TEL AVIV UNIVERSITY אוניברסיטת תל-אביב

Lester and Sally Entin Faculty of the Humanities

Department of Linguistics

The Negation Operator is not a Suppressor of the Concept in its Scope. In fact, Quite the Opposite

Thesis submitted in partial fulfillment of the requirements

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by

Israela Becker

Supervised by

Prof. Rachel Giora and Prof. Mira Ariel

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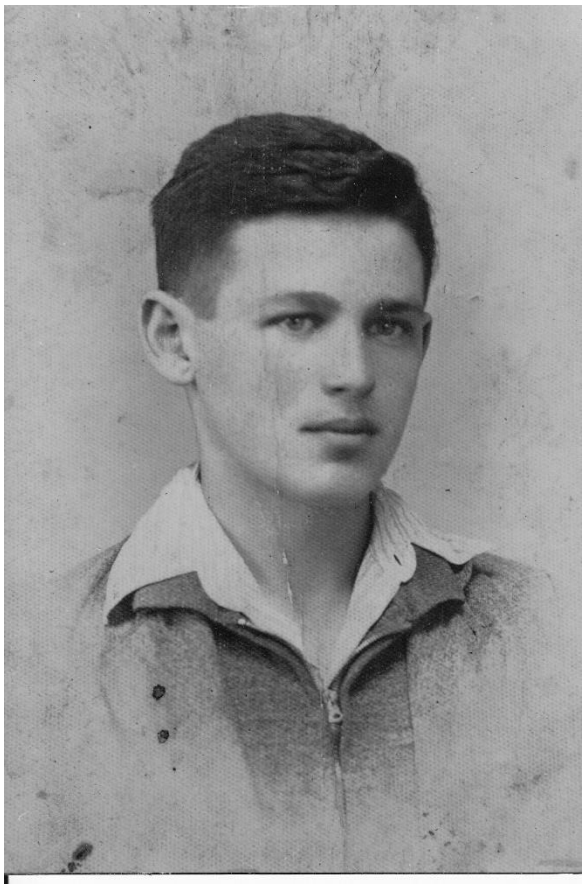
In memory of my uncle

Israel-Anatoli (Tuli) Becker

(1921-1945)



אַחֲרַי מוֹתִי סִפְּדוּ כָּכָה לִי׃
״הָיָה אִישׁ – וּרְאוּ׃ אֵיֶנּוּ עוֹד ;
קֹדֶם זְמַנּוֹ מֵת הָאִישׁ הַזֶּה,
וְשִׁירַת חַיָּיו בְּאֶמְצַע נִפְסָקָה ;
וְצַר ! עוֹד מִזְמוֹר אֶחָד הָיָה-לוֹ –
וְהִנֵּה אָבַד הַמִּזְמוֹר לָעַד,
אָבַד לָעַד !״[1]

(חיים-נחמן ביאליק, *אחרי מותי* , תרס״ד)

[1] After my death say this for me:
"There was a man who died before his time,
leaving his poetry, the song of his life,
unfinished. And what a shame! He had
another song to sing, and now it is gone,
gone forever!
(Bialik 1904/2004, *After my death*)

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But as I stated, no words can express my deep gratitude to you, Rachel and Mira. I therefore send you the timeless words of *Gilgamesh* (taken from the Sumerian epic, *Gilgamesh and Huwawa*) to his fellow *Enkidu* on their journey to defeat *Huwawa*. These words seem to have been written just for you:

> *A grappling-pole does not sink!*
> *No one can cut through a three-ply cloth!*
> *Water cannot wash someone away from a wall!*
> *Fire in a reed house cannot be extinguished!*[2]

You made me feel like a grappling-pole, a three-ply cloth, a person standing on a wall and a fire in a reed altogether. Thank you from the bottom of my heart!

I am grateful to Prof. Outi Bat-El and Dr. Evan-Gary Cohen for introducing me to the worlds of phonetics, phonology and morphology. If I had to convert from psycholinguistics and pragmatics to other linguistic fields, then phonetics, phonology and morphology would have been my first choice. All thanks to you.

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[2] Black et al. (1998-2006)

Sumerian	**Line**	**עברית**
ma_2-da-la_2 nu-su-su	108	סְפִינָה אֲשֶׁר צָוֹת (יַנְהִיגֶנָּה) לֹא תִּטְבַּע,
tug_2 3 tab-ba lu_2 nu-kud-de_3	109	בֶּגֶד נָאֳרָג בְּחוּט מְשֻׁלָּשׁ — אִישׁ לֹא יְקָרַע,
bad_3-da a lu_2 nu-cu_2-cu_2	110	הָאִישׁ עַל הַחוֹמָה — מַיִם לֹא יְשַׁטְּפוּהוּ,
e_2 gi-sig-ga izi nu-te-en-te-en	111	בְּסֵכַּת קָנִים — אֵשׁ לֹא תִּכְבֶּה!
http://etcsl.orinst.ox.ac.uk/section1/tr1815.htm#para20		מתוך "גלגמש וח'ומבבה" (Shifra & Klein, 1996: 301)

ABSTRACT

The psycholinguistic research on the processing of concepts in the scope of negation is dominated by two conflicting hypotheses: the *Suppression Hypothesis* and the *Retention Hypothesis*. The former maintains that the activation levels of the negated concept are *unconditionally* reduced to baseline levels (or below), due to the immediate suppressive effect of the negation operator on the concept within its scope. The latter maintains that suppression and retention of negated concepts are sensitive to global discourse goals. If deemed relevant for discourse goals, retention of negated concepts will apply; if deemed disruptive, they will be discarded.

As 'suppression' and 'retention' of concepts are on-line mechanisms, the activation levels of the negated concepts, attesting to the suppression or retention of those concepts, are measured by on-line experiments. However, here I adopt a corpus-based—rather than an experimental—approach. I attempt to tap the processing of negated concepts *untraditionally* by looking into a corpus of natural speech. Specifically, I am looking into the fine-grained details of an entrenched discourse pattern which consistently indicates the accessibility of concept in the scope of a negation operator, thus providing *indirect* support for the Retention Hypothesis, while rejecting the unconditional Suppression Hypothesis.

Inspired by results of on-line and off-line experiments using the same materials, I predict that a highly activated concept in the scope of negation implies a negated expression which is construed by a speaker as conceptually and argumentatively weaker than an alternative in the affirmative. If my prediction is correct, then a discourse pattern consistently indicating this conceptual-argumentative weakness should also consistently manifest a highly accessible concept in the scope of the negation operator. I identify such a discourse pattern and show that the concept in the scope of the negation operator is indeed *highly* accessible.

I then provide two more analyses of this discourse pattern: First, I show that this discourse pattern can be considered a self-repair of the appropriateness—rather than of the error—kind, or at least a revision of a prior assertion. As such, the negated concept is not quite an error, and therefore there is no actual need to suppress it; I then analyze this discourse pattern in the spirit of *Argumentation Theory*: based on the interactive genre represented in the corpus, I determine that the negation operator involved in this specific discourse pattern is polemic (rather than descriptive), i.e. polyphonic in nature. As such, it *must* reflect the refuted point of view (i.e., the concept in the scope of the negation operator) rather than suppress it. Otherwise, it is in conflict with the genre.

All in all, I provide more support for the functional Retention Hypothesis, while rejecting the automatic Suppression Hypothesis, by using a complementary methodology to experimental work — inspection of corpus data — in order to strengthen a theoretical claim so far supported by on-line data.

TABLE OF CONTENTS

1: INTRODUCTION

What I am not

My brother and I used to play a game. I'd point to a chair: "THIS IS NOT A CHAIR," I'd say. Bird would point to the table. "THIS IS NOT A TABLE." "THIS IS NOT A WALL," I'd say. "THAT IS NOT A CEILING." We'd go on like that. "IT IS NOT RAINING OUT." "MY SHOE IS NOT UNTIED!" Bird would yell. I'd point to my elbow. "THIS IS NOT A SCRAPE." Bird would lift his knee. "THIS IS ALSO NOT A SCRAPE!" "THAT IS NOT A KETTLE!" "NOT A CUP!" "NOT A SPOON!" "NOT DIRTY DISHES!" We denied whole rooms, years, weathers. Once, at the peak of our shouting, Bird took a deep breath: "I! HAVE NOT! BEEN! UNHAPPY! MY WHOLE! LIFE!"

"But you're only seven," I said.

(Krauss, 2005: 36)

1.1 Processing of concepts in the scope of a negation operator

The psycholinguistic research on the processing of concepts in the scope of negation is dominated by two conflicting hypotheses: the *Suppression Hypothesis* and the *Retention Hypothesis*. The Suppression Hypothesis assumes that the negation operator (henceforth, negator) is an instruction from a speaker to an addressee to *unconditionally* suppress the activation levels of the concept in its scope to baseline levels or below. If an alternative to the negated concept (i.e., an antonym) is available, then the negated concept is further replaced by that alternative. For a review of the Suppression Hypotheses see Giora, Fein, Aschkenazi, and Alkabets-Zlozover (2007), who critically reviewed prominent works in this filed: Hasson and Glucksberg (2006); Kaup, Lüdtke, and Zwaan (2006); MacDonald and Just (1989); Mayo, Schul, and Burnstein (2004); and others.[3] However, The Retention Hypothesis, following from the

[3] The Suppression Approach, I dare say, is inherited from logic: In his *Categories*, Aristotle suggests that "[t]hings are said to be opposed in four senses: (i) as correlatives to one another, (ii) as contraries to one another, (iii) as privatives to positives, (iv) as affirmatives to negatives." He then sketches his meanings: "An instance of the use of the word 'opposite' with reference to correlatives is afforded by the expressions 'double' and 'half'; with reference to contraries by 'bad' and 'good'. Opposites in the sense of 'privatives' and 'positives' are 'blindness' and 'sight'; in the sense of affirmatives and negatives, the propositions 'he sits', 'he does not sit' " (Categories, part 3, section 10; Aristotle, 350 B.C.E-a).

The latter category which involves the relation between affirmatives and negatives is restricted to statements (rather than to terms, as in the other categories) and is governed—according to Aristotle—by two principles: THE LAW OF CONTRADICTION which maintains that "the most indisputable of all beliefs is that contradictory statements are not at the same time true" (Metaphysics, book IV, part 6); and THE LAW OF EXCLUDED MIDDLE which maintains that "there cannot be an intermediate between contradictories, but of one subject we must either affirm or deny any one predicate" (Metaphysics, book

Retention/Suppression Hypothesis (Giora, 2003) maintains that the concept in the scope of the negator is more sensitive to global discourse goals than to the local influence of the negator. Hence, the negator is not necessarily a suppressor of the concept in its scope. Rather, the concept in the scope of the negator remains active (i.e., its activation levels in memory are significantly above baseline levels) despite the presence of the negator (e.g., Giora, 2006; Giora, Balaban, Fein, & Alkabets, 2005; Giora & Fein, 1999; Giora et al., 2007; Giora, Fein, Ganzi, Alkeslassy Levi, & Sabah, 2005).

'Suppression' and 'retention' of concepts, indicated by concepts' activation levels, are on-line processes, and as such are monitored via on-line experiments. For instance, participants may be presented with a negative stimulus as well as a stimulus in the affirmative, following which they will have to make a lexical decision as to whether a probe-word is a word or a non-word. Response times to the probe-words indicate the activation levels of the negated vs. the non-negated probed concepts (see Giora, Balaban, et al., 2005). Results exhibit conflicting findings: In some experiment the negated concepts show significantly lower activation levels than non-negated concepts (e.g., Kaup et al., 2006; MacDonald & Just, 1989); in other experiments, negated concepts show activation levels as high as the activation levels of non-negated concepts (e.g., Giora, Balaban, et al., 2005; Giora, Fein, et al., 2005).

The present study seeks to test the aforementioned psycholinguistic hypotheses — the Suppression Hypothesis and the Retention Hypothesis — by looking at naturally-occurring data, so as to provide converging evidence, supporting the results obtained via on-line experiments. Specifically, this study examines in detail an entrenched discourse pattern of spontaneous speech (1.1), exemplified in (1.2):

(1.1) NOT X (=`I'm not one that loves the concept of divorce`),
(EMPHATIC CONNECTIVE) (=`in fact`),
(MAXIMIZER) (=`just`) THE OPPOSITE/CONTRARY,
ALTERNATIVE IN THE AFFIRMATIVE (=`I hate the concept of divorce`)

IV, part 7). Taken together, these laws imply that if two propositions (X and Y, for example) are contradictory by virtue of the negator, then if one of them is false (X =F), the other one is *necessarily* true (Y=¬X =T) (Aristotle, 350 B.C.E-b).

Projecting this analysis onto spontaneous speech implies that the negator in spontaneous speech is as "strong" as the negator in logic, namely, ¬X=Y; and in psycholinguistic terms — the concept in the scope of the negator is necessarily eradicated and replaced with an antonymous alternative.

(1.2) I'm not one that loves the concept of divorce. In fact, just the opposite, I hate the concept of divorce, I hate everything it represents.

(Source: CNN_King; Year: 1990; Title: CNN_King /19900727)[4]

Note that 'not X' is, in effect, a weak negator here, due to the contrast with the following, much stronger negator, 'the opposite/contrary (of X)'. The mere existence of such a discourse pattern, I will argue, provides support for the Retention Hypothesis, while rejecting the Suppression Hypothesis (which assumes that suppression following negation is obligatory).

1.2 Methodology — a usage-based approach to negation

One might wonder why test *on-line* processes by examining usage rather than by using *on-line* methods? Furthermore, given that suppression and retention of concepts are associated with comprehension rather than production, examining naturally occurring data, which are a manifestation of production, might seem methodologically inappropriate for such a research.

But this approach is nonetheless widespread among usage-based linguists for whom "[i]t is common to address theoretical issues through the examination of bodies of naturally-occurring language use" (Bybee & Beckner, 2009: 935). The reason for this practice is the assumption that usage reflects underlying cognitive processes. Moreover, these "underlying cognitive processes" (comprehension and production) are inter-related: "[C]omprehension and production [are] integral, rather than peripheral, to the linguistic system [and] it does not make sense to draw a sharp distinction between what is traditionally called 'competence' [comprehension and production] and 'performance' since performance is itself part of speaker's competence" (Kemmer & Barlow, 2000: 4). Usage-based linguists would rather indicate that the results of such an off-line study could provide *in*direct—rather than direct—support for any of these hypotheses.[5]

1.3 Possible pragmatic implications of processing negated concepts

If, as usage-based approaches claim, language comprehension/production processes and language-use are intertwined, then it is the 'strength' of the negator—whether it

[4] All the examples in this study are extracted from the spoken section of the Corpus of Contemporary American English (Davies, 2008-). A detailed description of the dataset is provided in §2.4.

[5] Two additional motivations can be adduced for this corpus-based approach. First, there is always the worry that laboratory results are possibly an epiphenomenon of the methodology. Second, reaching the same conclusions (hopefully), based on different methodologies, helps make a stronger theoretical claim.

functions as a suppressor of the concept in its scope or not—which also determines how the resulting negative expression is perceived, and consequently how it is used. In other words, the interpretation of a negative expression could very well be affected by the activation levels of the negated concept. This, in turn, may have consequences for language use.

Giora provides us with some clues as for the possible pragmatic implications of high activation levels of a concept in the scope of a negator: Giora and her colleagues conducted both on-line (Giora, Balaban, et al., 2005: Experiment 1; Giora et al., 2007); and off-line experiments (Giora, Balaban, et al., 2005: Experiment 3) using the same materials — negated as well as non-negated adjectives (e.g., *not good* and *good*, respectively). In the on-line experiments, Giora et al. showed that the initial activation levels of negated concepts are not at all different from the activation levels of affirmative counterparts. In the off-line experiments, they showed that negators merely mitigate the negated concept, rather than indicate its opposite. Specifically, comprehenders rated *not good* as less bad than *bad* and *not bad* as less good than *good*. Taken together, these two sets of results suggest that a mitigating interpretation of a negative expression is associated with high activation levels in memory of a negated concept.

Accordingly, it can be predicted that if the negator in spontaneous speech is *not* a suppressor, as argued by the Retention Hypothesis, then conceptually, a negative expression (e.g., *not good*) does not necessarily indicate the endpoint concept of a conceptual scale, and it can serve, instead, as a mitigated version of its antonym (e.g., *bad*) (see also Fraenkel & Schul, 2008); interactionally, the negative expression (e.g., *not good*) is not the rhetorically-strongest possible argument on a argumentative scale.[6] However, if the negator in spontaneous speech is *indeed* a suppressor, as argued by the Suppression Hypothesis, then conceptually, a negative expression (e.g., *not good*) should be equivalent to its antonym (e.g., *bad*), assuming the endpoint term on the relevant conceptual scale; interactionally, the negative expression (e.g., *not good*) is the rhetorically-strongest possible argument on an argumentative scale.

I should point out at the outset that this study is not concerned with the purely compositional interpretation of the negator, but with its contextually based interpretation. Since 'not X' is compatible with multiple states of affairs where 'X' is not the case, 'not X' may be interpreted as 'the opposite of X', or as argued by Giora et al. (Giora, Balaban, et al., 2005; Giora, Fein, et al., 2005) — as merely a weakening of 'X'.

1.4 Goal

This study seeks to weigh the Suppression and the Retention Hypotheses against each other by using corpus-based tools. Specifically, I will be looking at a discourse pattern

[6] On Argumentation Theory see §3.3, according to which language is a means for interlocutors to affect each other's cognitive states.

as exemplified in (1.1): NOT X (*I'm not one that loves the concept of divorce*), (EMPHATIC CONNECTIVE) (*in fact*), (MAXIMIZER) (*just*) THE OPPOSITE/CONTRARY. I argue, that using such a discourse pattern, the speaker implicitly assumes a relative conceptual and rhetorical weakness for the negative expression (NOT X), which is why she proceeds to strengthen it. At the same time, she also indicates that the negated concept (X) is highly accessible. Thus, I will show that the concept in the scope of the negator is not unconditionally suppressed. Rather, its high activation levels are associated with the mitigated nature of the negative expression. It may even be its source.

An important note regarding the terminology used throughout this study is in order here: By the term 'negated concept', I refer to the concept in the scope of the negator, e.g., *good* in *not good*. By the term 'negative expression', I refer to the entire phrase consisting of *both* the negator and the concept in its scope, e.g., as when *not good* is treated as one unit.

This thesis is structured as follows: In Chapter 2, I lay out the considerations involved in revealing the specific discourse pattern which is selected to test whether a negator unconditionally suppresses the concept in its scope or retains it, instead; In Chapter 3, I provide a detailed analysis of the particulars of this entrenched discourse pattern, which lend support to the Retention Hypothesis; in Chapter 4, I analyze this discourse pattern in the broader context of corrections/repairs, and then examine the results of the current study *vis-à-vis* the results of a previous study of mine (Becker, 2015), in which I also attempted to test these two hypotheses by looking at a different corpus, using different quantitative methods. Both analyses provide further support for the Retention Hypothesis; in Chapter 5, I summarize the results of the current study, and reflect on a potential grammatical evolution of this discourse pattern.

2: THE RESUMPTIVELY-NEGATED DENIAL PATTERN

'We act by virtue of what we recognise as beneficial,' observed Bazarov. 'At the present time, negation is the most beneficial of all—and we deny——'

'Everything?'

'Everything!'

'What? not only art and poetry ... but even ... horrible to say ...'

'Everything,' repeated Bazarov, with indescribable composure.

Pavel Petrovitch stared at him. He had not expected this; while Arkady fairly blushed with delight.

'Allow me, though,' began Nikolai Petrovitch. 'You deny everything; or, speaking more precisely, you destroy everything.... But one must construct too, you know.'

'That's not our business now.... The ground wants clearing first.' [7]

(Turgenev, 1862: Ch. X)

2.1 Identifying a relevant discourse pattern

In this chapter, my goal is to identify a discourse pattern involving a weak negation, by which I mean a negation that does not suppress the negated concept. I will start by showing that a consequence of a weak negator is the addition of an extra negator.

2.1.1 A schematic suggestion

As emphasized earlier, the impact of negation on the concept in its scope, whether involving suppression or retention, *cannot* be examined directly by a corpus-based study. However, the strength of the negator *can* be deduced by examining its "immediate

[7] -- Мы действуем в силу того, что мы признаем полезным, -- промолвил Базаров. -- В теперешнее время полезнее всего отрицание -- мы отрицаем.
-- Все?
-- Все.
-- Как? не только искусство, поэзию... но и... страшно вымолвить...
-- Все, -- с невыразимым спокойствием повторил Базаров.
Павел Петрович уставился на него. Он этого не ожидал, а Аркадий даже покраснел от удовольствия.
-- Однако позвольте, -- заговорил Николай Петрович. -- Вы все отрицаете, или, выражаясь точнее, вы все разрушаете... Да ведь надобно же и строить.
-- Это уже не наше дело... Сперва нужно место расчистить.

environment". Such an "immediate environment" could be an additional negator or lack thereof.

More specifically, should suppression of concepts in the scope of the negator be intended by the speaker, but the negator is, by default, too weak for the task, there is a good reason to strengthen the negator by an additional negator, which will reinforce the weak negator. However, if the negator is perceived as a strong operator, by default, then suppression of the concept in its scope is expected, and no additional negator should be involved. In other words, the presence or absence of an additional negator attests to the strength of the initial negator, as assumed by speakers.

A first observation with regard to the strength of the negator was provided by van Ginneken (1907: 199):

> That negation in natural language is not a logical negation, but a sentiment of defense, resistance shows up most neatly in the fact that two or many negations do not compensate for each other but enhance negation. One finds this phenomenon — and this is not an exaggeration — in all the languages of the world. (my translation — IB)[8]

This statement (by van Ginneken) maintains that multiple-negation discourse patterns are the outcome of the need to compensate for a weak negator when attempting to express a strong statement. Van Ginneken's statement comes as no surprise to modern linguists who have extensively explored various discourse functions of negation, other than logical negation (for an exhaustive review of the many discoursal functions of negation, see Giora, 2006). Van Ginneken's statement came as no surprise to Jespersen (1917) too.[9] Jespersen, who was aware of doubly—or multiply—negated sentences/utterances, divided them into 4 categories (1917: 62-80). The second of which he referred to as *Resumptive Negation* (p. 72):

> A second class comprises what may be termed *resumptive negation*, the characteristic of which is that after a negative sentence has been completed, something is added in a negative form with the obvious result that the negative effect is heightened.

And he goes on to say:

[8] "Que la négation dans la langue naturelle ne soit pas la négation logique, mais un sentiment de défense, de résistance, cella se montre le plus nettement dans le fait que deux ou plusiers négations ne se compensent pas mais se renforcent. On trouvent ce phénomène—et ce n'est pas trop dire—dans toutes les langues du monde."

[9] Although Jespersen finds it easy to see why the repetition of a negating element is an effective way of resisting a prior proposition, he doubts that resistance is the sole motivation for multiple negations.

> In its pure form the supplementary negative is added outside the frame of the first sentence, generally as an afterthought […]. But as no limits of sentences can be drawn with absolute certainty, the supplementary negative may be felt as belonging within the sentence, which accordingly comes to contain two negatives.

Jespersen suggests indirectly, but more accurately than van Ginneken, that the second negator heightens the effect of the first negator, because the first negator failed "to deliver". Namely, the first negator is a weak operator which does not suppress concepts in its scope. Jespersen, and to some extent van Ginneken too, outlines a schema of the discourse pattern that would help test the two aforementioned hypotheses. This is a discourse pattern of the *resumptively-negated* type, which consists of a main clause (underlined) followed by an appositive tag, and is exemplified (by Jespersen 1917, p. 73) in Examples (2.1)-(2.3) where the main clause is underlined:

(2.1) I **cannot** go, **no** further

(2.2) He **cannot** sleep, **neither** at night **nor** in daytime

(2.3) He **cannot** sleep, **not** even after taking an opiate

Such a pattern, consisting of repeated negators for the sake of emphasis, is yet another example of repetition as a means of highlighting an utterance, common in colloquial speech, as exemplified by Quirk, Greenbaum, Leech, and Svartvik (1985: 1416): *It's **far**, **far** too expensive* and *I agree with **every word** you've said – **every** single **word**.*

2.1.2 A detailed suggestion

But repetition per se is not an indication of the weakness of the negator. Consider Dowty's (2008) examples of retraction, (2.4)-(2.6), in which the resumptive negator in the appositive tag serves as a way to actually mitigate the statement in the main clause (underlined) rather than to strengthen a weak negator:

(2.4) I **can't** go to the party, **not** with my clothes looking like this

(2.5) **No**, you may **not** borrow the car, **not** without doing your homework first

(2.6) I **don't** have time to meet with you, **not** this afternoon anyway

In light of these examples, it is obvious that it is not necessarily the mere presence of the resumptive negator that points to a previous weak negator, as maintained by van Ginneken (1907) and Jespersen (1917). In other words, a resumptively-negated discourse pattern is a necessary but not a sufficient condition for arguing that a negator is weak.

It seems, then, that the resumptive negator should consist of some additional feature(s), such that indicate(s), beyond doubt, that the negator in the main clause is a

weak negator. What should this/these feature(s) be? What should a discourse pattern supporting the Retention Hypothesis (while rejecting the Suppression Hypothesis) look like?

Du Bois' (2014) principles of *Dialogic Syntax* provide us with an answer: If a certain constituent of discourse is a source of trouble, then it would be further reproduced or even replaced. In light of Du Bois' *Principle of Parallelism*, this (problematic) constituent would not be simply reproduced or replaced. Instead, it would be *selectively* reproduced or replaced in order to form a revised constituent with the required modifications so as to point to the source of trouble in the prior constituent. The selective reproduction indexes that structurally aligned items "[a]re understood to be in a relation of contrast or opposition" (p. 369).

In the case of the present study, if it is the negator in a negated proposition that is the source of trouble, then it is the negator that has to be *selectively* replaced with an alternative, such that would invite a different cognitive processing and induce a different pragmatic meaning. A structural alignment of the resumptive negator with the original (problematic) negator is, then, interpreted as a relation of contrast between the lexically different negators and, consequently, as a relation of contrast between the adjacent utterances (i.e., the main clause and the appositive tag). Furthermore, since "[t]he dynamic opposition invites a situated interpretation of [the two words] as two contrasting values on an ad-hoc scale […]" (p. 369), then the two negated expressions would assume different positions on that ad-hoc negation strength scale.

And so, a discourse pattern providing support for the Retention Hypothesis, while rejecting the unconditional Suppression Hypothesis, should consist of a constituent hosting a negator and a following constituent hosting an additional *lexically-* and *morphologically-distinct* negator. By virtue of their distinct morphology, the two negators are interpreted as two contrasting values on an ad-hoc scale.

If the hypothesis that negators are often relatively weak is correct, then the two negated expressions should not just occupy any two positions on that ad-hoc scale. The original negated expression (i.e., in the first constituent) should occupy a position less close to the end of the scale than the resumptively-negated expression, regardless of whether the resumptively-negated expression is positioned at the end of the scale (Figure 2.1a) or not (Figure 2.1b). In other words, the original negated expression is taken as conceptually and interactionally weaker than the resumptively-negated expression. An operator linking the two constituents and indicating that the former is weaker than the latter is therefore required to explicitly express this balance of power.

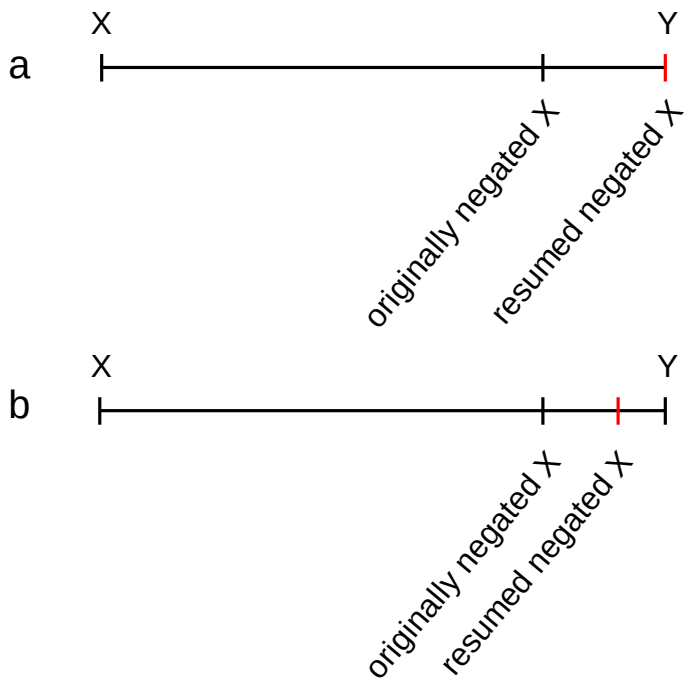

Figure 2.1: The position of the original negated expression relative to the subsequent resumptively-negated expression, on a scale that runs from X to Y. The original negated expression lies less close to the end of the scale than the resumptive negated expression, whether the latter lies at the end of the scale (a) or not (b).

Figure 2.2 is a schematic form of the components of the discourse pattern searched for. Note that Part (i), Part (b) and Part (ii) are optional:

(i) **(A concept, a proposition, or an inference, to be denied in (a))**

(a) **A weakly negated version of the previous concept, of (i)**

(b) **(A connective implying that the speaker commits that (c) is a stronger claim than (a))**

(c) **A stronger version of (a) containing a supplemental-revised negator**

(ii) **(An affirmative spell-out version of (c))**

Figure 2.2: A schematic form of the discourse pattern searched for.

2.2 Two variants of the discourse pattern

The conversation cited in Example (2.7) below is a prototypical case of the discourse pattern that I have just outlined. It is extracted from a nightly talk-show, *Larry King Live* on CNN, in which Larry King, the host, interviews Donald Trump, the then well-known businessman, about his upcoming divorce.[10] After discussing (for several minutes) some issues concerning Trump's divorce as well as the concept of divorce in general, King asks Trump whether he would get married again. Trump expresses his appraisal of the institution of marriage (not cited here). But King now wants to know whether Trump's appraisal is just a theoretical notion or whether the concept of marriage is an essential matter for him:

(2.7)

1	->i	KING:	You come from married stock.
2	->i	TRUMP:	Well, I come from married stock, I mean-
3	->i	KING:	Yeah, people stay married in the Trumps.
4	->i	TRUMP:	Then you're talking about 50 years of marriage with
5	->i		my mother and father, that's a long time.
6	->i	KING:	Your brother married a long time?
7	->i	TRUMP:	Robert is happily married, and my family is
8	=>a		generally happily married, **so I'm not one that**
9	=>a		**loves the concept of divorce.**
10	=>b		**In fact,**
11	=>c		**just the opposite,**
12	->ii		**I hate the concept of divorce, I hate everything it**
13	->ii		**represents.**
14			There is nothing better than a good marriage. You
15			know, you read the stuff that 'Trump wants to be
16			out, he wants to be the ultimate playboy' and all
17			that crap - it's crap. There is nothing, nothing-
18			because I've been there. I got married at 31 years
19			old. I know what both sides are, and I will tell
20			you, there's nothing better for the few folks.

(Source: CNN_King; Year: 1990; Title: CNN_King /19900727)

After King is provided with the facts about the marriage status of Trump's parents and brother, which strongly contrast Trump's upcoming divorce, Trump adds quickly that *I'm not one that loves the concept of divorce* (lines 8-9), most probably in light of the

[10] For a recording of this specific item in the interview see: https://www.youtube.com/watch?v=ZXuTp7XF1nE

preceding conversation about how much agony the divorce has caused his family. Then, Trump feels that he should strengthen this point, and right after *in fact* (line 10) he makes an extreme statement, *just the opposite* (line 11), without explicitly stating the concept (of 'loving the concept of divorce') in the scope of *the opposite*. He then immediately expresses his hatred of divorce and *everything it represents* (lines 12-13). Trump seems to make it unambiguously clear to King that not only does he disagree with a prior inference (that he favors divorce over marriage), but that he denies it altogether. He seems to feel that his initially expressed attitude towards divorce (*I'm not one that loves the concept of divorce)* is too weak, and therefore strengthens it by using a more extreme formulation (*In fact, just the opposite*). Figure 2.3 is a schematic form of Example (2.7) along the lines of Figure 2.2:

(i)	**Concept to be denied in (a)**	*love the concept of divorce*
(a)	**A weakly negated version of the previous concept, of (i)**	*I'm not one that loves the concept of divorce*
(b)	**A connective implying that the speaker commits that (c) is a stronger claim than (a)**	*In fact*
(c)	**A stronger version of (a) containing an additional-revised negator**	*just the opposite*
(ii)	**An affirmative spell-out version of (c)**	*I hate the concept of divorce. I hate everything it represents*

Figure 2.3: A schematic form of Example (2.7)

Note two crucial differences between Part (a) and Part (c):

1. Whereas in Part (a) an unmarked negator, *not*, is used, Part (c) contains a marked, resumptive negator, *the opposite*.[11]
2. Whereas in Part (a) the negated term is explicitly mentioned (*loves the concept of divorce*), in Part (c), it is replaced by a zero anaphor (∅).

[11] In addition to the length difference, markedness is here based on the relative frequencies of the two negators in the Corpus of Contemporary American English (henceforth, COCA) (Davies, 2008-). Whereas 'not' occurs 478,641 times, 'opposite' occurs only 2675 times (of which not all instances are instances of negation. ~200 *opposite*s are prepositions.

Example (2.8) below is similar to Example (2.7), with one exception. The resumptive negator *the opposite* is replaced with an alternative resumptive negator — *the contrary*.[12] In Example (2.8) Ted Koppel, the host of a late night news program *ABC News Nightline*, hosts Lieutenant General Khalid Bin Sultan, commander of Joint Arab Forces at the time of the first Gulf war. Koppel and Bin Sultan discuss the complicated situation of Iraqi prisoners of war who did not support Saddam Hussein's regime, and were nevertheless forced to serve in the Iraqi army. Some of those Iraqi prisoners of war seemed, at the time of the interview, quite reluctant to be returned to Iraq:

(2.8)

1	KOPPEL:	How many Iraqi prisoners of war does the Saudi
2		government hold now?
3	BIN SULTAN:	We all have now over 62,000. Unfortunately, I
4		cannot give you the exact number now
5	KOPPEL:	Now, I've spoken to some of the Iraqis and
6 =>a		**they have expressed absolutely no interest-**
7 =>b		**in fact,**
8 =>c		**quite the contrary,**
9 ->ii		**they've expressed some fear at the thought of**
10->ii		**returning to Iraq.**
11		If an Iraqi prisoner of war says he doesn't want
12		to go home, what will you do with him?
13	BIN SULTAN:	Well, as I promised the Iraqi prisoners of war,
14		which I always refer to them as military refugees,
16		I told them that nobody will force them to go to
17		Iraq if they don't want to.

(Source: ABC_Nightline; Year: 1991;
Title: Bush Addresses Congress; Saddam's Days Numbered?)

Note the absence of an explicit Part (i) in Example (2.8), which makes it optional.

In both Example (2.7) and Example (2.8), the negated concept in Part (a) is fully-formulated in that negation is immediately adjacent to the negated constituent. As such, these examples are instances of what Tottie (1991: Ch. 2) refers to as *Intrasentential Negation* (of the nonaffixal type).

Example (2.9) is a common variant of Example (2.7). In Example (2.9), as opposed to Example (2.7), the speaker does not fully formulate the negated version of the previous proposition, Part (i), but denies Part (i) by using a *Pro-Form No* (Tottie,

[12] 'The contrary' is also a marked negator — 1136 instances altogether in COCA.

1991: Ch. 2) followed by a zero anaphor. Example (2.9) is another excerpt from Larry King's same talk show, in which he hosts Kathryn Lee Gifford, a TV personality. At this point in the conversation, King and Gifford discuss the alleged conflict between being a person of strong religious faith and working in show business, and King wonders whether her husband, Frank Gifford, has such a strong faith too:

(2.9)

1		GIFFORD:	Frank is an interesting story, because he grew up
2			in the Pentecostal church years and years ago. He's
3			a far more interesting person to interview than me.
4	->i	KING:	**But he grew up with southern California glamour,**
5	->i		**always a star-**
6	=>a	GIFFORD:	**No, Larry**
7	->i	KING:	**-then a star in New York - hey!**
8	=>c	GIFFORD:	**The exact opposite,**
9			and this is what's so fascinating.
10			He grew up in the oil fields of California and
11	->ii		Texas. He lived in 47 different places while he was
12	->ii		growing up; barely had a chance to check into a
13	->ii		school, much less stay in school for a year. His
14	->ii		father was an itinerant oil worker, and **they were**
15	->ii		**absolutely poverty-stricken**. And the only thing
16			they had was a sense of family, and their only
17			recreation in life was their church. They went to
18			Amy Semple McPherson's sp? church

(Source: CNN_King; Year: 1992; Title: Live With Kathie Lee Gifford)

When King comments that Gifford's husband *grew up with southern California glamour, always a star-* (lines 4-5), Gifford denies this assertion — *No, Larry* (line 6), and then amplifies it — *The exact opposite* (line 8), and eventually provides the opposite of *grew up with southern California glamour*, namely, [...] *and they were absolutely poverty-stricken* (lines 10-15). Figure 2.4 is a schematic form of Example (2.9). Note that in Example (2.9), Part (b)—the connective implying that Part (c) is stronger than Part (a)—is missing, thus indicating that this constituent is optional (see also Chapter 3).

(i)	**Concept to be denied in (a)**	*he grew up with southern California glamour, always a star--then a star in New York*
(a)	**A weakly negated version of the previous concept, of (i)**	*no*
(b)	**A connective implying that the speaker commits that (c) is a stronger claim than (a)**	—
(c)	**A stronger version of (a) containing an additional-revised negator**	*the exact opposite*
(ii)	**An affirmative spell-out version of (c)**	*[…] and they were absolutely poverty-stricken.*

Figure 2.4: Schematic form of Example (2.9)

And there is, of course, *the contrary* equivalent to *the opposite* in Example (2.9). Example (2.10) is taken from a CBS political interview show *Face the Nation*, moderated by Bob Schieffer. In this particular episode, Schieffer invited Judge Robert Borger and a Microsoft representative, Charles Rule, to discuss the allegations of a monopoly which Microsoft was charged with by the American authorities. Schieffer is curious to know how banning a monopoly (in the software industry) would affect him — "a guy that owns a computer". Borger explains that the computer owner would enjoy a greater source of innovation as well as lower prices. At this point of the conversation, Schieffer addresses the question to Rule:

(2.10)

MR-RULE: Well, I think it means if the government is successful, that -- just the opposite of what Judge Bork said -- you're going to have the government standing over Microsoft's shoulder, and ultimately other computer manufacturers, deciding what products you can get, what features they can put into their operating system, maybe even affecting what prices Microsoft can charge. And I've got to wonder why we, in America, want to take this part of the economy that has worked so wonderfully, has

11			driven economic growth and essentially put
12			Department of Justice lawyers and economists smack
13			dab in the middle of making decisions consumers ought to be making.
14	->i	BORGER:	**Aren't you essentially, though, saying to users,'**
15	->i		**Here's our product. Use all of it'? Aren't you**
16	->i		**forcing them, in -- in a -- in a funny way, to use...**
17	=>a	MR-RULE:	**No.**
18	->i	BORGER:	… **everything Microsoft offers by putting the**
19			**browser on the operating system?**
20	=>a	MR-RULE:	**No,**
21	=>c		**qu -- quite to the contrary.**
22			I mean, what has happened is, Microsoft has
23			continually updated its operating system to let you
24			use all the wonderful new hardware that's there.
25			They haven't raised their prices at all, even
26			though the functionality has greatly increased over
27	->ii		time. **What Microsoft does is make the computing**
28	->ii		**experience easier. It makes it easier to get on the**
18	->ii		**Internet, makes it easier, frankly, to take**
19	->ii		**products like Netscape browser and put it on your operating system.**

(Source: CBS_FaceNation; Year: 1998;Title: Charles Rule of Microsoft and judge Robert Bork discuss allegations of a monopoly involving Microsoft)

The four prototypical examples, (2.7)-(2.10), are classified in Table 2.1 according to the kind of negation used in Part (a), Intrasentential or Pro-Form negation, and according to the lexical item used as a resumptive negator in Part (c), 'the opposite' or 'the contrary'.

	Intrasentential negation	**Pro-Form No**
'opposite'	(2.7)	(2.9)
'contrary'	(2.8)	(2.10)

Table 2.1: The four prototypical examples of the discourse pattern presented above classified according to the kind of negation used in Part (a), and according to the lexical item used as a resumptive negator in Part (c).

2.3 The Resumptively-Negated Denial Pattern[13]

The discourse patterns exemplified in (2.7)-(2.10) are instances of an *elaborated negation* rather than a *simple negation* pattern[14]: "[E]laborated negation [is] those sequences of utterances that either negated or rejected a prior proposition or presupposition, **and added new information**" (Keller-Cohen, Chalmer, & Remler, 1979: 314; emphasis added). This 'new information', according to Keller-Cohen et al., could be either a reason or an explanation for the discourse negation, or an alternative to the negative utterance. In the current study, all instances of this new information are an alternative to the negative utterance rather than an explanation for the negation. In fact, this discourse pattern is a two-stage elaborated negation pattern, as depicted in Figure 2.5 below (exemplified in (1.1) above): The first stage consists of Part (a) to which Part (c) adds new information; the second stage consists of Part (c) to which Part (ii) adds new information:

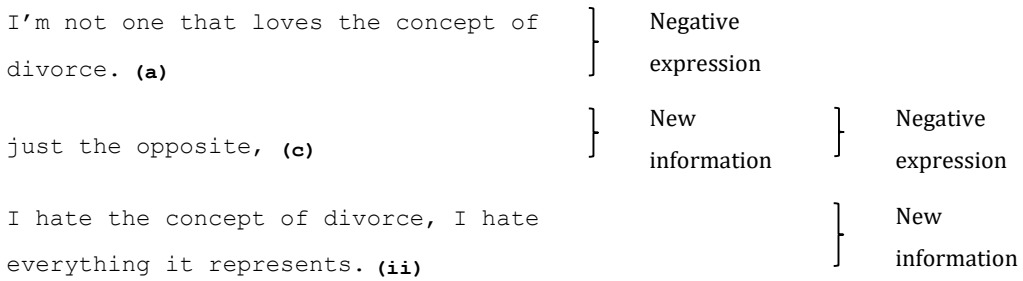

Figure 2.5: A schematic form of the discourse pattern of interest as a two-stage cascade elaborated negation.

A closer look at Keller-Cohen et al.'s definition of elaborated negation reveals the use of the term 'rejection' ("rejected a prior proposition or presupposition"). But Tottie (1982; 1991: 116ff), who divided instances of negation in spoken and written discourse into two main subcategories — Rejections and Denials — wouldn't consider elaborated negation as an instance of Rejection. She would instead classify elaborated negation as an instance of Denial. She argues, and rightfully so, that rejections are not restricted to human language (e.g., a dog can reject the food it was offered), whereas denials, which by their very nature refer to prior propositions or presuppositions, are. Hence "[d]enials [...] make up the LINGUISTIC category of negation *par préférence*" (1982: 96; original emphasis). Moreover, Tottie distinguishes between Explicit Denial,

[13] The term 'pattern' can be swapped for 'grammatical template' or 'construction' as suggested by Verhagen (2005: 35) who analyzed the Resumptively-Negated Denial Pattern in the context of Argumentation Theory (see §3.2.1). His analysis which converges with mine, but in a different context, is presented in §3.5.

[14] McNeill and McNeill (1966) name 'elaborated negation' 'entailment negation'.

where the denied proposition was explicitly asserted, and Implicit Denial, where the denied proposition has not been asserted by anyone (yet expected or contextually inferred).

Following Tottie, I will refer to the instances of the elaborated negation that I have described earlier as instances of Denial. Although my dataset consists of both explicit and implicit instances of Denial, I will disregard Tottie's fine-grained classification, because it is irrelevant to my analysis. The discourse pattern under consideration here will therefore be referred to, from now on, as the *Resumptively-Negated Denial Pattern*.

2.4 The dataset

According to Tottie (1991), samples of spoken discourse contain twice as many instances of negation as samples of written discourse (of the same size). Therefore, in the quest for as many instances of the Resumptively-Negated Denial Pattern as possible, I consider only spoken corpora. Moreover, the examples above — (2.7)-(2.10) — attest that the Resumptively-Negated Denial Pattern is an outcome of interlocutors' intensive *mutual monitoring* during discourse. Intensive mutual monitoring is, in turn, the outcome of direct social interaction between interlocutors (Goffman, 1964). Therefore, spoken data from direct social interactions between *co-participants* is expected to contain (relatively many) instances of the Resumptively-Negated Denial Pattern.

My dataset is therefore extracted out of the spoken section of the Corpus of Contemporary American English (henceforth, COCA) (Davies, 2008-) which contains ~95M tokens from transcripts of *face-to-face* and *telephone conversations* recorded from (American) TV and radio programs during the period 1990-2012.[15,16] COCA, unlike the London-Lund Corpus (LLC; Svartvik, 1990) and the Santa Barbara Corpus (SBC; Du Bois et al., 2000-2005), is not prosodically marked.[17] Although prosody is undoubtedly a fundamental aspect of discourse, COCA was chosen due to its size. In light of the quantitative nature of this work (as will become clearer later on), COCA can provide many instances of the Resumptively-Negated Denial Pattern—which is lexically-restricted and therefore relatively rare—thus establishing the validity of the results. The prosodically marked corpora (i.e., LLC and SBC), which are much smaller than COCA, do not provide any instances of the Resumptively-Negated Denial

[15] See appendix A for a brief discussion (provided by the compliers of COCA) regarding the quality of the transcripts of the spoken section of COCA, and the "naturalness" of the language used in public discussions such as TV or radio programs.

[16] At the time I collected the dataset, COCA consisted of items recorded up to 2012 only. It has been recently extended, and consists of items recorded up to 2015.

[17] Unfortunately, I have no access to prosodically-marked (far) larger corpora.

Pattern.[18] Accordingly, no prosodic analysis of the Resumptively-Negated Denial Pattern is offered here.

My dataset consists of:

I. all instances of nominal and adjectival 'opposite' (altogether 2411), extracted out of the spoken section of COCA,[19] of which,
II. 197 instances of the Resumptively-Negated Denial Pattern were further extracted (henceforth, the $RNDP_{OPPOSITE}$): 139 instances are of the form of Intrasentential Negation (see Example 2.7), and 58 instances are of the form of Pro-Form No (see Example 2.9);
III. all instances of 'contrary' (altogether 1141), extracted out of the spoken section of COCA, of which
IV. 202 instances of the Resumptively-Negated Denial Pattern were further extracted (henceforth, the $RNDP_{CONTRARY}$): 161 instances are of the form of Intrasentential Negation (see Example 2.8), and 41 instances are of the form of Pro-Form No (see Example 2.10).

These data are summarized in Table 2.2:

'X'	**# instances of 'X' (in COCA)**	# Resumptively-Negated Denial Pattern	$\frac{\text{\# Resumptively–Negated Denial Pattern}}{\text{\# instances of X (in COCA)}}$**=%**	**Intrasentential Negation**	**Pro-From No**
'opposite'	2411	197	8.2	139	58
'contrary'	1141	202	17.7	161	41

Table 2.2: Preliminary statistics of the dataset.

[18] The LLC (500K tokens) contains 27 instances of *opposite* and 2 instances of *contrary*, none of which is embedded in a Resumptively-Negated Denial Pattern; The SBC (249K tokens) contains 8 instances of *opposite* and 2 instances of *contrary*, none of which is embedded in a Resumptively-Negated Denial Pattern.

[19] The prepositional *opposite* is irrelevant to the current study and was therefore not considered.

Having compiled an exhaustive set of instances of the Resumptively-Negated Denial Pattern from the spoken section of COCA, I am now ready to carry out a quantitative analysis of this discourse pattern which will eventually provide support for the Retention Hypothesis (see Chapter 3).

3: A CONCEPTUALLY-ARGUMENTATIVELY WEAK NEGATIVE EXPRESSION IMPLIES A HIGHLY-ACTIVATED NEGATED CONCEPT

> *I am Gimpel the fool. I don't think myself a fool. On the contrary. But that's what folks call me. They gave me the name while I was still in school. I had seven names in all: imbecile, donkey, flax-head, dope, glump, ninny, and fool. The last name stuck.*[20]
>
> *(Bashevis Singer, 1957: 3)*

As argued in §1.3 (in line with usage-based approaches), language comprehension/production processes and language-use are inter-dependent, and it is the 'strength' of the negator—whether it functions as a suppressor of the concept in its scope or not—that determines how the resulting negative expression is perceived, and consequently, how the entire negative expression is used. If a negated concept is *not* entirely opposed to the concept in its scope, then it means that the negator is a weak operator, unable to automatically suppress the concept in its scope. In such a case (of a mitigated negative expression), I should be able to find evidence that despite the negator, the concept in its scope remains accessible in the following discourse.

In this chapter, I offer a detailed analysis of the Resumptively-Negated Denial Pattern (§3.1 and §3.3). It shows that conceptually and argumentatively weak negative expressions, construed as such by the speaker, *always* manifest an unsuppressed concept in the scope of the negator (§3.4), thus questioning the *unconditional* Suppression Hypothesis. In fact, my argument will be that, not only is the negated concept not suppressed, instead, it is highly accessible and treated as such.

3.1 The conceptual weakness of negation

The literal interpretation of a negative expression (as suggested by e.g., Colston, 1999) derives from the rules of logic in which a negator modifying or operating on a term (e.g., X) switches the truth value of this term, so that the negated term (e.g., NOT X) and its opposite (Y) share truth conditions and are therefore conceptually equivalent: "[...] a term (e.g., *wet*) coupled with a negative marker (e.g., *not*) would have its meaning annulled and replaced with the meaning of the opposite of the term (e.g., *dry*)" (p. 238). Thus, *wet* and *not dry* are alternatives, and as such can be used interchangeably. Note

[20] "איך בין גימפל תּם. איך האַלט מיך נישט פֿאַר קיין נאַר. פֿאַרקערט. נאָר די לײַט רופֿן מיך מיט אַזאַ צונעמיש. מ'האָט מיך אָנגעהייבן רופֿן אַזוי נאָך אין חדר. זיבן צונעמען האָב איך געהאַט, ווי יתרו: טראָפּ, חמור-אייזל, האָר-פֿלאַקס, לעקיש, גלאָמפּ, שמויגער און תּם. דער לעצטער נאָמען האָט זיך צו מיר צוגעקלעפּט."

that the literal approach to negation in fact underlies the view of negation as affecting automatic suppression of the concept in the scope of the negator.

Horn (1989), however, argues for a pragmatic rather than a strictly semantic interpretation of NOT X. He analyzes the balance of power between a negative expression and a possible affirmative alternative in light of his Q principle ─ "[m]ake your contribution SUFFICIENT: Say as much as you can" (p. 194; original emphasis). He contends that, the use of a negative expression rather than a stronger or a more informative form Q-implicates that "[t]he speaker was not in an epistemic position to have employed the stronger form" (p. 195). In other words, a speaker would use NOT X (e.g., *not dry*) when she cannot commit to Y (e.g., *wet*). Hence NOT X is a weaker statement than Y.

In this chapter, I analyze the components of the Resumptively-Negated Denial Pattern one by one (see Figure 2.2, repeated here for convenience as Figure 3.1), but not in a sequential order. I demonstrate that the negative expression in the main clause (Part a) is construed by the speaker as a weaker version of the resumptively-negated expression in the appositive tag-like (Part c). As such, the negated expression in the main clause (Part a) would not necessarily assume the highest possible position on a conceptual scale, and would be interpreted as a relatively weak proposition.

(i) **(A concept, a proposition, or an inference, to be denied in (a))**

(a) **A connective implying that the speaker commits that (c) is a stronger claim than (a)**

(b) **(A connective implying that the speaker commits that (c) is a stronger claim than (a))**

(c) **A stronger version of (a) containing a supplemental-revised negator**

(ii) **(An affirmative spell-out version of (c))**

Figure 3.1: Schematic form of the Resumptively-Negated Denial Pattern.

3.1.1 Part (c): The resumptively-negated (denied) proposition

The appositive tag-like component of the Resumptively-Negated Denial Pattern consists of a resumptive negator in the form of *the opposite*/*contrary*. In logic, *the opposite*/*the contrary* of a certain concept points towards the end of either a conventionalized or an ad-hoc scale whose other end is demarcated by the concept in the scope of *the opposite*/*the contrary*. Is it also the case in natural language? Does *the opposite*/*contrary* mark the extreme end of a scale? According to the following analysis, and along the lines suggested by Paradis (1997), this is indeed the case.

3.1.1.1 What could degree modifiers be telling us about adjectives they combine with?

Paradis (1997) analyzed the distribution of degree modifiers of adjectives in spoken British English. She suggested that, in order to achieve a successful combination of the degree modifier and the adjective, the semantic features of the two must harmonize. In other words, the semantic features of the adjective constrain the choice of the degree modifiers the adjective can combine with. That is, if a certain adjective is persistently accompanied by degree modifiers of a specific category, the two must share semantic features. Paradis' analysis devoted to adjectives, which is described in what follows, will be later applied to *the opposite*/*contrary* in order to determine where they may lie on a conceptual scale.

Paradis was exclusively concerned with gradable adjectives (such as *good*, *excellent*, *true*), that is, adjectives that involve a feature which varies in intensity and therefore allows the adjectives to combine with degree modifiers (as opposed to nongradable adjectives, such as *classical*, *daily*, *wooden*, which do not). She used four criteria[21] to classify gradable adjectives into three categories:

1. Scalar adjectives (e.g., *good*, *bad*) are adjectives that occupy a continuous range along a (mental) scale (e.g., the *good-bad* scale). Such adjectives form an unbounded (contrary) pair, (i.e., *not bad* is not necessarily *good*), and are predominantly evaluative.
2. Extreme adjectives (e.g., *excellent*, *terrible*) are adjectives that occupy the uttermost ends of a (mental) scale, outlined by a (scalar) unbounded (contrary) pair (e.g., the *good-bad* scale). Such adjectives form an unbounded (contrary) pair (e.g., *not excellent* is not necessarily *terrible*), and are strongly evaluative.
3. Limit adjectives (e.g., *true, false*) are adjectives that are associated with a limit of a mental scale, on which speakers mostly agree, since they regard them as criterial in nature. Such adjectives form a bounded (contradictory) pair (e.g., *not true* is necessarily *false*) and are not regarded as evaluative.[22]

Paradis then classified degree modifiers along two dimensions: their goal (reinforcers vs. attenuators) and their degree (totality vs. scalarity), as illustrated in Table 3.1:[23]

[21] The criteria are: (1) The possibility to occur in the comparative and in the superlative; (2) The possibility to fill the *x* slot in *How x is it*?; (3) The possibility to fill the *x* slot in *How x!*; (4) The type of oppositeness involved.

[22] Paradis noted that it is not easy to distinguish extreme adjectives from limit adjectives, since both are engaged with an utmost end-point on a scale. This distinction, however, is irrelevant to the current study.

[23] Note that the items in Table 3.1 do not belong to the same formal grammatical category: adverbs (such as *slightly*) alongside nouns (such as *a bit*). Paradis' overlooking of syntactic categories follows Bolinger's (1972) view that "a 'degree adjective' will be used generally to cover both adjectives and adverbs. There is nothing of interest here that can be said about *He gave a beautiful lecture* that does not apply equally to *He lectured beautifully*" (p. 15).

CATEGORY	TOTALITY MODIFIERS	SCALAR MODIFERS
REINFORCERS	**Maximizers**: *quite$_1$, absolutely, completely, perfectly, totally, entirely, utterly, very$_1$*	**Boosters**: *very$_2$, terribly, extremely, most, awfully, jolly, highly, frightfully*
ATTENUATORS	**Approximators**: *almost*	**Moderators**: *quite$_2$, rather, pretty, fairly*
		Diminishers: *a (little) bit, slightly, a little, somewhat*

Table 3.1: Totality modifiers and scalar modifiers classified according to their goal and their degree (Reproduced from Paradis, 1997: Table 1-3)

Paradis showed that scalar adjectives combine *most often* with boosters, moderators, and diminishers; extreme adjectives combine *mostly* with maximizers; limit adjectives combine *mostly* with maximizers and to some extent with approximators.[24] But then, adjectives can *also* combine with degree modifiers that bias their inherent interpretation. For example, when *certain*, which is inherently biased towards a limit interpretation, is combined with *absolutely* and *almost*, it is perceived as a limit adjective. But when it is combined with *very* and *fairly*, it is perceived as a scalar adjective. It follows then that it is not only the adjective that "selects" the degree modifier, but it is also the degree modifier that restricts the interpretation of the adjective with which it teams up.

3.1.1.2 'The opposite/ contrary' combines mostly with maximizers

If some of the above-listed degree modifiers combine with *the opposite*/*contrary*, their distribution could be indicative of the semantic features of *the opposite*/*contrary*, whether scalar, extreme, or limit expressions. This, in turn, would enable to position *the opposite*/*contrary* on a conceptual scale, and then to determine the position of the unmarked negators (in the main clause of the Resumptively-Negated Denial Pattern) on that scale.

To this end, I extracted from the complete list of 2411 instances of nominal and adjectival *opposite*, all entries in which *opposite* is accompanied by at least a single degree modifier (289 instances). I also extracted from the complete list of 1141 instances of *contrary* all entries in which *contrary* is accompanied by at least a single degree modifier (117 instances). Most of the occurring degree modifiers are included in Paradis' lists (see Table 3.1). Several other degree modifiers, which she deliberately

[24] An earlier, very brief mention of Paradis' point, that extreme adjectives and limit adjectives combine *mostly* with maximizers, is made by Horn (1972: 141-145) with respect to acceptable combinations of the modifying *absolute* and *absolutely* with end-point quantifiers, modals, and predicates (e.g., *all*, *necessary*, and *wonderful*, respectively).

omitted due to considerations concerning her research,[25] were found: the diminisher *to some degree*[26] (Quirk et al., 1985: 598) and the boosters *so* and *very much* (Altenberg, 1991; Quirk et al., 1985: 591).[27]

Before moving on to analyzing the distribution of the degree modifiers in my dataset, an important point should be made. In much the same way as Paradis adopted Bolinger's (1972) view that the term "degree modifier" should be used as an umbrella term for all degree words, regardless of their grammatical category (see note 23), I adopt Bolinger's view that "[a] great many nouns, both mass and count, have been stereotyped in predicative use as substitutes for adjectives" (p. 17). I therefore make no syntactic distinction between nominal and adjectival *opposite*, and no distinction between nominal or adjectival *contrary*. Accordingly, adverbs that modify adjectival *opposite* (e.g., *completely* [*opposite*]$_{ADJ}$), adjectives that modify nominal *opposite* (e.g., *the complete* [*opposite*]$_{N}$), and adjectives that modify nouns phrases (e.g., *the complete* [*opposite direction*]$_{NP}$) are considered together. In the same fashion, adverbs that modify adjectival *contrary* (e.g., *completely* [*contrary (to)*]$_{ADJ}$), adverbs that modify nominal *contrary* (e.g., *completely (to*/*on) the* [*contrary*]$_{N}$) and adjectives that modify nominal *contrary* (e.g., *the complete* [*contrary*]$_{N}$) are also considered together. In view of this, the distribution of the degree modifiers that combine with the *opposite* and with the *contrary* (in my dataset) is presented in Tables 3.2 and 3.3, respectively.

[25] Paradis' study combined semantic and intonational aspects of degree modifiers. The degree modifiers that she considered were such that complied with a *prosodic-semantic equivalence criterion* that maintains that "a modifier is a degree modifier if the degree meaning is predominant when it is used with contrast focus, i.e., when the nucleus is on the modifier" (p. 20). Since the corpus used in the current study has no access to prosody (see my remark in section §2.4), I am less restricted than Paradis and can therefore consider additional degree modifiers.

[26] I consider *to some degree* as a variant of *to some extent* which is listed in Quirk et al. (1985).

[27] Quirk et al. (1985) classify the degree modifiers differently from Paradis (1997). They refer to a subcategory of *compromizers*, which contains *kind of* and *sort of*, among other degree expressions. *Kind of* and *sort of* were also traced in my dataset: 12 instances of *kind of* and 10 instances of *sort of*. But I excluded them from the analysis, since I follow Paradis who does not consider them as devices to characterize the semantic features of the subsequent adjective.

CATEGORY	MAXIMIZERS						APPROXIMATOR	BOOSTERS			DIMINISHERS		
ITEM	quite	complete/ly	total/ly	very$_1$	absolute/ly	entire/ly	almost	so	very much	to some degree	a little	a bit	somewhat
FREQUENCY	122	68	30	14	13	1	20	8	2	1	5	3	2
TOTAL	248						20	11			10		

Table 3.2: The distribution of degree modifiers which combine with nominal and adjectival *opposite* in my dataset.

CATEGORY	MAXIMIZERS						APPROXIMATOR	BOOSTERS			DIMINISHERS		
ITEM	quite	complete/ly	total/ly	very$_1$	absolute/ly	entire/ly	almost	so	very much	to some degree	a little	a bit	somewhat
FREQUENCY	96	7	4	2	3	0	0	3	0	0	2	0	0
TOTAL	112						0	3			2		

Table 3.3: The distribution of degree modifiers which combine with nominal and adjectival *contrary* in my dataset.

It is evident that the frequency of the maximizers is of a different order of magnitude from the frequency of the approximators, the diminshers, and the boosters put together, for both *the opposite* (Table 3.2; 248/289=85.5%) and *the contrary* (Table 3.3; 112/117=97.4%). A chi-square goodness of fit test was used to determine whether the frequencies of maximizers, on the one hand, and all other degree modifier categories put together, on the other, were equally distributed. For *the opposite* — $\chi^2(df=1, N=289)=1.5\times10^2$, $p=2.9\times10^{-37}$; for *the contrary* — $\chi^2(df=1, N=117)=97.9$, $p=2.1\times10^{-27}$. These results — clearly skewed towards maximizers — indicate that *the opposite* and *the contrary* function as either extreme expressions or limit expressions (see note 22).

But, whether extreme expressions or limit expressions, their position at the very end of a conceptual scale means that *the opposite*/*contrary (of x)* share the same (or, almost the same) position as Y, which is the antonym of X (see Figure 2.1).

3.1.2 Part (a): The denied (negated) proposition of Part (i)

The main clause of the Resumptively-Negated Denial Pattern consists of either an Intrasentential negation in which the negator can be any of the unmarked negators: *no*, *not*, *never*, *none*, *neither*, *nor*, *nowhere*, *nobody*, *nothing*, *-n't* as listed in Tottie (1991: 8) and in Tottie (1982) and Tottie and Paradis (1982), or only of a Pro-From negator, where the predicate, over which the negator *no* scopes, is left implicit.

According to Altenberg (1991), the *only* degree modifier that combines with unmarked negators (specifically *no*, *not*, *never*, *none*, *nowhere*, *nobody* and *nothing*) is *absolutely* which is a maximizer, thus indicating that speakers consider negative expressions extreme expressions. In the $RNDP_{OPPOSITE}$, I counted 3 instances of *absolutely*, followed by the unmarked negator in Part (a). In the $RNDP_{CONTRARY}$, I counted 4 instances of *absolutely*, followed by the unmarked negator in Part (a). We can then conclude that just like the marked negators, *the opposite* and *the contrary*, an unmarked negator too constitutes an extreme expression when combined with the concept in its scope.

Which of the two classes, then, unmarked negators vs. *the opposite*/*contrary*, constitutes a conceptually weaker expression, if any? The answer lies in Part (b), an optional constituent of the Resumptively-Negated Denial Pattern, examined in the following section.

3.1.3 Part (b): A connective implying that Part (a) is weaker than Part (c)

Horn (1989: ff. 231) noticed that gradable scales, such as <Excellent, good>, are correlated with certain syntactic frames. He defined scalar scales by entailment: "P_j outranks P_i on a given scale iff a statement containing an instance of the former unilaterally entails the corresponding statement containing the latter" (p. 231). He then contended that scalar predicates would easily accommodate discourse patterns such as "P_i, *indeed*/*in fact*/*and what's more* P_j" (p. 234, example 50b) to produce a coherent utterance such as Example (3.1):

(3.1) ✓ He is good, in fact he is excellent

but the result of a reversed order of the scalar predicates, that is, P_j *in fact* P_i, will be unacceptable:

(3.2) # He is excellent, in fact he is good

We can then use this test to see which negator is stronger:

(3.3) ✓ He is not good, in fact he is the opposite/contrary of good

(3.4) # He is the opposite/contrary of good, in fact he is not good

Since Example (3.3) is coherent but Example (3.4) isn't, we must conclude that THE OPPOSITE/CONTRARY (OF X) forms a stronger argument than the argument consisting of

NOT X. Recall that Horn argues that the usage of a negated expression rather than a direct alternative Q-implicates that the speaker could not commit to the stronger version. This Q-implicature is then promptly cancelled by *in fact*, *actually* or *indeed* followed by a stronger version of the negative expression, the resumptively-negated appositive tag-like in the case of the Resumptively-Negated Denial Pattern.

Table 3.4 displays the distribution of the connectives, occupying Part (b) in the $RNDP_{OPPOSITE}$ dataset and in the $RNDP_{CONTRARY}$ dataset, thus linking Part (a) and Part (c).

	In fact	**Actually**	**As a matter of fact**	**Indeed**	**TOTAL**
'opposite'	65	8	2	1	76
'contrary'	9	4	1	1	15

Table 3.4: The frequencies of connectives that occupy Part (b) of the Resumptively-Negated Denial Pattern

The 76 instances of *in fact*, *actually*, *as matter of fact*, and *indeed* in the $RNDP_{OPPOSITE}$ (76/197; 38.5%) and the 15 instances of *in fact*, *actually*, *as matter of fact*, and *indeed* in the $RNDP_{COTRARY}$ (15/202; 7.4%) testify that NOT X is a weaker statement than THE OPPOSITE/CONTRARY (OF X). In terms of its position on a conceptual scale, NOT X cannot occupy the uttermost end of the scale (as depicted in Figure 1a,b). Consequently, NOT X must also be a conceptually weaker statement than its affirmative alternative, Y.

I propose that the absence of *in fact*, *actually* and *indeed* in 121 instances (121/197; 61.5%) of the $RNDP_{OPPOSITE}$ and in 187 instances (187/202; 92.6%) of the $RNDP_{COTRARY}$, the majority of each dataset, shows that the Resumptively-Negated Denial Pattern is so deeply entrenched in the mind of the interlocutors that the speaker, assuming that the unmarked negator is weak, does not need to use these connectives to signal the strengthening. These connectives are therefore set aside.

Interestingly, a Pearson chi-square test of independence indicates that the difference between 121/197 and 187/202 is statistically significant (χ^2 =54.979, p=2.73×10^{-14}). One may therefore argue that THE CONTRARY (OF X) needs no contextual support in order to outrank NOT X. However, the relation between NOT X and THE OPPOSITE (OF X) is not as entrenched. Hence, the need for connectives to communicate that the latter indeed outranks the former. Interestingly, these data are in line with the fact that *the contrary* occurs in the Resumptively-Negated Denial Pattern twice as much as *the opposite* (17.7% vs. 8.2% of all cases, respectively; see Table 2.2). This would indicate that THE CONTRARY (OF X) is more strongly associated with the Resumptively-Negated Denial Pattern, and therefore automatically considered by speakers as stronger than NOT X. THE OPPOSITE (OF X) seems less associated with the Resumptively-Negated Denial Pattern, and therefore still in need of a supportive context in the form of *in fact*, *actually* and *indeed*, testifying that it is stronger than NOT X. But for the time being, this

is just a speculation that must be supported by a diachronic analysis, which is beyond the scope of the current study.

3.2 From quantitative/pragmatic scales to argumentative scales

Horn (1989), who suggested the above quantitative analysis, acknowledged that

> [a] rival account of scalar operators is offered by Ducrot and his colleagues (cf. especially Ducrot 1973; Anscombre and Ducrot 1976, 1978, 1983). On this view, scales are essentially not quantitative (in the sense of Hom 1972) or pragmatic (in the sense of Fauconnier 1975a, 1975b, 1976), but argumentative. Ducrot's *échelles argumentatives* share many of the properties I have described, including (1) the plotting of elements by their relative strength (as defined, however, by their argumentative power rather than by entailment or pragmatic implication); (2) the rhetorical suggestion (*sous-entendu*) by the use of a weaker expression that—for all the speaker knows—the stronger expression does not apply [...] (p. 241-242)

In the next section, I (very) briefly present Ducrot's Argumentation Theory. In the subsequent section (§3.3), I consider some details of the Resumptively-Negated Denial Pattern in line with Argumentation Theory, and conclude that the negative expression, i.e., the main clause of the Resumptively-Negated Denial Pattern, does not occupy the endpoint of an argumentation scale either (in addition to the very same position on a conceptual scale).[28]

3.2.1 'Argumentation Theory' in brief

Argumentation Theory is a non-truth conditional theory according to which the main aspect of every utterance is its argumentative potential, which is independent of its information content (if such information content exists, as suggested in a radical version

[28] It's worth noting that Horn examined the various rules suggested by Ducrot to account for the argumentative strength of propositions, and proposed that those rules fail to account for cases in which the predicates embedded in syntactic frames such as Example (3.1) do not form a scale. Those rules, he argued, can be elegantly replaced by logical entailment, pragmatic implication, and Q-based implicature, and therefore

> **the argumentation-based scale favored by Ducrot and Anscombre is best viewed as dependent on, rather than prior to, a pragmatically generalized quantitative model of the type(s)** depicted in Sapir, 1944; Horn, 1972; Fauconnier, 1975a, 1975b, 1976; Harnish, 1976; Gazdar, 1979a, 1979b; Atlas and Levinson, 1981; and Hirschberg, 1985. (p. 242; emphasis added)

But it is beyond the scope of the current study to decide whether the argumentative scale is dependent on the quantitative scale, or not.

of Argumentative Theory; Ducrot, 1993). Argumentation Theory has gone through several phases, and the following statements reflect its essence (Anscombre & Ducrot, 1983):

1. An utterance can be assigned an argumentative direction which is either in favor of or against a certain issue.
2. Two utterances, *p* and *q*, have the same orientation if they assign the same trait to the same object, but opposite orientations if they don't.
3. Given two utterances, sharing the same argumentative orientation, *p* is stronger than *q* if a speaker that admits *q* can admit *p*, but not the other way around.

Anscombre & Ducrot provided accounts of connectives such as *but*, which indicates the (opposing) argumentative orientation of two consecutive utterances. They also provided accounts of particles such as *even*, which indicate the relative strength of utterances with and without such particles, namely, the speaker's commitment to the said utterances. In the following section, I review *in fact* (and similar expressions), accounting for the same argumentative orientation of NOT X and THE OPPOSITE/CONTRARY and their relative argumentative strength. An account of a prevalent particle in the Resumptively-Negated Denial Pattern, *just*, provides additional support for the notion of relative argumentative strengths.

3.3 The argumentative weakness of negation

3.3.1 The rhetorical strengthening function of 'in fact', 'actually', and 'indeed'

The presence of an optional *in fact* and similar expressions, connecting the unmarked negated concept with a following *the opposite*/*contrary* component, testifies to the argumentative weakness of the former. For this I rely on Schwenter and Traugott (2000) and Traugott and Dasher (2002: Ch. 4) who argued, within a diachronic analysis, that the discourse markers *in fact*, *actually*, and *indeed* signal that what follows them is a rhetorically stronger argument than what precedes them. Similar to Horn (1989), but in the context of argumentative scales rather than quantitative-pragmatics scales, Schwenter and Traugott and then Traugott and Dasher noted that *in fact, actually*, and *indeed* induce the cancellation of the scalar Q-implicature of a preceding utterance ("Say as much as you can, and imply no more"). In the case of the Resumptively-Negated Denial Pattern, the use of a negated expression (rather than an explicit alternative in the affirmative) Q-implicates that the speaker cannot commit to the stronger version. This Q-implicature is then promptly cancelled by *in fact, actually*, or *indeed*, followed by a resumptive negator which suggests a stronger version of the negative expression.

Oh (2000), within a synchronic analysis, suggested that these discourse markers signal an increase in the rhetorical strength of a prior asserted or implied proposition when they appear in initial and medial positions. And indeed, in the datasets of

Resumptively-Negated Denial Pattern *in fact* and *actually* occupy only these two positions. This view is supported by (Aijmer, 2013: Ch. 3).

In sum, *in fact* and similar expressions introduce a stronger argument than the argument they follow. Their dominant presence in the Resumptively-Negated Denial Pattern supports my claim that the *in fact* modified negation (e.g., *the opposite*/*contrary*) is stronger than the negation preceding it (e.g., *not*/*no*).

3.3.2 The rhetorical strengthening function of 'just'

It is not only *in fact* and similar expressions that attest to the strength of the appositive tag-like negation in the Resumptively-Negated Denial Pattern and consequently to the weakness of the negator in the main clause. The rhetorical maximizer *just* does the same. *Just* teams up with *the opposite* 376 times, a far more widespread distribution than all the degree modifiers put together. It is less frequent on the list of modifiers which team up with *the contrary* ─ it occurs there only 11 times ─ but still it is more prevalent than the approximators, boosters, and diminishers taken together (see Table 3.5). My point is that since *just* is an argumentative maximizer, of the rhetorical kind, it further strengthens the resumptive negation, thus, once again, supporting my analysis of the original negation, in the main clause of the Resumptively-Negated Denial Pattern, as relatively weak argumentatively.

Aijmer (2002) suggested that in spoken language, *just* serves an interpersonal discourse purpose, expressing the speaker's argumentatively privileged attitude towards the proposition in its scope. In other words, the discourse particle *just* is emphatic. What's more, when *just* precedes adjectives that are described as 'implicit superlatives' (which are what Paradis, 1997 refers to by extreme adjectives: *excellent*, *huge*, and *disastrous*, for example), it can be paraphrased by maximizers (such as those listed in Tables 3.2 and 3.3) and "[h]as the effect of underlining or 'pushing' [higher] an emotion which is **already high up on the scale**" (p. 164; emphasis added). Aijmer further contends that *just* is a typical feature of argumentative contexts of a persuasive nature, making a given statement into an "absolute truth" which is hard to dispute, namely an implicit superlative. For Tottie (1986), most uses of *just* in spoken corpora indicate 'only' or 'simply'. But she adopts Chafe's (1982: 47) suggestion that *just*, when meaning 'only', is a sign of 'enthusiastic involvement' of the speaker in conversation. It is possible that this 'enthusiastic involvement' can be taken as the speaker's strong epistemic stance towards the utterance in the scope of *just*.

	all instances of *the opposite* which team up with a modifier	all instances of *the contrary* which team up with a modifier
just	376	11
MAXIMIZERS	248	112
APPROXIMATORS	20	0
BOOSTERS	11	3
DIMINISHERS	10	2

Table 3.5: The distribution of modifiers which combine *the opposite* and with *the contrary* in the entire dataset.

Most of my dataset contains public conversations of a persuasive nature, in which *just* is easily regarded as a sign of 'enthusiastic involvement' of a speaker who wishes to make her argument, which is a superlative in itself, the "absolute truth". This *just*, then, provides support for my claim that the appositive tag-like of the Resumptively-Negated Denial Pattern is an extreme/limit-like argument on an argumentative scale.[29]

In sum, *in fact*, *actually*, and *indeed* attest to the same argumentative orientation of the main clause and the appositive tag-like of the Resumptively-Negated Denial Pattern. They also indicate that the tag is a stronger argument than the preceding main clause. *Just* indicates that the tag-like negator of the Resumptively-Negated Denial Pattern is argumentatively a superlative. Taken together, *in fact* (and similar expressions) and *just* imply that the negative expression in the main clause of the Resumptively-Negated Denial Pattern, which contains an unmarked negator, does not assume the extreme endpoint of the argumentative scale and is therefore argumentatively weak.

3.4 The perceptual weakness of negation

I have established that an unmarked negative expression is construed by the speaker as a weaker version of its *opposite*/*contrary* alternative and consequently of its antonymic alternative, both conceptually and argumentatively. Having done that, I can now examine the prediction that in all cases of the Resumptively-Negated Denial Pattern (as each of which contains a weak negative expression), the concept in the scope of the

[29] The entire dataset of nominal and adjectival 'opposite' contains 290 instances of *exact/ly*. The $RNDP_{OPPOSITE}$ contains 22 instances of *exact/ly*. The entire dataset of nominal and adjectival 'contrary' contains 2 instances of *exact/ly*. The $RNDP_{CONTRARY}$ contains no instances of *exact/ly*. Its distribution in the two sets of data is similar to the distribution of *just*. I found no prior study discussing the argumentative traits of *exactly* in discourse, except a brief mention in Tottie (1986) who lists it among other exclusive adverbials (as *just*), but does no discuss it due to its paucity in her spoken dataset. It is quite possible that *exact/ly* is similar to *just* in being a sign of 'enthusiastic involvement', and therefore a strengthening element of the argumentative kind. But for the time being, this is more of an impression rather than solid evidence.

negator (Part a) is retained (rather than automatically suppressed). My argument is that if the Suppression Hypothesis is correct, the negated concept should not be further accessible to the interlocutors. However, using *Accessibility Theory* (Ariel, 1985, 1988, 1990, 1991, 2001), I will show that the negated concept is accessible. Hence the negated concept could *not* have been suppressed.

In the following section (§3.4.1), I analyze the Resumptively-Negated Denial Pattern in light of *Accessibility Theory*, and then provide evidence which supports the retention of negated concepts for over 2000 milliseconds (henceforth ms) (after having expressed the negated concept) (§3.4.2).

3.4.1 An Accessibility-based analysis of the Resumptively-Negated Denial Pattern

Accessibility Theory (Ariel, 1985, 1988, 1990, 1991, 2001) is a universal cognitive-pragmatic theory which argues that referential markings are sensitive to how accessible mental representations are. In order to help the addressee access a specific mental representation, the speaker chooses her referring expression based on her assessment of the degree of accessibility of that entity in the mind of her addressee. Each linguistic expression is associated with a specific degree of accessibility, and in general, the more informative the expression, the less accessible it is assumed to be in the addressee's mind; the less informative the expression, the more accessible it is assumed to be in the addressee's mind. Accordingly, a null form serving to point to an entity that must be retrieved, testifies to a most accessible mental representation.[30] Consider examples (3.5a, b):

(3.5) (a) Now, these were moderate nationalists, these are Catholics who would never vote for Sinn Fein before. They did it ***not*** to bolster the IRA$_{(a)}$, just ***the opposite*** $\varnothing_{(c)}$.[31]

(Source: NPR_Saturday (Radio); Year: 1997; Title: IRA Threats)

(b) However, I, obviously, as a believing Christian, do ***not*** believe that Moses or Jesus, either one, taught physical immortality. They taught just ***the contrary*** $\varnothing_{(c)}$.

(Source: CNN_King; Year: 1991; Title: Training Our Bodies to Live Forever)

[30] The main test case for Accessibility Theory are NP antecedents. Accessibility Theory can be equally applied to "all grammatical categories used when marking the need to access context, i.e. NPs, VPs, and Ss" (Ariel, 1991: 443), as Ariel did at the early stages of this research (Ariel, 1985, 1990).

[31] Ø indicates a zero anaphor.

In Example (3.5a) the speaker explicitly utters the concept in the scope of the unmarked negation (*bolster the IRA*), but does not repeat this concept in the scope of the resumptive negator, *the opposite*. Still, it is quite clear that this very same concept (*bolster the IRA*) is modified by *the opposite* (i.e., 'the opposite of bolster the IRA'). The same holds for Example (3.5b), in which the speaker expresses doubt about an alleged aspect of the Jewish and Christian religions, by uttering the concept in the scope of negation, *that Moses or Jesus, either one, taught physical immortality*. Yet he does not repeat this concept in the scope of *the contrary*. Nevertheless, it is obvious that this very same concept is referred to when interpreting *the contrary*.

Inspection of the two sets of the Resumptively-Negated Denial Pattern, $RNDP_{OPPOSITE}$ and $RNDP_{CONTRARY}$, reveals that a zero anaphor in the scope of *the opposite* or *the contrary*, following an unmarked negator of the Intrasentential Negation kind, is extremely frequent: All 161 instances of the $RNDP_{CONTRARY}$ (such as Example 3.5b), in which the speaker *fully* formulates the negated version of a denied concept, (Part a), exhibit a zero anaphor in the scope of the resumptive negator. And the vast majority of the 139 instances of the $RNDP_{OPPOSITE}$ (such as Example 3.5a) too exhibit a zero anaphor in the scope of *the opposite* (135 cases) or an unstressed pronoun *that*, also a marker of a rather high degree of accessibility (2 cases). These results are summarized in Table 3.6. There is no statistically significant difference between the rate of anaphors in $RNDP_{OPPOSITE}$ (99%) and $RNDP_{CONTRARY}$ (100%) (p=0.214; 1-sided Fisher's exact test).

	# Resumptively-Negated Discourse Pattern	***A* = # Resumptively-Negated Discourse Pattern of the Intrasentencial Negation type**	***B* = # Resumptively-Negated Discourse Pattern with a *zero anaphor* in the scope of the resumptive negator**	$\frac{B}{A}$**=%**
'opposite'	197	139	135+2=137	$\frac{137}{139}$=99
'contrary'	202	161	161	$\frac{161}{161}$=100

Table 3.6: The frequency of Resumptively-Negated Discourse Pattern in which an *explicit* concept in the scope of the negator is followed by a zero anaphor in the scope of the resumptive negator — Intrasentential Negation category.

The other variation of the $RNDP_{OPPOSITE}$ and $RNDP_{CONTRARY}$, the Pro-Form No (see Examples 3.6) in which the speaker does not fully formulate the concept in the scope of the unmarked negator, Part (a), but rather answers a question, displays similar results. Almost all instances of the Pro-Form No in the $RNDP_{CONTRARY}$ manifest a zero anaphor in the scope of the resumptive negator (see Table 3.7 below).

(3.6) (a) GROSS: […] I imagine you weren't going to a lot of concerts growing up in rural England on a - you know, with a lot of animals?(i)
Ms-HARVEY: ***No*** ∅ (a), quite ***the opposite*** ∅ (c).

(Source: Fresh Air 12:00 PM EST NPR; Year: 2011;
Title: On War And The New ^England^)

(b) Are you challenging the Navy's need to train properly for defending this country, and Puerto Rico itself? (i)
Mr-DENNIS-RIVERA: ***No*** ∅ (a), to ***the contrary*** ∅ (c).

(Source: Ind_NewsForum; Year: 1999;
Title: Dennis Rivera, president of local 1199 of the national health and human service employees union, talks about New-York's health-care issues and the bombing in Puerto Rico by the US navy)

	# Resumptively-Negated Discourse Pattern	***A* = # Resumptively-Negated Discourse Pattern of the Pro-Form type**	***B* = # Resumptively-Negated Discourse Pattern with a *zero anaphor* in the scope of the resumptive negator**	$\frac{B}{A}$**=%**
'opposite'	197	58	55	$\frac{55}{58}$=95
'contrary'	202	41	41	$\frac{41}{41}$=100

Table 3.7: The frequency of the Resumptively-Negated Discourse Pattern in which an *explicit* concept in the scope of the negator is followed by an *implicit* concept in the scope of the resumptive negator — Pro-Form No category.

Again, as in the case of Intrasentential Negation, there is no statistically significant difference between the rate of zero anaphors in $RNDP_{OPPOSITE}$ (95%), and the rate of such anaphors in $RNDP_{CONTRARY}$ (100%) (p=0.197; 1-sided Fisher's exact test).

The few (5) cases, in which the concept in the scope of *the opposite/contrary* is not referred to by a zero anaphor or an unstressed pronoun, are all cases of repetition, viz. the concept in the scope of *the opposite/contrary* was asserted in the prior discourse, as exemplified in (3.7a, b).

(3.7) (a) NEARY: In the people that you talked with and observed in the prison and also in the intensive care unit, did you have a sense that any of those people achieved ***the ideal of solitude***$_{(i)}$ that we have?
HALPERN: ***No*** ∅ $_{(a)}$. Something quite, quite ***the opposite of an ideal,*** $_{(c)}$ in fact. They were people who in many ways had had negative experiences with solitude. I mean, in a -- in a sense what they were experiencing was isolation.

(Source: NPR_ATC; Year: 1992;
Title: EXPLORING THE TRUE MEANING OF SOLITUDE)

(b) But ***I'm not an isolationist***. I don't believe in walls. I believe in free trade and maximum travel, the sharing of ideas, diplomacy and talking to people. ***It's actually opposite of isolationist***.

(Source: CBS_FaceNation; Year: 2007;
Title: Congressman Ron Paul, Republican from Texas, discusses his 2008 presidential campaign)

In these cases, the repetition is likely dictated by a lower degree of accessibility: In Example (3.7a) there's a speaker change, and in Example (3.7b) the repeated NP is sequentially far from its antecedent.

In sum, the overwhelmingly significant prevalence of zero anaphors in the Resumptively-Negated Denial Pattern, where the initial negative expression is conceptually and argumentatively weak, attests that the negated concept remains highly accessible in memory. Such findings support the Retention Hypothesis and are incompatible with claims about the allegedly suppressive effects of negation.

3.4.2 How long is a negated concept retained in memory?

Highly accessible concepts (such as discourse topics) are expected to maintain a high degree of mental accessibility for a relatively long time. My argument here will be that this is indeed the case for the negated concept, which means that not only is it not immediately suppressed, but it is retained for quite some time.

Most of the psycholinguistic literature, testing the accessibility of negated concepts in memory, shows that, up to ~750 ms following the offset of a negated concept, the activation levels of that concept are as high as the activation levels of a non-negated counterpart (Giora, Balaban, et al., 2005: Experiment 1; Hasson & Glucksberg, 2006; Kaup et al., 2006; Kaup, Yaxley, Madden, Zwaan, & Lüdtke, 2007; Tian, Breheny, & Ferguson, 2010: Experiment on "simple negatives"). However, 750-1000 ms following the offset of the negated concept, its activation levels are reduced to

baseline levels and below. This, however, is not true of affirmative counterparts. Such decrease in activation levels indicates that the negated concept, but not its nonnegated counterpart, is suppressed (Autry & Levine, 2014: Experiments 1 and 2; Hasson & Glucksberg, 2006; Kaup et al., 2006; MacDonald & Just, 1989: Experiments 1 and 2). One should note, however, that this reduction of activation levels about 750-1000 ms following the offset of a negated concept, occurs when stimuli are presented in isolation, where considerations of discourse goals are irrelevant (see Hasson & Glucksberg, 2006; Kaup et al., 2006, 2007).

Evidence from *natural* speech (Giora, 2007) and on-line experiments (Autry & Levine, 2014: Experiment 3; Giora et al., 2007: Experiment 1; Kaup & Zwaan, 2003; Lüdtke, Friedrich, De Filippis, & Kaup, 2008; Shuval & Hemforth, 2008) in which the negated concept was embedded *in a context* (either linguistic or pictorial) reveals that negated concepts are not less accessible than their affirmative counterparts, because "negation is sensitive to discourse considerations and will not deactivate concepts deemed necessary for discourse goals" (Giora, 2007: 155). Can the Resumptively-Negated Denial Pattern enlighten us with respect to this issue?

In order to see how long the negated concept is retained, we need to measure the distance between its overt mention and the zero anaphor, and to translate it into a time estimate. We therefore need to estimate the time speakers take to pronounce Part (b) and Part (c) of the Resumptively-Negated Denial Pattern.

In radio interviews in English, where the average speech rate is approximately 5 syllables per second (Grosjean & Deschamps, 1975), the pronunciation of *the opposite* and *the contrary* of the Resumptively-Negated Denial Pattern is estimated to take about 800 ms. Hence, 800 ms can set the lower limit for the retention time of the concept in the scope of the unmarked negator. But, in fact, *the opposite* and *the contrary* are often embedded in longer sequences, such as *in fact, quite the opposite* (7 syllables; ~1400 ms) or *actually, just to the contrary* (10 syllables; ~2000 ms). Such expressions would yield longer intervals between the antecedent (the negated concept) and the zero anaphor, much longer than the 750-1000 ms which was set as the longest interval for which retention of the negated scope were shown experimentally to take place, in the case of contextless sentences. If pause duration is also taken into account (~0.5s), then such intervals can even exceed 2000 ms.

We can conclude, then, that in spontaneous speech, the concept in the scope of an unmarked negator is retained in memory for at least 800 ms (based on 4 syllables as in *the contrary*), and often for even ~2000 ms (based on 10 syllables as in *actually, just to the contrary*) and longer.[32]

A related analysis regarding the high accessibility of the concept in the scope of the negator, in the context of the Resumptively-Negated Denial Pattern, but in a totally

[32] See Appendix B for an etymological analysis of *the contrary* and *the opposite* which provides further support for my claims that *the contrary* and *the opposite* must accommodate a highly accessible concept.

different context, was proposed by Verhagen (2005). This is described is the next section.

3.5 "Negation 'opens' another mental space" (Verhagen 2005)

In an attempt to argue that language is a means for the interlocutors to affect each other's cognitive states rather than to represent the world as it is (cf. Argumentation Theory; see §3.3), Verhagen (2005) analyzed the Resumptively-Negated Denial Pattern (although he does not refer to this pattern by this specific name) among other discourse patterns. He argued, not surprisingly, that in utterances such as Example (3.8), the *on the contrary* refers to 'Marry is happy' (the concept in the scope of the negator) rather than to the opinion that the speaker has expressed in the preceding sentences that 'Marry is not happy':

(3.8) Mary is not happy. On the contrary, she is feeling really depressed.

Verhagen drew on Fauconnier's (1985) theory of mental spaces: Specifically, he regarded the negator as a *space-builder à la* Fauconnier – "[a]n expression that may establish a new space or refer back to one already introduced in the discourse" (p. 17). He consequently argued that "[t]he use of a negative expression in the communicative situation by the speaker/writer ($Space_1$) 'opens' another mental space ($Space_2$) in which a thought p [Marry is happy] is valid" (p. 29). P is later on referred to by the *on the contrary*, as depicted in Figure 3.2 (after Verhagen, 2005, Figure 2.2, p. 32). Verhagen labeled $Space_2$ an 'evoked' space (p. 31) attributed by the speaker to the addressee.

Verhagen's entire book is dedicated to the pragmatics of language, and specifically to its argumentative functions. Although, he did not suggest it explicitly, it seems that Verhagen provided a psycholinguistic account of the role of the negator in the main clause of Example (3.8). He seems to interpret the negator, along the lines of of Fauconnier, as either the activator of the additional 'evoked' $Space_2$, (which hosts the concept in the scope of the negator), or as a means to access an already activated space. Either way, in order for Example (3.8) to be intelligible, 'evoked' $Space_2$, which constains the negated concept, must be mentally accessible, and by no means deactivated.

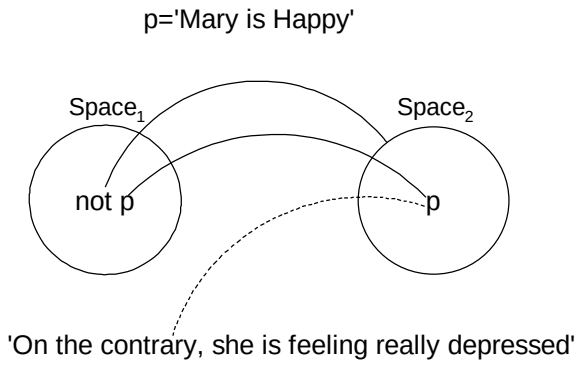

Figure 3.2: 'Not' evokes mental space$_2$, and 'on the contrary' relates to this evoked mental space$_2$.

3.6 Summary

In this chapter, I have shown that the Resumptively-Negated Denial Pattern is a discourse pattern in which the speaker construes a negative expression as a weaker version of its affirmative counterpart. At the same time, almost every instance of the Resumptively-Negated Denial Pattern manifests that the concept in the scope of the initial unmarked negator is highly activated (rather than suppressed by the negator) and for quite some time — at least 800 ms following the offset of the negated concept, and probably even more (~2000 ms). The correlation between these two phenomena suggests that the negator is not "strong enough" to suppress the activation levels of the concept in its scope (most likely due to bleaching; see Chapter 5). The concept in the scope of the negator therefore remains highly activated. The weak nature of the negative expression may then be the outcome of long lasting high activation levels of the concept in the scope of the negator. Such findings support the Retention Hypothesis (e.g., Giora 2003, 2006).

In the next chapter I review previous claims in the literature regarding multiply-negated utterances, focusing on their corrective nature, which, in turn, allows me to provide more support for the Retention Hypothesis. I then try to reconcile the results of the current study — showing that the mitigated nature of the negative expression is possibly the outcome of an activated concept in the scope of the negator — with the results of a prior study of mine (Becker 2015) in which it is not always the case. The analysis (which attempts to resolve this apparent conflict), proposes that the negator in the current study is a polemic negator, and as such must retain the concept in its scope. This too provides support for the Retention Hypothesis.

4: THE RESUMPTIVELY-NEGATED DENIAL PATTERN IN LIGHT OF PRIOR RESEARCH

> *While my account of the analysis of negation may seem discouraging in its revelation of repeated independent rediscoveries of the same observations, the same generalizations, and often the same mistakes, it is also (I hope) instructive. As in other linguistic (and extralinguistic) domains, those who do not learn from the history of ideas are condemned to relive it.*
>
> *(Horn, 1989: 4-5)*

> *The thing that hath been, it is that which shall be; and that which is done is that which shall be done: and there is no new thing under the sun.*[33]
>
> *(Ecclesiastes 1:9; King James Bible)*

Examining discourse patterns which exhibit repeated negation is by no means new. Yet, it has not attracted much scientific attention over the years — altogether six studies on the subject, apart from Jespersen (1917), were published (of which, three are rather irrelevant to this study).

In this chapter, I describe this small body of research, starting with a brief description of the syntactic accounts of the phenomenon (for historical reasons; §4.1). And then, in §4.2, I turn to pragmatic-functional accounts which are, naturally, reviewed in depth, and in light of which I analyze the Resumptively-Negated Denial Pattern. In line with these accounts, I suggest that the Resumptively-Negated Denial Pattern is currently grammaticizing towards a dedicated appropriateness repair construction, where the resumptive negator is gradually turning into a tag on the initial negated constituent in the main clause. If I am correct, this provides further support for the Retention Hypothesis, since psycholinguistic research has shown that repaired components of the appropriateness kind remain accessible in memory (§4.2.2). Finally, in §4.3, I consider the proposal I made in Chapter 3 — that NOT X is necessarily a weaker statement than its antonym Y — in light of a prior study of mine (Becker, 2015) which also attempted to study the processing aspects of negation via corpus.

4.1 Syntactic accounts

Previous accounts of constructions containing repeated negations were mostly syntactic (Klima, 1964; Lawler, 1974; Ross, 1973), assuming that the multiple negators in such constructions are redundant, and that there is no (interesting) difference between single- and multiple-negation constructions, such as

[33] מַה-שֶּׁהָיָה, הוּא שֶׁיִּהְיֶה, וּמַה-שֶּׁנַּעֲשָׂה, הוּא שֶׁיֵּעָשֶׂה; וְאֵין כָּל-חָדָשׁ, תַּחַת הַשָּׁמֶשׁ. (קהלת, א׳: 9)

(4.1) The writer will **not** accept suggestions, (**not)** even reasonable ones

(4.2) Bill **hasn't** written any good papers, I (**don't)** think

(4.3) **Not any** good news, he has**(n't)**

In other words, the resumptive negator is nothing but a pleonasm. Of those three accounts, Lawler, although a syntactician, tried to provide a pragmatic, communication-based motivation for these multiply-negated utterances: "[N]egation is, in fact, a very important thing to communicate, and […] phenomena like polarity items and 'non-standard' multiple negation exist, among other reasons, to increase redundancy and ensure that the negative message gets communicated" (p. 13). This brief pragmatic comment rested unperturbed for about 20 years until after van der Wouden (1994, 1997) examined multiple-negation constructions as described in the next section.

4.2 Functional-pragmatic accounts

4.2.1 An appositional assertion-revision construction

van der Wouden (1997: part III, Ch. 5) referred to multiple negation constructions (such as 4.1, 4.2 and 4.3) as *emphatic negations*. According to him, emphatic negations are optional, as opposed to negative concord, double negation (syntactic or morphological), or pleonastic negation. The use of emphatic negation, he contended, is the mere consequence of Horn's Q principle which maintains that in the case of resumptive negation, "[i]f the speaker has the choice to express a negative meaning either in a simple way (using one negation) or in a more elaborate way (using more than one negation), then the hearer may assume that the speaker doesn't use the more complex form for nothing. Given his knowledge of language, the hearer may assume that the speaker wants to convey some sort of emphasis" (p. 245).

Van der Wouden described three types of emphatic constructions ─ Jespersen's 'not even' and 'neither/nor' constructions, Examples (4.4 and 4.5), and the 'not in his life' construction (4.6):

(4.4) He **cannot** sleep, **not even** after taking an opiate

(4.5) He **cannot** sleep, **neither** at night **nor** in daytime

(4.6) He **cannot** sleep, **not in his life**

He examined which restrictions are imposed on these constructions: (i) whether the resumptive negation can follow a weak negator such as 'seldom' or 'hardly', or not; (ii) whether the negator in the main clause and the tag belong to the same syntactic category, or not; and (iii) whether the resumptive negation is as informative and as empathic as the negator in the main clause, or not. His conclusions are summarized in the first three rows of Table 4.1:

	A resumptive negator after a weak negator	The resumptive negator and negator in the main clause are of the same syntactic category	The resumptive negator is at least as informative and as emphatic as the negator in the main clause
'not even'	✓	✓	✓
'neither…, nor…'	✓	✗	✓
'not in his life'	✗	✓	✓
'the opposite/contrary'	✓	✗	✓

Table 4.1: The restrictions imposed on various types of resumptive negation constructions

And what about the Resumptively-Negated Denial Pattern? An examination of the Resumptively-Negated Denial Pattern for these restrictions indicates that *the opposite/contrary* can follow a main clause containing a weak negator (van der Wouden's 1st restriction), Example (4.7):

(4.7) Though a unique and talented individual, **he seldom acted alone.**

In fact, quite the contrary; Pomeroy loved to build teams.

(https://www.cfans.umn.edu/about/awards/siehlprize/laureates/benjamin-s-pomeroy)

Example (4.8) demonstrates that *the opposite/contrary* and the preceding negator are not necessarily of the same syntactic category (van der Wouden's 2nd restriction):

(4.8) He [never]$_{\text{ADV}}$ sits, *quite* [*the contrary*]$_{\text{N/ADJ}}$

And as for the third restriction – in §3.1 and §3.2, I argued in detail, that the resumptive negator in the appositive tag-like is more emphatic than the negator in the main clause, thus indicating that the Resumptively-Negated Denial Pattern complies with the third criterion. These results are summarized in the fourth row of Table 4.1, and support my classification of the Resumptively-Negated Denial Pattern as an emphatic negation.

Syntactically, van der Wouden (1997, 2000) wondered whether these constructions (4.4-4.6) are coordination constructions, instances of right-dislocation, or appositional constructions. The coordination construction option was ruled out because an insertion of an overt coordinator into (4.4) results in an ungrammatical construction, see Example (4.9):

(4.9) * He **cannot** sleep and **not even** after taking an opiate

The right dislocation suggestion, which requires an anaphoric reference in the main clause, was also ruled out due to ungrammaticality of Example (4.10):

(4.10) * He **cannot** sleep thus$_i$, [**not even** after taking an opiate]$_i$

But the appositional construction option is a likely option, since the so-called 'appositive tag' can be moved back into the main clause, to its allegedly 'original' position, and still produce a grammatical utterance. Compare Example (4.11) to Example (4.12), both taken from van der Wouden (1994):

(4.11) There was **nobody** at the party, **no human**

(4.12)✓ There was **nobody**, **no human**, at the party

When the three tests (regarding coordination, right-dislocation, or apposition constructions) are applied to the Resumptively-Negated Denial Pattern (4.13), then (4.14) and (4.15), resulting from the coordination constructions and of right-dislocation tests, respectively, are clearly ungrammatical. Example (4.16) is somewhat better than Example (4.14) and Example (4.15), but still somewhat controversial:

(4.13) He did not dance at the party, *quite the contrary*.

(4.14) * He did not dance at the party and *quite the contrary*.

(4.15) * He did not (do it)$_i$ at the party, *quite the contrary* of dance$_i$.

(4.16) ✓? He did not dance (*quite the contrary*) at the party.

But if one is to classify the Resumptively-Negated Denial Pattern into one of the above categories, then it could be best classified as an apposition construction, although it is not quite there, as evidenced from a few cases in my dataset in which the appositive tag-like even occurs in a different turn. Consider Example (4.17) in which the well-known American actors Elizabeth Taylor and Richard Burton were interviewed about Taylor's hippy-looking son. Note that Burton's Resumptively-Negated Denial is divided into two separate turns:

(4.17)

1	->i	TAYLOR:	Oh, they insult him. They say, hey, girly. And, you
2			know, attack -- attack him on the (INDISTINCT) or
3			something.
4	->a	BURTON:	**He's not at all girly**, yeah.
5		TAYLOR:	Oh, boy. One doesn't have to worry about that.
7	->c	BURTON:	**He's very opposite.**
7			As a matter of fact,
8	->ii		
9	->ii		he might exceed my particular capacity in that
			sense.

(Source: CBS NEWS SUNDAY MORNING 9:00 AM EST;
Year: 2011; Title: For March 27, 2011, CBS)

The first aim of an apposition construction, argued van der Wouden (2000: 240), "[i]s self-correction (either sincere or with rhetorical goals)". He also noted that the content of the appositive tag (not necessarily of the Resumptively-negated type) is more informative than the constituent in the main clause that it modifies. Therefore, they cannot switch places (and see my conceptual analysis in §3.1). As a result, the tag can be apprehended as self-correction, a self-repair in which the speaker retracts from her original utterance and selectively replaces certain aspects of her prior utterance.

Dowty (2008) accepted van der Wouden's self-correction analysis. He maintained that resumptive negation constructions, such as Examples (4.4)-(4.6), are forms of assertion-revision, in which "[t]he resumptive negation phrase [the 'appositive tag'] constitutes a revision (of one kind or another) of the assertion made in the core clause" (p. 4).

The characteristics of the assertion-revision form, as formulated by Dowty, are listed below (except for the prosody aspect which neither Dowty nor I have evidence for from natural speech). It is quite clear that these can be naturally applied to the Resumptively-Negated Denial Pattern. The Resumptively-Negated Denial Pattern can, then, be regarded as an assertion-revision:

1. [An] "afterthought" character (noted already by Jespersen) [see §2.1.1]: You wouldn't need to 'correct' what you originally said if it had occurred to you to say it in the more appropriate form in the first place […]. Revision should only be necessary when you have "second thoughts" about your first assertion. And thus also, the singly-negated version, *He cannot sleep even after taking an opiate* has a different rhetorical effect [than *He cannot sleep, not even after taking an opiate*] because it presents no revised assertion.
2. Resumptive negation sentences cannot be paraphrased with an overt coordination conjunction added (cf. for example, ??*You cannot borrow the car and cannot borrow it without doing your homework first*), because a single coordinated sentence would necessarily constitute a single assertion, but

resumptive negation is a matter of two independent assertions, the second intended to replace the first. In a natural discourse, asserting A and then asserting B immediately afterward is tantamount to asserting A and B…. But resumptive negation sentences are not two successive regular incrementations of the common ground, but a retraction of one incrementation only to be the substitute by another.

3. The second negation is not a kind of negative concord, nor the result of NEG COPYING without subsequent NEG DELETION, nor does it have the effect of logical double negation. The mistake of the earlier analyses was to assume that if one of the two negations is not in the scope of the other, the only alternative is that the second must be pleonastic (in one way or another).
4. The possibility of adding a strengthening adverb, such as *indeed, in fact, moreover*, to a "strengthening" resumptive phrase (not even) [...] is explained, because these same adverbs occur in the other strengthenings [...] described by Horn (1989).

Dowty agrees with van der Wouden that the appositive tag is more informative than the main clause, that is, the tag is a statement of a higher degree of precision,[34] but not a semantically stronger statement. He bases his claim on a procedure in which the rephrasing of an apposition construction, such as (4.4) into a single sentence, produces an acceptable result, Example (4.18):

(4.4) He **cannot** sleep, **not even** after taking an opiate

(4.18) He **cannot** sleep. Moreover, he cannot sleep even after taking an opiate.

The sleeping troubles in *he cannot sleep* can be simply interpreted as 'not being able to sleep under normal conditions', that is, 'not being able to sleep during nighttime'. But the appositive tag makes this rather general statement more precise by explicitly stating that the sleeping problems are more severe, that is, the insomniac cannot sleep under special—rather than normal—conditions such as taking sleeping pills.

Is this analysis also valid in the case of the Resumptively-Negated Denial Pattern? I believe it is — see Example (4.19) which is completely acceptable:

(4.19) The above "common core" [...] did **not** provide a common foundation for freshman students in the two

[34] Dowty's 'impreciseness' of the unmarked negator and van der Wouden's 'low degree of informativity' (which trigger an assertion-revision of the unmarked negator, namely a resumptively-negated construction) provide support for the earlier notion of the *uninformativity of negation* (Givón, 1978; 1993: 190-193; Horn, 1989: 192-203; Leech, 1983: 100-102; Mann, 1968: 765-766; Verhagen, 2005: 70-77).

disciplines. **Moreover, quite the opposite** is currently true: [...] students are entering the above core courses with substantially different backgrounds.

(http://archive.fie-conference.org/fie97/papers/1048.pdf)

But recall my analysis in §3.1, where I argued for an appositive tag which is conceptually stronger than the main clause. The Resumptively-Negated Denial Pattern's tag-like is then both semantically stronger and semantically more precise than the main clause. This is corroborated by examples such as (4.20) in which the explicit use of *to be precise* (further strengthened by *exactly*) prior to the appositive tag-like reveals its higher degree of precision over the preceding (unmarked) negator in the main clause (in addition to its strength, of course):

(4.20) […] by now everybody knows that **nothing** could be further from the truth. It is, **to be precise**, *exactly* ***the opposite***!

(https://perolofsamuelsson1.wordpress.com/tag/wladimir-kraus/)

4.2.2 Types of self-correction/self-repair

Going back to van der Wouden (2000: 240), who suggested that the "[f]irst aim of [the appositive tag] is self-correction (either sincere or with rhetorical goals)", it is interesting to examine which kind of self-correction (Schegloff, Jefferson, & Sacks, 1977), the tag-like of the Resumptively-Negated Denial Pattern makes up. Furthermore, it is interesting to see how this claim fits into the general picture of highly accessible concepts in the scope of a negator. For this analysis I draw on Levelt (1989: Ch. 12).

Levelt's taxonomy of self-repairs consists of error repairs and appropriateness repairs. In error repairs, the erroneous words are often not completed. In addition, error repairs often involve sudden pausing or are accompanied by editing expressions, disfluencies, such as the most common one *er*, but also by *rather*, *no*, *that is*, *sorry* and *I mean* prior to the repair. This is not quite the case with appropriateness repairs: Appropriateness-repairs are also accompanied by editing expressions, but to a significantly lesser extent than error-repairs (~30% in appropriateness-repairs and twice as many in error-repairs, in Levelt's data); words that are not themselves errors are completed without interruption despite detection of trouble; moreover, appropriateness-repairs are characterized by *fresh starts* in which the speaker does not rush to correct the incorrect, but rather re-starts with new material which was not part of the original utterance.

Scrutinizing my dataset ($RNDP_{OPPOSITE}$ and $RNDP_{CONTRARY}$) reveals no instances of disfluencies, such as *er*. But this is expected since the transcribers of the spoken part of COCA were not concerned with—and therefore did not document—disfluencies. Yet, my dataset displays 4 instances of *I mean* in $RNDP_{OPPOSITE}$ (and none in the $RNDP_{CONTRARY}$). Example (4.21) is a typical example in which Lynn Neary, the interviewer of the *Talk of the Nation* radio program, interviews the South African photojournalist Greg Marinovich:

(4.21)

1	->i	NEARY:	I have an e-mail here from Jennifer Cotting(ph) in
2			Georgia. And she asks, 'Do you feel that your
3			presence with cameras ever instigated a crowd or
4			caused people to act in ways that they wouldn't
5			have?'
6	->a	MARINOVICH	On the instigation side, absolutely not.
7	->c		**I mean**, quite the opposite.
8			People don't want crimes photographed, obviously.
9			So that's not correct.
10	->ii		And sometimes our presence stopped people being
11	->ii		killed, and we did manage to intervene on some
12	->ii		occasions as opposed to those earlier incidents
13	->ii		that I spoke of.

(Source: NPR_TalkNation; Year: 2000;
Title: Analysis: Photography during the era of apartheid in South Africa;)

Except for *I mean*, no other editing terms indicating error repairs—*rather*, *no*, *that is*, *sorry*—were found. The low number of editing expressions ($^{4\ I\ mean}/_{399\ RNDP} \approx$ 1%) indicates that the Resumptively-Negated Denial Pattern is not an instance of error repairs.[35] If a repair at all, then the Resumptively-Negated Denial Pattern seems more like an appropriateness-repair.

Evidence supporting the appropriateness-repair direction comes from fresh starts, as in Example (4.22), in which the speaker repairs the inappropriate *not* by using a fresh sequence *have said the exact opposite* rather than using just *the opposite*.

[35] Reviewing prior literature on initiators of self-repair, Laakso and Sorjonen (2010) find that no *definitive* connections between the different initiators and the types of repair that follow have been established (as for 2010). Hence, the mere existence of *I mean* does not necessarily tip the scale towards classifying the Resumptively-Negated Denial Pattern as an error—rather than appropriateness—repair.

(4.22) There may be nothing wrong with that, other than the fact that the police have not -- **have said the exact opposite**, that they didn't go there for that purpose.

(Source: Ind_Geraldo; Year: 2001;
Title: People versus Simpson: Defense attacks; Cyril Wecht, forensic specialist;
Cindy)

However, only a few such cases are attested in the Resumptively-Negated Denial Pattern dataset. But we can consider cases in which *the opposite*/*contrary* is preceded by the connectives *in fact*, *as a matter of fact*, *actually*, and *indeed*, as instances of fresh start. All these connectives meet the requirement that the speaker starts "with fresh material that was not part of the original interrupted utterance" (Levelt, 1989: 490). If cases of Resumptively-Negated Denial Pattern, in which *the opposite*/*contrary* are preceded by these connectives, are considered instances of fresh start ($^{91}/_{399\ RNDP} \approx 23\%$), then this suggests that the Resumptively-Negated Denial Pattern may be an appropriateness-repair, or at least on its way to become one.

This entire analysis of the Resumptively-Negated Denial Pattern as an appropriateness repair, alongside results in Shuval and Hemforth (2008) collected from fixation patterns on visually presented objects, provide further experimental support for the Retention Hypothesis. Shuval and Hemforth investigated eye-fixation on objects in which they showed that negated concepts were still accessible despite a preceding negator. But they also considered corrective uses of negation relevant. Crucially, they showed that the accessibility of negated concepts depends on the particular way in which they are negated. Shuval & Hemforth measured the accessibility of negated concepts in the scope of an appropriateness-repair (which they call 'ordinary negation') such *as you're going to buy a motorcycle, **not** a convertible this year before the summer*, and then the accessibility of negated concepts in error-repair constructions (which they call 'repair-like constructions') such as *you're going to buy a motorcycle, **no**, a convertible this year before the summer*. They found that negated concepts in appropriateness-repair constructions were significantly more accessible than negated concepts in error-repair constructions. Now, if the Resumptively-Negated Denial Pattern is indeed an appropriateness-repair, or at least on its way to become one, as argued before, then its main clause must contain a negator of the 'ordinary' kind. Such a negator is not a suppressor of the concept in its scope. Given Shuval & Hemforth's findings, it is hardly surprising that most instances (97%-100%) of the Resumptively-Negated Denial Pattern, in which there is an explicit concept in the scope of this 'ordinary' negator, exhibit a zero anaphor in the scope of the resumptive negator (see §3.4.1).

4.3 Is a negated concept always a mitigated version of the opposite of the concept in its scope?

The proposed analysis of the Resumptively-Negated Denial Pattern links high activation levels of a negated concept to a weak negative expression, viz. conceptually and argumentatively weaker than its affirmative counterpart. Still, this is not always the case. It may happen that high activation levels of a negated concept produce a negative expression equal—rather than weaker—to its affirmative alternative, as I have shown in a previous attempt to tap the processing aspect of negation also via a corpus-based study (Becker, 2015). In what follows, I describe that prior attempt, comparing its results with the results of the current study. I then try to reconcile the apparent inconsistency between the two sets of results by drawing on *The Scandinavian Theory of Linguistic Polyphony* (e.g., Nølke, 2013) and its application to various types of negation. I will eventually show that this apparent conflict has to do with the type of negation used. In the current study, the negator is a polemic negators which, by nature, retains the concept in its scope.

4.3.1 Becker (2015)

In Becker (2015) I argued that the fact that speakers judge *not good* as connotatively equivalent to *bad* (i.e., *not good=bad*), but *not bad* as less good than *good* (i.e., *not bad<good*) (Colston, 1999; Fraenkel & Schul, 2008; Paradis & Willners, 2006) can *both* be accounted for by the high—rather than low— activation levels in memory of the concept in the scope of the negator. This asymmetry, I proposed, is a consequence of the interaction between a highly activated (i.e., retained) concept in the scope of a negator and the speaker's prior positive discourse expectations. Specifically, if retention of concepts in the scope of the negator takes place, then the conflict between positive expectations and a retained unfavorable adjective (e.g., the *bad* in *not bad*) results in *not bad<good*. But when no conflict between a favorable retained concept (e.g., the *good* in *not good*) and positive expectations exists, *not good* is perceived as equivalent to *bad*.[36]

Focused on adjectives of an emotive nature, I examined the relation between an adjective (e.g., *bad*) and its negated antonym (e.g., *not good*) — whether interchangeable (i.e., *not good=bad*) or not (i.e., *not good<bad*) — by formulating a polarity index, viz., an index that can potentially reflect the magnitude of polarity of an adjective. This polarity index, which I named *Strength Index* (henceforth, SI), is formulated as follows:

$$SI_{Adjective} = \frac{Negated\ Antonym}{(Adjective + Negated\ Antonym)}$$

[36] It is also possible, that this asymmetry is the outcome of interaction between a highly activated concept in the scope of the negator and the need to avoid saying 'bad' for reasons of face saving.

SI stands for *Strength Index*; the term *Adjective* refers to the number of times an adjective appears in a corpus (*bad*, for instance); the term *Negated Antonym* refers to the number of times the negated antonym (e.g., *not good*) appears in the same corpus. The denominator of the SI expresses the availability (in memory) of a concept and its negated antonym.

The ratio between the numerator (which is the negated option) and the denominator (which is the sum of the adjective and its negated antonym) expresses the extent to which a negated adjective is preferred over its antonym. The higher the SI, the less preferred (and consequently, more often replaced) the adjective is with respect to its negated antonym; that is, the higher the SI, the stronger the adjective.

How, then, does the SI reflect whether an adjective and its negated antonym are interchangeable or not, and specifically — whether *not good=bad* or *not good≠bad*? I assumed that if an adjective and its negated antonym are indeed connotatively equivalent and therefore interchangeable, then the calculated SI values should be correlated with participants' rating of the polarity of the adjective (which is in and of itself measured independently of the SI calculations), namely a high correlation coefficient with a low *p*-value. But, if no correlation between calculated SI values and participants' rating of the polarity of adjectives (a high *p*-value or a low correlation coefficient with a low *p*-value) is obtained, then the negated antonym is no replacement for the adjective.

Results showed a strong correlation between calculated SI values of unfavorable adjectives (e.g., *bad*) and participants' ratings, and lack of correlation between calculated SI values of favorable adjectives (e.g., *good*) and participants' ratings. Hence, *not good=bad* and *not bad<good* (assuming that *good* and *bad* mark the endpoints of an evaluative scale), reflecting the interaction between speaker's (given) prior positive discourse expectations and a highly activated (i.e., retained) concept in the scope of a negator, as depicted in Figure 4.1a:

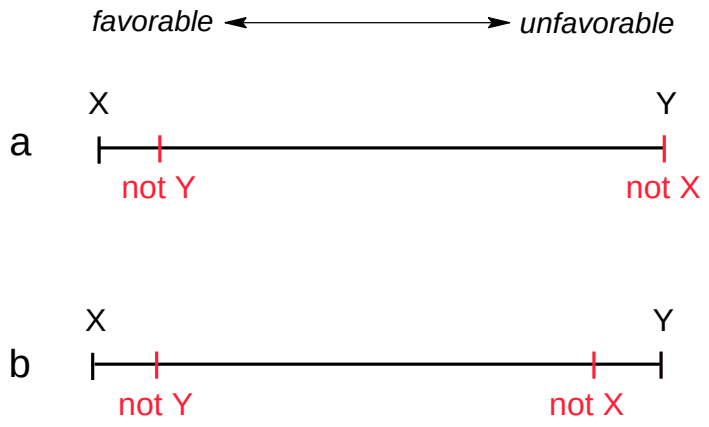

Figure 4.1: (a) The meaning relation between a negative expression and its affirmative alternative as demonstrated in Becker (2015); (b) The meaning relation between a negative expression and its affirmative alternative as demonstrated in the current study.

4.3.2 The current study and Becker (2015) — inconsistent results?

Note that whereas in Becker (2015) only negative expressions comprising negated unfavorable concepts are perceived (by the speaker) as weaker than a favorable alternative, in the current study it is not the case. In the current study every instance of a negative expressions is taken as weaker than an—encoded or ad-hoc—antonym of the concept in the scope of the negator, regardless of the connotative meaning of the concept in the scope of the negator, as depicted in Figure 4.1b. Where does this inconsistency come from? And are the results of the current study and those of Becker (2015) indeed conflicting?

I suggest that the key to solving this apparent inconsistency lies in a well-known distinction between two kinds of negation ― polemic negation and descriptive negation ― introduced in the *Theory of Linguistic Polyphony* which I discuss next.

4.3.3 Descriptive, Polemic or Metalinguistic negation?

Ducrot (1984: 217-218) distinguishes between three types of negation*: Descriptive*, *polemic*, and *metalinguistic*. In *descriptive* negation, the assertion denied is not one mentioned in prior discourse (by any of the interlocutors), but is rather initiated by the speaker. The negation is "world-oriented" (Foolen, 1991), meaning that it is usually meant to describe a negative state of affairs in the world, as illustrated in Example (4.23):

(4.23) There's no cloud in the sky.

For *polemic* negation, however, the negated proposition uttered by a speaker is a reactive utterance; it is a comment on the truth or falsity of a *previously* mentioned assertion, as exemplified in (4.24):

(4.24) A: It's pretty cloudy today.

B: No, it isn't. There's no cloud in the sky.

Metalinguistic negation is a subtype of polemic negation.[37] Yet, unlike polemic negation, it "[h]as nothing to do with any real world state of affairs" (Foolen, 1991: 219). It is a way, argues Foolen, to reject the assertability of an utterance in a specific way rather than to comment on the truth or falsity of a proposition, thus "discourse-oriented"―pertaining to the wording of the proposition―rather than "world-oriented". The grounds on which the assertability of an utterance can be rejected include the implicature that the utterance induces or the presupposition it evokes, its phonetic

[37] Ducrot does not group together polemic negation and metalinguistic negation; he just suggests this three-way distinction. An implicit grouping of the two, without using the term 'polemic', is provided by Burton-Roberts (1989); Carston (1996); Foolen (1991); and Horn (1989). Horn uses the terms 'metalinguistic' and 'polemic' interchangeably

Moeschler (2010), on the other hand, regards descriptive (rather than metalinguistic) negation as derivative of polemic negation. He argues that in both cases, the negated material is a proposition rather than some aspect of the linguistic code.

realization, its style, or its register. Horn's (1989: Ch. 6) examples (4.25)-(4.27) exhibit typical tokens of metalinguistic negation:

(4.25) I am not happy—I am ecstatic.

(4.26) You didn't eat some of the cookies, you ate all of them.

(4.27) Chris didn't ˇmanage to solve the problem—it was quite easy for him.

Nølke (1994, in press) and Horslund (2011) suggest that the interpretation of negation as either polemic (including metalinguistic) or descriptive is affected by the context. Horslund draws on Biber's (1988) multi-dimensional classification of spoken and written linguistic genres, and especially on his first dimension of "Involved versus Informational Production", to suggest that polemic negation is frequent in involved/interactive contexts, whereas descriptive negation is more common in informational contexts.

Given the involved/interactive settings of my dataset (see Appendix A), I predicted that whether adversarial or supportive, the unmarked negators in the main clause of the Resumptively-Negated Denial Pattern should all be instances of polemic—rather than descriptive—negation. Indeed, almost all the negated concepts in the Resumptively-Negated Denial Pattern had been previously mentioned or inferred. As such ─ are they polemic, or could they be metalinguistic?

4.3.3.1 The unmarked negator in the Resumptively-Negated Denial is polemic (rather than metalinguistic)

According to Horn (1989), given two propositions, a weak one (e.g., *she is happy*) and a strong one (e.g., *she is ecstatic*), P_w and P_s respectively, not P_w Q-implicates 'less then P_w' and therefore incompatible with P_s. But if S (e.g., *she is ecstatic*) is nevertheless asserted, then 'not P_w' (e.g., *she is not happy*) must be re-analyzed and re-interpreted as metalinguistic negation.

Now, recall that that the whole point in uttering the Resumptively-Negated Denial Pattern is to replace a proposition (e.g., *not happy*) with a conceptually-argumentatively stronger one (e.g., *the opposite of happy*). Note, though, that what I refer to as a "stronger" proposition (e.g., *she is the opposite of happy*, namely, *miserable*) is not the same "stronger" Horn refers to (e.g., *she is ecstatic*). For him *the opposite of happy* is weaker—rather than stronger—than *not happy*. As the appositive tag-like in the Resumptively-Negated Denial Pattern is a weaker statement (*à la* Horn) than the statement in the main clause, no implicature cancelling is involved. Hence, the negation in the main clause of the Resumptively-Negated Denial Pattern is an instance of polemic negation rather than metalinguistic negation.

What are the implication of a polemic negation as far as the accessibility of the concept in the scope of a polemic negator are concerned? Polyphony Theory provides us with an answer.

4.3.3.2 Negation in Polyphony Theory

To the best of my knowledge, Ducrot (1984) was the first to talk about an essential aspect of polemic negation – *polyphony*. According to Ducrot, every utterance can potentially reflect several voices, which Ducrot calls *points of view*. Negative utterances are instances of polyphony *par excellence*. As such, negative utterances consist of two points of view — the concept in the scope of the negator and the negative proposition — which stand in opposition to one another. According to Moeschler (1992), who attempted to clarify Ducrot's comment on the polyphonic aspect of polemic vs. descriptive negation, "[e]very negative utterance is not a refutation of a saying, nor of a thought, but every negative utterance summons, fictively, a polemic dialogue" (p. 65).

As part of a life-long mission to provide a practical framework to analyzing polyphonic aspects of utterances, Nølke (1994, in press) suggests that *all* instances of negation are fundamentally polemic. They are "[u]sed to go against a thought that is likely to be supported by somebody else" (in press: 4). Consequently, a negative proposition expresses the underlying positive alternative (viz., the refuted point of view "[s]upported by somebody else"), in addition to the negative proposition itself. Hence, polemic negation is necessarily polyphonic. Descriptive negation, argues Nølke, is a derived use of polemic negation in which the underlying positive alternative is downplayed. Descriptive negation is therefore much less polyphonic (that is, more 'monophonic') than "true" polemic negation. Nølke enumrates formal structures and context types that favor or block descriptive negation. Structures that profile a contrast (e.g., *but* construction and negative cleft sentences) and contexts that are inherenly polyphonic block descriptive negation, thus enhancing polemic interpretation. Gradable predicates (e.g., *happy* or *expensive*) trigger descriptive negation, while downplaying traces of polypony.

Horslund (2011), following Nølke , elborates on the context as a principal factor in favoring desriptive over polemic readings of negation (or vice versa). She argues that the preferred reading has to do with the social setting of a negative utterance. She links reactive (and therefore, interactive) genres to polemic negation, and informational genres initiated by the speaker to descriptive negation.

Drawing on Nølke and Horslund, I suggest that the inconsistency between the results of the current study and those of Becker (2015) (see Figure 4.1) has to do with the type of negation — polemic versus descriptive — and consequently of how "central" polyphony is to the meaning of the utterance (Horslund, 2011).

4.3.4 The current study and Becker (2015) — no inconsistent results

The current study explores a spoken corpus of the interactive type for the Resumptively-Negated Denial Pattern, which can be regarded as a contrastive construction, in which the negative assertion in the main clause stands in opposition to a previous statement or inference. Hence, the negators in the current study are most likely polemic negators. Becker (2015), on the other hand, makes use of a written corpus of the informational kind, comprising customer reviews of consumer products (appearing on Amazon

website). These reviews are initiated by their authors. Hence, the negators in these reviews are more descriptive in nature.

In a corpus of the interactive type (such as the one used in this study), it stands to reason to assume that speakers' intentions are to deny a prior proposition, and therefore polyphony must be practiced. In other words, a negator used by the speaker must retain the concept in its scope rather than suppress it, no matter what the connotative meaning of the concept is (i.e., favorable or unfavorable). Consequently, the negative utterance is interpreted as distinct (and necessarily, weaker) from a potential affirmative. Hence, in the context of an interactive genre (such as the one used in this study), *not good* must never be quite *bad*, and *not bad* would be different from *good* (see Figure 4.1b).

However, the informational genre used in Becker (2015) is essentially initiated by the speaker and is not a response to a prior utterance. In this genre, it seems that the intentions of the speaker are mainly descriptive. As such, this genre contains descriptive (rather than polemic) negators. The descriptive negator, unlike the polemic negator, is not unconditionally constrained to induce polyphony. In the written corpus used in Becker (2015), there is a desire of the anonymous author to appeal to her/his potential anonymous readers by using a positively biased language (Jensen, Averbeck, Zhang, & Wright, 2013) across-the-board, in order to get her message across. It is not inconceivable, then, that in this informational–initiative genre, the concept in the scope of the negator is also retained, but the negative expression (comprising a descriptive negator) is not interpreted as polyphonic and hence quite similar to a potential affirmative alternative. In other words, in the context of Becker (2015), *not bad* must always be weaker than *good*, and *not good* is perceived as equivalent to *bad*.

To sum, the intentions of the speaker and the social setting of the discourse are what determines which kind of negation she uses — polemic or descriptive. As I showed both in the current study and in Becker (2015), the concept in the scope of the negator is *always* retained. However, the different interpretations of the negative expression relative to its affirmative alternative — weaker than its affirmative alternative or equivalent — are determined by the kind of negator used. In the current study, where the negators are polemic, and therefore must retain rather than suppress the high level of activation of the concept in their scope, the interpretation is rather straightforward: a negative expression is always weaker than its affirmative alternative. In the previous study, where the concept in the scope of negation was also shown to be retained, the interpretation of the negative expression relative to its affirmative alternative is different due to other discourse considerations.

4.4 Summary

In this chapter I examined the Resumptively-Negated Denial Pattern in light of two lines of research from which it turns out, that a weak negative utterance is most probably the consequence of a weak negator. This weak negator fails to suppress the concept in its scope, which remains highly activated in memory.

Considering the Resumptively-Negated Denial Pattern against multiple negation constructions and repair theory, I suggested that the Resumptively-Negated Denial Pattern is in the process of grammaticization towards an apposition construction comprising a main clause and an appositive tag which could be regarded as a self-repair of an appropriateness kind. A tag which is a repair of the appropriateness—rather than the error—kind, indicates that the concept in the scope of the negator is not an accidental erroneous slip made by the speaker, but a somewhat less preferred alternative. Constituting no error, it is not suppressed by the speaker. Instead, it remains accessible in memory.

The highly activated concept in the scope of the negator is of no surprise considering the genre in which the Resumptively-Negated Denial Pattern shows up — interactive and often argumentative discourse. In this genre, negators are polemic. As such, negators are polyphonic in nature, displaying the negative utterance as well as the concept in the scope of the negator, as contrastive points of view. I can argue that polemic negation is an added factor working to weaken suppression (namely, maintaining polyphony), keeping the negated concept alive and kicking, as otherwise it will defeat the polemic spirit of the ongoing discourse.

All in all, these analyses and findings converge on the conclusion that the negator is a mitigating device affecting the negated concept *by default*. It is not an automatic suppressor of the concept in its scope, especially when polemic negation is involved.

5: SUMMARY AND THE FUTURE OF THE RESUMPTIVELY-NEGATED DENIAL PATTERN

To say the sayable
To experience the experienceable
To decide the decidable
To reach the reachable
To repeat the repeatable
To end the endable

The unsayable
The unexperienceable
The undecidable
The unreachable
The unrepeatable
The unendable

Not to end the unendable[38]

(Heissenbüttel in *Melin, 1999)*

5.1 Summary

In this usage-based study examining natural speech, I adduce converging evidence supportive of psycholinguistic results, showing that the concept in the scope of a negator remains highly activated in memory (i.e., the Retention Hypothesis, see Giora, 2003, 2006; Giora, Balaban, et al., 2005; Giora et al., 2007; Giora, Fein, et al., 2005) rather than unconditionally suppressed, as predicted by the Suppression Hypothesis (see Hasson & Glucksberg, 2006; Kaup et al., 2006; MacDonald & Just, 1989; Mayo et al., 2004).

I suggested that an activated concept in the scope of a negator implies, by default, a negative expression, which is conceptually and argumentatively weaker than a potential alternative in the affirmative. Having identified a discourse pattern indicating

[38] das Sagbare sagen — das Nicht Sagbare — das Nicht Beendbare nicht beenden
das Erfahrbare erfahren — das Nicht Erfahrbare
das Entscheidbare entscheiden — das Nicht Entscheidbare
das Erreichbare erreichen — das Nicht Erreichbare
das Wiederholbare wiederholen — das Nicht Wiederholbare
das Beendbare beenden — das Nicht Beendbare

just that, I showed that this discourse pattern consistently manifests a highly accessible concept in the scope of the negator.

This discourse pattern — the Resumptively-Negated Denial Pattern — is a specific kind of resumptive negation comprising two types of polemic negators (unmarked negators and marked negators — *the opposite*/*contrary*), none of which is in the scope of the other. The specific form of the Resumptively-Negated Denial Pattern is most probably a self-repair construction, or it is in the process of becoming one. The exchange of an unmarked negator (*not* or *no*) in the main clause for a marked negator (*the opposite/contrary*) in the appositive tag-like, as well as the prevalent use of amplifying connectives (*in fact* and the like), allowed me to propose that the source of trouble, requiring the use of a correcting tag (following a main clause), is the unmarked negator in the main clause. What would this 'trouble' be? I suggested that the speaker, who wishes to deny a prior assertion, uses the most available (linguistic) tool at hand, the unmarked negator. But the unmarked negator fails to suppress the concept in its scope (as evidenced by the use of a zero anaphor in the scope of the subsequent *the opposite*/*contrary*). The result of an activated negated concept (in the context of the Resumptively-Negated Denial Pattern) is necessarily a weak negative expression which, in turn, fails to satisfy the speaker's objectives to deny altogether a prior assertion. Hence, the need for a resumptive negator.

I also suggested that the Resumptively-Negated Denial Pattern is a self-repair of the appropriateness kind. Based on results of psycholinguistic experiments which examined how the type of negator used affects the activation levels of the negated concepts, I showed that the negated concept in the Resumptively-Negated Denial Pattern *must* remain accessible in memory, as the Resumptively-Negated Denial Pattern is essentially an appropriateness self-repair.

I also examined the results of the current study in light of a prior study of mine (Becker, 2015) which produced seemingly different results. Drawing on the distinction between polemic and descriptive negation, I argued that the negator in the current study is a polemic negator. As such, it naturally retains the concept in its scope (in order to register that its denial is sought). Consequently, negative expressions are interpreted as weaker than their affirmative alternative by default, unless subjected to higher-level discourse requirements (see Giora et al., 2007).

All in all, I have provided three different analyses of a discourse pattern from spontaneous speech, attesting to the retention of the concept in the scope of the negator, rather than its unconditional suppression.

In addition to the specific support provided for the Retention Hypothesis, this study contributes to a more general endeavor to tie up discoursal phenomena with underlying cognitive processes in the tradition of usage-based linguistics.

5.2 The future of the Resumptively-Negated Denial Pattern: Towards embracing negation in English?

The co-occurrence of *not* and *the opposite* in the same utterance brings to mind the double particle negation construction *ne…pas* in French. The French construction is quite peculiar in light of typological evidence that negators are un-decomposable concepts (for extensive typological analyses, see Dahl, 1979, 2010). But research has shown that the rise of these constructions is due to the weakening of the initial negator (e.g., Jespersen, 1917; Larrivée, 2010). Hence, I can argue that the discourse pattern under discussion here is a similar response to the weakening of negation, which affects retention.

In an attempt to provide a synchronic analysis for this phenomenon, Tesnière (2015: 224ff.) suggested that the French negative construction is a combination of the 'discordantial' *ne* and the 'forclusive' *pas*: The discordantial *ne* decouples the thought expressed (in the negative utterance) from its affirmative counterpart, and then the forclusive *pas* re-establishes the thought in the negative. Based on the categorical negative *ne…pas* construction, which contrasts with two other moderate constructions, the *ne…guère* ('hardly') construction and the *ne…que* ('only') construction, so argues Tesnière, the forclusive determines the degree of negation.

Dahl (2010) acknowledges the specifying function of any of the forclusives (i.e., the *pas, guère*, or *que)* but doubts the decoupling nature of the discordantial *ne*. He suggests that *ne* only marks the general negative nature of the utterance. In light of Dahl's suggestion, I propose that *not* in the Resumptively-Negated Denial Pattern may function as 'discordantial': *not* is not specific enough, and as such, it marks no more than the negative nature of the utterance. If *not* is not necessarily categorical, it is necessarily weak. The *the opposite*/*contrary* negation functions as 'forclusive', specifying a point close to the extreme end of a perceptual conceptual-argumentative scale, and it carries out what *not* failed to do, viz., suppressing the concept in its scope.

The diachronic account of *not* evolution (Jespersen, 1917; Joly, 1972; Mazzon, 2004; and see Horn, 1989 who summarized Joly 1972 and Marchand, 1938) shows that *not* itself started as a postverbal reinforcer of a weak proclitic *ne*, thus producing embracing negation *ne…not*, like the French *ne…pas*. Then, the preverbal *ne* gradually vanished while the emphasizing *not* gradually supplanted it as the conveyor of negation. From Table 5.1, reproduced from (Horn, 1989: 455), it seems that this process is the English version of Jespersen's Cycle.

French		English	
Old	Jeo *ne* dis	**Old**	Ic *ne* secge
Modern (standard)	Je *ne* dis *pas*	**Middle**	Ic *ne* seye *noht*
Modern (colloquial)	Je ne dis *pas*	**Early Modern**	Ic ne say *not*

Table 5.1: The Jespersen's Cycle in French and in English

At a later stage, *not* migrated to the postverbal slot in the sentence (for reasons that have to do with the emergence of *do*-support), thus becoming a potential candidate for further weakening and a substrate for additional Jespersen's Cycle.

In light of this evolutionary similarity between English and French and van der Auwera's (2010) suggestion that Resumptively-Negated Denial Pattern (in French, Brazilian, Portuguese, and Brabantic Dutch) can possibly develop into embracing negation, the occurrence of the bare minimum of the Resumptively-Negated Denial Pattern is a candidate for grammaticization into a full-fledged embracing negation. If such a grammaticization process indeed takes place, then it is quite possible that its aim is to overcome the weak semantic effect of *no*/*not*, and consequently the retention of the concept in the scope of the negator. But this only time can tell.

APPENDIX A: THE SPOKEN SECTION OF THE CORPUS OF CONTEMPORARY AMERICAN ENGLISH – SOME ISSUES REGARDING ITS "SPOKEN" NATURE

The Corpus of Contemporary American English (Henceforth, COCA) (Davies, 2008-) contains more than 520 million tokens. It has been compiled since 1990, and recently updated in summer 2015. Around 20 million more tokens are added every year.

The corpus is equally divided among spoken, fiction, popular magazines, newspapers, and academic texts. The spoken part of COCA, which consists of transcripts of unscripted conversation on TV and radio programs, currently (the version of 2015), contains around 109 million tokens.

The COCA compilers raise three issues regarding its validity as a spoken corpus and provide their answers:[39]

1. *Do the transcripts faithfully represent the actual conversations?* — Comparisons of the transcripts with the actual conversations show meticulous transcription of the conversations, including interruptions, false starts, laughter etc.
2. *Are the conversations really unscripted?* — Removing "formulaic/scripted" sentences like "Welcome to the program", "We'll now go to a commercial break", and similar sentences, leave about 95% of the conversations unscripted.
3. *How well does this spoken section of COCA represent "non-media" varieties of spoken American English?* — Everyone who knows that she is being recorded (as in every spoken corpus) probably alters her speech accordingly, avoiding highly stigmatized words and phrases like "ain't got none", all the more so on a national TV or radio program. However, in terms of overall word choice and "natural conversation" (false starts, interruptions, laughter, etc.) COCA seems to represent "off the air" conversation quite nicely.

[39] https://www.english-corpora.org/coca/x.asp?r1=&w=853&h=512

APPENDIX B: EVIDENCE FROM ETYMOLOGY FOR THE HIGH ACCESSIBILITY OF THE CONCEPT IN THE SCOPE OF A NEGATOR

In this section I review the etymology of *the contrary* and *the opposite*. I suggest, that the process by which *the contrary* and *the opposite* came to be, can be telling about psycholinguistics of *the contrary* and *the opposite*, specifically about the fact that in order to be functional, they must accommodate a highly accessible concept in their scope.

The historical origins of *contrary* and of *opposite* (Barnhart & Steinmetz, 1988: 191, 214; Chantrell, 2002: 118, 353; Klein, 1971, vol. I: 317, 344-345, vol. II: 1065, 1603; Onions, Friedrichsen, & Burchfield, 1966: 629; Partridge, 1958: 514-516; Simpson & Weiner, 1989 (OED): vol. III: 833, 844-845, Vol. X: 632, 866-870; Skeat, 1910: 132) suggest that in order to produce an alternative to a concept, namely to come up with its ”opposite/contrary”, one has to maintain the concept, to-be-eventually-replaced, active in memory.

Contrary (an adjective, a noun, an adverb, and rarely a preposition) is borrowed via the Anglo-French *contrarie* from the Latin *contrarius* which means ‘opposite, contradictory, hostile’. *Contrarius* originates from *contra-* which means ‘against’. *Contra-* is a prefix which is the ablative feminine form of *contro-*. And *Contro-* is formed from the prefix *com-* which means ‘with’, followed by the suffix *–tr* which means literally ‘beyond’ and non-literally ‘alternative’ (cf., *extra, either, hetero-*, *esoteric* etc.).

Opposite (an adjective, a noun, and rarely an adverb and a preposition) entered English through Old French from the Latin *oppositus* which is, in turn, the past participle of *opponere* literally ‘to set something against’. *Opponere* is the outcome of combining the prefix *ob-* ‘against’ to the verb *ponere* ‘to place’. However, the Latin *opponere* was being used non-literally “to confront a person with hard questions” (Chantrell, 2002: 353). Its English descendent *opposite* is also used non-literally, “[c]ontrary in nature, character or tendency” (Simpson & Weiner, 1989 (OED): Vol. X: 868) (OED): Vol. X: 868).

It is plausible, then, that the grammaticization processes of both *contra* and *oppositus* reflect the relevance of what lies behind the production of an alternative/contrastive lexeme (namely, the ‘opposite/contrary’). First the speaker is to refer to a concept (to be later replaced with an alternative). This implicit reference is expressed by the root *com-* in *contra*. Then the concept, just *accessed*, is to be replaced with an alternative. This distancing from a reference-point concept (i.e., the concept to be replaced) is expressed by a second root, *-tr*. In the same vein, in *oppositus, positus* refers to a concept. This accessed concept is to be replaced with an alternative. This distancing from a reference-point concept (i.e., the concept to be replaced) is expressed by the prefix *ob-*. To sum up, this etymology suggests that in order to produce an

alternative/contrastive concept, the concept in the scope of *the opposite/contrary* must remain active in memory.

This assumed process is of little surprise in light of Murphy (2006) contention that canonical antonyms are stored in memory as contrastive two-part lexical items. By no means is this to say that *all* antonymous pairs are stored in memory as two-part lexical items, given that many (if not most) antonymous pairs are context-dependent ad-hoc pairs. This is *only* to say that the activation of a contrastive concept (whether lexicalized or ad-hoc) requires prior activation of a reference-point concept. In the case of the current study and the Resumptively-Negated Denial Pattern, the use of *contrary* or *opposite* requires a highly activated, and therefor accessible, reference-point concept. In this specific case, the concept accessed by *the opposite/contrary* is the concept in the scope of the prior unmarked negator. For *the opposite/contrary* to apply, this concept must be highly activated, despite being in the scope of a negator.

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אוניברסיטת תל-אביב TEL AVIV UNIVERSITY

הפקולטה למדעי הרוח ע"ש לסטר וסאלי אנטין
החוג לבלשנות

סמן השלילה אינו מדכא את המושג שבטווח שלו,
למעשה, ההפך (הוא הנכון)

חיבור זה הוגש כעבודת גמר לקראת התואר
"מוסמך אוניברסיטה" באוניברסיטת תל-אביב

על-ידי
ישראלה בקר

העבודה נכתבה בהדרכת:
פרופ' רחל גיורא ופרופ' מירה אריאל

דצמבר 2016

תקציר

המחקר הפסיכו-בלשני העוסק בתהליכי העיבוד של מושגים בטווח סמן השלילה נשלט על-ידי שתי היפותזות שאינן מתיישבות האחת עם השנייה: היפותזת הדיכוי (האוטומטי) והיפותזת השימור (הפונקציונלי). האחת גורסת, שרמות העוֹרְרוּת של המושג בטווח השלילה מדוכאות באופן אוטומטי אל רמת הבסיס או מתחתיה, כתוצאה מן ההשפעה המקומית של סמן השלילה. האחרת גורסת, שהמושג בטווח סמן השלילה רגיש יותר לשיקולי-שיח גלובליים מאשר להשפעתו המקומית של סמן השלילה. כאשר המושג בטווח סמן השלילה רלוונטי לשיח, רמות העוררות שלו תישארנה גבוהות. אך אם אינו רלוונטי עוד לשיח, יעבור מושג זה דיכוי ויעלם מן השיח.

מאחר ש-'דיכוי' ו-'שימור' של מושגים בזיכרון הם תופעות מקוונות, הרי שרמות העוררות של המושגים הנשללים, המעידות על דיכוּיָם או שימורָם בזיכרון, נמדדות בניסויים באופן מקוון. עם זאת, בעבודה זו אני מאמצת גישה מבוססת-קורפוס, ולא גישה ניסיונית. אני מנסה להציץ אל תוך תהליכי העיבוד של מושגים בטווח סמן השלילה באופן *שאינו מסורתי* על-ידי בחינת קורפוס של שפה ספונטנית. באופן ספציפי, אני מתבוננת בפרטיה של תבנית-שיח שמראה באופן עקבי שהמושג בטווח סמן השלילה מעוֹרָר בזיכרון ונשמר בו. כך אני מספקת תמיכה להיפותזת השימור ודוחה את היפותזת הדיכוי האוטומטי של מושגים בטווח סמן השלילה.

מתוך תוצאות של ניסויים מקוונים ושל כאלו שאינם מקוונים אני גוזרת, שמושג (בטווח סמן השלילה) שהוא בעל רמות עוררות גבוהות מִיתרגֵם לביטוי בשלילה שנתפש על-ידי הדוברת כביטוי חלש יותר קונצפטואלית וארגומנטטיבית מאשר אלטרנטיבה בחיוב. אם הנחה זו נכונה, אזי תבנית-שיח שמראה באופן עקבי חולשה קונצפטואלית-ארגומנטטיבית מסוג זה, תפגין במקביל ובאופן עקבי, כמובן, מושג נשלל בעל רמות עוררות גבוהות. אני מצליחה לאתר תבנית שיח מסוג זה ולהראות שהמושג בטווח השלילה אכן מסומן כמושג מעוֹרָר, כלומר המושג בטווח *ההפך* הוא אַנַפּוֹר-אֶפֶס (zero anaphor, ∅) שמסמן מושגים נגישים מאד בשיח:

לא X *(=היא איננה מאושרת)*
קשר מעצים *(=למעשה)*
סמן העצמה (=ממש) **ההפך** ∅.
אלטרנטיבה בחיוב *(=היא מדוכאת)*

אני מציעה שני ניתוחים נוספים של תבנית-השיח האמורה המספקים גם הם תמיכה להיפותזת השימור: בניתוח הראשון אני מציעה כי תבנית-שיח זו היא מעין תיקון-עצמי מסוג ה"הלימה" (appropriateness) ואינה תיקון טעות (error). מאחר שהמושג בטווח סמן השלילה אינו טעות, הדוברת אינה נדרשת לדכא אותו; בניתוח השני, אני בוחנת את תבנית-השיח בראי תיאורית הארגומנטציה: בהתבסס על הסוגה האינטראקטיבית בקורפוס שמתוכו חילצתי את תבנית-השיח האמורה, אני קובעת שסמני השלילה בתבנית-שיח זו הם סמני שלילה פּוֹלֶמיים. ככאלו, סמני שלילה אלו הם פּוֹליפוֹנִיים מטבעם, כלומר חייבים לשקף את הדעה אשר דוחה הדוברת (שהיא המושג בטווח סמן השלילה), ולא לדכא אותה. שכן, אם סמני שלילה אלו לא היו פולמיים, ולכן בהכרח גם לא פוליפוניים, הם היו עומדים בסתירה לאופי הסוגה שבה הם מופיעים.

באופן כללי, אני מספקת תמיכה להיפותזת השימור תוך דחית היפותזת הדיכוי. זאת, תוך שימוש במתודולוגיה מחקרית משלימה לגישה הניסיונית — בחינת שיח טבעי.