easy for John <to move>.

(Jacobson, 1992: 282)

These data suggest that an experiencer is possible in a TC. The constraint is just that an experiencer cannot be in between the gap and the ToughSubject.

One of the more complicated additional questions concerns the thematic role of the “experiencer.” Until now, I have assumed that this is a unique and constant argument. In reality, many ToughPreds are associated with multiple syntactic-semantic frames, and the “experiencer” in fact serves distinct functions in these frames. This can be strikingly seen in the correlation between thematic role and control of PRO, as shown in (41).

- (41) a. It is hard for Bill_i [PRO_i to spend his_i money]
 b. It is hard for Bill_i [PRO_j to spend his_i money]

adapted from Nanni (1978: 47)

In (41a), the reading is that Bill “experiences difficulty” in spending his own money. It is an “abilitative” reading, related to observations concerning different interpretations of *impossible* mentioned in Lasnik and Fiengo (1974) discussed above. In (41b), however, Bill “suffers” from someone else spending his money. This is what Lasnik and Fiengo (1974) refer to as the “tough on” reading, and it seems to be a distinct meaning that is associated with some (not all) ToughPreds. (I will discuss this in more depth

(ii) This rock is hard for me to move __, but that one is quite easy <for me to move>.
 (Jacobson, 1992: 282)

Jacobson (1992) herself does not commit to an explanation for this contrast, but Chae (1992: 92, footnote 26) suggests that this relates to the size of the embedded clause in the TC: (i) and (ii) are degraded because the *for*+DP should have been included in the ellipsis, but has instead been stranded. In my own judgment, both sets of data are natural.

in subsection 2.2.8.3.) What is notable is that one of the possibilities in (41), specifically that associated with (41b), goes away when this is a TC.

(42) His money is hard for Bill to spend __

This sentence cannot mean that someone else is spending Bill's money; it is therefore not consistent with the "tough on" reading. (Note that this meaning is also consistent with treating *for Bill* as inside of the nonfinite constituent.) More importantly, it seems that the argument structure associated with the "tough on" reading is not available in the TC, confirming our earlier observation.

Another instance where an "experiencer" is possible in a TC comes from benefactives. Here, the following PP has a benefactive reading, which is distinct from the experiential reading associated with core ToughPreds. Some naturalistic data exemplifies this point.

(43) a. Just as many other things are beneficial to us to do __ in our lives, our choices in this are no longer constrained.

<https://www.quora.com/Is-it-good-for-Christians-to-obey-dietary-laws-in-the>

b. Let's start by looking a bit closer at snakes and focus on the things that are beneficial to us to understand __ as mountain bikers

<https://www.momentumisyourfriend.com.au/mtb/snakes-on-the-trail/>

Casting the net a bit wider, we can find other cases in which projected PP arguments of ToughPreds are permissible in the TC. The class of evaluative predicates like *mean*, *rude*, *kind* discussed in subsection 3.1.4 permits an Agent argument which is perfectly grammatical in TCs.

(44) That was mean of John to do __.

Likewise, in the *take-TIME* construction, an applied argument, *Mary*, is allowed (Gluckman, 2021b).

(45) The tree took Mary an hour to cut __ down.

In summary, the facts concerning the presence of an experiencer PP are complex. It appears to be the case that experiencer PPs are possible, as long as they do not linearly intervene between the subject and the gap. But it's also true that the thematic relation of this PP seems to matter as well: other kinds of prepositional phrases are possible in this same position. A prevailing issue that arises is the fact that many ToughPreds can have multiple syntactic/thematic frames. It is important when asking about grammaticality in the TC to try to control for this possibility whenever possible. In my opinion, the best way to control for these complications is to use a less “canonical” ToughPred, one which is not associated with distinct frames—though note that these can also bring in their own issues. For example, the *rare*-class predicates are a relatively simple subclass of ToughPreds, but they also impose unique restrictions on their ToughSubjects (Fleisher, 2015). See discussion in subsection 3.1.2.

2.2.6 Status of the nonfinite constituent

There has been significant debate concerning the grammatical status of the nonfinite constituent. How is it syntactically related to the main clause? There are four responses to this question. In the first, the nonfinite constituent is a selected complement to the adjective. By analogy to other cases of (nonfinite) clausal embedding, e.g., *want*, nonfinite constituents are selected as complements to the verb. This is the prevailing idea in nearly all recent formal works, and it is necessary in almost analyses in which the ToughSubject moves out of the nonfinite constituent, given that movement out of non-complements is restricted.

A distinct proposal that has been pursued in a various works is that the nonfinite constituent can form a complex predicate with the adjective, a proposal most prominently defended in Nanni (1978, 1980). On this view, the relationship between the nonfinite constituent and the ToughPred is “closer” or “tighter” than that between a head and complement. The data

that inspires this analysis comes from clearly attribute uses of TCs.

- (46) a. an easy to take laxative
 b. rare and hard to find manuscripts
 c. an easy to sew pattern.

(Nanni, 1978: 9)

As Nanni observes, this behavior would be strange if the nonfinite constituent were a complement to the adjective, since in general, complements cannot be reordered in this way.

- (47) a. The teacher was concerned about her students.
 b. * a concerned about her students teacher
- (48) a. John is suspicious of his wife.
 b. * a suspicious of his wife man

(Nanni, 1978: 10)

Because of this, Nanni argues that phrases like *easy to take*, etc, are structurally ambiguous. On the relevant parse, they are treated as a single word—“complex adjective formation”—and thus may occur prenominal like other attributive adjectives. Note that this analysis only applies to cases that lack a *for*-phrase (which for Nanni is a PP). The presence of this PP blocks the restructuring process.

There is a third view that has been recently “resurrected”: the nonfinite constituent is actually a *subject* of the ToughPred, which through the course of the derivation ends up after the predicate (Longenbaugh, 2015; Salzmann, 2023). This idea is actually one of the oldest proposals, when TCs were thought to be derived via clause-extraposition (e.g., Lees 1960). In recent years, there are two core observations that motivate this idea. First, nonfinite constituents *can* be subjects of ToughPreds. Indeed, this is probably a defining feature of the class of ToughPreds, as discussed above.

- (49) a. To read this book is difficult.

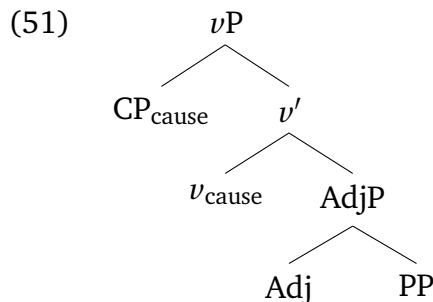
- b. For Nasibu to chop this tree is hard.

The second observation is attributed specifically to Longenbaugh (2015), who notes that in many cases, complements to ToughPreds serve something like a “causer” role, as suggested by the paraphrases in (50). This is particular true with *finite* embedded clauses.

- (50) a. It was annoying to John that Mary wore his name-tag
 → That Mary wore his name-tag caused John to experience annoyance.
- b. It was hard on Fred that Sue called on him repeatedly in class.
 → That Sue called on him repeatedly in class caused Fred to experience hardship

(Longenbaugh, 2015: 10)

In separate work, Hartman (2012) has suggested that causer thematic roles (particularly those associated with clausal complements) are projected in spec- ν P. For Longenbaugh, this structure can also apply to ToughPreds in the following schema.



Note that, for Longenbaugh, this configuration is a *possible* structure for ToughPreds. But when the CP is projected in spec- ν P (i.e., it is a causer) then a TC is *not* possible. Salzmann (2023), however, takes an expanded view, arguing that causer CPs *are* the source of the TC. That is, the nonfinite constituent in the TC is always a causer. Salzmann, following Longen-

baugh observes that many ToughPreds can be paraphrased with a causative semantics when embedding a *nonfinite* clause.

- (52) a. It was hard/easy/tough/difficult on me to avoid sugar.
→ Avoiding sugar caused me hardship/difficulty.
- b. It was annoying/frustrating/enjoyable to me to attend this lecture
→ Attending this lecture caused me annoyance/frustration/enjoyment
- (Salzmann, 2023: 235)

However, as implied by Salzmann, many ToughPreds *do not* permit this kind of causative paraphrase, e.g., *??Avoiding sugar caused me ease/toughness*, suggesting that the causative structure in (51) doesn't necessarily apply with these. And there are in fact systematic exceptions as well. The *rare*-class of ToughPreds (discussed in subsection 3.1.2) never permit this kind of paraphrase, nor does the *Take-TIME* construction (discussed in subsection 3.1.6).¹¹

- (53) a. This kind of music is rare for me to hear nowadays
→ ??/*Hearing this kind of music causes me rarity.
- b. The tree took a hour to chop.
→ ??/*Chopping this tree caused a hour to pass/caused me to spend an hour/...

A second argument comes from *as*-parentheticals, which cannot target subject material. According to Salzmann, ToughPreds follow the pattern expected if the associated clause is a subject.

- (54) a. As I said __, he will not come

¹¹There is a second issue with this diagnostic. As discussed in Lasnik and Fiengo (1974), ToughPreds can have multiple distinct semantic frames, and only some of them are compatible with the TC. The “tough-on” reading, the one which Salzmann is exploiting in (52a), does not permit a TC in general.

- b. * As __ demonstrates his innocence, John was abroad.
(Salzmann, 2023: 235)
- (55) a. * As __ is difficult (for me), John will not come to the wedding.
b. * As __ is annoying (to me), John will not complete his work on time.
(Salzmann, 2023: 236)

This too is a fairly unconvincing argument. For one, the examples do not involve nonfinite clauses. And since *as*-parentheticals cannot take a nonfinite clause as an antecedent for the ellipsis, this test simply cannot apply to the TC proper. More troublingly, Salzmann's diagnostics are not specific to the TC. They are all concerned with whether a nonfinite constituent *can* be a subject of a ToughPred. This is not in question; examples like (49) demonstrate this. The question is whether the nonfinite constituent is a subject *in the TC*, that is, when spec-TP is filled by something other than the nonfinite constituent (or an expletive). Therefore, evidence for the claim that the nonfinite constituent is projected in spec- ν P is extremely difficult to come by, and indeed, to make this hypothesis work, some very particular additional assumptions are required. (For instance, how do we stop the CP projected in spec- ν P from promoting to spec-TP?)

There is a fourth option, however: the nonfinite clause is a modifier/adjunct (Williams, 1983; Mulder and den Dikken, 1992; Contreras, 1993; Hornstein, 2001; Gluckman, 2021b). There is some empirical evidence for this idea. The strongest argument comes from ellipsis. Observe first that VP-ellipsis is possible with a VP in a complement (i.e., selected) clause, but it is not licensed by a VP in a adjoined/modifier clause.

- (56) a. John persuaded Mary to leave, and Fred persuaded Jane to [VP __].
b. * John runs to stay fit, and Bill swims to [VP __]
(Contreras, 1993: 5, citing Zagana (1988))

VP-ellipsis is also not possible in the TC. This is unexpected if the nonfinite clause were selected, but it is consistent with treating the associated nonfinite constituent as an adjunct.¹²

- (57) a. * John is easy to please __, but Bill is hard for us to <... >
 b. * John is hard to please __, but Bill is easy to <... >

(Contreras, 1993: 5)

Moreover, the weak-island nature of nonfinite constituents is also consistent with treating them as adjuncts/modifiers. In this case, D-linked expressions may be extracted, but other types of movement are degraded.

- (58) a. ?? What is it easy to read __?
 b. Which book is it easy to read __?

- (59) a. ?? Who is it difficult to talk to __?
 b. Which professor is it difficult to talk to __?

These data therefore suggest that the nonfinite constituent is best treated as an adjunct/modifier. However, as with the data in (53) above, the weak-island test shown in (58) doesn't necessarily tell us anything about whether the nonfinite clause is an adjunct/modifier in the TC. Indeed, it has been proposed that the role of the nonfinite clause is different between the expletive and TC versions. In particular, as noted above, it may be that the nonfinite constituent obligatorily undergoes a restructuring process in the TC (Nanni, 1978; Chomsky, 1981), with the result that the nonfinite clause essentially can have two distinct syntactic and semantics relations to the ToughPred. In English, it is fairly difficult to differentiate between these options—but the data are clearer in other languages, as we'll see in Chapter 5.

¹²Compare these data with Jacobson's (1992) data reported above, where the entire nonfinite constituent is elided. Eliding an entire nonfinite adjunct/modifier is grammatical.

(i) John runs to stay fit, while Mary swims <... >

2.2.7 Connectivity

In the following sections, I discuss various tests that have been put forth concerning how the ToughSubject and the gap are connected. As we look at these various tests, it is worth keeping in mind that *all* of them point to a difference between classic subject-to-subject raising and the TC. In all relevant diagnostics, these two types of long-distance dependencies pattern differently in English. Subject-to-subject raising (i) is not unbounded; (ii) does not have evidence for A'-movement; (iii) allows scope and variable reconstruction; (iii) allows idiom reconstruction; (iv) and is not subject to (defective) intervention effects. The conclusion must be that these are different kinds of syntactic relations.

2.2.7.1 Clause-(un)boundedness

The TC in English is characterized by allowing unbounded dependencies, consistent with A'-movement (Chomsky, 1977; Kaplan and Bresnan, 1982; Levine and Hukari, 2006), among many others.

- (60) a. John is easy (for us) to convince Bill to do business with __
 b. John is easy (for us) to convince Bill to arrange for Mary to meet __
 c. John is easy (for us) to convince Bill that he should meet __
 d. John is easy (for us) to convince Bill to tell Mary that Tom should meet __
 (Chomsky, 1977: 103-104)

- (61) Kim would be difficult to persuade Robin to attempt to reason with __
 (Dalrymple and King, 2000: 7)

However, it is also true that not all unbounded dependencies work—a fact that is at odds with other cases of A'-movement.

- (62) a. * You are tough for me to believe that Harry hates __
 (Postal, 1971: 103)
- b. * This book is difficult to bet that Beth read __.

On the one hand, there appears to be quite a bit of speaker-variation with respect to long distance dependencies, a point noted explicitly in Dalrymple and King (2000: 106). But there are also systematic distinctions. As I observe in Gluckman (2021a), TCs are always possible with the restructuring class of embedding predicates (in English, *try*, *manage*, *begin*, ...), but tend to be degraded across nonstructuring predicates (*forget*, *refuse*, *pretend*, ...).

- (63) a. This book was difficult to {try, manage, begin} to read __.
- b. ??/* This book was difficult to {forget, refuse, pretend} to read __.

Still, it must be emphasized that, at least in English, the facts are not clear-cut. There are many cases of grammatical TCs across non-restructuring predicates.¹³

It is important to keep in mind that whatever the explanation for the “weakly” unbounded dependency, the facts are not compatible with A-movement, and are only consistent with A'-movement, as discussed next.

A final important point is that long-distance movement is only licensed *inside of* the nonfinite clause. For example, sentences like the following, in which we have attempted to long-distance extract outside of the embedded clause (landing in an A-position) are not possible.

- (64) * Emma seems like it's easy to please __.

The only place the long-distance dependencies are tolerated (if at all) is inside of the nonfinite constituent. This is crucial to bear in mind as we

¹³It is worth noting that the possibility of long-distance dependencies is one area of significant cross-linguistic variation. For the majority of Romance languages, the gap is strictly local, at best crossing *only* true restructuring predicates (Rizzi, 1982; Kayne, 1989).

look at the rest of the A'-diagnostic below. The diagnostics are concerned specifically with A'properties inside of the nonfinite constituent.

2.2.7.2 A' diagnostics

Beyond unbounded dependencies, the TC exhibits additional evidence for A'-movement (Chomsky, 1977). Starting with islandhood diagnostics, it is observed that the gap in a TC cannot be in an island (Hukari and Levine, 1987; Dalrymple and King, 2000; Cinque, 1990; Grover, 1995).

- (65) Kim would be difficult to imagine kissing __.
- a. * Kim would be difficult to imagine the likelihood of kissing __
 - b. * Kim would be difficult to imagine a person who likes __
 - c. * Kim would be difficult to wonder whether to kiss __
- (Hukari and Levine, 1987: 92)

The TC also licenses parasitic gaps inside of the nonfinite clause.

- (66) a. These papers are easy to file __ without reading *pg*.
(Grover, 1995: 149)
- b. This book is hard to throw away __ without trying to read *pg*.
(Dalrymple and King, 2000: 8)
- c. This book is hard to buy __ without reading *pg*
(del Pilar Garcia-Mayo, 1993: 91)

It is also observed that TCs create islands for additional A'-dependencies (Frampton, 1999).

- (67) a. The damp cellar was hard for us to keep the books in __
 b. * What was the damp cellar hard for us to keep __ in __?
- (68) a. The books were hard for us to keep __ in the damp cellar

- b. * In which cellar were the books hard for us to keep __ __?
- (69) a. Mary was hard for us to convince __ to buy the car
- b. * Which car was Mary hard for us to convince __ to buy __?
(del Pilar Garcia-Mayo, 1993: 91)

One complication with A'-diagnostics is observed in Chomsky (1977): some cases of multiple A'-extractions are judged as perfectly grammatical in TCs. While (70a) is ungrammatical, as expected, (70b) is fine.

- (70) a. * What sonatas₁ is this violin₂ easy to play __₁ on __₂?
- b. What violin₂ is that sonata₁ easy to play __₁ on __₂?
(Chomsky, 1977: 105)

Jacobson (1992, 2000) points out however that island-effects return when the gap is further embedded, a fact which Jacobson uses to suggest that there are two different kinds of gaps possible in a TC.

- (71) * Which violin₂ is that sonata₁ hard to imagine (anyone) playing __₁ on __₂ / wanting to play __₁ on __₂.
(Jacobson, 2000: 9)

The cumulative evidence is fairly conclusive: English TCs have a step of A'-movement. I have to stress that this conclusion applies specifically to English. It is very plausible that the TC in other languages does not have an A'-movement step. I will return to this topic in Chapter 5.

2.2.7.3 Scopal properties

Quantificational ToughSubjects cannot be interpreted at the gap site. This observation is widely cited, and goes back to Postal (1974), but see also discussion in Partee (1977) and Epstein (1989).

- (72) a. Few girls would be difficult for Jim to talk to __.
 ≠ It would be difficult for Jim to talk to few girls. (Postal, 1974: 224)
- b. Nothing is hard for Melvin to lift __.
 ≠ It is hard for Melvin to lift nothing. (Postal, 1974: 356)
- c. It's impossible to finish ten of the problems.
 ≠ Ten of the problems are impossible to finish __.
 (Partee, 1977: 25)

Less discussed, but equally important, is that the inverse also holds: *potential* gaps cannot be interpreted outside of the nonfinite constituent. This is demonstrated by the unequal sign in (72) above and below. Non-subject quantificational DPs, which in principle may undergo covert raising, are not able to do so out of the nonfinite clause.

- (73) Many books are difficult to read __.
 ≠ It is difficult to read many books.

Though this superficially suggests a non-movement analysis of the Tough-Subject, a variety of explanations have been put forth, including partial reconstruction and the inability for D to reconstruct. The subject is specifically discussed in Fleisher (2013).

Poole et al. (2017) point out one confusion concerning comparative quantifiers, which, superficially, appear to allow reconstructed readings. It is possible to interpret the comparative quantifier *fewer than 4* in (74) as nonspecific: there is no one single group of three or less professors that are easy to talk to (Longenbaugh, 2015).

- (74) Fewer than four professors are easy to talk to __ (at once). (Poole et al., 2017: 2)

On its surface then, we might assume that the nonspecific reading is the result of reconstruction of the quantified expression. However, what Poole

et al. (2017) discuss is that this is not a reconstructed reading. Rather, the “true” reconstructed reading involves an “upper-bound,” demonstrated in (75).

(75) Jane is worried about a test that she must take. If she makes fewer than 10 mistakes on the test, she will pass. Otherwise, she will fail. Mary wants to console Jane by saying that it is fairly easy to make fewer than 10 mistakes on this test, so she shouldn’t worry. Mary says:

- a. It is easy to make fewer than 10 mistakes on this test. *easy*
 $\gg <10$
- b. # Fewer than 10 mistakes are easy to make __ on this test #*easy*
 $\gg <10$

(Poole et al., 2017: 3)

Poole et al. (2017) suggest that the nonspecific reading in (74) is actually due to genericity, which is sometimes thought to characterize the TC. Whatever the explanation, it will likely extend to the exceptions noted in Fleisher (2013), where quantifiers may take (apparent) narrow scope.

- (76) a. How many questions would be easy to answer __ in five minutes?
 b. Three questions would be easy to answer __ in five minutes.
 = It would be easy to answer three questions in five minutes.
- (77) a. How many turnips would be easy to eat __?
 b. No turnips would be easy to eat __.
 = It would be easy to eat no turnips.

(Fleisher, 2013: 325, footnote 4).

Following Whitman (2011), Fleisher refers to this as the “state-of-affairs” reading which is due to “some interpretive mechanism other than reconstruction.” It seems plausible that this is the same idea as “genericity.” (See also Jacobson 1992: 283, footnote 12.)

2.2.7.4 *De dicto* readings

Though not widely noted, there is a similar observation about the fact that ToughSubjects lack *de dicto* readings.

- (78) a. It is difficult to believe in a UFO
 b. ?? A UFO is difficult to believe in __.
 (Davison, 1984: 816).
- (79) a. It's difficult for Betsy to look for a unicorn.
 b. ?? A unicorn is difficult for Betsy to look for __.

The questionable status of (78b) and (79b) reflects our world-knowledge: if the speaker does not believe that a UFO or a unicorn exists, then the sentences are questionable.

2.2.7.5 Bound variables and anaphora

The same lack of reconstruction is also found for bound variables and anaphora, though here the data have been widely mis-identified due to some orthogonal confounds. The first case of anaphoric reference in TCs is mentioned in Postal and Ross (1971) shown in (236), though Akmajian (1972) was quick point out that there are similar cases where the subject could not have moved, like *too/enough* clauses (237). (We now understand these anaphora to be locally bound by PRO.)

- (80) Getting herself arrested on purpose is hard for me to imagine Betsy being willing to consider __.
 (Postal and Ross, 1971: 545)
- (81) Getting herself arrested purpose is {too crazy / just crazy enough} for me to imagine Betsy being willing to consider __.
 (Akmajian, 1972: 375)

Slightly more convincing cases of anaphora and variable reconstruction are given below.

- (82) a. This aspect of herself is easy for Mary to criticize __. (Pesetsky, 2013: 146)
- b. Pictures of himself are hard for every photographer to ignore __. (Hicks, 2009: 552)
- c. Pictures of his friends are hard for every photographer to sell __. (Sportiche, 2006: 117)

This kind of data was widely cited (and still is, to some extent; cf Salzmänn 2017) as clear evidence for a movement based approach to TCs: in order for the anaphora and variables to be bound, they must reconstruct to a position below their respective antecedents in the nonfinite clause. However, all such examples involve *picture*-NPs, an observation that is attributed to a blog post by Benjamin Bruening. As (83) demonstrates, the antecedent of this kind of reflexive need not c-command the gap.

- (83) This aspect of herself was tough for Sarah Palin’s autobiography to present __ in a good light. (Bruening, 2012)

As *picture*-NPs are known to have logophoric properties, the *self* anaphor in this context is likely a logophor, bound by a logophoric center associated with the *picture*-NP. Once this is controlled for, i.e., by making sure the antecedent cannot be a logophoric center, the reconstruction effects disappear entirely (Poole et al., 2017).

- (84) a. It was hard for John to tell every farmer the bad news about her goat.
- b. * The bad news about her goat was hard to tell every farmer __.
- (Poole et al., 2017: 2)

- (85) a. It was difficult to get the webpage to write an email from itself.
- b. ?? An email from itself was difficult to get the webpage to write ___.

Once controlled for, there is no evidence for anaphor or variable binding in the TC.¹⁴

2.2.7.6 Weak crossover

Lasnik and Stowell (1991) observe a somewhat curious fact about the TC. Unlike other cases of reported A'-movement, the TC does not give rise to Weak Crossover Effects. The difference can be seen by comparing the examples of TCs with simple cases of *wh*-extraction, which does give rise to the expected degraded judgment. (Note that the *wh*-extractions are discourse linked in order to get around issues with the weak-islandhood of nonfinite constituents in TCs, as discussed below.)

- (86) a. John₁ should be easy for his₁ wife to love __.
- b. John₁ was hard to persuade his₁ boss to vouch for __.
- (Lasnik and Stowell, 1991: 695)
- (87) a. ?? Which husband₁ should it be easy for his₁ wife to love __?
- b. ?? Which author₁ is it difficult for her₁ fans to meet __?

¹⁴Hukari and Levine (1991) (and later Sportiche 2006 for French data) demonstrate that Mood choice can be preserved in TCs, suggesting reconstruction.

- (i) That we be / *are there on time would have been very difficult for Robin to demand (of us) __. (Hukari and Levine, 1991: 119)

However, Jacobson (1992) notes that subjunctive mood choice is semantic/pragmatic, rather than syntactic, (ii). It is therefore likely an effect similar to “logophoric” SELF anaphora.

- (ii) I'm demanding something. It's that you be / *are there on time. (Jacobson, 1992: 288)

These data have theory-internal significance. If we assume that TCs involve A'-movement—which there is plenty of evidence for—why don't they induce Weak Crossover Effects, which are otherwise characteristic of A'-movement. I'll note that Lasnik & Stowell observe that *too/enough*-clauses also share this property with TCs; see discussion in subsection 3.2.2.

2.2.7.7 Complement selection

One of the more interesting “anti-reconstruction” phenomena is observed in (88) and (89).¹⁵

- (88) a. ? To win the lottery is hard to imagine anyone disliking __.
 b. ? To lose one's money is hard to imagine anyone liking __.
 (Jacobson, 1992: 286)
- (89) For him to be the top of the class is hard to believe __. (Wilder, 1991: 123)

The point of these examples is that the gap position cannot be filled by the ToughSubject.

- (90) a. * It is hard to imagine disliking to win the lottery.
 b. * It is hard to imagine anyone liking to lose one's money.
- (91) * It is hard to believe for him to be the top of the class.

The judgments for (88) and (89) are bit tricky (as indicated by Jacobson). Most speakers find them questionable. But the difference between these and the expletive versions is stark.

¹⁵Another interesting “mismatch” is illustrated in Schachter (1981), who observes that there are cases where arbitrary PRO can control the gap.

(i) PRO_{arb} being easy to please __ has its advantages. after Schachter (1981: 432)

In this case, *easy-to-please* is probably a completely “restructured” (i.e., lexicalized) version of a TC discussed in Nanni (1980).

2.2.7.8 Condition C

A further argument against reconstruction comes from the complete lack of Condition C effects.

(92) A picture of John_i is hard for him_i to draw __. (Munn, 1994: 403)

However, since Condition C is somewhat selective in reconstruction, we cannot conclude much from this kind of data.

2.2.7.9 Idiom interpretation

Idiom interpretations are often put forth as evidence for reconstruction. Many idioms are possible in the TC (Berman, 1973).

- (93) a. (?) Headway was easy/difficult (for us) to make __.
 b. (?) The hatchet was easy/difficult (for us) to bury __. (Hicks, 2009: 554)

On the other hand, not all idioms are permitted.

- (94) a. * The bucket was easy/hard (for them) to kick __.
 b. * The fan was easy/hard for the shit to hit __. (Hicks, 2009: 554)

These data are best understood as an effect on the “strength” of the idiom expression. The idiomatic meaning for certain idioms is more localized on particular heads, which can therefore displace easier. For instance, as pointed out by Hicks, the idioms that are possible in the *tough*-construction also permit passivization.

2.2.7.10 Case

In English, case is not preserved on ToughSubjects. ToughSubjects surface with nominative case, not accusative (or objective), which would be the

case assigned *in situ* (Jacobson, 1984; Hukari and Levine, 1987; Bayer, 1990)

- (95) a. He/*Him is hard to please __. (Jacobson, 1984: 551)
 b. They/*them are impossible to find __. (Grover, 1995: 83)

However, I note briefly that this is a point of significant crosslinguistic variation. There are instances where case is preserved on ToughSubjects, like in Icelandic (Sigurðsson, 2016). I return to examples like these in Chapter 5.

2.2.7.11 Defective Intervention

The last point that bears on connectivity concerns so-called *defective intervention*. As we've discussed extensively above, (some) so-called experiencers are not permitted in the TC. One way to see this clearly is by using something other than *for*; this controls for the ambiguity concerning whether *for* is a complementizer or a preposition. Hartman (2011) argues that such arguments are interveners for movement in the TC.

- (96) a. It is important (to Mary) to avoid cholesterol.
 b. Cholesterol is important (*to Mary) to avoid __.
 (97) a. It is enjoyable (to John) to eat strawberries.
 b. Strawberries are enjoyable (*to John) to eat __.

What makes this *defective* intervention is the fact that, while the prepositional phrase appears to block the chain connecting the ToughSubject and the gap, the prepositional phrase itself (or the DP inside of it) cannot move to spec-TP. These facts look strikingly similar to other known cases of defective intervention, e.g., Raising in Romance.

Strikingly, the intervention effects are in some sense “selective.” Examples of TCs with intervening material—things we might expect to be

defective interveners—are plentiful. We’ve already seen some cases above in subsection 2.2.5 concerning evaluatives, benefactives, and the *take*-TIME construction. Moreover, in some senses (so-called) defective intervention seems to arise in more places than we expect. This is the main point of Bruening (2014), who observes that “intervention” in TCs can be triggered by adverbials, not just (selected) nominals.

- (98) a. It will be tough tomorrow to get an audience with the pope.
 b. The pope will be tough (*tomorrow) to get an audience with __.
- (99) a. It is enjoyable in the summer to eat strawberries.
 b. Strawberries are enjoyable (*in the summer) to eat __.

(Bruening, 2014: 710)

But then again, not all modifying elements similarly lead to intervention. Comparatives, for example, are perfectly acceptable.¹⁶

- (100) a. This tree was more difficult than that one to cut __.
 b. The door was easier than the window to open __.

it seems likely that multiple constraints are at work here to account for all cases of so-called defective intervention. Given that we find essentially no reliable evidence for movement out of the nonfinite clause, treating these facts as true defective intervention is a poor fit. Alternatively, while some have proposed a straightforward syntactic solution (e.g., Bruening

¹⁶Another wide class of intervention exceptions comes from *tough*-nouns, like *a pain*, *a pleasure*, *a bitch* etc. These permit fairly complex NPs as predicates, yet these do not invoke intervention effects.

- (i) This book was a pain (in the ass) to read __.
- (ii) Music Fans Are Sharing The Albums That Had Incredible Marketing But Turned Out To Be A Waste Of Time To Listen To __
<https://www.yahoo.com/entertainment/music-fans-sharing-albums-had-131602545.html>

2014 proposes that there is a general linearization constraint on operator-gap clauses; see also Salzmann (2023)), others have attempted a semantic analysis (e.g., Keine and Poole 2017 suggest that there is a semantic-type mismatch). I am unconvinced by any extant solution—even my own in Gluckman (2018), which proposes a semantic constraint on chains that span intensional environments.

2.2.8 Constraints on subjects and gaps

In the following sections, I discuss various constraints on what is allowed to be a ToughSubject and/or a gap. These are not strictly connectivity effects, rather, they should be understood more broadly as simply restrictions on what the ToughSubject and gap can be.

2.2.8.1 The Argument/Adjunct distinction

Adverbial modifiers—even those which are clearly nominal—cannot be ToughSubjects.

- (101) a. Today will be easy to catch the bus __. (Stowell, 1985: 477)
 b. * The day before yesterday was easy to fly home __.

Based on these distinctions, it is tempting to assume that only *verb arguments* (specifically non-subject arguments) can act as ToughSubjects (Brown-ing 1987: 242; Bayer 1990, Grover 1995; Schütze 1995; Rezac 2006; Gluckman 2021a). However, as Dalrymple and King (2000) point out, adjuncts can be extracted *out of*.

- (102) a. This violin is easy to play the sonata on __.
 b. Kim is difficult to sit next to __.
 (Dalrymple and King, 2000: 16)

In Gluckman (2021a), I suggest that we need to treat the argument/adjunct distinction as a gradient notion, and that extraction out of “core” (i.e., se-

mantic) arguments is possible, but more “peripheral” arguments are not extractable. I thus observe that argumental instrumentals, like those associated with *cut* can be a ToughSubject, but non-argumental instrumentals, like those associated with *taste* cannot be.

- (103) a. This knife is easy to cut with __.
 b. * This straw is difficult to taste the soup with __.
 (Gluckman, 2021a: 487)

Similarly, there is a distinction between “inner” locatives—thought to be argumental—and “outer” locatives, thought to be non-argumental.

- (104) a. The bed was difficult to sleep in __.
 b. * New York was difficult to sleep in __.
 (Gluckman, 2021a: 488)

Still, it needs to be emphasized that the facts are fairly murky. For instance, there appears to be some disagreement about whether passive *by*-phrases can be targets for the TC.

- (105) % John is easy (for Bill) to be outsmarted by __.
 (Gluckman, 2021a: 488), reported ungrammatical in Lasnik and Fiengo (1974: 549)

This may simply be a result of how “argument-y” such *by*-phrases are perceived as being.

2.2.8.2 Predicates and amounts

Rezac (2006); Salzmann (2017) discuss how neither predicates nor amounts (likely a variety of predicate nominal) function as ToughSubjects. Note that any kind of “amount,” including temporal spans, are not possible in the TC.

- (106) a. * An asshole is difficult for John to be __.

- b. * Two pounds are difficult for John to lose __.
(Salzmann, 2017: 329)
- c. * Two hours was easy for Dayton to spend __ on the project.

This observation is expanded in Poole et al. (2017) to include secondary predicates.

- (107) a. * {This color / green } is easy to paint the house __. (Poole et al., 2017: 4)
- b. * An idiot is easy to call Eve __.

This is no doubt related to the fact that the TC strongly prefers a nominal ToughSubject.¹⁷ Thus, prepositional phrases—even selected ones—are strongly ungrammatical.

- (108) * To the park is difficult to go __.

2.2.8.3 (Apparent) ban on existentials

This is a more complete discussion of expletive subjects started in subsection 2.2.4. A number of authors have discussed the fact that the nonfinite clause in a TC cannot contain expletive *there* (Bresnan, 1971; Berman and Szamosi, 1972; Nanni, 1980).

- (109) a. It would be easy for there to be a riot in this park.
- b. * This park would be easy for there to be a riot in __. (Jacobson, 1992: 276)

¹⁷I'm aware of just one source that has claimed non-nominal subjects are marginally possible.

- (i) That shaving himself would bother Mary is hard for John to believe __.
- (ii) ? Proud of himself is hard for me to imagine John being __.
- (iii) To shave himself is hard for me to imagine John trying __. Chae (1992: 54, attributed to Pauline Jacobson)

I would disagree with these judgments.

This data is widely cited as an argument for the VP status of the nonfinite complement in the TC. Since *there* cannot be an argument of *easy*, it must be the subject of the nonfinite clause, with *for* a complementizer. The same holds for expletive *it*:

- (110) a. It'd be annoying for it to rain at the party.
 b. ?? The party would be annoying for it to rain at __.
 (Longenbaugh, 2016: 8)

However, there are some serious issues with the data, suggesting that this is only an apparent ban on expletive subjects in the TC. In their often overlooked appendix, Lasnik and Fiengo (1974) offer a compelling counterargument to the data concerning existentials with *there*. They note that many ToughPreds have two distinct readings. The crux of their argument is that some ToughPreds can subcategorize for “sentential” complements, meaning that the ToughPreds apparently subcategorize for propositional, rather than eventive nonfinite clauses (see discussion in Chapter 4 and Gluckman 2021a). These sentential versions of ToughPreds are required when there is an expletive subject like (109a). Importantly, the sentential versions of ToughPreds are strictly disallowed in the TC.

Explicitly, Lasnik & Fiengo discuss what they call the *tough on* reading of (111a), which makes it equivalent to (111b). (See also Nanni 1978 for a similar observation.)

- (111) a. For his wife to accept this view would be tough for John.
 b. For his wife to accept this view would be tough on John.

According to Lasnik & Fiengo, the *tough on* reading involves a sentential (meaning “propositional”) complement. On this reading, the adjective *tough* indicates the *result* of a state of affairs or situation on an individual. Crucially, this reading is distinct from the meaning of *tough* when it is used in the TC. Lasnik and Fiengo paraphrase (112a) in (112b).

- (112) a. That view was tough for John to accept __.
- b. In John's case, that view can be accepted only with difficulty. (Lasnik and Fiengo, 1974: 560).

Tough in (112a) simply describes an event of acceptance.¹⁸ Turning back to expletive *there*-sentences, Lasnik & Fiengo note that only the *tough on* reading is available in sentences like (109a) and (113).

- (113) It will be tough for John for there to be another child in the family. (Lasnik and Fiengo, 1974: 562).

But because the *tough on* version of a ToughPred does not participate in the TC *in general*, there is no reason to expect that it should do so when there is an expletive subject.

Lasnik and Fiengo make a similar argument using *impossible* (discussed more in subsection 3.1.3). While (114a) simply describes the difficulty that Bill will have in solving the problem, (114b) is making a statement of denial about whether or not Bill solved the problem.

- (114) a. It's impossible for Bill solve that problem.
- b. It's impossible for Bill to have solved that problem.

The denial reading is *not* available in a TC.

- (115) This problem is impossible for John to solve __.

And finally, *only* the denial reading is found with an expletive subject.

- (116) It's impossible for there to be five mistakes in that paper. (Berman and Szamosi, 1972: 321)

¹⁸Intuitively, it seems that the *tough on* reading correlates with an actuality entailment. For instance, in *It was tough for John for Mary to accept this view*, which only has a *tough on* reading, there is an entailment that Mary accepted the view. In *It was tough for John to accept this view*, which prefers the TC reading, John does not have to accept the view (and indeed, the implicature is that he did not accept the view). Actuality entailments can be used as a diagnostic for the relevant reading. Thus, with an expletive *there*, the actuality entailment surfaces, indicating that this is the *tough on* version of the ToughPred.

The same reasoning extends to the examples with expletive *it*. With an expletive subject in the embedded clause, only the *tough on* reading is available. And similarly, only the denial reading of *impossible* is available with expletive-*it* in the embedded clause.

- (117) a. It will be tough for John for it to rain.
 b. It is impossible for it to rain.

Therefore, there is no general ban on existential subjects in the TC. The correct generalization is that the TC is only possible with certain syntactico-semantic frames of ToughPreds. Specifically, when the ToughPred selects for a “sentential” complement clause, a TC is not possible. There remains an interesting, but orthogonal question about why expletive subjects force this kind of nonfinite clause.

2.2.8.4 Raising versus control

We find a distinction between gaps in ECM/Raising-to-Object versus object control (Chomsky, 1973; Postal, 1974; Runner, 2006). The gap cannot be in a ECM/Raising-to-Object position. In contrast, the gap can object-control PRO.

- (118) a. * Smith is easy for John to expect __ to recover. (Postal, 1974: 193)
 b. * David is easy for me to believe __ cheated Sam. (Grover, 1995: 82)
- (119) a. Smith was easy to ask __ to serve on the committee.
 b. David is easy for me to persuade __ to cheat on the exam.

Interestingly, while the examples in (118) are bad, gaps in embedded Small Clauses are judged grammatical (Postal, 1974).

- (120) a. Jones is hard to consider __ (*to be) competent.

- b. Melvin will be easy to prove __ (*to be) competent.

(Postal, 1974: 194)

2.2.8.5 Genericity and indefiniteness

Lasnik and Fiengo (1974) observe that indefinite ToughSubjects can only be interpreted generically.

- (121) a. Beavers are/A beaver is hard to kill.
 b. It was a pleasure to eat a bunch of bananas; there are their skins.
 c. A bunch of bananas was a pleasure to eat; ??there are their skins.

(Lasnik and Fiengo, 1974: 546)

This seems to parallel the classic distinction between individual- and stage-level predication. Individual-level predicates only accept generic indefinites. (See also Heycock 1994.)

- (122) a. * A building/someone is tall
 b. Beavers are fat; ??they're over there.

(Lasnik and Fiengo, 1974: 546)

Though they do not discuss it, it is worth mentioning that the above constraint only applies to *nonspecific* indefinites. *A beaver is hard to kill* is acceptable not just on a generic reading, but on a specific indefinite reading as well.

2.2.8.6 Lexical semantics of the infinitive

One of the least remarked properties concerns the fact that the availability of gap often depends on the lexical semantics of the nonfinite verb. For

instance, Wechsler (1989) observes the following contrast (using psych-verbs; see subsection 3.1.5.) Examples with core ToughPreds are provided below as well.

- (123) a. * The evening news annoys me to listen to __.
 b. The evening news annoys me to miss __.
 (Kim, 1995a: 89), cited from Wechsler (1989).
- (124) a. Mary is easy to take a picture of __.
 b. ?? Mary is easy to hang a picture of __.
 (Gluckman, 2021a: 460)
- (125) a. This pan is tough to fry eggs in __.
 b. ? This pan is tough to put marbles in __.
 (Jones, 1991: 156)

A related point is made in Nanni (1978), who shows that when the lexical semantics of the embedded infinitive is manipulated (in this case using a secondary predicate) to be *non-agentive*, the TC no longer is available.

- (126) a. The man was hard for Mary to find __ attractive.
 b. * The man was hard for Mary to find __ sick.
- (127) a. The children were difficult for us to return __ unharmed.
 b. * The children were difficult for us to return __ exhausted.
 (Nanni, 1978: 95)

These facts are typically omitted in more theoretically oriented works, which tend to (aim to) paint a generalizable picture. But a full understanding of the TC needs to address why adjusting the lexical semantics of the infinitive should affect the availability of the gap. Finally, these facts should be contrasted with more standard cases of long-distance extraction, which may be constrained by the *embedding* predicate, (e.g., whether the predicate is factive), but typically are not affected by the *embedded* predicate.

2.2.9 Thematic/information structural properties of the subject

There are two approaches to the semantic role of the ToughSubject. One camp—by far the prevailing opinion in modern generative approaches—is that the TC is (semantically) grouped together with other cases of Raising-to-Subject: the main-clause predicate does not contribute to the thematic status or information structural properties of the subject.¹⁹ This is what we observed in subsection 2.2.1, and it is one of the core signature properties of the TC.

On the other hand, many previous researchers have noted that ToughSubjects *do* have particular meaningful properties that set them apart from pure Raising-to-Subject constructions. Among these works, there are two camps. In some, the ToughSubject has a particular discourse role: it is a Topic. In others, the ToughSubject is in fact not athematic at all; it receives a theta-role like any other argument.

As suggested above, traditionally, ToughSubjects are grouped together with Subject-to-Subject raising. In both cases, an expletive—presumably semantically vacuous—is replaced by a contentful DP. Evidence for this parallelism comes from nominalizations. While control predicates easily nominalize, taking the lexical DP as a possessor, neither raising nor Tough-Preds do (though see Bruening 2018).²⁰

- (128) a. John's desire/attempt/eagerness to win
 b. * John's appearance/semblance/likelihood/aptness to win
 c. * John's difficulty/ease to talk to (Bayer, 1990: 34)

¹⁹Note that this is independent of whether one assumes a movement or predicational approach to the TC.

²⁰In some cases, it is possible to have a *tough*-nominalization without a nonfinite clause, e.g., *I had a lot of trouble because of the book's difficulty*. Such cases are analogous to sentences like *The book was difficult*, where the ToughSubject is metonymic, representing “reading the book.” For instance, *??I had a lot of trouble because of the tree's difficulty* is much worse, since it is harder to designate an appropriate metonym for *the tree*.

These data have been questioned though. First, Lasnik and Fiengo (1974) point out that the issue with (128c) is not the presence of a possessor, but rather the nonfinite clause. Non-gapped versions are still ungrammatical.

- (129) a. * the difficulty (of) to understand algebra.
 b. * the impossibility (of) to finish this paper.
 c. * the amusement (of) to go to the circus.

(Lasnik and Fiengo, 1974: 542)

On the other hand, Pesetsky (1991) notices that for some people, certain *tough*-nominalizations in *-ness* are grammatical, though other kinds of nominalizations are still not possible.²¹

- (130) a. % the door's easiness to open __
 b. % its awkwardness to pronounce __
 c. % the problem's trickiness to solve __ (Pesetsky, 1991: 101)
- (131) a. * Bill's difficulty to please __
 b. * the store's convenience to visit __
 c. * the fruit's impossibility to eat __

In sum, then, the broad unavailability of *tough*-nominalizations may not be a clear-cut argument for a raising analysis. A likely understanding of these facts is that TCs require some of the functional structure surrounding the ToughPred. In the case of root nominalizations, that functional structure is absent. In support, notice that gerundive nominalizations, which include more structure, are perfectly acceptable (as observed in Chomsky 1970: 188ff).

- (132) a. The book's being difficult to read __ was an impediment to its sales.

²¹In fact, Bolinger (1974: 26) cites some grammatical examples even with *ease*: *The best feature of this thing is its over-all ease to work with* __.

- b. The book being difficult to read __ was an impediment to its sales.

Pesetsky's cases of *-ness* nominalizations can be understood as instances of non-root nominalizations.

2.2.9.1 ToughSubjects as Topics

A number of works have pointed out that TCs involve a topic (or topicalized) DP. Thus, Hieteranta (1984: 22) argues that the TC is a “topic-creating mechanism.” In Mair (1987) it is argued that TCs serve a discourse function, and the ToughSubject links utterances. For instance, Longenbaugh (2016) observes the following contrast.

- (133) Sophie really loves her new roommates, especially because,
- a. # The kitchen is easy to clean __ with them
 - b. They are easy to clean the kitchen with __.
 - c. It's easy to clean the kitchen with them.

(Longenbaugh, 2016: 14)

The idea of the ToughSubject being a topic is implicitly assumed (though rarely argued for) in a number of recent works (Salzmann, 2006, 2017; Rezac, 2006). (See also the Lexicalist literature, e.g., Kaplan and Bresnan 1982, which generally assumes a topic function for the ToughSubject.)

Along these same lines, Van Linden (2009) makes the connection between *thetic/categorical* statements and the TC. Drawing on Kuroda (1972) (and much subsequent work), *thetic* statements, which are simply descriptions of states-of-affairs, correspond to the expletive version. *Categorical* statements are traditional predications, in which a subject is predicated of something. *Categorical* statements therefore align with the TC proper, and are equivalent to Topic-Comment sentences.²²

²²A very similar idea is supported in Takami (1996), in which it is argued that the TC

Goh (2000) argues against all of the above approaches, while at the same time claiming that ToughSubjects are sensitive to Information Structure, as noted above. “With a *tough*-sentence, we normally determine the degree of ease/difficulty of the event by comparing the referent of the ToughSubject with other comparable individuals in the pragmatically determined comparison set, whereas entire events are more readily compared or no comparison is done in an *it*-analog sentence” (Goh, 2000: 226). In other words, “intrinsic” properties of ToughSubject are used to evaluate the event.²³ This view is similar to the thetic/categorical distinction above, essentially treating the ToughSubject as a kind of contrastive Topic. Most importantly, Goh recognizes that in English, subjects *in general* are often Topics, or are generally discourse prominent/given. The fact that the ToughSubject has Topic attributes does not mean that these attributes stem from the TC itself; the attributes may simply be a side-effect of being a subject.

2.2.9.2 ToughSubjects as thematic arguments

There are a number of works that describe ToughSubjects as thematically licensed in the main clause (perhaps in addition to being thematically licensed in the nonfinite clause). Before getting to those proposals, it is important to recognize that some ToughPreds are ambiguous in that they act as *pretty*-class adjectives (discussed in subsection 3.2.1).

- (134) a. John is difficult.
 b. This teacher is tough.

Note that these have a reading as *stage-level* predications, which is otherwise to “characterize” the ToughSubject. Chung (2001) claims that while the expletive version only has a thetic reading, the TC is ambiguous between a thetic and categorical reading.

²³See also Davison (1984: 815) for a similar observation. TCs “are more acceptable if the speaker is assuming some ‘direct experience’ of the referent of the raised NP’.”

erwise not available for TCs (subsubsection 2.2.8.5). The ambiguity can (sometimes) be controlled for with progressive aspect.

- (135) a. John is being easy to please __.
 b. * It is being easy to please John. (Rothstein, 2004: 184)

For Lasnik and Fiengo (1974), this is due to a constraint on progressive *be*, which must have an animate subject. For Rothstein (2004), the progressive *be* in (135b) is “Agentive.” Whatever the explanation, it is clear that this does not extend to all ToughPreds (e.g., *simple*). As suggested above, it is more likely that certain ToughPreds are ambiguous between ToughPreds proper and *pretty*-class predicates.

Turning now to the thematic properties of true ToughPreds, Schachter (1981) is the first to attempt to describe the meaningful distinction between the TC and the expletive version. In his terms, *Mary is easy to look at* __ means “Mary is such that looking at her is easy.” Intuitively, the adjective and nonfinite constituent combine to provide a thematic role to the ToughSubject.

Williams (1983) provides the first empirical evidence that ToughSubjects are thematically licensed in the main clause. He compares TCs with true raising constructions, noting first that if TCs really were thematically vacuous, then they should impose no constraints on their subjects. In fact, he notes that *there* and *it* expletives are not possible in TCs, unlike in raising proper (cf, Lasnik and Fiengo 1974; Postal and Pullum 1988 and Jacobson 1992: 287, among others).²⁴

- (136) a. * There is easy to want __ to be a riot.
 b. * It is easy to want __ to be clear that Bill is here. (Williams, 1983: 442)

²⁴However, these data are not entirely convincing, since, as discussed in subsubsection 2.2.8.4, the gap resists being in a Raising-to-Object position anyway: **Mary was easy to want __ to be a doctor*.

- (137) a. There seems to be someone here.
 b. It is certain that Bill is here. (Williams, 1983: 442)

Second, Williams further notes that, given a proper context, the infinitive constituent in the TC can be omitted, unlike with raising.

- (138) a. John is easy.
 b. * John seems. (Williams, 1983: 443)

All of this suggests that ToughSubjects are thematically licensed in the main clause, though Williams does not speculate about the precise thematic role.

Bayer (1990) makes a different connection to raising, noting that the ToughSubject invokes an “avenue of perception.” Bayer (1990: 30) suggests that, “by virtue of being predicates of judgments, Tough predicates do imply that the matrix subject is the avenue of perception in some way.” (See also Chung 2001). Thus, the TC variations in (139) differ in how one “experiences” the difficulty.

- (139) a. It is difficult to play this sonata on that violin.
 b. This sonata is difficult to play __ on that violin.
 c. That violin is difficult play this sonata on __
 (Bayer, 1990: 30)

In (139b), “the difficulty is experienced through music,” but in (139c), it is “through the instrument” (p. 30). Bayer suggests that this same meaning difference is observed in raising constructions; cf Postal (1974).

- (140) a. It appears that Martians have landed.
 b. Martians appear to have landed. (Bayer, 1990: 30)

Van Oosten (1984) argues the TC “is used when a property of the referent of the subject bears primary responsibility of the occurrence of the

predicate” (p. 167). In Van Oosten’s terms, all ToughPreds are “speaker-oriented”²⁵ When a ToughSubject is employed, the speaker is “picking out the element in the event or situation which contains the property which is responsible for this judgment by the speaker” (p. 174). More intuitively, the ToughSubject “grounds” the eventuality in much the same way as Bayer’s (1990) “avenue of perception”. This idea can be seen in the following continuations.

- (141) Harry made sure his sonata would be easy to play on my violin. . .
 a. . . . by keeping it slow.
 b. * . . . by tuning it. (Van Oosten, 1984: 176).

The idea that the ToughSubject is “responsible” is taken up in a few of subsequent works, including Langacker (1995) and Kusayama (1998).

Grover (1995) attributes a slightly different semantic role to the ToughSubject: *enablement*. For Grover, who employs an entirely Lexicalist account of the TC, there is an additional meaning component in *tough*-predicates which assigns to the ToughSubject the meaning that it “enables” the eventuality described by the infinitive. If *This book is easy to read* __, it is because some property of *this book* makes reading it easy.²⁶

As the paraphrase suggests, another term for “enablement” might be “cause.” Kim (1995b) pursues the idea that TCs involve a causative semantics. A translation of the TC in Kim’s terms is shown in (142).

- (142) The piano is hard for John to move __ out.
 ≈ ‘[T]he piano causes John to expend a lot of effort when John tries to move it out.’ (Kim, 1995b: 79).

While these authors do make compelling arguments in favor of the idea that the ToughSubject bears some enabling or causative relationship to the

²⁵Unless there is a *for*-PP. Here Van Oosten (1984) prefigures much of the current debate on judge-dependence.

²⁶Grover (1995) groups TCs together with other cases of Equi (reflexive deletion).

event, Goh (2000) argues generally against the idea that ToughSubjects bear a responsibility or enablement relationship. Goh notes that in the following examples, there seems to be no difference in meaning between the TC and the expletive versions—at least none that can be attributed to a notion of “enablement” or “responsibility” on the part of the subject.

- (143) a. A good baby-sitter is hard to find __ these days.
 b. It is hard to find a good baby-sitter these days. (Goh, 2000: 223)
- (144) a. Justice is difficult to fight for __ in any country.
 b. It is difficult to fight for justice in any country. (Goh, 2000: 223)

Goh further notes that even in the TC, the ToughSubject does not always bear responsibility for the actualization of the event.

- (145) a. A: Tomorrow’s exam will be difficult to pass __.
 b. B: Are you gonna make the exam really hard?
 c. A: Not really. The exam itself will be as easy as before but I will be honest in grading this time. (Goh, 2000: 225)

Kawai (2002) argues that ToughSubjects are fully thematic: they have the theta-role Theme and are selected by the main-clause predicate. The argument starts from the observation that there is a “meaning shift” observable in the following pairs.

- (146) a. The exam was hard.
 b. The exam was hard to fail __. (=It was easy.)
- (147) a. Freedom of Speech is illegal.
 b. Freedom of Speech is illegal to restrict __. (=It is not illegal). (Kawai, 2002: 170)

Kawai suggests that this meaning shift is entirely predictable just like scalar adjectives. That is, just like in (146) and (146), the b example in (148) does not entail the a example.

- (148) a. John is short.
 b. John is short for a basketball player.

However, there are good reasons to believe that these involve a very different relationship. With scalar adjectives, the subject still holds the property described by the adjective. In (148a), John holds the property of being short (i.e., he is mapped to a point on the scale of height). This is not true with an examples in (146) and (147). Indeed, (147b) suggests that Freedom of Speech does *not* bear any property of being illegal.

2.2.10 Summarizing

In this section I would like to step back and consider the variety of evidence we have examined above. I repeat again the three core properties of the TC. These properties are shared across all examples—and across all languages, a point we will return in Chapter 5.

(149) Core properties of the TC

- a. The subject is *syntactically* the subject of the main-clause predicate, but *thematically* associated with the linked position in the subordinate constituent.
- b. The linked position is *not* the highest subject of the subordinate constituent.
- c. The subordinate constituent is nonfinite.

Beyond these properties we have seen evidence that, in English, the TC involves a movement dependency, and that this includes a step of A'-movement. The preponderance of the data supports this view. On the other hand, there

is no strong evidence in favor of reconstruction of the ToughSubject into the nonfinite clause. Again, the majority of the evidence points to this conclusion.

Perhaps the most important takeaway from the above discussion is that ToughPreds may have distinct syntactico-semantic frames, and only some of these participate in the TC. This fact likely explains much of the confusion about the intervention effects observed in subsection 2.2.7.11. A second important takeaway is the observation that ToughSubjects bear some additional thematic and/or pragmatic meaning. But whether this additional meaning stems from the ToughPred, the construction in general, or simply from being a subject is as yet unknown.

Chapter 3

The *tough* family

3.1 Non-Core Tough Constructions

Predicates like *easy*, *tough* are the “standard” cases, appearing in most studies of the TC. However, there are multiple sub-classes and variants of TCs that do not rely on these ToughPreds. In the following sections, we will review other classes of predicates that can be classified as ToughPreds, surveying some of the differences between them. However, it should be emphasized that all cases of the TC share the three properties discussed in the previous chapter: (i) they have a thematic displacement, (ii) there is a non-subject gap, (iii) the gap is in a nonfinite constituent

In the second half of the chapter, we’ll explore constructions that are clearly (and not-so-clearly) related to the TC. This will include constructions that are often discussed in the same works, like *pretty*-class predicates, as well as other syntactic phenomena that share empirical overlap. This is not an exhaustive list, but it is rather a survey of some relevant topics.

3.1.1 *Tough-nouns*

Included among the class of ToughPreds are nouns like *a pain, a bitch, a joy, ...* (Lasnik and Fiengo, 1974; Jackendoff, 1975; Chae, 1992; Langacker, 1995).

- (150) a. John was a bitch to criticism to __. (Lasnik and Fiengo, 1974: 549)
 b. John was a real mistake to call __. (Scheuler, 2004: XX)
- (151) Nominal PrettyPreds
 a. This room is a pigsty to behold __.
 b. Nureyev is a marvel to watch __.
 c. This problem is a hornets' nest to deal with __. (Lasnik and Fiengo, 1974: 536)
 d. Those guys are bitches to work for __. (Jones, 1991: 156)

In English, predicate nominals inflect for number—demonstrating that the subject is truly a syntactic subject of the ToughPred. Interestingly, Jones (1991); Scheuler (2004) and later Hong (2009) note that only indefinite DPs are possible as ToughPreds.

- (152) John was a/*the real mistake to call __. (Scheuler, 2004: XX).

This is likely correlated with the fact that indefinites are “better” predicates than definites, though still it seems somewhat mysterious as to why there are no definite noun phrases that act as ToughPreds, since in principle there can be definite predicates (Higgins, 1979).¹

¹Note that superlatives are perfectly acceptable ToughPreds, shown in the following naturalistic data found through a Google search. This demonstrates that there is nothing about definiteness *per se* that precludes the TC. Rather, there seems to be a generalization that, when “conscripted” as a ToughPred, an indefinite are chosen.

- (i) So when it came to determining which places in Idaho were the worst to work __, we knew we had a solid starting point — places with the longest commute time.

3.1.2 *Rare-class*

A distinct subclass of ToughPreds includes *rare*, *unusual*, *(un)common*, *typical*, etc. This class is explored in-depth in Fleisher (2015), who shows that *rare-class* ToughPreds require “kind-denoting” subjects.

- (153) a. That kind of straight-up statement is exceedingly rare for a politician to make __.
- b. It became completely illegal to take the Blake Sae Bass and they have made a fairly good comeback such that they are not uncommon to encounter __ these days.
- c. At 33, he had no prior history of cardiovascular disease, but was told that he had high cholesterol, a risk factor for a heart attack that is common to see __ in periods of high stress.

(Fleisher, 2015: 75)

As Fleisher notes, the fact that ToughPreds impose a selectional restriction on their ToughSubjects is analytically significant, suggesting that ToughSubjects are indeed selected by the ToughPred.

<https://www.zippia.com/advice/worst-places-in-idaho-to-work/>

- (ii) These streamers were the worst to interview __. <https://www.youtube.com/watch?v=fvySC1gc4pM>

- (iii) Vines back in the day were the best to watch __ when your bored <https://www.tiktok.com/@johnnyboi796/video/6983135071880482053>

- (iv) You folks were the best to deal with __. <https://www.huckinsyacht.com/service>

- (v) my friends were the best to hang out with __. <https://www.outsports.com/2020/10/7/21502909/track-athlete-joe-hamilton-college-umass-dartmouth-best-friend-coming-out-boyfriend-cross-cou>

3.1.3 (Im)possible

It is first remarked in Akatsuka (1979) that while *impossible* licenses the TC,² *possible* does not.

- (154) a. It is {possible / impossible} to please John.
 b. John {*possible / impossible} to please __. (Akatsuka, 1979: 1)

This fact has been repeated in a number of subsequent works, and it is typically used to argue that the TC is idiosyncratic in that it is determined purely by selection.

Akatsuka (1979) offers an explanation for the facts in (154). She observes that *impossible* shares with other ToughPreds the quality of expressing the speaker's (or someone else's) "agentive experiences." As a ToughPred, *impossible* expresses a judgment on the part of the speaker. "*Possible* is not a tough-predicate because it does not denote the speaker's personal and private evaluation, and it is not based on his actual experience." Thus, Akatsuka observes that *impossible* can take a judge argument, but *possible* cannot.³

- (155) Pleasing Pete is {impossible / *possible} for Martha. (Akatsuka, 1979: 4)

Mair (1994: 9) comes to a very similar conclusion, writing that,

“[i]f one bears in mind the fact that it is precisely the predicates expressing degree of ease or comfort which allow *tough*-movement, it is not surprising that the construction is extended

²Though see discussion in Lasnik and Fiengo (1974) concerning different versions of *impossible*.

³It is crucial here that this is not the “denial” reading of *impossible*, discussed earlier and in Lasnik and Fiengo (1974: 562ff). Note that Akatsuka's discussions prefigures the conclusion in Keine and Poole (2017); Gluckman (2021a) that ToughPreds include judge-dependent terms.

to *impossible*, that is, to a predicate, which, although technically not a member of the class, is so frequently used in tests to denote the highest possible degree of difficult/discomfort. *Possible*, by contrast, is prevented from following suit because even when premodified by an adverb it does not normally refer to degree of ease or comfort.”

However, the data themselves are not unquestioned. First, Akatsuka (1979) and later McCawley (1998) both note that while *possible* does not behave as a canonical ToughPred, *barely possible* does.

- (156) a. John is barely possible to live with __. (Akatsuka, 1979: 3)
 b. ? This book is barely possible to read __. (McCawley, 1998: 109)

These examples are probably subsumed under Bylinina’s (2014) *functional standard* construction, discussed in 3.2.5, though they also underscore Mair’s (1994) idea that ToughPreds must convey a “degree of ease or comfort.”

Second, more importantly, there are in fact reported cases of *possible* being used felicitously as a ToughPred.⁴

- (157) a. Cheap accommodations are possible for the organizers to arrange __. (Kawai, 2002: 175)

⁴That *possible* can be a ToughPred is central to the ideas in Gentile (2020), which analyzes sentences like in (i).

- (i) Mary interviewed every possible candidate. (Gentile, 2020: 21)

It is widely remarked that such sentences are ambiguous. On one reading, *possible* directly modifies *candidate*, with the meaning that Mary interviewed individuals who were *potential* candidates. The other meaning is that Mary interviewed everyone that *it was possible for her to interview*. On Gentile’s analysis, the latter reading is a consequence of the following rough abstract structure involving a TC and a reduced relative clause.

- (ii) Mary interviewed every candidate [__ possible for her to interview __]

Thus, if this solution is on the right track, *possible* must be able to function as ToughPred.

- b. I didn't know attach gems were possible to get __ from the melded. (Gluckman, 2021a: 463)
- c. Silks are possible/feasible to wash __. (McConnell-Ginet, 1994: 237)
- d. My advisor isn't possible to please __.

It seems that, at minimum, *possible* requires an indefinite, possibly generic subject. In this sense, it may fall into the class of *rare-class ToughPreds*, which similarly restrict their *ToughSubjects*.

3.1.4 Evaluative/mental adjectives

Stowell (1991); Bennis (2004); Kertz (2006) and Landau (2009) discuss the class of adjectives that have the following diathesis.⁵

- (158)
- a. John is clever/mean.
 - b. John was clever/mean to punish the dog.
 - c. It was clever/mean (of John) to punish the dog.
 - d. Punishing the dog was clever/mean (of John).
 - e. That was clever/mean (of John). (Stowell, 1991: 106)

Besides this extensive set of alternations, we also find sentences related to (158e) which appear to contain a gap, just like a TC.

- (159)
- a. It was mean/clever (of John) to do/say that.
 - b. That was mean/clever (of John) to do/say __.

As TCs, evaluative adjectives are extremely limited, barring practically all other gaps.

- (160) a. * The dog was mean/clever (of John) to punish __.

⁵In Lees (1960: 219), these are called *animate adjectives*.

- b. * Professors are mean/clever (of students) to trick __.

The examples in (159b) may then be taken as idiosyncratic instances: they only appear to admit demonstrative subjects, and can only embed infinitives like *do* and *say*. But note that *mean*-TCs do permit weakly clause-bounded dependencies.

- (161) a. That was mean/clever (of John) to try to do __.
b. That was mean/clever (of John) to manage to say __.

It is worth considering what *that* as a ToughSubject can refer to with *mean*-class verbs. Here we see effects of the infinitive. With *do*, the ToughSubject refers to an event, thus, *that* can be substituted with a gerundive subject. With *say*, a quotation is possible as a ToughSubject. (Note that quotations are in general possible as ToughSubjects: “*Fuck you*” is easy to say __.)

- (162) a. ? Punish(ing) the dog was mean (of John) to do __.
b. “Fuck you” was rude (of John) to say __ to Mary.

3.1.5 Psych verbs

Pesetsky (1987) explores a class of verbal predicates which allow the TC. These are commonly known as *experiencer object verbs* or generally *psychological predicates*. (See also Kim 1995a.)

- (163) a. These pictures annoy me to have to look at __.
b. These stories pleased me to listen to __.
c. John’s health worries me to talk about __.
d. War frightens me to think about __. (Pesetsky, 1987: 128)

Note that all the examples in (163) have variants with expletive subjects, qualifying them as TCs. Moreover, all psych-verbs have adjectival

versions as well. As an adjective, the experiencer object is expressed as an optional dative *to*-DP.

- (164) a. The war is frightening (to me) to think about __.
 b. The talk show is annoying to me to watch __.
 after Kim (1995a: 57)

Pytlyk (2011) discusses a related set of verbs that should also be classified as ToughPreds: *suck*, *blow*, *bite* and *work for X*. (See also Kawai 2011 for discussion of *work for X*.)

- (165) a. It sucks to clean this floor.
 b. It bites to shovel wet snow.
 c. It blows to work with John.
 d. It works for us to go to Vancouver that weekend.
- (166) a. To clean this floor sucks.
 b. To shovel wet snow bites.
 c. To work with John blows.
 d. To go to Vancouver that weekend works for us.
- (167) a. This floor sucks to clean __.
 b. Wet snow bites to shovel __.
 c. John blows to work with __.
 d. That weekend works for us to go to Vancouver __. (Pytlyk, 2011: 249)

Unlike psych-verbs, these verbs do not subcategorize for a DP experiencer object—though of course *work for X* subcategorizes for a PP experiencer. *suck*, *bite* and *blow* all also barely allow such an argument, but in general seem to disfavor it.

- (168) a. A favourite toy sucks for Jess to lose __.

- b. ? High-pitched noises bite for us to listen to __ for long periods of time.
- c. ? Reality TC shows blow for Millie to watch __.
- d. ? King Lear works to give a presentation on __. (Pytlyk, 2011: 255).

Going back to Belletti and Rizzi's (1988) three-way classification of psych-verbs, only the class that subcategorizes for an experiencer object (collapsing those thought to be "dative" and "accusative" objects) permits a complement object deletion.

- (169) a. * Kathy enjoyed this play to watch __
 b. * Bray fears war to think about __

This may be related to the observation made in Faraci (1974) (cited in Nissenbaum and Schwarz 2011 as "Faraci's Generalization") that a complement object deletion in a degree clause (e.g., a nonfinite clause licensed by *too/enough*; subsection 3.2.2) can only target an external argument.

An interesting psychological predicate that has not to my knowledge been discussed in the TC literature is *make sense*. Though not an emotive psych-verb, it does convey some sense of an experiencer's psychological state.

- (170) That idea makes sense (to Katya) to explore __.

Make sense differs from the core cases of psych-verbs in that it optionally allows an experiencer (in a PP). Thus, it is similar to the TTC and *cost* described in subsection 3.1.6. But *make sense* also adds an interesting wrinkle to accounts of intervention in the TC—a topic discussed in-depth in Chapter TBD.

3.1.6 TTC and cost

A number of works point out that the *take* TIME construction (TTC) and *cost* both function as ToughPreds (Chomsky, 1981: 319);⁶ (Jones, 1991: 227); (Klingvall, 2018); (Gluckman, 2021b).

- (171) a. The test took an hour to complete __. (Gluckman, 2021b: 2)
 b. This book cost \$20 to buy __. (Jones, 1991: 227)

These sorts of constructions are discussed at length in Gluckman (2021b). What is interesting about the TTC and *cost* is that they are clearly complex predicates participating in the TC. Moreover, they allow a much more articulated argument structure. Like psych-verbs, the TTC and *cost* allow an indirect object controlling PRO in the nonfinite clause. Unlike psych-verbs, this indirect object is optional.⁷

- (172) a. The test took (Katya) an hour to complete __.
 b. This book (Katya) cost \$20 to buy __.

⁶Chomsky credits Tim Stowell for this observation.

⁷*Set X back*, similar to *cost*, is also a ToughPred for some speakers, but it does not have an optional indirect object. We note that there is variable acceptable with *set X back* as a ToughPred.

- (i) It set *(me) back \$20 to buy this book.
 (ii) %This book set *(me) back \$20 to buy __.
 (iii) I saw my mistake. It was a grave one, something that would set me back days to fix. <https://www.gamedeveloper.com/business/how-much-do-indie-pc-devs-make-anyways-part-8->
 (iv) this monster set me back days to create with a ton of texture & metallic paint <https://www.pinterest.com/pin/531917405995990003/>
 (v) I rationalized that I was about to cover it up anyway, so my cave drawings weren't going to set me back hours to remove <https://brielleroseblog.wordpress.com/>

The TTC and *cost* are therefore quite helpful in evaluating the overall syntax of the TC because they have more things to manipulate

Another interesting property of both the TTC and *cost* is that they give rise to an entailment that the event described by the embedded clause has been completed. (This is famously true for the TTC, which is most often used as a diagnostic for telicity.)

- (173) a. The test took Katya an hour to complete __, #so she didn't finish it.
 b. The book cost Katya \$20 to buy __, #so she didn't buy it

Surprisingly, *cost*'s actuality entailment is lost when there is no experiencer argument, while the TTC's is not.

- (174) a. The test took an hour to complete __ #so I didn't finish it.
 b. The book cost \$20 to buy __, so I didn't buy it

It is unclear why the entailment should be affected by the presence/absence of an experiencer argument.⁸

3.1.7 Prepositional ToughPreds

Since prepositional phrases are perfectly acceptable predicates, and all other predicate categories (adjective, verb, noun) are possible as Tough-

⁸I note one other complication that potentially differentiates TTCs and *cost*. The verb *cost* easily accommodates a selected subject without a nonfinite clause. This is presumably because all things can be given a worth, but not all things can be given a duration. So the TTC is truly *tough*-like all the time in that it does not license individual-denoting subjects without some implied event.

- (i) The fence cost \$200 (to build __).
 (ii) The fence took two weeks ??(to build __).

Crucially, note that (i) means different things with and without the infinitive. When the infinitive is left out, then we are describing how much the fence itself costs, say, the cost of the lumber. With the infinitive, we are talking about how much it cost to build the fence, not just about how much the fence materials costs. Only the latter reading is a true TC.

Preds, we might expect to find a proportional number of “ToughPPs.” In fact, there are very few. Possible candidates discussed in Lasnik and Fiengo (1974) and Chae (1992) include *like-DP*, but the lack of an expletive version makes these *pretty-class* predicates.

- (175) a. This paint is like concrete to work with __.
 b. This coffee is like tar to drink __.
 c. John is like Nixon to talk to __.
(Lasnik and Fiengo, 1974: 567)
 d. Robin is like a cat to get along with __ (Chae, 1992: 227)

A more promising candidate is *out of the question*, which functions reasonably well as a ToughPred. Note that all the following are perfectly grammatical with an expletive subject as well.

- (176) a. These packages frequently offer price savings which are out of the question to reproduce __ by means of buying specific professional services.
http:
 //www.abrahamsenaquarel.nl/2016/04/05/hallo-wereld/
 b. ... any classes scheduled between 9 and 5 were out of the question for me to take __
https://www.huffpost.com/entry/working-poor-college_
 b_5253189
 c. I’ve always thought retics we’re absolutely gorgeous, but always assumed they were out of the question for me to keep __
https://community.morphmarket.com/t/
 adult-super-dwarf-retic-pair-photos/14369?page=2
 d. I believed at first that 100 burpees were out of the question for me to accomplish __!

[http://voyagephoenix.com/interview/
meet-simona-wong-couch-2-fire-central-phoenix/](http://voyagephoenix.com/interview/meet-simona-wong-couch-2-fire-central-phoenix/)

The following examples from Mair (1990) are also potential examples of ToughPPs. (Judgments from source.)

- (177) a. (?) That's beyond my feeble rhetorical powers to describe __.
b. (?) That's not in your best interest to say __.

(Mair, 1990: 60)

And Huddleston and Pullum (2002) suggests a final example.

- (178) The temptation was beyond my capacity to resist __. (Huddleston and Pullum, 2002: 1247)

Despite these questionable examples above, it remains unclear why the class of ToughPreds includes only a few prepositional predicates.

3.1.8 *Worth (it/-while)*

A few studies have observed cases of TCs that appear to involve gerundive, rather than infinitival complements. Of particular note is *worth (it/-while)*, discussed in Bayer (1990); Jacobson (1992); Grover (1995); Dalrymple and King (2000); Levine and Hukari (2006). This predicate alternates between a gerundive and infinitival nonfinite constituent, depending on whether there is an expletive object or *-while*. (See further discussion on *worth* in Jacobson 1992: 275ff, Bayer 1990, and Levine and Hukari 2006.)

- (179) a. It's worth exploring this idea.
b. It's worth it to explore this idea.
c. It's worthwhile to explore this idea.
- (180) a. This idea is worth {exploring/*to explore} __.
b. This idea is worth it {*exploring/to explore} __.

- c. This idea is worthwhile {to explore/*exploring} __.

The availability of a gerundive nonfinite clause raises a significant distributional question. Why do some TCs permit this kind of “small” clause, while canonical TCs do not (**This tree is difficult cutting __*)?⁹

3.1.9 Summarizing

Taking into considering the above data, perhaps the most striking observation is that there is such variety in argument structures. The core cases are possibly monovalent: they are adjectives which (descriptively) subcategorize for a subject, and sometimes an “experiencer/judge.” But many ToughPreds have a much more articulated argument structure, like the *mean*-class, psych-verbs, and the TTC/*cost*.

The last point is that the ToughPreds also show significant variation in their syntactic and semantic effects on the embedded clause. As we noted above, the choice of ToughPred can affect whether there is an actuality entailment associated with the nonfinite verb. And with one ToughPred, *worth*, a gerundive nonfinite clause is required.

3.2 Complement object deletions and Tough “Adjacent” Constructions

Beyond the TC, complement objects are “deleted” in a variety of constructions, broadly called, fittingly *complement object deletion*. In the following sections, I will review other cases of complement object deletions, as well

⁹Another possible example is *bear* as reported in Huddleston and Pullum (2002).

(i) It doesn’t bear thinking about __. (Huddleston and Pullum, 2002: 1246, fn 47)

To my (American) ear, this feels somewhat idiomatic and highly restricted; no other gerund works. Indeed, Huddleston and Pullum note that for them, *bear* only “occurs with a very limited range of gerund participials.”

as some relevant cases where no deletion has taken place at all. These all differ from the TC proper in that there is no alternation with an expletive subjects; the antecedent for the gap in each case is thematically licensed in the main clause.

3.2.1 PrettyPreds

The first case of a non-TC complement object deletion is the class of PrettyPreds. Like TCs, sentences with PrettyPreds have a complement object deletion, but crucially do not permit the expletive variant.

- (181) a. That flower is fragrant to smell __.
 b. * It is fragrant to smell that flower.
- (182) a. That music is melodious to listen to __.
 b. * It is melodious to listen to that music.
- (183) a. That food is delicious to eat __.
 b. * It is delicious to eat that food. after (Lasnik and Fiengo, 1974: 535)

In this case, the subject is clearly thematically an argument of the main-clause predicate. That said, Lasnik and Fiengo (1974) make the point that the expected entailment relationship does not always go through. (See also related discussion in Kawai 2002.)

- (184) a. The floor is slippery to dance on __.
 b. The floor is slippery.
 c. The floor is slippery to dance on __ but fine to walk on __
 (Lasnik and Fiengo, 1974: 548, footnote 6)

(184a) does not entail (184b), as shown by the felicity of (184c). What these examples show is that the main clause assertion can be affected by the presence/absence of a complement object deletion.

One clear difference between *pretty*-constructions and TCs is that, while the latter permit (weakly) unbounded dependencies, the former are much more strict. *Pretty*-constructions do not admit long distinct dependencies (though they show hallmarks of an A'-dependency through other diagnostics, like parasitic gaps). This is true even across restructuring verbs.

- (185) a. * The cake is delicious to induce our guests to eat __. (Van Oosten, 1984: 170)
 b. * The cake is delicious to try to eat __.

Like ToughPreds, the class of *pretty*-predicates includes both adjectives, nouns, and prepositions. Indeed, PPs are comparatively acceptable as *Pretty*Preds in comparison to the TC variants discussed above.

- (186) Nominal *Pretty*Preds
 a. This room is a pigsty to behold __.
 b. Nureyev is a marvel to watch __.
 c. This problem is a hornets' nest to deal with __. (Lasnik and Fiengo, 1974: 536)

- (187) Prepositional *Pretty*Preds
 a. This paint is like concrete to work with __.
 b. This coffee is like tar to drink __.
 c. John is like Nixon to talk to __.
 (Lasnik and Fiengo, 1974: 567)
 d. Robin is like a cat to get along with __
 (Chae, 1992: 227)

Verbal cases of *pretty*-predicates also include (dialectal) *need* (Mair, 1987), as well as *deserve* and *merit* (cf, Dalrymple and King 2000). These predicates are analogous to the TTC and *cost* in that they employ a “measure” complement which precedes the nonfinite clause.

- (188) a. This questionnaire should not need/deserve/merit more than 10 minutes to complete __. (Mair, 1987: 62)
- b. * It should not need/deserve/merit more than 10 minutes to complete this questionnaire.

Dalrymple and King (2000) discuss cases of *need* that might also fall under the purview of PrettyPreds.¹⁰ The predicates *need*, *deserve*, and *merit* also permit a version of complement object deletion that employs a gerundive, rather than an infinitival verb form (so-called *concealed passives*; Dubinsky 2021).

- (189) a. The clothes need/require/deserve/merit washing __. (Dalrymple and King, 2000: 2)
- b. This stew needs tasting __.
- c. This wine merits drinking __. (Iannucci, 1979: 327)

These gerundive examples have slightly different properties from canonical PrettyPreds. As Dalrymple & King observe, the object gap formed in these cases looks more like A-movement, rather than A'-movement: it does not permit long distance extraction and does not license parasitic gaps.¹¹

- (190) a. * The clothes needs/requires/deserves/merit trying to wash __.

¹⁰Note that *require* functions grammaticality as a TC; compare (ii) with (188b) in the text.

(i) This questionnaire should not require more than 10 minutes to complete __.

(ii) It should not require more than 10 minutes to complete this questionnaire.

I do not know why *require* should differ from *need* in this way. Note that, like *need*, *require* allows a gerundive nonfinite clause and a nominal: *That hypothesis requires refining __/refinement* (Iannucci, 1979: 327).

¹¹I mention one brief note about the historical development of PrettyPreds and ToughPreds, underscoring the distinction between the two constructions. Chung and Gamon (1996) observe that, unlike Old English TCs, Old English PrettyPreds allowed preposition stranding in the embedded nonfinite clause. This historical difference points to the fact that non-TC complement object deletions and the TC are indeed, at least historically, different constructions.

- b. * The book needs/requires/deserves/merits getting her to read __.

(Dalrymple and King, 2000: 2)

- (191) a. * This report needs/requires/deserves/merits filing __ without reading *pg.*

- b. * This food needs/requires/deserves/merits cooking __ before you eat *pg.*

(Dalrymple and King, 2000: 2-3)

This kind of data supports the hypothesis that there can be multiple kinds of dependencies in the general class of complement object deletions. However, in general, TCs do not permit a comparable dependency with a gerundive nonfinite constituent—save *worth*, discussed in subsection 3.1.8.

3.2.1.1 Embedded nominalization

Iannucci (1979) observes a clearly related set of facts, which are that the sentences in (192) have the “flavor” of the TC.¹²

- (192) a. The problem resisted solution.
 b. The data warrants consideration.
 c. The conflict awaited resolution for fifteen years.
 d. This analysis obviates further discussion.
 e. His proposal deserves attention.

(Iannucci, 1979: 328)

Like the core TC, the subject in each case is thematically linked to the object of the nominalized expression. However, these sentences do not have expletive counterparts, e.g., **It resisted a solution of the problem by the*

¹²In my judgment, these are all significantly improved—and perfectly natural—with the indefinite determiner *a* in front of the nominalization.

research team, nor is there even a clear gap: *solution* does not subcategorize for a nominal object (without a prepositino). To my knowledge, there is no formal analysis of these kinds of examples.

3.2.2 *Too and enough*

A great deal of work has looked at the nonfinite clauses associated with the degree modifiers *too* and *enough*, which can also license a complement object deletion (Karttunen, 1971; Faraci, 1974; Lasnik and Fiengo, 1974; Lasnik and Stowell, 1991; Jones, 1991; Flickinger and Nerbonne, 1992; Chae, 1992; Contreras, 1993; Chomsky, 1982, 1993; Dalrymple and King, 2000; Heim, 2000; Brillman, 2014; Chomsky, 2015).¹³

- (193) a. The mattress is thin.
 b. * The mattress is thin to sleep on __.
 c. The mattress is too thin to sleep on __.
- (194) a. The football is soft.
 b. * The football is soft to kick __.
 c. The football is soft enough to kick __. (Lasnik and Fiengo, 1974: 536).

The majority of the works that has looked at these constructions has focused on the semantics, rather than the syntax, though there has been some debate over how the nonfinite clause gets to be pronounced on the right-edge of the adjective, separated from the degree word licensing it (Baltin, 1987; Meier, 2003; Brillman, 2014; Bylinina, 2014)

¹³Rajesh Bhatt (p.c.) notes that, for some speakers, *too/enough* clauses appear to permit expletive subjects in the embedded clause.

1. %Martin van Buren was too boring a president for there to be interesting stories about __.

This suggests a significant difference between TC and *too/enough* in their clausal syntax. Recall that the TC systematically disallows expletives subjects in the embedded clause.

Karttunen (1971) notes that there is “variable” implicativity with respect to *too* and *enough* complements, a topic explored at length in Heim (2000); Meier (2003), and later Nissenbaum and Schwarz (2011). This is reminiscent of the entailments found in the TTC and *cost* (cf, subsection 3.1.6).¹⁴

- (195) a. John was clever enough to leave early (→ John left early.)
 b. The package was too heavy to lift (→ The package wasn’t lifted.)
 c. John was clever enough to learn to read. (↯ John learned to read.)
 d. John is too stupid to be a regent. (↯ John wasn’t regent.)

One way in which *too/enough* clauses differ from ToughPreds and even PrettyPreds is that *too/enough* clauses do not require a complement object deletion: they permit resumptive pronouns and subject control. (As Chae 1992 notes, this makes *too/enough* similar to *ready*-constructions; cf subsection 3.2.3.)¹⁵

- (196) a. The mattress is too thin to sleep on it.
 b. The football is soft enough to kick it.
- (197) a. Samson is too angry to talk to Gabe right now.
 b. Samson is calm enough to talk to Gabe right now.

¹⁴Meier (2003) proposes to analyze the implicative (i-ii) and non-implicative (iii-iv) uses of *too* and *enough* by varying the conversational background used to evaluate the truth of the nonfinite clause. It is not clear to me whether this same approach would work with the TTC and *cost*.

¹⁵Baltin (1987: 12) observes that *enough* and *too* differ in that former may appear with a finite clause.

(i) Majaliwa was tall enough that he could touch the ceiling.

And of course, there is linearity: *enough* (usually) follows the adjective, while *too* (usually) precedes it.

Nissenbaum and Schwarz (2011) observe that the presence/absence of a resumptive has meaningful effects. While (198a) is ambiguous with respect to the relative scope of *want* and *too*, (198b) is not.

- (198) a. John wants to be too rich for the monastery to hire him.
 b. John wants to be too rich for the monastery to hire __. (Nissenbaum and Schwarz, 2011: 6)

Considering first (198a), on one reading, the intensional operator *want* scopes above the degree phrase: what John wants is that he be so rich that the monastery cannot hire him; John doesn't want to be hired by the monastery. This meaning is represented by the formula in (199)

- (199) $\forall w''[w'' \in \text{BUL}_{w(j)} \rightarrow \exists d[\text{RICH}_{w''}(j) \geq d \ \& \ \neg \exists w' [w' \in \text{ACC}_{w''} \ \& \ \text{RICH}_{w'}(j) \geq \ \& \ m \text{ hires } j \text{ in } w']]]$ (Nissenbaum and Schwarz, 2011: 9)

In another reading, *too* scopes above *want*, yielding a meaning such that what John wants is to have the degree of wealth necessary such that the monastery might hire him; John wants to be hired by the monastery. This meaning is represented through the following formula.

- (200) $\exists d[\forall w''[w'' \in \text{BUL}_w(j) \rightarrow \text{RICH}_{w''}(j) \geq d] \ \& \ \neg \exists w' [w' \in \text{ACC}_w \ \& \ \forall w''[w'' \in \text{BUL}_{w'}(j) \rightarrow \text{RICH}_{w''}(j) \geq d] \ \& \ m \text{ hires } j \text{ in } w']]]$

What Nissenbaum & Schwarz reveal is that in the presence of an object gap, (198b), only the first reading is permitted: John wants to obtain the level of wealth necessary so that he does not get hired by the monastery.

A related point originally made by Faraci (1974) (but discussed extensively in Nissenbaum and Schwarz 2011) has to do with what Nissenbaum & Schwarz call *Faraci's Generalization*. Faraci observes that the gap in a nonfinite clause licensed by *too/enough* cannot correspond with a non-subject argument of the main-clause predicate that *too/enough* combines with. A resumptive pronominal is required in this case.

- (201) a. * Mary served that ball too quickly for anyone to photograph
—.
b. Mary served the ball too quickly for anyone to photograph
it.

adapted from Faraci (1974: 191)

This is again reminiscent of the fact noted in subsection 3.1.5 that only experiencer object psych verbs license object gaps in complement clauses.

A related construction that has been sparingly mentioned involves cases of *too* and *enough* and the preposition *of* (Chae, 1992; Iwasaki, 2011).

- (202) a. Robin is too much of an unknown quantity to trust __.
b. Robin is enough of a question mark to trust __.
(Chae, 1992: 131)

This type of construction appears to combine both *too/enough*-clauses with the nominal constructions discussed in subsection 3.2.4.¹⁶

3.2.3 *Ready*

An exceptional adjective is *ready*. It permits both complement object deletions and subject control, but does not allow an expletive or clausal subject (Quirk, 1977; Chae, 1992).

- (203) a. The house is ready for Jim to buy __.
b. Jim is ready to buy the house.
c. * It is ready for Jim to buy the house. (Chae, 1992: 24)

Quirk (1977) observes that *ready* is also somewhat exceptional in that a resumptive pronoun is optional when there is a *for*-CP.

¹⁶The analysis offered in Iwasaki (2011)—the only one that I am aware of—suggests that *of* heads DegP, following ideas from Kennedy and Merchant (2000).

- (204) a. The house is ready for John to buy (it).
 b. The house is ready to buy (*it). (Quirk, 1977: 99)

In Faraci's (1974) discussion, he observes that *ready* is ambiguous between being a psychological predicate, describing the subject's mental state, and a predicate describing physical preparedness. When there is no linked position in the nonfinite clause, the sentence reading is ambiguous: *The patient is ready for the operation to start*. This could be reporting about the mental state of the patient (they're anxious, excited, etc), or about the physical state of the patient: they have been prepped for surgery. But that ambiguity is modulated by the presence/absence of a resumptive.

- (205) a. The patient is ready for the doctor to operate on him.
 b. The patient is ready for the doctor to operate on __.
 (Faraci, 1974: 80)

In (205a), the ambiguity persists with a resumptive pronoun, though there is I believe a slight preference for the mental state reading: *ready* describes the mental state of the patient. In this case, *ready* is equivalent an adjective like *anxious*, which prohibits complement object deletion: *The patient is anxious for the doctor to operate on *(him)*. In (205b) however, the statement is describing the physical state of the patient; it cannot be used to describe the mental state of the patient. Faraci uses these facts to support the idea that complement object deletions are always anaphoric on a Theme, which for Faraci covers a broad range of thematic categories including undergoing a change and mere thematic "neutrality."

3.2.4 Nominal-AIC and Clausal-AIC

Many works discuss the appearance of complement object deletions associated with attributive adjectives (Fleisher, 2008, 2011; Chomsky, 1981; Chae, 1992; Meier, 2003)

- (206) a. *Middlemarch* is a long book to assign __. Nominal-AIC
 b. *Middlemarch* is a bad book to assign __. Clausal-AIC
 (Fleisher, 2011: 343)

Fleisher (2008) distinguishes instances of *nominal attribute with infinitive* (nominal-AIC) in (206a) from instances of *clausal-AIC* (206b). We will assume Fleisher's taxonomy here.

Importantly, Fleisher illustrates that clausal-AICs differ from nominal-AICs in a number of ways. First, clausal-AICs are formed with attributive adjectives that are independently ToughPreds.

- (207) a. * It is long to assign *Middlemarch*
 b. It is bad to assign *Middlemarch*
 (Fleisher, 2011: 344)

Second, nominal-AICs have a sense of "unexpectedness" or "inappropriateness." In (206a), we get the sense that assigning *Middlemarch* is unexpectedly or inappropriately long. This added meaning is not present in (206b).

Third, attributive adjectives in clausal-AICs are dependent on an associated clause for interpretation. With nominal-AICs, the adjective is sensitive to the noun being modified.

- (208) Clausal-AIC:
 a. ?? That is an easy desk.
 b. That is an easy desk to assemble __.

- (209) Nominal-AIC:
 a. That is a long book.
 b. That is a long book to assign.

Accordingly, Fleisher (2011) shows that nominal-AICs act like attribute adjectives with respect to entailment patterns.¹⁷

(210) Nominal-AIC

- a. That is a big sparrow to see __ in this area. \nrightarrow That is a big bird to see __ in this area.
- b. That is a big sparrow \nrightarrow That is a big bird.

(211) Clausal AIC

- a. That is a good novel to read __. \rightarrow That is a good book to read __.
- b. That is a novel. \rightarrow That is a book.

(Fleisher, 2011: 346)

Fleisher proposes that these facts make sense if we treat nominal-AICs as essentially composed of a nonfinite relative clause with a nominal head. However, more recently, Bylinina (2014) argues against Fleisher's (2011) nonfinite relative analysis, arguing instead that AIC bears a strong resemblance to comparative deletions, functionally equating (212a) and (212b).

- (212) a. *War and Peace* is a long book for John to read __.
- b. *War and Peace* is a longer book than *Pnin* is __.

(Bylinina, 2014: 82)

I refer the reading to Bylinina (2014) for discussion on this topic.

¹⁷Note that ToughPreds *can* appear in nominal-AICs, in which case they lack the expletive version, and have the inappropriateness reading. These are simply cases in which the attributive adjective is not a ToughPred—see discussion on multiple frames for ToughPreds earlier.

- (i) Someone has been looking for a parking space for a long time and is running late. That is a good parking space to pass up __.
 \neq It is good to pass up that parking space. (Fleisher, 2011: 344)

3.2.5 Functional Standards

Bylinina (2014) introduces what she calls the *functional standard construction* (FSC).

- (213) a. *War and Peace* is ?(slightly) long to read __ in one week.
 b. John is ?(a bit) tall to drive this car.

(Bylinina, 2014: 113)

The term “functional standard” applies to the use of the nonfinite clause with respect to “low degree modifiers” like *slightly* and *a bit*. In brief, these kinds of modifiers are thought to need a fairly precise standard, rather than a vague standard. Thus, *slightly/a bit open* works because the standard for being open is relatively absolute. In contrast, *??slightly/??a bit shallow* sounds odd because being shallow is a vague predicate. Note that *long* and *tall* are independently vague predicates: *??slightly long* and *??a bit tall*. They are perfectly natural (and in fact necessary) in (213) because the nonfinite clause provides a functional (non-vague) standard.

3.2.6 Middle Constructions

A connection between middle constructions and TCs (or complement object deletions in general) is often made due to a number of empirical parallels. Compare the following sentences which have an overlapping (though not identical) meaning.

- (214) a. This bread is easy to cut __.
 b. This bread cuts easily.

This idea starts with Van Oosten (1977) and Van Oosten (1984) but is most widely associated with Massam (1987, 1992). The connection has been reinforced in McConnell-Ginet (1994); Kim (1995a); Takami (1996);

Kusayama (1998); Ahn and Sailor (2014); Hu (2022).¹⁸

Summarizing Massam (1992) (and previous), McConnell-Ginet (1994: 236ff) provides three descriptive parallels between Middles and TCs.

- (215) a. Both sentences are stative.¹⁹
 b. Both have a surface subject identified with the null object position of a transitive verb.
 c. Both “involve a secondary semantics which imposes a ‘property’ onto the derived [i.e. surface] subject” (Massam, 1992: 126) cited in McConnell-Ginet (1994: 236)

For example, in (216a) and (216b), the verb *toast* is morphologically transitive, the Patient expressed as the subject.

- (216) a. This bread toasts __ well.
 b. This bread is good to toast __.
 c. It is good (satisfactory?) to toast this bread.

(McConnell-Ginet, 1994: 237)

¹⁸Massam and Roberge (1989); Massam (1992) make an interesting and surprising connection between TCs and Recipe Constructions (RecC), like the following.

- (i) Take the cake mix, 1 cup of water, and 3 eggs. Mix __ well and beat __ for 5 minutes. Pour __ into a well-greased cake pan and bake __ for 20 minutes. Remove __ from oven and cool __. (Massam and Roberge, 1989: 135)
 (ii) Take bread. Cut __ carefully (and arrange __ nicely). (Massam, 1992: 115)

As noted by Massam, the null object in these RecCs is constrained in a variety of ways. It cannot appear in a clause with an overt subject; it cannot be long distance extracted; the missing object has “topic” properties. These factors suggest a link between RecCs and complement object deletions in general.

¹⁹It needs to be mentioned that not all Middles are stative. McConnell-Ginet (1994) calls (i) and (ii) “event-reporting middles,” which are differentiated from non-eventive, or “property” middles.

- (i) The punch bowl (finally) sold.
 (ii) Flight 3870 (has) canceled. (McConnell-Ginet, 1994: 236)

In drawing a parallel between Middles and the TC proper, the connection is ultimately between *non-eventive* Middles and the TC.

- (217) a. This toy assembles __ easily.
 b. This bread cuts __ smoothly (for Mary)
 c. This book reads well.
- (218) a. This toy is easy to assemble __.
 b. This bread is easy to cut __ (for Mary).
 c. This book is easy to read __.

(Kim, 1995a: 176)

The third parallel noted by Massam and McConnell-Ginet, stated in (215c) above, is that Middle subjects and ToughSubjects also have some ascribed “additional” property that does is not syntactically or morphologically grammaticalized. For Massam and McConnell-Ginet, both kinds of subjects have a “causal or quasi-agent role” (McConnell-Ginet, 1994: 240). In Van Oosten (1977); Kim (1995a); Takami (1996), the extra role is “responsibility,” and in Kusayama (1998) it is “Agent-hood.” This should be compared with the discussion of thematic properties of ToughSubjects in subsection 2.2.9. Many authors hold that the ToughSubject bears similar “responsibility” or “causation”.

For instance, in (217a) above, there is some property of the toy itself that makes it easy to assemble, say every part is clearly labeled and fits together smoothly. Kim (1995a: 178) suggests the following rough representation for (217a), where GEN is a generic operator quantifying over situations *s*.

- (219) GEN[a person assembles the toy in *s*; some property of the toy causes *s* to progress easily] (Kim, 1995a: 178)

Note that there is an additional, obvious parallel: Massam (1987) observes that both Middles and TCs need a “licensor.” For Middles, the licensor is an adverbial or modal. For TCs, it is the ToughPred itself.

- (220) a. This bread cuts easily __.

- b. This bread sure can cut __! (Massam, 1987: 323)
- c. This bread is easy to cut __.

3.2.7 Purpose clauses

Purpose clauses are well-known to permit complement object deletions (Faraci, 1974; Browning, 1987; Jones, 1991; Bylinina, 2014), among others. Like the TC and other complement object deletions, Purposes clauses creat chains which are “weakly bounded:” A purpose clause also allows long-distance binding, “as long as each of the apparently intervening clause boundaries is not tensed” (Jones, 1991: 122).

(221) I bought it to try to get John to read __. (Jones, 1991: 122)

However, there are some significant differences between other complement object deletions and purpose clauses. Most notably, the antecedent for the object gap is not—and cannot be—a deep subject (though note that derived subjects are possible).²⁰

3.2.8 Nonfinite relative clauses

Many analyses draw upon the same mechanism as relative clauses (i.e., operator movement). Indeed, looking at the definition of a relative clause in de Vries (2002), it is clear that the nonfinite clause found in the TC is subsumed.

(222) *Defining properties of relative constructions:*

- a. A relative clause is subordinated.
- b. A relative clause is connected to surrounding material by a pivot.

²⁰Jones (1991) discusses *subject purpose clauses* where the gap is a subject, e.g., *Mary brought John along __ to talk to him*. As Jones observes, in this case, the antecedent of the “gap” (i.e., PRO) must be the subject of the main-clause.

(de Vries, 2002: 14)

Where the TC and the other complement object deletions diverge is in the third “universal” property involving the thematic role of the pivot.

(223) *Additional essential property of relative constructions:*

The semantic Θ -role and the syntactic role that the pivot constituent plays in the relative clause are in principle independent of its role outside of the relative. (de Vries, 2002: 15).

Note that for those who hold that the ToughSubject is independently thematically licensed in the main clause, TCs and nonfinite relative clauses are essentially identical.

Still, while there are some superficial similarities between nonfinite relative clauses and other complement object deletions, it is unlikely that they share an analysis, other than the fact that they both (can) exhibit effects of A'-movement. The two constructions diverge in four significant ways.

First, most notably, nonfinite relatives permit *wh*-words, specifically in the presence of a pied-piped preposition. *Wh*-words are strictly banned in all variants of the TC in English.²¹

- (224) a. a knife with which to cut the bread __. (Bhatt, 1999: 13)
 b. * This knife is good with which to cut the bread __.
 c. * This knife took an hour with which to cut the bread __.
 d. * This knife pleases me with which to cut the bread __.

Second, nonfinite relative clauses having variable modal force, dependent on the definiteness of the head (Hackl and Nissenbaum, 2012). Weak determiners permit both possibility and necessity readings, while strong determiners (and strong readings of weak determiners) only permit necessity. The choice of determiner has no effect on modal interpretation with the TC, (226).

²¹Some researchers have therefore postulated that there are two different “kinds” of operators, as in Authier (1989).

- (225) a. A/many/a few/three/more than three/as most three/sm/...
men (for John) to play against __ is/are in the next room.
≈ A/many/a few/three/more than three/as most three/sm/...
men that John **could/should** play against is/are in the next
room.

(Hackl and Nissenbaum, 2012: 62)

- b. The/neither/every/both/most/... men (for John) to play
against __ is/are in the next room.
≈ The/neither/every/both/most/... men that should **should**
play against is/are in the next room.

(Hackl and Nissenbaum, 2012: 63)

- (226) Three/both books are easy to read __.

Third, English permits nonfinite relative clauses with a subject or a non-subject gap. The TC only ever permits a non-subject gap.

- (227) The man __ to fix the sink is here. (Bhatt, 1999: 9)

Finally, reconstruction effects into the relative are possible, while they are not possible with TCs, as discussed previously subsection 2.2.7. (Hackl and Nissenbaum 2012 show that whether there is reconstruction or not can have an effect on the modal interpretation as well.)

- (228) a. There are many facts about himself_i for John_i to tell his superiors. (Hackl and Nissenbaum, 2012: 69).
b. There are many facts about her_i farm for John tell every farmer_i __.

Still, there are some parallels. Foremost, the gap in the nonfinite relative clause is also constrained in ways that are not entirely clear. While some long distance extractions are perfectly natural in both, others are ungrammatical.

- (229) a. Here's a book to tell your parents that you're reading __.
 b. Here's a book to try to get John to read __.
 (Jones, 1991: 122)
- (230) a. This book is difficult to tell you parents that you're reading __.
 b. This book is easy to try to get John to read __.
- (231) a. * Here's a book to say that you're reading __.
 b. * This book is difficult to say that you're reading __.

These data suggest that the dependency formed in the TC is similar—at least in some respects—to that formed in a nonfinite relative clause.

3.2.9 The very edge: finite clause phenomena

One of the defining features of complement object deletions is that the associated clause is nonfinite. There are however some related constructions involving finite clauses that are worth mentioning. The following phenomena have all been characterized as involved a “thematic displacement” in that some element appears to be getting a nonlocal thematic role, and crucially there is no discernible syntactic link between these positions. Three constructions merit consideration: copy-raising, prolepsis, and hanging topics. (A fourth, Major/Broad subjects, are not found in English. I will discuss this in Chapter 5.) Focusing on prolepsis and copy-raising, we find the same kind of inter-clausal dependency. Absent the embedded clause in (232) and (233), the proleptic object and copy-raised subject do not appear to be licensed, just like we observed for the TC earlier in this chapter.

- (232) a. Majaliwa believes of Samson *(that he's sick)
 b. Majaliwa remembers about Samson *(that he's sick)
- (233) a. Majaliwa appears *(like he's sick)
 b. Majaliwa sounds *(like he's sick)

Prolepsis and copy-raising are often grouped together with the TC in this regard (see in particular Landau 2011 and Salzmann 2017). However, establishing a formal link between the the TC and constructions like (232) and (233) is difficult. Unlike complement object deletions, copy-raising and prolepsis show scant evidence for a movement dependency, so this relationship must be formed via some other mechanism.

The same is true for hanging topics, like in (234). These are also “athematic,” appearing on the left edge, and are apparently unconnected to any local predicate. However, they are typically linked to some position in the embedded clause. In (234) this position is a possessor—clearly not a possibility in English TCs.

(234) This woman, her face looks familiar to me. (Villa-García, 2023: 266)

The reason that these constructions often appear in the discussion of the TC is the core observation that there is some kind of a “thematic displacement”, a core characteristic of the TC. Because of this, similar ideas are often used in their analysis, like in Gluckman (2021a), which argues TC subjects *are* proleptic objects. But it must be emphasized the prolepsis, copy-raising, and hanging topics have distinct properties in their own right.

Chapter 4

Theories of the *tough*-construction

4.1 The analytical picture

The basic “problem” of the TC—that the ToughSubject is “in the wrong place”—was recognized quite early in generative models of syntax. Over the years, the TC has recurred across theoretical frameworks, proving to be a stubborn issue. Often, with new theoretical tools, old ideas have been repurposed in new theoretical frameworks. This might give the impression that work on the TC is stuck in rut; the same facts continue to be debated across the decades. But this merely speaks to the point that the TC continues to present a true theoretical problem—one which has not been sufficiently solved in any framework. Modern research has tried to grapple with the diverse (and often inconsistent) set of facts that have been recorded over linguistic generations.

In the following sections we will examine the TC through the eras, looking through the lens of four theories, roughly corresponding to four timeframes in the generative tradition. Given the different standard assumptions of the timeframes, each era has taken a distinct, and sometimes

evolving stance on the TC. As we'll see, themes arise when we look at the bigger picture. In the final section, I will provide a more critical look at the current state-of-affairs, and assess whether we are any closer to understanding the relevant theoretical principles at work here.

4.1.1 Early approaches

The TC was among the very first constructions to be of concern to generative syntacticians, with its first notable appearance is in Lees (1960). In the Transformational era, the general belief was that a rule could be defined that transformed one sentence into another, like in (235), where the NP inside of the embedded clause replaces the expletive subject, as shown in the transformational formula after the arrow.

(235)	W	[it] _{NP}	AUX	ADJ	[+C	NP	AUX	[V	(PREP)	NP] _{VP}	X] _S	Y
	1	2	3	4	5	6	7	8	9	10	11	12
						→ 1, 10, 3, 4, 5, 6, 7, 8, 9, \emptyset , 11, 12						
						(Rosenbaum, 1965: 194)						

These analyses were sufficient first approximations, but they both under- and over-generalized. The main issue is: how can we control which element in the embedded clause gets to replace the subject? It is difficult, if not impossible, to state a rule that restricts where \emptyset can—and cannot—appear.¹

Preliminary evidence in favor of the idea that the ToughSubject starts inside of the embedded clause was introduced with the binding data in Postal and Ross (1971).

¹In some of these earliest approaches there was an extraposition component, whereby the nonfinite constituent is generated together with the pronominal expletive subject, and the clause extraposes into its post-predicate position. In all of these analyses, there was a crucial ordering of processes—a core component of the Transformational era. For instance, in Chomsky (1973), first there is extraposition, then there is a transformation which replaces the expletive subject with something from inside of the nonfinite constituent.

- (236) Getting herself arrested on purpose is hard for me to imagine Betsy being willing to consider __.

(Postal and Ross, 1971: 545)

However, it was later shown in Akmajian (1972) that the same binding effects could be observed in *too/enough*-clauses, which cannot involve a similar promotion because *too/enough*-clauses do not have an expletive subject before the transformation.

- (237) Getting herself arrested purpose is {too crazy / just crazy enough} for me to imagine Betsy being willing to consider __.

(Akmajian, 1972: 375)

A competing “deletion” analysis was developed in Ross (1967) and much subsequent work. The central idea was that the gap is created by deletion-under-identity with the ToughSubject.

- (238) John is easy to get along with <John>.

As can be seen from these competing views, the central debate concerning the TC at this time was whether it should be grouped together with other cases of movement to subject (i.e., Raising, as in Bresnan 1971; Berman 1974) or whether it should be treated as a kind of special case of what we would now call Control (i.e., Equi)—see for instance Rosenbaum’s (1965: 10) *erasure principle* and Fiengo’s (1974) conditions on Δ (delta). The underlying assumption in these latter non-movement approaches is that there is an obligatory, syntactically defined antecedence relationship between the ToughSubject and the gap. Notice that the connection between (modern) Control proper and complement object deletions is a very natural one: they both are restricted to nonfinite clauses.

One of the most important works to emerge at this time—a work that remains highly relevant to this day—is Lasnik and Fiengo (1974). These authors take up the movement/deletion debate explicitly, and provide strong

evidence for a deletion (i.e., non-movement analysis) of the TC (as well as the idea that the nonfinite clause with complement object deletions in general is a VP). The data that Lasnik & Fiengo bring to light both summarizes all the work that preceded them, but also introduces a wide range of new observations that are still being dealt with today.

In addition to the movement/deletion debate, there was some discussion at that time of the grammatical status of the nonfinite constituent. Instead of generating the clause as a deep subject which undergoes extraposition, an alternative analysis was that the nonfinite clause is a deep object, that is, a complement to the ToughPred. This idea is pursued explicitly in Berman and Szamosi (1972) and Lightfoot (1974). On Berman and Szamosi's approach, there is no extraposition step. Rather, the ToughSubject promotes out of the nonfinite constituent (for them, a VP) or it doesn't, resulting in the TC or the expletive version, respectively.²

Summarizing the Transformational era, at this point most of the major concerns were firmly established. Already, the question of whether the TC involves movement or not was present. Additionally, significant questions concerning the nonfinite clause—its base position and its size—were being asked.

²Berman & Szamosi claim that VP promotion is ungrammatical entirely. Their judgments are shown in (i), (ii).

- (i) It's hard for a woman to act that way.
- (ii) *For a woman to act that way is hard.
- (iii) It's tough for students to grasp this concept
- (iv) *For students to grasp this concept is tough. (Berman and Szamosi, 1972: 323, fn 22)

For them, only full sentential complements can promote to subject position.

- (v) It is surprising for a woman to act that way.
- (vi) For a woman to act that way is surprising.

4.1.2 Government and Binding

With the publication of Chomsky (1973), and particularly Chomsky (1977), the central concern of the TC shifted. Instead of grouping TCs together with the Raising/(pre-)Control division, Chomsky demonstrated that the TC should be grouped together with cases of *wh*-movement. This idea was later expanded considerably in the other defining work of this period: Chomsky (1981). Chomsky introduces the range of now common *A'*-diagnostics demonstrating *A'*-movement in the embedded clause. The outline of his analysis is shown below; there is *wh*-movement into the specifier of the embedded clause headed by (a null) complementizer *for*.

- (239) John is easy (for us) [_S [who for] PRO to please *t*] (Chomsky, 1977: 103)

Chomsky assumed that “the now familiar predication rule” will apply to the subject *John*, establishing coreference with the gap. However, one of the central issues that comes up in Chomsky’s (1977) (which is not satisfactorily solved in Chomsky 1981) is how to define the “predication” relation. That is, assuming there is *wh*-movement in the lower clause, how do we connect up the ToughSubject and the *wh*-term, such that a thematic relation can be “transferred” along this chain? The problem is not abstract: if nonfinite clauses can be turned into predicates via operator movement, why can’t they act as predicates outside of the TC?

- (240) * This car is to start __.

Both Browning (1987) and Jones (1991) take up this question; I return to these momentarily.

Chomsky (1981) offered the most comprehensive and intricate theoretical development to date. Chomsky recognized that the TC posed an existential problem to a model that include D-structure and S-structure phenomena. Thematic role assignment is relegated to the D-structure; the-

matic roles are assigned in relation to a local predicate. The ToughSubject is therefore in the wrong place, but it is syntactically an argument of the ToughPred, but it is thematically an argument of the embedded clause. This violates theta-theory and jeopardizes the division between D- and S-structure. Chomsky's solution is that ToughSubjects are inserted in S-structure, thereby avoiding issues of θ -theory. Additionally, Chomsky assumes that the embedded constituent undergoes reanalysis—it is transformed from a CP to a VP—forming a complex predicate with the ToughPred. Again, a rule of predication connects the ToughSubject and the gap, and additionally gives the ToughSubject a thematic role, thereby making sure that there is no Theta Criterion violation.

Chomsky's approach was criticized on a number of independent grounds—see in particular Jones (1983). The two strongest arguments against Chomsky's analysis are the following. First, unlike other cases of *wh*-movement, the TC *never* permits an *wh*-word to be overtly realized.

- (241) a. * This violin is easy on which to play sonatas.
 b. * This room is pleasant in which to work.

(Jones, 1983: 133)

This is surprising if the same mechanism underlies both (nonfinite) relative clauses and TCs.

Second, it is noted that allowing NPs to be inserted at S-structure introduces a paradox, “an NP of arbitrary complexity may occur in place of” the subject (Chomsky, 2015: 172, attributed to Howard Lasnik). Hornstein (2001) makes the point explicitly in (242).

- (242) A man who is easy to please __ is easy to please __. (Hornstein, 2001: 10)

The subject in this case must have existed in D-structure—it has a relative clause transformation—thus it cannot have been inserted directly in S-structure.

To solve these issues, a more elaborate definition of *predication* was employed, such that predication itself can be used to establish a thematic relation. Browning (1987), relying heavily on Williams (1980), argues that these kinds of null operator constructions involve a true pronoun (*pro*), which undergoes A'-movement. This pronoun enters into a ϕ -agreement relationship with an antecedent, which suffices to satisfy the conditions on predication, defined in (243).³

- (243) A subject-predicate relation is licensed if,
- a. the subject discharges the external θ -role of the predicate or,
 - b. the subject agrees with a chain contained in the predicate.
- (Browning, 1987: 62)

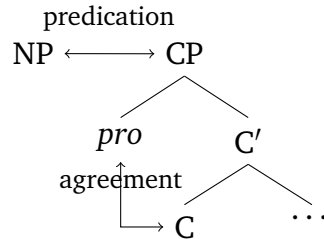
It is the second clause of (243) that concerns the TC. Browning does not formalize what she means by “agree”, but notes that it is “understood to exclude the possibility of accidental coreference” (Browning, 1987: 62).⁴ The mention of accidental coreference is important because, as stated above, Browning assumes that the base of the predication chain is actually a pronoun: this is what has (A'-)moved into the clausal periphery, thus explaining why there are no *wh*-operators in the TC, and also why nonfinite clause cannot be derived predicates, like in (240). Like other null pronouns (e.g., null subjects), this pronoun must be *identified* by entering into an agreement relationship. This is achieved by agreeing with C, which acquires its ϕ -features from the “subject” of this predication chain (p. 123).⁵

³Interestingly, note that Browning, prefiguring much discussion later, differentiates this kind of predication relationship from that presumed to hold between (Hanging) Topics and the clause.

⁴Note that, due to the general theoretical principles of the day, Browning is forced to posit that the nonfinite constituent in a TC is a clause. This is because the kind of movement that she invokes can only exist in the specifier of CP.

⁵The tree in (244) leaves out a step of “vertical binding” (Williams, 1994) which was a method of ensuring that thematic roles got mapped to the correct syntactic arguments. In (244), its ultimate effect was that *pro* and the external NP shared a thematic role, mitigated through C and CP.

(244) NP₁ ... [CP₁ wh ...]



Note that on this approach, the CP is not a “derived” predicate. That is, it does not *become* an open proposition by virtue of operator-movement into Spec-CP. Instead, Browning’s view is that this kind of CP shares a referential index with the subject of the predication. The predication relation succeeds because the CP is able to pass this information to the pronoun in spec-CP, satisfying clause b. in (243). “In the predication structure in [(244)] NP and CP agree by virtue of being subject and predicate” (p. 61).

Though this kind of predication analysis solved a number of lingering issues from Chomsky (1981), the idea that TCs involved (something like) Control was not abandoned during this era. Jones (1991) argues forcefully against Chomsky’s (1981) reanalysis account, and suggests instead that the nonfinite clauses in TCs are “VP-level adjuncts,” akin to purpose clauses. Jones relies on a mechanism for suppressing the external argument in the nonfinite constituent. In this, he is making an explicitly connection to passives and middles; for the latter see subsection 3.2.6. The chain created in TCs, therefore, is entirely case-driven. The nonfinite verb has no way of assigning case to its object, and therefore must project this object “externally,” in a position that will supply case-marking. Clearly, the onus for Jones is explaining the multiple A’-bar diagnostics observed in TCs.⁶ Note,

⁶Jones constructs, in my opinion, extremely clever work-arounds for some of the A’-diagnostics. For instance, to account for instances of long-distance extraction, he suggests that this merely involves a recursive chain of adjoined clauses, each with the same kind of local (A-)gap. In other cases, I believe he is less successful, as in for instance his explanation of how parasitic gaps can be licensed (§3.3.7).

this is not necessarily a movement approach (although I believe nothing would change drastically if it were). Rather, the VP is a predicate, missing something to fill the internal argument slot. One important result of treating the nonfinite clause as a VP-level adjunct is that it explains why extraction *out* of TCs is bad: these are subsumed under whatever accounts for adjunct islands.

On the cusp of Minimalism, Heycock (1994) suggests a refinement of many of the ideas above. Formally, her analysis of the TC proper is a direct adoption of Browning's ideas: the *tough*-subject is athematically generated in the main clause and is predicated of the embedded clause. However, Heycock's core claim is that thematic roles play no role in this predication relationship. For Browning, the ToughSubject gets a thematic role by entering into the agreement chain with *pro*, thus satisfying the Theta Criterion. However, Heycock's claim is that subjects need not get a thematic role at all. On this view, much of the work of the Theta Criterion is done by case assignment (echoing Jones 1991). For instance, in order to rule out the kinds of examples in (246), she invokes the principle in (245).

(245) Non-matrix CPs that are not syntactically marked as predicates by virtue of having an operator in the subject position must receive case. (Heycock, 1994: 276)

- (246) a. * These books are difficult to read them.
b. * Darryl is impossible to reason with him.

(Heycock, 1994: 277)

In Heycock's view, predication can simply be established via an "aboutness" relation, which characterizes copy-raising, Major/Broad subjects, and hanging topics. It also characterizes the TC, as documented later in Gluckman (2021a).

Summarizing the GB era, the recognition that the TC involved A'-movement took prominence in analyses. Most importantly, significant advances were

made in explaining how this kind of a movement chain could exist. To that end, important ideas from the formal theories of predication were implemented.

4.1.3 Lexicalism

At the same time as Government and Binding become the dominant Generative syntactic theory, a number of researchers rejected the underlying premise of a transformational framework. Proponents of non-transformational theories, like Lexical Functional Grammar, Head-Driven Phrase Structure, and Construction Grammar tried to account for the same sets of data by enriching the lexical information carried by heads.

The TC in fact plays an important role in these theories. As Pollard and Sag (1994) note, in order to capture the TC, Chomsky (1977) must postulate a null operator which is *never* pronounced. Lexicalist frameworks reject this kind of weakly motivated stipulation. The analysis provided in Pollard and Sag instead argues that the TC is merely a lexical fact: the class of ToughPreds (including *cost* and *take*) have two variants.⁷ A similar constructional approach posits the *tough* lexeme in (248).

(247)

$$\left[\begin{array}{l} \text{LOCAL} \mid \text{CAT} \\ \text{NONLOCAL} \mid \text{TO-BIND} \mid \text{SLASH}\{2\} \end{array} \right] \left[\begin{array}{l} \text{HEAD} \quad \textit{adjective} \\ \text{SUBCAT} \quad \langle \text{NP}_{\boxed{1}}, (PP[\textit{for}],) \\ \text{VP}_{[\textit{inf}, \textit{INHER} \mid \text{SLASH}\{\boxed{2} \text{NP}[\textit{acc}] : \textit{ppo}_{\boxed{1}}, \dots\}]} \rangle \end{array} \right] \quad \text{(Pollard and Sag, 1994: 167)}$$

$$(248) \quad \textit{tough-lxm} \Rightarrow \left[\begin{array}{l} \text{SYN} \mid \text{HEAD} \mid \text{POS} \quad \textit{adj} \\ \text{ARG-ST} \quad \langle \text{NP}_i, \text{VP} \left[\begin{array}{l} \text{VFORM} \quad \textit{inf} \\ \text{GAP} \quad \langle \boxed{1} \text{NP}_{i[\textit{acc}]} \rangle \end{array} \right] \rangle \end{array} \right]$$

⁷It is worth noting that Chomsky (1981: 310) briefly entertains a quasi-lexicalist analysis—before arguing that it is not necessary.

(Kim and Michaelis, 2020: 295)

As Pollard and Sag explain, “[t]he coindexing of the trace with the subject obtains because it is directly specified in the lexical entry for *easy*.” Note that in the framework of LFG, the earlier efforts of grouping the TC together with a syntactic antecedence-relation (e.g., Control) came to fruition. In Yamamoto (1996); Saiki (1998), the TC is conceived of as a case of *functional control*, which is otherwise used to account for subject-raising and some obligatory control relations (Landau, 2013).⁸

Multiple lexical (non-transformational) approaches have been applied to the TC; see Schachter (1981); Grover (1995); Hukari and Levine (1991); Chae (1992); Pollard and Sag (1994); Gazdar et al. (1985); Flickinger and Nerbonne (1992); Chung (2001); Jacobson (1992); Kim and Michaelis (2020). I believe that the importance of these theories is often over-looked. Indeed, in many ways they prefigure the (often implicit) assumption in Minimalist analyses that the expletive version and TC stem from distinct selectional properties of the ToughPred. This is the *point* of the semantic analysis offered in Keine and Poole (2017) (discussed in the next section). However, the accounts suffer somewhat in their stipulative nature. For instance, the fact that only non-subjects can be gaps in the TC is simply a result of the stipulation the NP-gap be accusative marked. There is no broader explanation for why the TC cannot have a subject gap. But to be fair, this is difficult for *any* theory to explain.

⁸See in particular Grover (1995), who argues extensively that TCs (as well as other Complement Object Deletions) should be grouped together with cases of Control. Her reasoning is based on several empirical overlaps (e.g., they can only appear in nonfinite clauses; they do not create islands for extraction; there is no case connectivity; they are lexically licensed). Grover’s arguments are indeed quite compelling, in my opinion.

4.1.4 Modern approaches

The relative freedom of Minimalism has offered a range of (new and updated) strategies for explaining the TC. In fact, the issue of the TC again played a rather significant role in the shift to Minimalist syntax. The problem of inserting something at S-structure to avoid issues with the timing of theta role assignment was one of the main impetuses for abandoning the D-/S-structure division; cf Chomsky (2015). Brody (1993) ushers in this change by assuming that there is no Theta Criterion and hence no D-/S-structure division. Thus, the TC is simply a matter of moving out of the embedded clause.⁹

(249) John is easy [*t* [to please *t'*]] (Brody, 1993: 7)

The new issue, addressed by Brody (1993), is that this is now an instance of Improper Movement: it is an A'-movement chain headed by something in an A-position. He must therefore construct a way to restrict this type of movement. He does so by (i) assuming that the intermediate trace in (249) is not an operator (recalling Browning 1987), and (ii) the lowest trace is assumed to be an R-expression. Improper movement is therefore essentially prohibited via a clause of Binding theory, specifically Principle C. Clearly, however, these assumptions are suspicious, and highly stipulative at the very least.

Still, Hornstein (2001) attempts to salvage this idea using Sideways Movement. The premise of Sideways Movement is that movement into a theta position is not restricted. Conceptually, then, TCs are almost identical to Hornstein's analysis of relative clauses: there is an A'-movement in an adjoined clause that terminates in the main clause in an A-position. For

⁹Note that in Chomsky (2021) the issue appears to be firmly settled: the TC is simply a standard predication chain, and the ToughSubject is assigned "the role of the argument of predication, θ -linked to the object of *read* by a straightforward generalization of the notion of θ -linking" (Chomsky, 2021: 29). However, as many authors before and after have noted, it is not in fact "straightforward" to define the correct notion of " θ -linking" or indeed what the "role of argument of predication" is.

Hornstein, ToughSubjects bear WH features, which are checked by movement to the embedded spec-CP, before moving into the main clause.

(250) [[_{IP} Moby Dick is [_{AP} Moby Dick easy]] [_{CP} [[WH] Moby Dick] [_{IP} pro to read [[WH] Moby Dick]]]] (Hornstein, 2001: 110)

To get here, Hornstein makes a few likely incorrect assumptions. First, he assumes that ToughPreds “come with an internal argument whose thematic properties are met by a variety of expressions including DPs and clauses” (Hornstein, 2001: 110). For Hornstein, *the exam* in (251a) has the same thematic status as *the tree* in (251b).

(251) a. The exam was easy/hard/tough
b. ?? The tree was easy/hard/tough

This is incorrect because, as we discussed in Chapter TBD chapter 2, *the exam* must be read metonymically here; it stands for an event. It does not bear the same thematic relation to the predicate as *the tree*. Secondly, Hornstein assumes that the TC presents a case of non-obligatory control. This is, again, incorrect, as discussed in Landau (2013: 41). When this is properly subsumed under obligatory control, then there is an issue of “double” Sideways movements, one for the implicit argument of the ToughPred and one for the ToughSubject. It is difficult—if not impossible—to make sure the right arguments end up in the right places. And finally, the assumption that TCs involve an identical movement chain to relative clauses is suspicious. Unlike relative clauses (even nonfinite relative clauses), TCs *systematically* ban the presence of *wh*-words.

Hicks (2009) develops a very similar story, but abandons the idea that the TC involves movement into a theta position. Hicks argues that the TC should be analyzed in terms of Smuggling. His basic idea is sketched below in (252). The ToughSubject is born inside of an Operator shell, which involves “nested” DPs. This constituent undergoes A'-movement within the

nonfinite constituent and then the ToughSubject is sub-extracted out, moving into the main clause; it is “smuggled” into the main-clause via operator movement.

(252) John₁ is difficult [CP [DP [NP Op ₁]]₂ to please ₂]

The advantages of this approach should be clear: it neatly solves the problems of Improper Movement. It moreover can explain the case facts, i.e., the fact that the ToughSubject surfaces with nominative case, even though it is merged as the complement to the embedded verb: the Operator “takes” this case assignment. Finally, it groups together TCs with other proposed cases of Smuggling e.g., passives and raising-to-subject. This recalls the earliest discussion of TCs in the Transformational era, where it was hoped that a link between TCs and other cases of promotion to subject could be established.

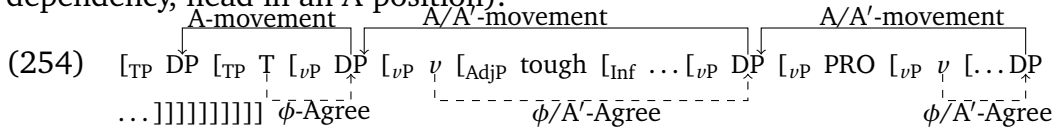
However, the approach comes with the issue of how to properly constrain this kind of smuggling. What would prevent smuggling out of a finite clause?

(253) * John₁ is important [CP [DP [NP Op ₁]]₂ that we please ₂]

Moreover, Hicks’s (2009) motivation for smuggling, reconstruction tests, are quite questionable. She observes that certain idioms and variables display evidence for reconstruction. However, as discussed in subsection 2.2.7, there is very little evidence for reconstruction in the TC.¹⁰

¹⁰Fleisher (2013) suggests that the fairly iffy reconstruction data may in fact follow if Hicks’ Smuggling operator created a weak-island. But even this is insufficient, as documented extensively in Poole et al. (2017). Based on comparisons with other cases of weak-islands and/or Smuggling, there is simply no plausible evidence to support reconstruction. I will note that Hattori (2023) attempts to expand on Hicks’ analysis by looking at languages that are argued to lack a DP layer. Hattori suggests that such languages lack a “true” TC, which falls out from Hicks’ analysis because the Smuggling operation requires a DP-layer. However, Hattori’s classification of languages is somewhat amiss. There are languages that Hattori reports as not having a TC (Japanese, Thai) which do, in fact, have the construction. See discussion in Chapter chapter 5.

More recently, Longenbaugh (2016) argues that TCs can be grouped together with other instance of “mixed” movement. Building on work in van Urk (2015) that some movement chains have both A- and A'-properties, Longenbaugh suggests that the movement chain in TCs is exactly this type of chain: it has some A'-properties (island sensitivity, licensing of parasitic gaps) and some A-properties (no weak crossover, restricted long-distance dependency, head in an A-position).



Ideally, this approach captures the best of both worlds: it explains the apparent connection to A-movement, noted in the Transformational era, and it explains the A'-properties, noted in the Government and Binding era. However, it is difficult to determine whether this is actually a step in the right direction. For instance, whether being a mixed A/A'-chain doesn't necessarily explain the “weakly bounded” gap. Why would having both A and A'-features result in a chain that is neither A- nor A'-like?

While movement approaches have proliferated in the Minimalist era, predication approaches have also been prominent.¹¹ Rezac (2006) pro-

¹¹An alternative movement idea comes from Ahn and Sailor (2014), who try to capitalize on the connection between the TC and Middle Voice (discussed in subsection 3.2.6; see also Jones 1991 above). For them, the fact that TCs cannot have a subject gap is a consequence of a Middle Voice head in the nonfinite clause, which precludes the presence of a subject in the nonfinite clause at all, sketched in (i).

(i) $[_{TP} \text{SUBJ}_1 \dots \text{tough/too} [_{TP} \text{ec}_1 \text{ to} [_{\text{VoiceP}} \text{MIDDLE} [_{VP} \text{V} \text{ec}_1]]]]$ (Ahn and Sailor, 2014: 2)

The issue of course is that we can get non-Middle Voice, like passive, in the nonfinite clause.

- (ii) The gift₁ was inappropriate for Carol₂ to be given ₂ ₁.
- (iii) Carol₁ was inappropriate for this gift₂ to be given ₂ to ₁.
- (iv) % John was easy (for Bill) to be outsmarted by .
- (v) % Prof. Smith was difficult to be taught by . (Gluckman, 2021a: 488)

poses an updated version of a Browning’s predication analysis using Minimalist tools, specifically permitting the predication relationship to be mitigating through an Agree-dependency. The idea is sketched in (255). The core intuition here is that Agree can pass index features over a distance between links in the chain. In this, Rezac is making an explicit connection to copy-raising, which utilizes the same index-passing strategy.

(255) Kate₁ is t_1 [_{AP} Op₁ easy_A [_{CP} PRO_{arb} to please t_1]] (Rezac, 2006: 305)

One of the more positive turns in recent years has been to look at more of the formal meaning components in the TC. Keine and Poole (2017) develop a formal modal of the TC that differentiates two distinct lexico-semantic frames. Their ultimate goal is to account for the so-called intervention effects observed in TCs (see discussion in subsection 2.2.7.11). Their account is fundamentally a predication analysis as well, but it eschews the non-local Agree-dependency that Rezac relies on, in favor of a local predication relationship mitigated through the ToughPred.

(256) a. $[[\text{tough}_{\text{EXPL}}]]^j =$
 $\lambda p_{st} \lambda d_d \lambda w_s. \forall \langle w', j' \rangle \in \text{ACC}_{w,j} [\text{TOUGH}_{w',j'} ([[p]]^{j'}(w'))(d)]$
 b. $[[\text{tough}_{\text{TC}}]]^j =$
 $\lambda Q_{\langle e,st \rangle} \lambda d_d \lambda x_e \lambda w_s. \forall \langle w', j' \rangle \in \text{ACC}_{w,j} [\text{TOUGH}_{w',j'} ([[Q]]^{j'}(x)(w'))(d)]$

Note that Keine and Poole’s approach echoes the Lexicalist ideas discussed in subsection 4.1.3. Moreover, Keine & Poole make a significant step in defining the natural class of ToughPreds. Their observation is that TCs can involve *judge dependence*, and that this seems to play a role in both the definition of the class of ToughPreds, and also the intervention effects that have been well-discussed. (See also Bylinina 2014 for the relationship between judge-dependence and complement object deletions in general.) I will discuss how we can formally capture the class of ToughPreds in the second half of this chapter.

In Gluckman (2021a), I also offer a comprehensive semantics for the TC, again adopting a predication-style analysis, but also connecting to some of the insights about thematic relations in Rezac (2006) and Salzmann (2017) (as well as Browning 1987 and Heycock 1994). I make an explicit connection between the TC and *prolepsis* (following Salzmann 2017), arguing that the TC should be viewed as a kind of diathesis between an argument and an adjunct, in the same way that we see an instrumental diathesis in (258).

- (257) a. It was easy with this book to read it.
b. This book was easy to read __.
- (Gluckman, 2021a: 455)
- (258) a. Maggie opened the door with the key.
b. The key opened the door.

Analytically, I adopt a general predication approach, but also I use the idea that this predication chain is mitigated by some necessary semantic components that come with embedded clauses, in particular how entities are related to events across worlds. I argue that argument-like thematic relations must be preserved across worlds (Hacquard, 2006), while adjunct-like thematic relations need not. The upshot of this approach is that I can begin to explain why altering the lexical semantics of the embedded verb can affect the availability of a gap.

- (259) The queen was difficult to take/??hang a picture of __. adapted
from Gluckman (2021a: 460)

These kinds of data are very difficult to explain in either lexicalist or pure movement theories, and minimally require some extra component. Notice also that the explicit connection to *prolepsis* echoes earlier ideas concerning the relationship between TCs, topics and copy-raising, both of which can also involve an “aboutness” relationship.

However, my explanation for the argument/adjunct distinction in terms of gradiency is questionable—at the very least, it is loosely defined. More troubling for my approach, however, is the fact that, when we look cross-linguistically, we never find that TCs are associated with valency increasing (or decreasing) morphology. This is an unwelcome result, since other cases of argument alternations can have a clear morphological affect on the predicate.

In sum, in the Minimalist era, many of the older ideas have resurfaced, e.g., the original attempt to group TCs together with other cases of promotion to subject/control. In addition, many Minimalist accounts have approached the TC from a unique angle, focusing on the supposed intervention effects that appear in the TC. The final question to ask is whether we have reached any consensus on the formal approach. In some sense, I believe

4.2 Defining the class of ToughPreds

One of the most important analytical topics that arises across works concerns whether it is possible to uniquely define what is—and isn't—a ToughPred. As we've seen in Chapter TBD chapter 3, there is a diverse array of ToughPreds, and an equally diverse array of complement object deletions. Do ToughPreds form a coherent and definable class among these? Analytically, this is important to determine, because we ultimately want to know how *why* the TC has the range of idiosyncratic properties that it does. In some of the most recent syntactic work, the answer is decidedly no: the ToughPreds are self-defined, meaning that the ToughPreds are precisely those predicates that permit the TC. There is no other defining feature that picks this group out as a natural class. Slightly more formally, we would say that they c-select for the TC (or its constituent pieces). Indeed, the idea that ToughPreds inherently encode that they appear with gapped complements

is central to the lexicalist approaches discussed in subsection 4.1.3. The gist of this kind of argument has to do with pairs like the following, which are purported to show that it is just a selectional fact that some adjectives appear with clauses with gaps and others do not.

- (260) a. High-heeled shoes are impossible to wear __ in this neighborhood
- b. * High-heeled shoes are forbidden to wear __ in this neighborhood.

(Landau, 2011: 797)

These kinds of examples are unconvincing, as they merely demonstrates that *impossible* and *forbidden* appear in different syntactic frames; these data do not tell us whether there is a reason for this difference.¹² Moreover, a purely selectional account misses the pervasive generalization that, across unrelated languages, the same predicates tend to be ToughPreds. If a language has a TC, then the predicates translated as *easy*, *tough*, *difficult*, *important*, . . . (whatever their category in that language) function as ToughPreds. This sort of robust pattern is not what we expect from a purely selectional story.

Still, there are a few proposals that have attempted to classify ToughPreds according to purely syntactic criteria. One prominent line of reasoning notes that ToughPreds tend to project an “experiencer” argument (see

¹²Indeed, observe that, once the possibility of subject control is dealt with, the TC is actually available with *forbidden*, as numerous Google hits attest.

(i) This post is to enumerate the things that are forbidden for us to consume __.
<https://landofhoneyblog.blogspot.com/2021/12/what-scripture-says-not-to-eat.html>

(ii) What other foods are forbidden for them to consume __?
<https://www.quora.com/What-are-the-dietary-restrictions-for-Mormons-Why-dont-they-eat-pork-dri>

(iii) Early Modern European Men Describe Things They Claim are Forbidden for Them to See __
<https://alpennia.com/blog/early-modern-european-men-describe-things-they-claim-are-forbidden-t>

for instance Berman 1973). I will address these arguments in more detail below.¹³ However, we must keep in mind the lessons from Chapter TBD: the family of ToughPreds does not have uniform syntax or semantics; this is a heterogenous group of predicates. Still, I believe that it is possible to define this group. I will address the two most widely discussed factors below: eventivity and “experience”—to be defined more precisely below.

4.2.1 Eventivity

It is generally agreed that ToughPreds are “eventive” in some way (Pesetsky, 1987; Jones, 1991; Hartman, 2012; Collins, 2013; Longenbaugh, 2016; Gluckman, 2021a). They are all able to describe eventualities (including events and states). Thus, all ToughPreds may appear with gerundive subjects and event nominals.¹⁴

- (261) a. Running the race was difficult/easy/impossible/...
- b. The destruction of the city was difficult/easy/impossible/...
- (Gluckman, 2021a: 464)

While all ToughPreds are eventive, this cannot be the sole classificatory criterion. There are a number of event descriptions that are not included in this group, e.g., *fast*, *slow*, *rapid*, If the class of ToughPreds is definable, there must be at least one other factor that establishes this class.

¹³There are two somewhat “idiosyncratic” definitions, which I will briefly mention here. First, ToughPreds are precisely those predicates that cannot be adnominal modifiers: *a tall/*easy tree* (see Dubinsky 1998). This property is not a defining property of ToughPreds, but rather, a consequence of their event-nature. Note that attributive modification is possible with event-denoting nominals: *easy cutting*. And second, ToughPreds all involve a DegP layer, which can be overtly seen as *of* in a sentence like *%The test is difficult of application* (Iwasaki, 2011). I find the grammaticality of these kinds of constructions questionable at best.

¹⁴One variant of this idea is suggested in Kim (1995a), where it’s argued that ToughPreds are “generalizations over situations.” The specific term used is *dispositional*, borrowing a term from Krifka et al. (1995).

4.2.2 The other thing: “experience”

As we discussed in Chapter TBD, it is widely noted that ToughPreds tend to entail something like an experiencer argument, i.e., someone experiences some level of affectedness (Berman, 1973; Mair, 1990; Portner, 1992; Lasnik and Fiengo, 1974; Langacker, 1995; Dubinsky, 1998). Some sample attempts at this definitional property are shown in (262).

- (262) a. Flickinger and Nerbonne (1992: 7): “easy and similar adjectives denote two-place relations between individuals and states of affairs. The relation holds between the pair, roughly, when it is easy (or convenient) for the individual when the state of affairs obtains”
- b. Quirk et al. (1985: 1229) : ToughPreds “refer to degrees of ease or comfort.”
- c. Huddleston and Pullum (2002: 1246): ToughPreds involve “the ease or difficulty of the situation described in the infinitival clause or with one’s emotional attitude to it.”¹⁵

As the variety of definitions above attest, it is not entirely clear how to define this “experience” meaning. Nanni (1978) provides extensive discussion of this issue, arguing that that ToughPreds have two (related) senses having to do with “effort” and “suffering” of the experiencer argument, both of which stem from a more general definition. “The easy-type adjectives all describe the **cost** that an activity or event imposes on an individual” (Nanni, 1978: 60, emphasis in original). The two senses can be seen in the following examples. In (263a), the reading is one of “effort” on the part of the (implicit) experiencer of *hard*. In (263b) the reading is distinct as the (implicit) experiencer is “suffering” from the fact that there is no food in the house.

¹⁵The latter idea, that some ToughPreds have an “emotional” component, is also echoed in Akatsuka (1979) who notes that when *impossible* is used as a ToughPred it is an “emphatic emotive.”

- (263) a. It is hard for there to be peace in the world.
 b. It is hard for there to be no food in the house.

(Nanni, 1978: 53)

Nanni argues that both the effort and suffering readings are reflexes of a more general “expenditure” on the part of the experiencer. (This is a similar idea to what Lasnik and Fiengo 1974 propose with their *tough on* reading, discussed in Chapter TBD.) Dubinsky (1998) offers an almost identical classification, suggested that some ToughPreds “describe ‘the work or effort involved in an activity’.” Additionally, he suggests that some ToughPreds, like *good*, *bad*, *annoying*, *nice* “measure ‘the value or benefit involved in some activity’” (Dubinsky, 1998: 114). This idea is more broadly construed in Langacker (1995): “We can begin to understand why adjectives form the nucleus for the OSR [tough] construction. The key point is that the ascribed property makes implicit reference to an interactive process, and usually to some aspect of human experience engendered by it.”

A related idea is presented in Van Oosten (1984: 171), who argues for a three-way classification of ToughPreds.¹⁶

- (264) a. *Success-oriented*: This cake was a breeze to bake __.
 b. *Value-oriented*: Everett is bad to have __ as an example.
 c. *Psychologically-oriented*: My cat is pleasure to have __ on my lap while I’m studying.

Van Oosten (1984: 171)

Van Oosten (1984) (and later Kusayama 1998) suggests that the unifying factor for all of these classes is that they are *speaker-oriented*: “they relate to the speaker’s success, to the speaker’s judgments of values, or to the speaker’s emotional state” (Van Oosten, 1984: 172).¹⁷ These are dis-

¹⁶This general idea is taken from a pre-publication version of Halpern (1980).

¹⁷Note that Van Oosten clarifies (p. 173) that these need not be speaker-oriented *per se*, in the presence of an overt experiencer. But they still pick out the success, judgment, or emotional state of the experiencer.

tinguished from *subject-oriented* predicates, which pick out a property of the subject (e.g, *tasty*). This is somewhat related to the more recent idea that ToughPreds are *judge dependent*. This is a technical term, used to refer to propositions whose truth is dependent on the preferences of the speaker, or some other salient individual. Judge dependent terms are therefore *subjective*; they often correlate with have an overt judge, which in the case of the ToughPred is either subject-oriented or explicit (with a *for*-NP). This idea has been recently applied in Bylinina (2014) (noting that it also applies to *too/enough* clauses) and Keine and Poole (2017).¹⁸

Still, claiming that a “cost” is what distinguishes ToughPreds leads to over-generation. There are a number of similarly subjective predicates that involve such a lexical semantics but are *not* ToughPreds, e.g., *pretty*. However, perhaps we could simply say that ToughPreds are predicates that invoke a cost for an individual *and* are event description. This still doesn’t quite work because not all ToughPreds imply the presence of some experiencer (whatever its semantic role), e.g., *rare-class* predicates, *possible*.

It seems that a more general claim can be made though. To get around this, in Gluckman (2021a), I argue that, in addition to being event descriptions, all ToughPreds involve *relative truth*. By this term, I subsume Keine and Poole’s judge-dependence, but also include modal predicates like *rare* and *illegal*; see also Gentile (2020). A refinement on this idea is still probably needed. We do not want to admit all kinds of modal event descriptions into the class of ToughPreds. Rather, the class of modal elements appears to correspond to what we would call root modality, i.e., reasoning based on some set of specified circumstances, rather than epistemic modality, which is reasoning based on what is known. Thus, the class of ToughPreds would include expressions of genericity (*rare*) and necessity (*illegal*), as well ability (*impossible*), desire (*desirable*), and prefer-

¹⁸A related idea is that there is some avenue of “perception” that ToughPreds invoke. “[B]y virtue of being predicates of judgment, Tough predicates do imply that the matrix subject is the avenue of perception in some way’ (Bayer, 1990: 10).

ences (*fun*), and it would exclude purely epistemic predicates (*likely*).¹⁹ However, claiming that the ToughPreds are always Root modals fails to include judge-dependence, which is *not* typically understood as a subclass of modality. We might ultimately get around this by positing that ToughPreds are simply *not* epistemic, that is, we could define this class negatively.

4.3 Looking at the bigger picture

Assuming that a classification is possible, what is the relationship between the class of ToughPreds and the TC itself? Why do these predicates allow the TC?

¹⁹Note that root modality also include *sufficiency*. This would cover the *take-TIME* and *cost* constructions, which convey what amount of time/money is needed to complete an event.

Chapter 5

Crosslinguistic *tough*-constructions

5.1 Overview of what we know

5.2 Romance TCs

5.2.1 French

5.2.2 Italian

5.2.3 Spanish

5.2.4 Others?

5.3 Germanic

5.3.1 German

5.3.2 Dutch

5.3.3 Yiddish?

Chapter 6

Outlook

Appendix: An inventory of ToughPreds

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