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ON *TOUGH* CONSTRUCTIONS IN FRENCH*

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This working paper examines *tough* predication in French. Two different morphemes are used to introduce the infinitival clause that follows a *tough* predicate. When the matrix subject is the expletive *il* 'it', the infinitival is introduced by *de*, while *tough* constructions with NP subject are marked by *à*. This paper provides evidence that these morphological differences reflect syntactic differences. Using Generative Syntax as a framework, I show that *de* is a complementizer subcategorizing for an IP_[-fin] and argue that *à* is the head of vP, fulfilling the same role as *-en* in passive constructions.

1. INTRODUCTION. *Tough* predicates refer to a set of adjectives (such as *tough* and *easy* in English) that can appear in three different–yet seemingly related–constructions, as exemplified below.¹

- (1) It is tough (for Mary) to please John.
- (2) To please John is tough (for Mary).
- (3) John is tough (for Mary) to please.

In (1), the subject of the *tough* predicate is the expletive *it*, while in (2), the infinitival clause *to please John* is in subject position. In (3) the subject of the *tough* predicate is the embedded theme *John*. Predicates such as *eager* and *possible* are not *tough* predicates, since they do not allow this alternation, as shown below.

- (4) a. It is possible to understand Mary.
b. *Mary is possible to understand.
- (5) a. Mary is eager to please.
b. *It is eager to please Mary.

Tough constructions with an NP subject do not allow intransitive verbs as the predicate of the embedded complement, as shown in (6a). No restriction exists with the expletive construction, as can be seen in (6b).

- (6) a. *John is easy to arrive on time/run/cough.
b. It is easy to run/cough.

Tough predicates in French, like their English counterparts in (6a), do not allow intransitive verbs in embedded position, if the matrix subject is an NP. French, however, imposes an additional restriction on *tough* predication, as shown in (7), (8), and (9) below. When the matrix subject is infinitival or the expletive *il* 'it', the infinitival clause is marked by *de* (*de*-constructions henceforth). Due to space and time restrictions, I will not analyze in much detail the variant with the infinitival subject, as in (7).

- (7) (de/*à) lire Moby Dick est difficile.
(de/*à) read Moby Dick is difficult
'To read/reading MD is difficult.'
- (8) Il est difficile (pour Marie) de/*à comprendre Jean.
it is difficult (for Mary) de/*à understand John
'It is difficult (for Mary) to understand John.'

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¹ There is no apparent natural class of *tough* predicates. Although the set seems to denote an adversative property (*tough*, *difficult*, *impossible*, *hard*), it also includes *easy* but not *possible*. I agree with Lasnik and Fiengo (1974) that *tough* predicates denote a subjective evaluation.

On the other hand, when the matrix subject is an NP, as in (9), the infinitival is introduced by *à* (*à*-construction henceforth).

- (9) (pour Marie) Jean est difficile (*pour Marie) *à*/**de* comprendre (pour Marie).
 (for Mary) John is difficult (for Mary) *à*/**de* understand (for Mary)
 ‘John is difficult to understand.’

Two different morphemes (*de* and *à*) surface at the edge of the infinitival, while in English the clause is introduced by *to* in all cases. The nature of the matrix subject (whether an expletive or an NP) determines the choice of the morpheme used to introduce the infinitival. *De* always surfaces with the expletive subject, while *à* is obligatory with NP subject. *De* and *à* are therefore in complementary distribution. The data covered so far are summarized in Table 1 below. Note that not all languages show the restrictions shown in Table 1. Japanese has the morphological means to allow intransitives to be grammatical.

I will refer to *de*-constructions and *à*-constructions when describing both English and French *tough* constructions throughout this paper.

TABLE 1: TOUGH CONSTRUCTIONS IN FRENCH AND ENGLISH

Matrix Subject		Expletive			NP		
Left edge of [-fin]		<i>à</i>	<i>de</i>	<i>to</i>	<i>de</i>	<i>à</i>	<i>to</i>
Embedded Verb	Transitive	*	√	√	*	√	√
	Intransitive	*	√	√	*	*	*

The purpose of this paper is to determine the nature of the phrases headed by *de* and *à*. In her analysis of tough constructions within the framework of Categorical Grammar, Jacobson (1992, cited in Chung 2002) argues that the matrix subject John in (10) below and the gap in embedded clause (i.e., the complement of please in angled brackets) represent a single entity in the semantics.

- (10) John is tough (for Mary) to please <John>.

Jacobson also shows that the PP *for Mary* in (10) is the controller of the empty NP subject of *please* in the infinitival. There is no exact counterpart to (10) in French. As shown in (9), the phrase headed by *pour* ‘for’ cannot occur at the left edge of the infinitival, where *for Mary* surfaces, when the infinitival is introduced by *à*. No such restriction occurs with *de*-construction in (8). The phrase headed by *pour* ‘for’ can surface at the left or right edge of the entire clause in both *de*- and *à*- constructions, as in English ‘(for Mary) John is easy to understand (for Mary)’.

To account for the French data presented so far, I would like to argue in this paper that:

- The NP subject *Jean* in (9) originates as an embedded object and undergoes NP raising to its surface subject position;
- *De* and *à* subcategorize for different arguments: the infinitive following *à* is no more than a VP (in the spirit of Bresnan 1971, Jones 1991, Lasnik and Fiengo 1974, Wurmbrand 2001, and Yeo 2005), while *de* takes an IP complement (following Canac Marquis 1996 and Huot 1981);
- The external argument of the embedded verb is optionally realized as *pour NP* ‘for NP’, an adjunct prepositional phrase (following Hicks 2003 and Jacobson 1992, among others);
- *De* is a complementizer (following Huot 1981); *à* is the head of little *v*.

The paper is organized as follows. Section 2 surveys the syntactic analyses of *tough* constructions proposed in Government and Binding (GB) and the Minimalist Program (MP), to account for the relation between the matrix subject and the missing object. Syntactic evidence that *de* and *à* have different properties is presented in Section 3, where I will highlight some of the characteristics of *tough* predicates, and assess their properties with respect to clitics, adverb placement, and negation. In Section 4, I propose an alternative analysis of *tough à*-constructions in French. Departing from what has been previously

assumed in the literature, I argue that \hat{a} is the head of little ν , and that it behaves like a passive morpheme. I propose an analysis of the ν P in French to account for passives, unaccusatives, and *tough* raising, and show that these constructions all share the same phrase structure. Section 5 summarizes and concludes the paper.

2. LITERATURE REVIEW. To date no framework has provided a satisfactory analysis of *tough* predication (see Chung 2002 for a review of the shortcomings of GPSG, HPSG, and Categorical Grammar and his analysis of *tough* predication in Construction grammar; see also Wilder 1991).

2.1. ENGLISH TOUGH CONSTRUCTION. In the Government and Binding (GB) framework, the base structure proposed for *tough* predicates is as follows:

(11) [_{IP} __ is [_{AP} *tough* [_{CP} [_{IP} PRO to [_{VP}]]]]]

An expletive is introduced at S-structure in matrix position to generate a *de*-construction. The derivation of an \hat{a} -construction, such as (12) below, is a major area of contention, especially the status of the NP *John*.

(12) John is tough (for Mary) to please.

The raising of *John* is not a viable option in GB, as shown in (13).

(13) (*)John_i is tough [_{CP} t'_i [_{PRO} to please t_i]]²

In GB, NP raising in (13) would generate a wide array of violations. Movement of *John* from one case position to another violates the Chain condition. *John* would receive two cases, accusative and nominative, a violation of the Case theory. Raising also creates an improper chain, moving from an A-position to an A-bar position back to an A-position. To obviate these problems, Chomsky 1986 proposes an empty operator (*Op*) moving from the embedded object position to the intermediate CP, as in (14).

(14) John_i is tough [_{CP} Op_i [_{PRO} to please t_i]]

The NP subject *John* is posited to be base-generated in matrix Spec IP. Movement of the null operator *Op* leaves a variable which is A-bar bound. Its interpretation is resolved when the subject *John* is inserted at S-Structure. The subject and the operator being co-indexed, *John* determines the domain over which the operator's variable ranges. According to Chomsky, the A-bar moved operator receives independent evidence from subjacency violations or island effects in (15).

(15) a. That violin_j is easy to play that sonata on t_j
b. *Which sonata_k is that violin_j easy [_{Op_j} [to play t_k on t_j]]?

(15b) is rejected on account of a cyclicity violation. Wh-extraction of *which sonata* cannot land in the intermediate CP filled by *Op*, leading to subjacency effects. However, if there is an operator in embedded Spec CP, it is unclear why wh-extraction is not always blocked, as shown in (16b).

(16) a. That sonata_k is easy to play t_k on this violin
b. Which violin_j is that sonata_k easy [_{Op_k} [to play t_k on t_j]]?

(16b) is considered fully grammatical by Jacobson (1992) and Chung (2002); thus extraction is possible despite the presence of an operator.³

While the operator analysis obviates the many violations that NP raising generates, it engenders new problems. Adoption of the operator analysis implies allowing a subject to be base-generated at S-Structure in matrix Spec IP. This step, however, is undesirable for theory-internal reasons. In GB, theta-assignment is required to take place at D-Structure, before movement (*move α*) applies. The subject, for example, receives its theta-role in the verb phrase (following Koopman and Sportiche 1991), before it raises to Spec IP. Suppose now that the subject is a complex phrase involving NP movement, such as *that*

² (*) indicates that the derivation is illicit, but the sentence is grammatical.

³ One may argue that (15b) involves ECP and subjacency violations, while (16b) only violates subjacency. However no subjacency violation is reported in (16b). Note that paths are nesting in (16b) and crossing in (15b).

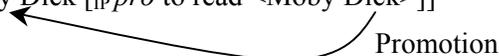
your bike was stolen. If this type of phrase is allowed to be merged at S-Structure directly in Spec IP in subject position of a *tough* construction, as in *that your bike was stolen is tough to explain*, then Theta theory (which applies at D-Structure) cannot be satisfied inside that subject. This argument is the strongest against the operator analysis; yet the operator hypothesis was probably the most widely accepted one in GB.⁴

A more recent analysis of *tough* constructions hinges on Nunes's *sideward movement* (Nunes 1995, 2001; see also Hicks 2003 for a different approach). Hornstein 2001 takes *tough* constructions to be adjunct clauses on a par with parasitic gap constructions (PG henceforth) and relative clauses. In Hornstein's model, adjuncts and matrix clauses are built independently of each other. The adjunct clause adjoins as a whole to the main clause as the last step of the derivation. The gap in object position of the infinitival clause is created by an instance of *sideward movement* from inside the infinitival clause to the matrix clause. The *sideward movement* derivation of the *tough* construction in (17) is detailed below.

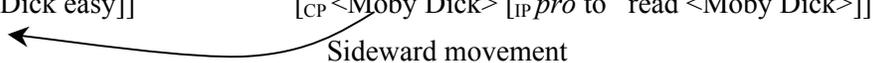
(17) Moby Dick is easy to read.

- a. [_{IP} is [_{AP} easy]]
 b. [_{IP} *pro* to read Moby Dick]⁵

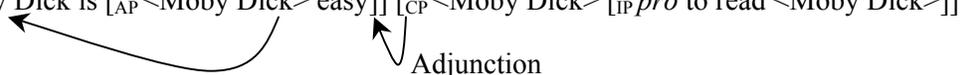
To derive (17) two independent trees are built: the matrix clause (17a) and the adjunct (17b). *Moby Dick* moves by "promotion" (a copy-and-adjoin operation) inside the adjunct clause, from its base-generated object position to embedded Spec CP, to form (18).

(18) [_{CP} Moby Dick [_{IP} *pro* to read <Moby Dick>]]


Moby Dick then moves out of the adjunct to merge in the matrix clause internal theta-role position of *easy* (in (19)), hopping from one tree to the other. Note that *promotion* and *sideward movement* result in movement from an A-position (object of *read*), to an A-bar position (adjunct Spec CP), back to an A-position (argument of *easy*). This is considered illicit in GB.⁶

(19) [_{IP} is [_{AP} Moby Dick easy]] [_{CP} <Moby Dick> [_{IP} *pro* to read <Moby Dick>]]


Subsequent to *sideward movement* illustrated in (19), *Moby Dick* undergoes another movement inside the matrix clause, to Spec IP to form (20). According to Hornstein, movement to the subject position is driven by case-checking requirements.

(20) [_{IP} [_{IP} Moby Dick is [_{AP} <Moby Dick> easy]] [_{CP} <Moby Dick> [_{IP} *pro* to read <Moby Dick>]]


The last step of the derivation is the adjunction of the CP adjunct to the matrix IP in (20).

The main argument against an analysis of *tough* constructions as a case of *sideward movement* can be found in Nissebaum 2002. In line with other "A-bar-Operator-adjunction" analyses of *tough* constructions, *promotion* is an instance of wh-movement. In PGs or relative clauses, the element moving to Spec CP (a wh-phrase or a relative operator, respectively) bears a wh-feature motivating its wh-movement to the edge of the complementizer, a feature missing in *tough* constructions. As Nissebaum remarks, since the theme *Moby Dick* in (18) bears no wh-feature, the instance of *promotion* exemplified in (18) is therefore unmotivated.

⁴ But see Lasnik and Fiengo 1974, which proposes that (i) the complement of a *tough* predicate is a bare VP, (ii) both NP subject and embedded object are base-generated, and (iii) the embedded object undergoes *deletion under identity*, being coreferential with the subject.

⁵ Hornstein (2001) assumes the existence of the non-obligatory control pronoun *pro* in subject position of an embedded adjunct CP, after Hornstein 1999.

⁶ *Sideward movement* from Spec CP to a theta-position is also found in PG and relative clauses in Hornstein 2001.

2.2 FRENCH TOUGH CONSTRUCTION. Recall that unlike English, there are two morphologically different *tough* constructions in French. The contrast exemplified in the introduction is repeated below.

- (21) Il est difficile (pour Marie) **de**/***à** comprendre Jean.
 it is difficult (for Mary) de/*à understand John
 ‘It is difficult (for Mary) to understand John.’
- (22) Jean est difficile (*pour Marie) **à**/***de** comprendre.
 John is difficult (for Mary) à/*de understand
 ‘John is difficult to understand.’

De and *à* in French are polysemous. Both can appear before infinitival verbs, as we have seen so far. Both can be used as prepositions, the former indicating source and the latter indicating location. Both *de* and *à* can also mark possession, as shown in (23).

- (23) Le livre de/à Jean est à/*de vendre.
 the book de/à Jean is à/*de sell
 ‘John’s book is on sale.’

Huot 1981 convincingly shows that *de* in French can also serve as a complementizer, subcategorizing for an IP_[-fin]. To support her claim about the functional nature of *de*, Huot makes use of distributional evidence. (See Huot 1981 for additional evidence.)

- (24) a. Il est important **de** PRO passer à Paris.
 it is important de PRO go_[-fin] à Paris
 ‘It is important to go to Paris.’
- b. Il est important **que** vous passiez à Paris.
 it is important that you-pl go_[+fin] à Paris
 ‘It is important that you go to Paris.’ (adapted from Huot 1981:33)

Huot argues that the data in (24) indicate that *important* subcategorizes for a CP complement. The head of this complementizer surfaces as *que* ‘that’ when followed by a finite IP, but it surfaces as *de* when the IP is non-tensed. As for *à*, Huot (1981:343) claims that it is always a preposition. The same type of evidence and reasoning is used to support this claim.

- (25) a. John aspire **à** prendre sa retraite.
 John aspires à take his retirement
 ‘John aspires to take retirement.’
- b. John aspire **à** la retraite.
 John aspires à the retirement
 ‘John aspires to retirement.’ (adapted from Huot 1981:85)

(25) shows that *aspérer* ‘to aspire’ subcategorizes for a PP complement. The head of this PP surfaces as *à*. PP_à subcategorizes for an infinitival in (25a) or an NP in (25b).

Canac Marquis (1996) agrees with Huot (1981) that *de* heads a CP. On the other hand, he argues that *à* is a prepositional complementizer taking a bare VP complement, I quote, “a bare VP without projection of an external argument” (1996:40). One piece of evidence that supports the latter analysis comes from quantifier stranding.

- (26) a. *Jean est facile à tous PRO convaincre.
 Jean is easy à all PRO convince
- b. Il est facile de tous PRO convaincre Jean
 it is easy de all PRO convince Jean
 ‘It is easy to all convince John.’

Canac Marquis argues that the grammaticality of (26b) provides evidence that there is a PRO in the Spec IP of the embedded clause, as the subject of *convince*, over which *tous* ‘all’ can quantify. On the other

hand, failure of the quantifier *all* to appear in-situ in (26a) suggests that in French, there is no subject position in between \hat{a} and the infinitival verb where PRO could be licensed. Canac Marquis takes (26a) as evidence that \hat{a} subcategorizes for a bare VP, not an IP. Although he does not acknowledge the VP Internal Subject hypothesis (Koopman and Sportiche 1991), his analysis is not incompatible with theirs. If subjects are base-merged in Spec vP, outside the VP shell, then what Canac Marquis means is that \hat{a} selects a bare VP, without the vP shell.

2.3 SUMMARY. The analysis of *tough* constructions proposed in the GB framework (operator movement and matrix subject base-generation) is untenable, as it fails to satisfy basic requirements of the GB framework (theta-assignment). The analysis relying on *sideward movement* is unmotivated; the instance of *promotion* in (18) lacks a *wh*-feature. Concentrating on French, we saw that two different morphemes are used to introduce the embedded infinitival that follows a *tough* predicate. *De* is used with expletive subjects and \hat{a} is used with NP subjects. In the next sections, I show (following Huot 1981) that *de* is a complementizer subcategorizing for a non-finite IP. I also argue that \hat{a} takes a VP complement (following Lasnik and Fiengo 1974, and Canac Marquis 1996), and that \hat{a} -infinitivals are arguments of the *tough* predicate (contra Hornstein 2001, Canac Marquis 1996, and Jones 1991, among others). In the spirit of Lasnik and Fiengo 1974, Postal 1974, Postal and Ross 1971, and Wurmbrand 2001, I propose an alternative analysis of *tough* \hat{a} -constructions in Section 4, where I show that *tough* constructions can be derived by object-to-subject raising.

3. PROPERTIES OF TOUGH CONSTRUCTIONS. This section presents a list of syntactic properties observed in French *tough* predication. The purpose of this section is to provide evidence that *de* and \hat{a} do not head the same type of phrase. I demonstrate below that *de* and \hat{a} exhibit different syntactic properties with respect to *pour NP* ‘for NP’ placement, dislocation, adverb placement, and negation. These properties will be used to determine the nature and function of *de* and \hat{a} . Recall that I will refer to *de*-construction and \hat{a} -construction when describing both English and French *tough* constructions throughout this paper: *de*-constructions come with an expletive, while \hat{a} -constructions have NP subjects.

3.1 POUR ‘FOR’ PHRASE PLACEMENT. As shown below, the English expletive construction in (27a) can take up to two phrases headed by *for*, whereas the \hat{a} -construction (27b) can take at most one.

- (27) a. It is impossible for Mary for John to understand Paul.⁷
 b. Paul is hard for Mary (*for John) to understand.

For NP has been analyzed as a PP adjunct to the matrix clause (Lasnik and Fiengo 1974, Hicks 2003, Chung 2002, among others). *For* has also been claimed to be in the CP system of the embedded clause (as in *I want very much for John to win*) (Rosenbaum 1967, cited in Chung 2002). It is possible to assume that in (27a) we have an instance of both, the first *for* being a preposition, and the second a complementizer. *For Mary* in (27b) is understood as the external argument of *understand* that is, the one experiencing difficulty in pleasing. In (27b) however, the position of *for* is difficult to determine, since this construction takes at most one *for NP*. The position of *for* is compatible with both analyses, a preposition or a complementizer. Interestingly, the placement of *pour NP* ‘for NP’ in French is more constrained than in English. *De*-constructions can take at most one *for* phrase, which can occur immediately to the left of *de*, in (28a).

- (28) a. Il est difficile pour moi (*pour lui) de comprendre John.
 it is difficult for me (*for him) de understand John
 ‘It is hard for me to understand John.’
 b. (Pour moi) Mary est difficile (*pour moi) à comprendre (pour moi).
 (for me) Mary is difficult (*for me) à understand (for me)
 ‘(For me) Mary is hard to understand (for me).’

⁷ Data from Chung 2002, judged ungrammatical by Greg Lee and Bonnie D. Schwartz. I will not investigate the semantic differences between (27a) and its counterpart with only one *for NP*.

À-constructions also take at most one *for*-phrase, but its placement is more constrained than in (28a). It cannot occur at the left periphery of the *à*-infinitival, as shown in (28b). It can only surface at the right or left edge of the entire construction.

I take the above data to provide distributional evidence that there is no embedded CP in *à*-constructions, given that *pour NP* ‘for NP’ in (28b) cannot appear to the left of the infinitival, which would be the expected in-situ position if *pour* ‘for’ was in the CP system. I assume therefore that there is no CP layer anywhere near *à* and that *pour NP* ‘for NP’ must be an adjunct PP. A question remains: What prevents the PP from adjoining and surfacing between *tough* and *à*? I will address this issue in Sections 3.2 and 4.

Let us now determine the nature and position of *pour* ‘for’ in *de*-constructions like (28a). The data in (28a) show that one and only one *pour NP* ‘for NP’ phrase can occur immediately to the left of *de*.

Compare data (28a) with the data in (29).⁸

- (29) Il *m*’ est difficile de comprendre Mary.
 it *me*_{dat} is difficult de understand Mary
 ‘It is difficult for me to understand Mary.’

In (28a) above, the phrase *pour moi* ‘for me’ appears immediately to the left of *de*. In (29) the clitic *me* ‘to me’ elided to *m*’ replaces the phrase *pour moi* ‘for me’. It cliticizes onto the matrix predicate. Note that the equivalent of (29) with *à* is also acceptable.

- (30) Ce livre *m*’ est difficile à lire.
 this book *me*_{dat} is difficult à read.
 ‘This book is difficult for me to read’

Kayne 1991 establishes that French does not allow clitic climbing.⁹ We thus have independent evidence that *pour moi* ‘for me’ must originate outside the embedded clause, since it can cliticize outside of that embedded clause.

I believe with Jacobson (1992) that *pour NP* ‘for NP’ is the actual demoted subject of the embedded verb since this PP semantically controls the external argument of the infinitival verb (Jacobson 1992). I assume the NP introduced by *pour* ‘for’ is also the experiencer of the *tough* predicate. In the syntax, however, this PP cannot originate in the embedded clause because its cliticization occurs outside of the embedded clause and clitic climbing is not licit in French. The data in (29) and (30) thus suggest that *pour moi* ‘for me’ is a PP adjunct to the matrix predicate in *de*- and *à*-constructions.

3.2 DISLOCATION. For Foley and Van Valin (1985), left dislocation is defined in terms of topicalization to the left of the main predication. The in-situ position of the topic is filled by a resumptive element, co-referential with the dislocated phrase (as in *John, I like him*). According to De Cat 2002, left dislocated elements in French are not moved to the edge of the matrix clause but base-adjoined in that periphery,

⁸ See also:

- i. John a acheté un livre pour moi. (with emphasis on the strong pronoun *moi*)
 ‘John bought a book for me.’
- ii. John *m*’a acheté un livre..
 ‘John bought me a book.’

⁹ See also Sportiche 1996. Clitic climbing is explained as the raising of a clitic from an embedded clause to a matrix clause.

- i. Je veux le faire.
 I want it do
 ‘I want to do it’
- ii. *Je le veux faire
 I it want do

based on the evidence that these constructions do not exhibit island effects. The pronominal element inside the embedded clause is base merged as the argument of the verb.

In this section, we are going to see that combining *tough* constructions and dislocation yields interesting results. Specifically, we will find an answer to the question raised in Section 3.1: What prevents a PP from adjoining and surfacing between *tough* and *à*? I argue that they form a constituent.

Consider (31a), a base form. The complex [*facile à verb*] can be dislocated in (31b). The clitic *le* (which elides to *l'* before a vowel) serves as resumptive pronoun.

- (31) a. Marie est sûrement facile à contenter.
 Marie is surely easy à please
 'Mary surely is easy to please.'
- b. Facile à contenter, Marie I' est sûrement.
 easy à please, Marie CL is surely
 'Easy to please, Mary surely is that.'

- c. *(A) contenter, Marie I' est (sûrement) facile.
 à please, Marie CL is (surely) easy

The ungrammaticality of (31c) indicates that the complex [(*à*) verb] cannot be dislocated without the *tough* predicate, *facile* 'easy', whether or not the infinitive is preceded by *à*. The data suggest that [*tough à verb*] forms a constituent which can be dislocated and substituted for by a pro-form. Dislocation applied to the *de*-construction exhibits different results, as can be seen in (32) below.

- (32) a. Il est facile de contenter Marie.
 it is easy de please Marie
 'It is easy to please Mary.'
- b. ?Facile de contenter Marie, ça I' est sûrement.
 easy de please Marie, this CL is surely
- c. (De) contenter Marie, c' est facile.¹⁰
 (de) please Marie, this is easy
 'To please Mary, it is easy.'

Assuming that (32a) is the base form, the complex [(*de*) verb theme] cannot be easily dislocated together with the *tough* predicate *facile* 'easy' in (32b). The data in (32b) contrast with (31b), although they are near minimal pairs. (32b) contains two resumptive pronouns, a pronoun and a clitic. (32b) is fully ungrammatical with only one pronoun *ce*. The complex [(*de*) verb theme] can, however, be dislocated to the periphery without the *tough* predicate, when *ce* is used as resumptive pronoun in (32c). These data contrast sharply with (31c), which is ungrammatical regardless of the presence of *à*. Note also that the clitics used in (31c) and (32c) are different.

¹⁰ William O'Grady notes that the variant with pronominal *il* 'it' is ungrammatical. It might be the case that the pro-form *il* 'it' cannot serve as co-referential pronoun for a proposition that has been left dislocated, while *ce* 'this' can fulfill this function.

i. (de) contenter Marie, c'/*il est difficile.

Please Marie, this /*it is difficult

ii. Il est probable que Jean vienne. Que Jean vienne, c'/?il est probable.

It is probable that Jean will come. That Jean will come, this/?it is probable

See also Rizzi (1997:289-90). Topicalized phrases in Italian cannot bind a variable. They require a resumptive pronoun.

iii. Il tuo libro, *(lo) ho comprato.

your book, I bought *(it)

I assume in this paper that morphological evidence reflects syntactic difference. The contrastive examples presented above suggest that *de* and *à* are of different syntactic natures, and that they entertain different relationships with the *tough* predicate. In particular, I take (31) to suggest that [*tough à verb*] forms a constituent because a pro-form can substitute for them. (31c) also suggests that the [*tough à*] constituent is somehow indivisible, since *tough* and *à* must be dislocated together. I take the data to indicate that *à*-construction is an argument of the *tough* predicate (following Lasnik and Fiengo 1974 and contra Canac Marquis 1996, Hornstein 2001, and Jones 1991, among others, who argue that the infinitival is an adjunct; see also Chung 2002). The data in (32) on the other hand are inconclusive and cannot sustain the claim that *de* is in a complement or adjunct relation with the *tough* predicate. Whether the *de*-infinitival is an adjunct or argument of the *tough* predicate, however, has no bearing on the analysis I propose in Section 4.

We are now in a position to explain why a PP cannot adjoin and surface between *tough* and *à*. In Section 3.1, the phrase *for NP* was identified as a PP adjunct. Recall that this PP cannot occur between the *tough* predicate and *à* (repeated below).

- (33) Mary est difficile (*pour moi) à comprendre.
 Mary is difficult (*for moi) à understand
 ‘Mary is hard to understand.’

Sentence (33) reiterates that [*tough à*] cannot be split. Both (31c) and (33) then point to the same conclusion: that the *tough* predicate and the *à*-infinitival form a tight constituent. I will assume a head-argument relation between *tough* predicates and *à* in the remainder of this paper. Some questions remain: What type of constituent does [*tough à*] form, such that nothing can adjoin inside? Where is *à* located in the tree? I will return to these points in Section 4.

3.3 NEGATION. According to Pollock (1989:366), the order of maximal projections in French is as follows:

- (34) [CP [IP **ne**_i [NegP **pas** [Neg t_i [AgrP [(adv) VP]]]]]]

VP adverbs are assumed to have a fixed position and mark the left edge of a VP. Based on the structure in (34), Pollock notes that in case a sentence is non-finite, lexical verbs optionally move past the adverb (in (35a)), but not up to Infl_[-fin] (in (35b)).

- (35) a. Ne pas (souvent) embrasser (souvent) John
 not (often) kiss (often) John
 ‘Not to often kiss John’
 b. *N’ embrasser pas John
 not kiss not John

(35a) is taken as evidence that non-finite verbs in French can raise to Agr and appear to the left of an adverb. According to Pollock, *ne* is the head of the negative projection, and *pas* is in the Specifier of NegP. *Ne* is a clitic, which undergoes head movement to Infl to yield the word order *ne pas* and to take scope over the entire IP. Although Pollock (1989:413-4, 421) does not give a clear reason for why *ne* needs to move to Infl, we must assume that *ne* in French is able to occur in a sentence iff the Infl node is also present in the structure.

Wurmbrand (2001:118) argues that in German, the class of infinitives that she defines as *restructuring infinitives*, does not contain a TP on the basis that they do not license negation. Based on Pollock’s and Wurmbrand’s claim, if negation is not licit in the infinitival part of a *tough* construction, we can claim that this is evidence that there is no IP in the structure. On the other hand, if negation is licit in the infinitival part, we have evidence for an Infl node in the embedded constituent.

As will be clear from the examples, negation and the adverb *souvent* ‘often’ can freely occur in the embedded clause of *de*-constructions but are illicit with *à*-constructions. As shown in (36), the embedded clause of a *de*-construction can be negated.

- (36) Il est facile de **ne pas** réussir cette recette.
 it is easy de not succeed this recipe
 ‘It is easy not to get this recipe right.’

Given that negation is licit in (36), I argue that (36) is evidence that an IP does exist in the embedded clause introduced by *de*. Comparing (36) and (37), we see a clear contrast: the embedded clause of an *à*-construction cannot be negated in (37).

- (37) a. *Cette recette est facile à **ne pas** réussir.
 this recipe is easy à not succeed
- b. *John est facile à **ne pas** comprendre.
 John is easy à not understand

The fact that there can be no NegP after *à* suggests that there is no IP after *à* (following Pollock 1989, Huot (1981:364), and Wurmbrand 2001).¹¹ This claim entails that *à* precedes very little structural material, and is quite low in the hierarchy of projections, below IP. We have evidence for at least a VP below *à*, but no NegP. Assuming a standard view of economy in which no more structure is posited than necessary, I conclude that there is no IP below *à*.

3.4 VP ADVERBS. Pollock (1989) mentions that in French verb raising to Agr is optional in non-finite contexts. Infinitival verbs in *de*-constructions may move past a VP adverb such as *souvent* ‘often’. They may also stay in-situ; that is, they can occur to the right of the adverb. Both possibilities are shown in (38).

- (38) Il est facile de (**souvent**) réussir (**souvent**) cette recette.
 it is easy de (often) succeed (often) this recipe
 ‘It is easy to often get this recipe right.’

The grammaticality of (38) suggests that the infinitive verb *réussir* ‘succeed’ may optionally move to Agr. The data also suggest that there is a VP layer to which the adverb can adjoin. Infinitival verbs in *à*-constructions may move past the VP adverb *souvent* ‘often’. They may not, however, stay in-situ; that is, they may not occur to the right of the adverb, as can be seen in (39) below.

- (39) Cette recette est facile à (***souvent**) réussir (**?souvent**)
 this recipe is easy à (often) succeed (often)

There is a clear contrast in example (39). The order [V adverb], although not perfect, is more acceptable than the reverse [adverb V].

I take the data in (39) to suggest that there exists a position where the verb could raise. AgrP (or *vP* in Minimalist terms) is present in the infinitival introduced by *à*. The verb undergoes head movement and surfaces to the left of the adverb *souvent* ‘often’, which is adjoined to VP. The data also show that this extra position must be available, given that the order [adverb V] is illicit.

3.5 SUMMARY. The syntactic properties of *tough* constructions isolated in the preceding subsections can be summarized as follows:

- We saw evidence in Section 3.1 suggesting that *for* heads an adjunct PP, adjoined to the matrix clause.
- Examples given in (31c), (33), (37), and (39) suggest that the complex [*tough à*] cannot be split.
- Finally, we saw compelling evidence that *de*- and *à*-constructions display different syntactic properties with respect to dislocation, cliticization, adverb placement, and negation. Data in Section 3 point to the conclusion that *de*-constructions contain an IP, whereas *à*-constructions do not contain more than a *vP*.

4. A MODEST PROPOSAL. In this section, the properties identified in Section 3 are used to help determine what types of category *de* and *à* project and subcategorize for.

¹¹ One may argue that the sentences in (37) are not ungrammatical but pragmatically deviant, especially given that depending on the lexical items chosen as NP subject, the results may be more mildly deviant, as shown below.

i. ?*Ce choix était facile à ne pas faire*

 This choice was easy not to make.’

However, I think it is fair to say that negating the embedded part of an *à*-construction sounds very unnatural most of the time. For the sake of argument, I will assume that the embedded clause of *à*-constructions can never be negated.

In line with more recent trends of syntactic analysis, such as the Minimalist Program (MP, Chomsky 1995, 2000), I assume that *de*- and *à*-constructions do not start off with the same numeration, and hence cannot be compared in terms of economy of derivation.

I assume that there is one lexical category in the lexicon marked with *tough* specifications. This category contains items like *difficile* ‘difficult’, *facile* ‘easy’, etc, referred to as the class of *tough* predicates. All *tough* predicates take at most one internal argument. The lexeme *tough* has two mutually exclusive subcategorization grids in (40): it can take a CP complement headed by *de*, or a vP complement. The exact placement of *à* will be discussed in more details in the subsections to follow.

$$(40) \quad Tough \quad \left\{ \begin{array}{l} [_{CP} [C \text{ de } [_{IP} [-_{fin}]] \\ [_{vP} \grave{a} [_{VP} \end{array} \right.$$

This proposal raises interesting questions with regards to the nature and function of *à*. Why does the presence of *à* correlate with the theme raising to the matrix clause? What does this suggest about the relation that *à* entertains with the infinitival verb? These questions will be answered in the sections to come.

Based on the properties identified in Section 3, I present below the structures for the *de*-construction and the *à*-construction in (41) and (42), respectively.

$$(41) \quad [_{IP} \text{ il } [_{est} [_{AP} \text{ difficile } (\text{pour moi}) [_{CP} (*\text{pour moi}) [C \text{ de } ([_{NegP} [\text{comprendre Jean }]]]]]]]]$$

it is difficult for me for me de (not) understand John

‘It is difficult (for me) to understand John.’

Sentence (41) contains the expletive *il* ‘it’. We saw in Section 3.1 that the PP *pour moi* ‘for me’ is an adjunct to the matrix clause. Therefore in (41), *for* cannot be in the embedded clause. I mentioned in Section 2.2 that *de* in French has been analyzed as a complementizer by Huot (1981) and Canac Marquis (1996). I will take their analyses at face value and will not provide further evidence to support the view that *de* is indeed a C head that projects a CP. Analyzing *de* as a complementizer is compatible with the French data discussed in Section 3, which illustrated that *de* takes an IP complement.

The remainder of this paper concentrates on *à*-constructions, as exemplified in (42) below. In (42), raising of the NP theme *Jean* has taken place. This move correlates with the presence of *à*.

$$(42) \quad [_{IP} \text{ pour moi } [_{IP} \text{ Jean}_i [_{est} [_{AP} \text{ difficile } [_{vP} [_{v} \grave{a} \text{ comprendre }_j (\text{souvent}) [_{VP} \langle \text{comprendre} \rangle_j \langle \text{Jean} \rangle_i]]]]]]]]$$

for me John is difficult à understand (often)

‘For me, John is difficult to often understand.’

The analysis I would like to put forth for (42) is outlined below.

$$(43) \quad *John \text{ is difficult to/à/de understand Mary.}$$

Although in (43) there are two propositions expressed (a “comprehending” event and someone’s comment on that event), there is only one theta position and only one case feature in a *tough à*-construction, both checked by the theme of the embedded verb (see also Yeo 2005). Therefore, there cannot be two noun phrases in *tough* constructions, as shown in (43) above.

Jean in (42) merges as a sister of *comprendre* ‘understand’ to satisfy each other’s theta requirements. *Jean* is the verb’s internal argument; it is the only NP present in the structure in (42). Under a Minimalist perspective, the NP deletes its uninterpretable Case feature against the matrix $\text{Infl}[_{+fin}]$ under Agree, in its thematic position. *Jean* then undergoes NP raising to the non-theta-marked matrix subject position, Spec Infl, to satisfy the strong EPP feature on $\text{Infl}[_{+fin}]$.¹² Object NP movement to the subject position is thus feature driven. The question is: What went wrong in the vP such that the theme’s features cannot be satisfied and checked off?

The analysis of *tough à*-construction I propose is inspired by Wurmbrand’s (2001) analysis of infinitives in German. Wurmbrand argues for four different types of infinitivals. One type of infinitive, called *lexical restructuring infinitivals*, satisfies the following conditions: they (i) do not license negation, (ii) do not license tense, (iii) do not contain structural Accusative case, (iv) do not contain PRO, and (v)

¹² EPP stands for “extended projection principle,” which for our purposes means that sentences must have a subject.

do not contain a CP. The verb *try* and the predicate *tough* are a case in point for German. I agree with Wurmbrand (2001:32) that *tough* movement in French involves A-movement of the theme to matrix Spec IP, as in German. Wurmbrand assumes that *restructuring infinitivals* in German are bare VPs, and remains agnostic as to the nature of *zu*, the German counterpart of English *to* and French *à*. She places *zu* under V. I argue in the following sections that *à* is inside the vP (see also Yeo 2005 which assumes a vP layer in Korean *tough* constructions).

I show in Section 4.1 that *tough* predicates are raising predicates. Given that raising predicates only have one theta-role to assign, it seems natural to posit that, for their derivation to converge, they select a verbal complement which in turn does not project a slot for one of its arguments. I take this verbal complement to be marked by *à*.

4.1 TOUGH RAISING. In (40) above, I assumed that *tough* predicates are one-place predicates, without an external theta-role (following, among others, Canac Marquis 1996 and Epstein 1989 (cited in Jones 1991), but contra Jones 1991). I present four more pieces of evidence for the claim that *tough* is a raising predicate.

First, *tough* predicates can take expletives in subject position: like other raising constructions (*seem*-type), *tough* predicates license a dummy expletive *it* in subject position. Second, the thematic role of the matrix subject is dependent on the semantics of the embedded verb. For example *John* is patient in *John is difficult to tame*, whereas it is beneficiary in *John is difficult to please*. This suggests that the subject *John* originates as the internal argument of the embedded verb, where it receives its theta-role. A third piece of evidence for raising, given in Postal 1974 and Chung 2002, concerns idiom chunks. Berman 1973 (cited in Chung) notes that nominals must appear in the object position of a verb to form a VP idiom (as in *bury the hatchet*, *make an impression*). Such idiomatic expressions are maintained when merged with *tough* predicates, as seen below.

- (44) a. The hatchet is tough for Mary to bury.
b. A good impression is hard to make.

The fact that the idiomatic meaning is maintained implies that the nominal and the verb form a VP constituent at some point in the derivation, where the idiomatic meaning is derived. The nominal originates as an object, then raises to the matrix subject position. Idiom chunks provide evidence for at least a VP layer. This type of argument, however, has been criticized as irrelevant to support a raising analysis (Lasnik and Fiengo 1974), because not all idioms feed *tough* constructions, as shown below.

- (45) *Careful attention is difficult to pay to boring lectures.

Postal 1974 shows that idiom chunks do not always feed subject-to-subject raising predicates. Consider *appear* in (46) below.

- (46) *Little heed appears to be likely to be taken of my suggestion (Postal 1974:201)

Postal argues (but does not provide a precise formulation of the facts) that the ungrammaticality of (46) is due to too many instances of *to* (see also Jacobson 1992 for similar observations). Example (47) is considered fully grammatical.

- (47) Little heed appears likely to be taken of my suggestion (Postal 1974:201)

Despite the fact that the idiom does not survive raising in (46), no one would claim that *appear* is not a raising predicate. Similarly, the fact that some idiom chunks do not participate well in *tough* raising, as in (45), is not a convincing argument against considering *tough* a raising predicate.

The fourth set of arguments in favor of a raising approach to *tough* constructions in French is presented in Canac Marquis 1996. Chomsky (1986), Jones (1991), and Hornstein (2001) among others, argue that English *tough* constructions display A-bar chain properties. Canac Marquis shows that in French, *à*-constructions have A-chain properties (see also Wurmbrand 2001). Specifically, Canac Marquis (1996:36-8) shows that *tough* constructions in French display a strong tense effect, fail to license parasitic gaps, and do not display A-bar reconstruction properties. I reproduce below one of the many arguments Canac Marquis offers to build up his case that *à*-construction have A-chain properties. Citing Pearce

1990, Canac Marquis (1996:38) reports that Old French allowed object shift and clitic climbing across *à*-infinitivals but not across *de*-infinitivals.

‘[...] To the extent that clitic climbing and in particular object shift are typically subject to strict locality effects akin to A-movement, then the data in Old French indicate that *à* but not *de* was transparent to such A-type movement.’

An example of clitic climbing across *à* in Old French is provided below in (48). Example (49) shows that clitic climbing in Old French is not attested across *de* (examples are taken from Canac Marquis (1996:39), reproduced from Pearce 1990).

(48) Li rois Otran **li**_i comença à **t**_i dire
 the king Otran him began à say
 ‘The kong Otran began to tell him.’ (Ch Nimes:185/1317)

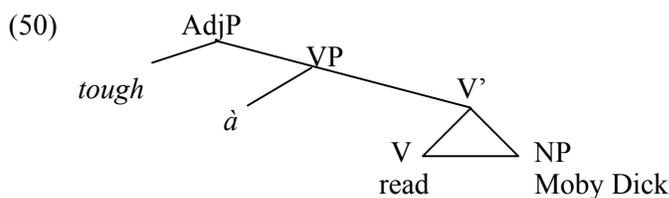
(49) Et il ne cesse de prier **la**
 And he not cease de beg her
 ‘And he did not cease to beg her.’ (Queste 109, 19)

Canac Marquis (1996:39) notes that clitic climbing across *à* was the common case, while climbing across *de* is at best rarely attested. Although Canac Marquis does not endorse the raising analysis I proposed in Section 4, he does conclude that A-bar movement is never licensed in *tough à*-constructions, while A-movement is (and was) possible.

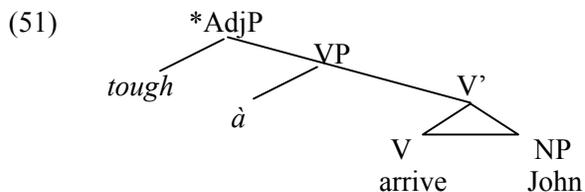
To summarize this section, we saw evidence that *tough* predicates have properties associated with NP raising. Specifically they allow object to subject raising as passives do. *Tough* raising exhibits A-movement properties in French. The next question to answer concerns the location of *à* in the tree, which makes it permeable to NP raising.

4.2 THE POSITION OF *à* IN THE *vP*. We have seen so far that the external argument of the embedded verb can never occur in-situ. It is optionally realized as an adjunct PP_[for]. We also witnessed that intransitive verbs are illicit with *tough* predicates. These facts point to two possible conclusions: (i) that there is no *vP* at all in the structure where the external argument could be merged (based on Chomsky’s 1995 analysis of unaccusatives); (ii) that there is a defective *vP* which does not project specifiers (Adger 2003 on defective *vP* found in passives). We will see that with respect to the *tough à*-construction, there is motivation for a *vP* layer.

If there is no *vP*, that is if the embedded infinitival is a bare VP (as argued for by Lasnik and Fiengo (1974) for example), then *à* must be in Spec VP, as in (50) below, or under V, as in Wurmbrand 2001.



The structure in (50) should in principle share similar characteristics with unaccusative structures analyzed in Chomsky 1995 as bare VPs. However, as shown in (51), unaccusatives cannot feed *tough* raising.



Another analysis is to posit that *à* is above VP, and below the *tough* predicate. For Canac Marquis (1996), *à* represents a prepositional complementizer phrase. He does not, however, make any claim about the nature of *à*, whether a head or a specifier.

Positing an additional structural layer could lend partial support to Adger's (2003) analysis of defective vP in passives. He argues that a defective vP projects v but no specifiers. This would entail the occurrence of \grave{a} in head position. This is the position taken by Tellier (2001), who argues that \grave{a} is the head of AgrP. Tellier argues that *tough* constructions involve an operator (following Chomsky 1986). The structure she proposes is as follows.

- (52) Ce livre est difficile [_{AgrP} Op_i [_{Agr} \grave{a}] ... [_{VP} PRO résumer t_i]].
 this book is difficult \grave{a} summarize
 'This book is difficult to summarize.'

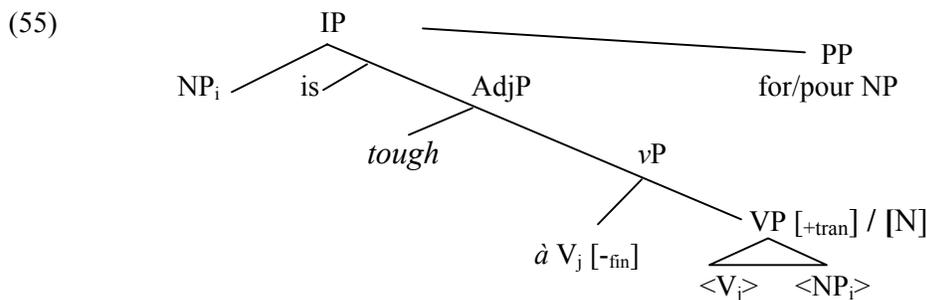
Tellier argues (2001:361) that operator movement in *tough* constructions targets Spec AgrP and forms an A-chain (Spec AgrP, she argues, is an argument position). *Tough* constructions cannot then license parasitic gaps, because operator movement does not form an A-bar chain, as shown below.

- (53) *Ce livre est difficile \grave{a} résumer sans avoir lu t_i
 this book is difficult \grave{a} summarize without have read

Under the approach I pursued above, an A-chain is formed as a result of NP movement. There is also evidence (albeit weak) in (39) that infinitivals in *tough* constructions move past VP adverbs and undergo head movement to v . If we assume that \grave{a} is a head, the head of little v , then we are forced to conclude that head movement of V to v is obligatory. We also have to make the additional assumption that \grave{a} , like the negative particle *ne*, is a pro-clitic, and that the verb right-adjoins to it.

The phrase structure I propose for *tough* \grave{a} -constructions in (54) is shown in (55).

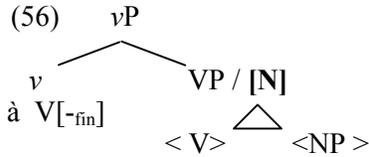
- (54) [_{IP} pour moi [_{IP} Jean_i [est [_{AP} difficile [_{vP} [_v \grave{a} comprendre_j (souvent) [_{VP} <comprendre>_j <Jean>_i]]]]]]]]
 for me John is difficult \grave{a} understand (often)
 'For me, John is difficult to often understand.'



Bresnan 1971, Lasnik and Fiengo 1974, and Canac Marquis 1996 all assume that in *tough* constructions, \grave{a} and *to* subcategorize for a bare VP. We observed in Section 3 that \grave{a} precedes little structural material, that it is low in the tree, close to the verb and close to the *tough* predicate. This is consistent with (55). We also saw in Section 4.1 that *tough* predicates are object-to-subject raising predicates. If NP raising is allowed, and if A-raising is a local process, then there should be as few projections as possible between the NP and the matrix Spec Infl, to allow for NP movement. The phrase marker proposed in (55) is permeable to movement.

The derivation I proposed for (55) is largely based on the analysis of Kratzer (1996:113), who argues that the external argument of a transitive verb V is an argument of the VP but not an argument of the V (see also Koopman and Sportiche 1991). I espouse Kratzer's analysis that external arguments are "severed" from the VP, and appear outside the semantic unit formed by the verb and its complement. The second nominal feature of a transitive verb is checked outside of the constituent VP.

I assume that the two-place argument structure of the verb V is preserved in (56), a subpart of (55). This is crucial, since only transitive verbs can feed *tough* raising in French. I assume that a transitive verb is marked with two nominal [N] features. The first [N] feature is checked upon merger of the internal argument NP with the verb. In the spirit of Kratzer (1996:128), I assume that the second nominal feature [N] is inherited "one level up" in the structure, at the VP level, and needs to be checked at that level. I argue that merger with \grave{a} in little v at that stage, checks off the [N] feature.



Kratzer argues that the [N] feature bolded in (56) attracts the merger of an NP, such as an external argument. I assume that merger of \hat{a} in this position (that is, in the head of little vP in (56)) checks off the second [N] feature of the transitive verb, and absorbs the theta-role associated with this argument, thereby preventing merger of another NP. As seen in (25), \hat{a} has the ability to merge with nominals as well as with infinitives; it can bear a verbal and a nominal feature.

In (55), the NP serving as the semantic controller of the verb is demoted to the adjunct $PP_{[pour/for]}$. It always receives an experiencer theta-role from *for*. This follows from our analysis. Given that the second [N] feature of the transitive verb in (56) is checked off upon merger of \hat{a} in (56), there cannot be another “bare” NP in the structure.

Following Burzio’s generalization (1986), a verb can only case mark its object if it also assigns a theta-role to its subject. Given that in (55), the external argument NP is theta-marked by a preposition, not by the verb, we can also assume that little v in (56) fails to license case for the verb’s internal argument. This argument therefore undergoes raising.

Wurmbrand (2001) argues, for passives and restructuring in German, that “*the loss of structural case in the matrix clause causes the loss of accusative in the embedded complement*” (2001:20). We may invoke the same principle in (56). *Tough* being an object-to-subject raising predicate, it does not license structural case on its complement. In turn, to ensure convergence, this causes the selection of a defective little v , defective in the sense that it lacks a functional property such as Case.

The analysis of *tough* raising I propose challenges a lexicalist approach. Upon merger with a transitive verb, \hat{a} in *tough* constructions “absorbs” the verb’s external theta-role and object case feature. I assume that morphology affects the verb’s syntactic representation (in the spirit of Baker’s (1988) reanalysis process, Wurmbrand’s (2001:20) analysis of passive, and Kratzer’s (1996) arguments against a lexicalist approach to gerunds).

The analysis that \hat{a} is reminiscent of Baker et al. (1989), who argue that the passive morpheme in English is located in an argument position. In the following section, I will present an analysis of French passives and show that there are indeed parallels between the passives and *tough* raising; they involve similar derivational processes.

4.3. ON PASSIVES AND TOUGH. A single analysis that would explain *tough* constructions on a par with passives is more economical, given that *tough* and passive raisings share the same characteristics: (i) the predicates both subcategorize for transitive predicates; (ii) the external argument is demoted to a *for* or *by* prepositional phrase; (iii) accusative case is absent from both structures; (iv) they contain only one theta-role; (v) they both involve NP raising to the matrix clause. For these reasons, it seems natural to posit, in Minimalist terms, that these constructions share the same kind of derivation, and the same phrase structure.

The English morpheme *-en* used in passives and with some past participles appears as an affix on the verb.¹³ If *-en* fulfilled the role of the external argument of the verb, we would expect it to be in Spec vP .

¹³ Historical evidence that passive could feed *tough* constructions in English can be found in Anderson 2002. According to Anderson’s corpus-based research, external arguments could undergo *tough* raising in English until the nineteenth century.

i. He ... found the natives ... very hard to believe that the fact was possible. (1726-7. Swift, *Gulliver* III.x; *OED*)

ii. I have been very hard to sleep too. (1858. Dickens *Lett.* (1880) II.55; *OED*)

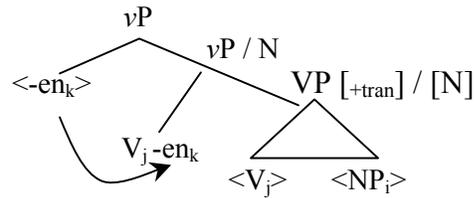
Examples (i) and (ii) show that *tough* predicates used to be subject-to-subject raising. Anderson (2002:17) states that the decline of the subject-to-subject raising property of *tough* predicates is closely linked to the disappearance of passive infinitives, which Anderson illustrated as (iii) below:

iii. The real sentiments of ladies were very difficult to be understood. (1749. Fielding *Tom Jones*, VII.vi.; *OED*)

Anderson argues that (iii) imposed an object interpretation of the subject “sentiments”. With the gradual loss of this construction, Anderson postulates that the interpretation of a sentence like *He found the natives hard to believe* in (i)

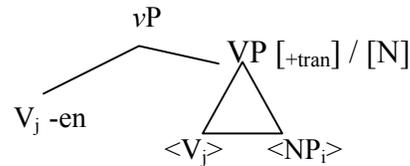
We would thus have to stipulate that it is a special affix which percolates down to v and right adjoins to the verb, as in (57).

(57)



It seems more theoretically neutral to assume that $-en$ is enclitic, base merged in the head of little v , as shown in (58).

(58)



Vikner (1995:201) argues that the external theta-role in passives could indeed be assigned to a head. He goes on to note that if the passive morpheme is an argument, it must be marked by case to be visible for theta-assignment, following Baker et al. (1989:239): “An argument is visible for theta-assignment iff it is either assigned case or if its head is morphologically united with a head.” The analysis I propose in (58) captures this generalization. Little v is morphologically merged with V , $-en$ can thus be theta-marked. I assume that the remaining $[N]$ feature of the transitive verb is checked off by $-en$, upon merger of little v and $VP/[N]$. Little v loses its ability to assign structural case to the object NP (from Burzio’s generalization) given that it does not theta-mark the external argument of the verb. There are two ways to account for the loss of structural case: either in the syntax the passive morpheme is assigned the case feature by virtue of being in little v ; or in the lexicon, the type of little v marked with $-en$ is devoid of a case feature.

Passives in French are formed by the presence of *be* and the past participle form of the verb, as in (59a). They are on the surface very similar to unaccusatives in (59b).

- (59) a. Elles sont/seront battues.
they are / be-fut beaten
‘They are/will be beaten.’
- b. Elles sont/seront arrivées.
they are / be-fut arrived
‘They have/will have arrived.’

The major difference between (59a) and (59b) is that unaccusatives show some tense restriction. Specifically, they resist *passé composé* or any complex tense that involves *été*, the past participle of the verb *be*.

- (60) a. Elles ont été battues.
they have been beaten
‘They were beaten.’
- b. *Elles ont été arrivées.¹⁴
they have been arrived

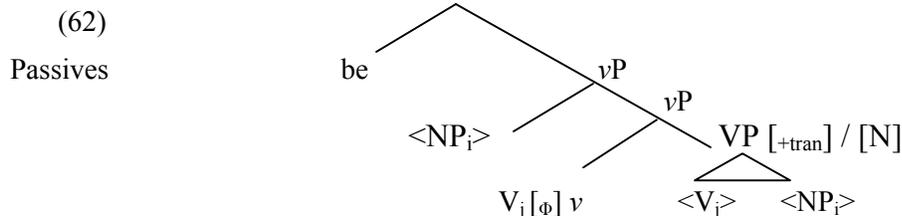
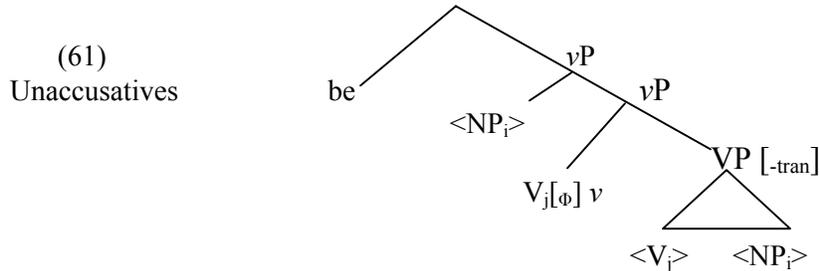
may have become ambiguous between an object or a subject reading of *the natives* and would have thus ceased to exist to avoid ambiguity. Anderson (2002:16) argues that the predicate *tough* underwent a change in its lexical specification in English.

¹⁴ Compare with *J’en ai eu mangé* lit: ‘I have had eaten some’.

Determining the exact nature of the tense or auxiliary restriction in (60) is enticing but beyond the scope of this paper.

The morpheme represented as $[\phi]$ in the trees below can be realized in its richest form as *-ées*, encoding past participle, gender and number. It is located under the same node as *-en* in (58), namely little v , and it fulfills the same role as *-en* in English passives.

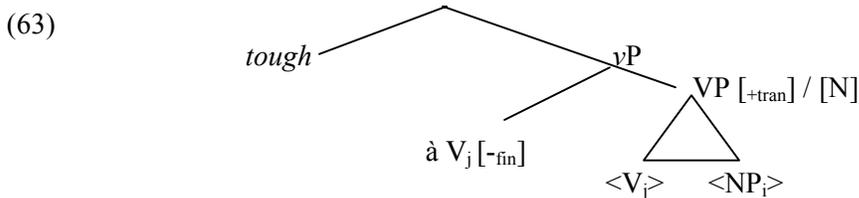
The derivations for unaccusatives and passives in French are presented below.



In (61) and (62), the verb moves to check the inflectional morphology $[\phi]$ on little v . In both examples, the morpheme $[\phi]$ agrees in gender and number with the theme. If Agree licenses Move, we have motivation to posit an EPP feature on vP , where the theme can move to agree with $[\phi]$ in little v . NP movement to the edge of the phase thus “comes for free” as the result of participial agreement.

The only difference in the structure of (61) and (62) (notwithstanding the tense effect in (59) which occurs above vP) is that the VP (62) is transitive, marked with two $[N]$ features. The unchecked $[N]$ feature is deleted at the VP level (in the spirit of Kratzer 1996) by the morpheme $[\phi]$. This morpheme then fulfills the same function as *-en* in (58). We can note that $v[\phi]$ is not restricted in its selectional properties in the sense that it can subcategorize for a VP that can but need not contain an unchecked $[N]$ feature.

The analysis of passive raising in (62), and *tough* raising repeated in (63), is, I argue, the same. In (62), the nominal feature $[N]$ in VP is deleted upon merger of $[\phi]$ in little v . In (63), the nominal feature is deleted upon merger of \grave{a} in little v .



Both (61) and (62) suggest that there are two Agree relations taking place in these sentences: one between the verb and its theme, licensing the morphology on the participial, the other between the theme and the auxiliary marked for tense in Infl. In (63), there is only one agreement relation, between the raised NP and the matrix verb. We have no morphological evidence that the object raises to the edge of the vP . Chomsky (2000) and Legate (2003) argue for an EPP feature on vPs . The need for an EPP feature remains to be motivated for the structure in (63). Assuming no more structure than necessary, and given that the internal argument and the verb do not enter in an agreement relation in *tough* constructions (possibly because the verb is in its infinitival form, the citation form of a verb), there is no apparent motivation driving NP movement to the left periphery of the vP , except the need for an escape hatch on its way to the matrix subject position.

The fact that passive and unaccusatives cannot undergo *tough* raising can then be explained by the fact that *à* and [ϕ] are in complementary distribution. The fact that unaccusatives and passives are “incompatible” might be linked to the tense restrictions isolated in (60).

4.4 REMAINING ISSUES: *À* AND OTHER INFINITIVALS. There is a least one other instance where *à* seems to also affect the argument structure of a verb in French. Consider (64).

- (64) a. John s' est décidé **à**/***de** partir.
 John self is decided *à* leave
 ‘John decided to leave.’
- b. John a décidé **de**/***à** partir.
 John has decided *de* leave
 ‘John decided to leave.’

The presence of *à* in (64a) co-occurs with the presence of a clitic and the unaccusative auxiliary *be*. If we posit that *à* has the same properties in (64) as in *tough* constructions in (63), then we could claim that *à* is in the same structural position, the head of *vP* in (64a). The internal argument of *leave* is realized as the clitic *se* ‘self’ on the matrix verb in a way similar to example (30) in Section 3.1. It cannot be base merged as the external argument of *partir* ‘leave’, because *à* has absorbed the nominal feature relevant for NP merger. However, the analysis proposed above falls short here. The verb following *à* in (64a) can be transitive, and its theme may stay in-situ as shown in (65) below.

- (65) John s' est décidé **à** embrasser Marie.
 John self is decided *à* kiss Mary
 ‘John decided to kiss Mary.’

Verbs like *décider* taking both *de* and *à* complements are rare in the French lexicon. Likewise, the list of verbs that can take either *à* or *de* but not both is not extensive. However, those verbs show no restriction in the type of verb they can merge with, as shown in (66).

(66)	<i>Décider à/de</i> __ ‘decide to’	<i>Difficile à</i> __ ‘difficult to’
<i>Kiss John</i>	Embrasser Jean	Embrasser <Jean>
<i>Be awakened</i>	Etre réveillée	*
<i>Arrive, Cry</i>	Arriver, Pleurer	*
<i>Get a massage</i>	Se faire masser	*

Décider à/de ‘decide to’ can be followed by intransitive verbs, such as *arriver* ‘arrive’, or pronominal verbs, such as *se faire masser* ‘get a massage’, whereas those verbs cannot follow *difficile à* ‘difficult to’, as shown in (66), second column. The distribution of *à* in (66) shows that there are indeed several types of *à*. We have seen evidence in Section 1 that *à* is polysemous. In (65), *à* may be a particle, but it cannot serve the same function as the *à* argued for in (63).

5. CONCLUSION. I hope to have shown in this paper that in French, (i) *tough* predicates are one-place raising predicates, (ii) that the embedded NP, object of the infinitival verb, undergoes NP movement to the matrix subject position; (iii) that the complement of a *tough* predicate can be introduced by *de* or *à*, and (iv) that these morphological differences reflect syntactic differences. I suggested that *de* could be the overt realization of the head C, taking a non-finite IP complement. I argued that *à* is the head of little *vP*, like the passive morpheme *-en* in English, according to Vikner (1995).

To provide evidence for my claims, I compared *tough*, passive, and unaccusative, and proposed that they all share the same phrase structure and raising mechanism. I argued that the *vPs* found in unaccusatives, passives, and in complement of *tough* constructions are “defective”, in the sense that in these *vPs*, the theta-role for the external argument is not assigned to/checked by an NP. These special *vPs* are morphologically marked by some verbal morphology such as [ϕ], or *à* in French.

Cross-linguistically, a variety of morphemes is reported to affect a verb’s structural projection: gerund, adjectivizers, and nominalizers. Further research is needed to determine if *à* could be analyzed as a nominalizer, given that it is unlikely that *à* heads a PP. First, it seems difficult to motivate the fact that a preposition can subcategorize for a *vP*, or a VP. This might be the only preposition in the French grammar

that would take such a complement. *Après* ‘after’ subcategorizes for an infinitival auxiliary but not a lexical verb. On the other hand, *tough* and other adjectives like *beau* ‘nice’ or *triste* ‘sad’ can be followed by [*à* infinitivals].

- (67) Beau à voir, triste à mourir
 nice à see, sad à die
 ‘Nice to look at, boring’

Also, extractions out of PP are generally doomed in French; and if *à* heads a PP, we lose some of the motivations to analyze *tough* on a par with passives and unaccusatives.

According to the Uniformity Principle (Chomsky 2001:2): “In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances.” French *à*, English *to*, German *zu*, and Korean *ey* are all also adpositions and/or case markers, encoding location or direction. These morphemes also introduce in their respective language the infinitival complement of *tough* predicates. Travis 2000 (cited in Wurmbrand 2001:114) argues that the English infinitival marker *to* is not in Infl but lower in the tree in English. Whether or not the analysis I proposed for French *tough* predicates (with *à* as the head of *vP*) could carry over to other languages remains to be assessed.

ABBREVIATIONS

[+fin]	TENSED
[+tran]	TRANSITIVE
[-fin]	NON TENSED
[N]	NOMINAL FEATURE
[-tran]	INTRANSITIVE
C	COMPLEMENTIZER
CL	CLITIC
CP	COMPLEMENTIZER PHRASE
dat	DATIVE
EPP	EXTENDED PROJECTION PRINCIPLE
fut	FUTURE
INFL	INFLECTION HEAD
IP	INFLECTION PHRASE
NP	NOUN PHRASE
PP	PREPOSITIONAL PHRASE
<i>vP</i>	LITTLE VERB PHRASE
VP	VERB PHRASE

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