THE BEGINNING OF THE END:

EXPRESSING CESSATION BY WAY OF INCEPTION

by

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The Beginning of the End: Expressing Cessation By Way of Inception

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This is the story of a markedness contrast between between two verbal complementation patterns, each of which appears to indicate a speaker's perspective on a change of situation. We suggest that the marked member of the contrast, which we will refer to as the *start not* or SNX pattern, indicates the decision of a speaker to focus attention on the onset of a new, revocable situation rather than on the cessation of a prior situation. The change of situation as expressed by the marked pattern, we believe, is characterized by the undesired cessation of some activity, state, or habit.

This heretofore undescribed pattern, which appears in the simplified example *after lunch I* **started not feeling** *well*, is marked in comparison to the arguably synonymous *after lunch I* **stopped feeling** *well*. We will attempt to show that this unpredictable pattern has combinatoric or selectional properties that differ from *stop* as well as other uses of *start*, which can be understood as indicating the particular pragmatic function and communicative role of the utterance.

This thesis will build on syntactic, semantic, pragmatic, and discourse theories to establish (1) a theoretical motivation for why we should explore the difference between the two patterns *start not* and *stop*, and (2) that a substantive difference in both content and usage exists between the two patterns. Data collected were annotated and analyzed on the basis of syntactic context, and lexical semantic, combinatoric, pragmatic, and discourse features, which on the whole indicate that the SNX construction is indeed used to implicate something distinct from *stop*. We analyze these features in order to (1) determine in what forms this pattern exists and why, (2) describe what discourse purposes this pattern fulfills, and (3) develop more evidence in support of hypotheses which describe form/function relationships. Ultimately we will show that even small variations in form do matter for function.

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ABSTRACT

This is the story of a markedness contrast between between two verbal complementation patterns, each of which appears to indicate a speaker's perspective on a change of situation. We suggest that the marked member of the contrast, which we will refer to as the *start not* or SNX pattern, indicates the decision of a speaker to focus attention on the onset of a new, revocable situation rather than on the cessation of a prior situation, thereby suggesting the new situation's noteworthiness or "abnormality". (Levinson, 2000; 33) The change of situation as expressed by the marked pattern, we believe, is characterized by the undesired cessation of some activity, state, or habit. This work charts our attempt to establish the syntactic, semantic, and discourse-pragmatic factors that lead the speaker to choose the SNX pattern rather than a less prolix pattern such as *stop Xing* at a relevant moment in discourse.

This heretofore undescribed pattern[1], which appears in the simplified example *after lunch I **started not feeling** well*, is marked in comparison to the arguably synonymous *after lunch I **stopped feeling** well*. If we understand markedness as an unusual form (*start not*) indicating an unusual meaning (Levinson (2000), Haspelmath (2006)), in contrast to the unmarked form *stop* which has a usual or "stereotypical" meaning, then this peculiar pattern can indeed be considered marked. We will attempt to show that this unpredictable pattern — also describable as its own lexeme, with a "rich set of … specifications" (Levine, 2003; 2) — has combinatoric or selectional properties that differ from *stop* as well as other uses of *start*, which can be understood as indicating the particular pragmatic function and communicative role of the utterance. Such data will demonstrate that as a marked way to indicate

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1   Briefly mentioned/in passing and sometimes quickly written off in Mair, ter Meulen, Duffley, others.

cessation and deviation from normalcy, it is a construction, a lexically predictable pattern with a non-predictable, restricted pragmatic meaning.

This thesis will build on syntactic, semantic, pragmatic, and discourse theories including Levinson's neo-Gricean framework (Levinson, 2000), Construction Grammar in various forms (e.g. Goldberg, 1992; Boas, 2010; Croft, 2001; Michaelis, 2006, 2011), and HPSG's models of lexemes (Pollard & Sag, 1994; Levine & Meurers, 2006), among others, to establish (1) a theoretical motivation for why we should explore the difference between the two patterns *start not* and *stop*, and (2) that a substantive difference in both content and usage exists between the two patterns (measurable differences in use suggests the two forms are different and motivates such an analysis). Analysis will rely on natural language data from the English-language corpus enTenTen 2012 (Jakubíček et al., 2013; Kilgarriff et al., 2014) to explore whether the pattern discussed herein supports and can be explained using these theories. Unless otherwise noted, all examples throughout this thesis will be from enTenTen2012.

The data were annotated and analyzed on the basis of syntactic context, and lexical semantic, combinatoric, pragmatic, and discourse features, which on the whole indicate that the SNX construction is indeed used to implicate something distinct from *stop*, its hypothetical lexical synonym. We analyze these features in order to (1) determine in what forms this pattern exists and why; that is, what communicative abilities would interlocutors be missing without it?, (2) describe what discourse purposes this pattern fulfills, such as advice seeking or initiating negotiation or corrective action, and (3) develop more evidence in support of hypotheses which describe form/function relationships. Ultimately we will show that even small variations in form do matter for function, which includes the implicature of the utterance, the context in which its use is appropriate, and its super-linguistic forces.

On a deeper level, we demonstrate that the choices speakers make with language are more than rule-governed: language gives us a nearly-infinitely flexible tool with which to express a range of

nuanced perspectives on the world around us. This research will demonstrate that understandings of constructions and other variations in natural language can not be gleaned from a narrow, single-discipline approach. Syntax, semantics, and pragmatics enjoy a complicated, interrelated life in natural language, and traditional approaches to each of these sub-disciplines benefit from a broader, multi-lens analysis. What we see specifically with this pattern is that the interaction of a given set of syntactic components is complicated and reflects the specific pragmatic concerns which are manifest in various syntactic and discourse markers. Such nuances can indicate the difference between patterns and communicative intent on a cognitive level, and can give us some indication as to how language-users conceptualize changes in situations and behaviors, and how they communicate these changes to addressees.

CHAPTER 1

INTRODUCTION

If one wanted to describe the onset of a new state or habit — let's say, that she no longer indulged in chocolate as frequently — , how might she do so, in American English (Mair, 2002)? Would she say, "I stopped eating chocolate as often as I used to"? Very possibly, but she also might say, "I started not eating chocolate as often", thus employing a pattern which appears with surprising frequency in certain discourse-pragmatic contexts which we believe indicate undesiredness, gradual change, and deviation from some norm, and which is the protagonist of this work.

This pattern exists despite numerous theories which would suggest it shouldn't, such as those which have endeavored to bound the productivity of natural language within the constraints of presumed cognitive resources or within the constraints of transformational grammar, e.g. as described in (Halliday et al., 2009), or conversational principles (Grice, 1975). When natural language seems to defy these constraints, as would happen when a more complex construction is used in lieu of a seemingly-synonymous simpler construction, as above, how can we explain such anomalous phenomena? Shouldn't speakers use the simplest construction possible, and when they don't, can we assume a deeper or other meaning?

This thesis will address the latter pattern — exemplified in *start not eating chocolate* — and its particular contexts, using textual natural language data to attempt to identify when and why one might use this form, and provide a theoretically-based explanation for this phenomenon. Further, it will argue that *start not Xing* is **not** synonymous with *stop Xing*, despite some overlap in usage and presumed

lexical synonymy. Ultimately, it will be proposed that such seemingly inefficient patterns emerge because the more conventional or predictable forms lack the ability to describe the entire spectrum of the human experience. That is, complex patterns generally provide an expressive nuance — serve a particular communicative role — that the presumably-equivalent simpler construction cannot.

The structure of this work is as follows. First, we will describe the pattern and each of its syntactic-component parts and provide examples, while introducing the issue of synonymy or non-synonymy with *stop*. Secondly, we will present a discussion of why this pattern should not occur according to various linguistics theories. As a counterpoint, we will also present a theoretical explanation for its existence and communicative role, which will serve also to outline the underpinnings of this work.

In the next chapter, we will outline various hypotheses; these include high-level hypotheses regarding non-synonymy with *stop*, as well as theoretically-informed hypotheses on the lexical, syntactic, contextual, and discourse characteristics of the pattern, which provide a basis for our feature selection for the corpus analysis, subsequently described.

Following this, we will describe our methodology for the corpus analysis, as well as the process of feature selection and provide an example-driven demonstration of how annotation/classification was carried out. Subsequently, we will present the results of frequency-based analysis used to test our feature-driven hypotheses. Results of this analysis and what these results mean for the broader hypotheses of this work will be discussed.

Finally, we discuss and conclude; overall, this work endeavors to suggest, and provide empirical evidence in support of the broad hypothesis, that the *start not Xing* pattern is substantively different from its lexico-semantic synonym, the *stop Xing* pattern, and others similar. Specifically, we suggest that patterns such as this one, which could be predictable from a rule-based standpoint, when used in unpredictable contexts or have unpredictable lexico-semantic meanings, acquire unique communicative

roles. In this case, we argue that this specificity of meaning places the pattern on the continuum of idiomaticity, and thereby is categorized as a Construction. Thus from a theoretical standpoint, this work supports the idea that form indeed matters for function. We work off the premise that language is a communicative tool, and that humans manipulate it in order to meet our communicative needs (as opposed to the non-communicative perspective presented in e.g. (Everaert et al., 2015).

CHAPTER 2

DESCRIPTION OF THE PATTERN & PROBLEM

This work looks at a low-frequency pattern which theoretically should be both communicatively inefficient due to prolixity (Grice, 1975; Jaeger & Tily, 2011) as well as predicted not to occur according to Gricean Maxims of Conversation, specifically the Maxim of Quantity. (Grice, 1975) The pattern in question is characterized by negation of the *-ing* complement of the aspectual verb *start*, to render *start not Xing*. This pattern describes the onset of a situation characterized by negation, and is noteworthy because of its use in lieu of the theoretically more felicitous (with respect to Grice's Maxim of Quantity) *stop Xing*.

This chapter will describe and exemplify the pattern (2.1) with subsections for each component of the pattern, and it will discuss various theories which suggest or lead us to believe that the pattern should not occur in favor of *stop Xing*, as well as identifying some theories which provide a foundation to explain the communicative rationale behind this pattern and its use (2.2).

2.1 Description and Examples of the Pattern

The pattern in question is characterized by the aspectual verb "start", followed by the negative particle "not", followed by the *-ing* form of the complement verb.

(1a) *"My phone **started not working** so I switched off."*

(1b) *"...within half hour she **started not feeling well**"*

(1c) *"I **started not bringing** my phone to class..."*

Example 1 presents natural-language examples from the enTenTen 2012 corpus, which exemplify three

typical usages of the pattern.

We will deconstruct and explain each component of the pattern and its role in the pattern, and

re-compile those components to speculate and eventually hypothesize about its meaning. The structure

of the discussion of the pattern's components is as follows:

1. the -ing form of the complement verb;
2. negation, and its bearing on the -ing form of the complement verb (not + -ing);
3. start, and its influence on the graduated interpretation of the new phase boundary;
    a. start + -ing, and
        i. start + not + -ing, and their respective combinatoric effects.

Viewing the components of the pattern in this way, it begins to become evident that the entirety of the

SNX pattern describes the onset of a new state/situation (*start*) which is characterized by the absence of

a previously-ongoing situation (*not X-ing*).

As a matter of clarification, it may have crossed the reader's mind at this point to wonder why

we have not included *start to not X*, as this seems equally-lexically synonymous with and used in the

same contexts at *start not Xing*. However, as already mentioned, we are concerned with why a speaker

might use SNX as opposed to *stop Xing*. There is no grammatical corollary to *start to not X* that

employs *stop*. Certainly one can express that they have

started to not eat chocolate;

however, it is indisputably ungrammatical in English to say they have

**stopped to eat chocolate*

(of course, they can *stop <u>in order</u> to eat chocolate*, but that is irrelevant here). Thus, a direct

comparison of *start to not X* to such a non-existent presumed synonym would be impossible.

Ter Meulen suggests that *stop* and friends' (*keep, resume* (1991; 347)) predilection for gerundive

complements is because they presuppose that the same instance of the same event has been ongoing; in

contrast, *start*, *continue*, and others can take an infinitival complement because they "can quantify over over distinct events or occurrences of the same event-type, allowing temporal gaps." (ter Meulen, 1991; 349) Thus, a comparison of *start to not X* and **stop to X* in order to determine synonymy or non-synonymy would be futile and uninformative, both because *stop to X* is ungrammatical and we would like to keep event-type consistent between comparisons. Thus we will investigate *start not Xing* as compared to *stop Xing*, comparing utterances expressing aspectual transitions between ongoing single instances of events (after Ter Meulen).

Further, according to Mair (2002), in modern American English, *start* followed by an *-ing* complement significantly (Mair, 2002; 117) outnumbers *start* followed by an infinitival complement: in that study, a 1991-2 corpus search returned 59 instances of *start to X*, and 110 instances of *start Xing*. This, interestingly, contrasted with a 1961 corpus search which returned 47 and 49 instances of each pattern, respectively, and with the 1991-2 corpus of British English which exemplified 49 and 59 instances, respectively. Further, *start Xing* is most common in conversation, the genre/register with which we are most interested as it most closely approximates spoken language, and is a fair approximation to internet writing (casual, conversational), representative of our own data source. (Mair, 2002; 116) Again, it should be emphasized that most if not all languages should have a way to express the inception of an undesired change of state; (e.g. Basque, after Haddican, 2005) it is only that in this thesis, we examine the American English phenomenon SNX.

In addition to the lack of fodder for comparison, and the popularity of *start* + [gerundial complement], it is likely that, given the theoretical leanings of our approach, *start to not X* carries different conversational implicatures and fills a different communicative role than *start not Xing*. It may even select for different types of complements, thus rendering comparison extraneous. This would be an interesting subject for discussion after establishing the selectional characteristics of *start not Xing*, but not one for which we have the time or space at present.

2.1.1. The -ing Form as a State

The first component of the SNX pattern to be discussed is the *-ing* form of the complement. The use of the *-ing* form can indicate a stative, habitual, or episodic reading even for verbs which may not have these readings in non-progressive contexts (cf. Aktionsart classes). (Michaelis, 2011) This reading permits the speaker to bound speech and/or reference time within an ongoing situation or event, whether the complement verb lexically denotes a state, a dynamic activity, or carries some kind of habitual construal. Because inflectional, derivational, or other manipulations that speakers enact upon verbs serve to allow them to locate events and situations within and around each other to suit their communicative needs (that is, to create greater temporal specificity than the "rules" of their grammar might otherwise allow), (Michaelis, 2011; 1363) we may postulate that because the speaker is performing such a manipulation through use of this pattern, the temporal perspective of the change in situation relayed by this utterance is of concern and relevant to the speaker.

There are essentially two interpretations when analyzing English tokens with the form *-ing*: the progressive reading and the gerundive reading. The essential difference, of course, is whether we should interpret the form as a verb or as a noun. Whether this distinction matters for our understanding of the SNX pattern remains to be seen.

Let us assume initially that we read the *-ing* form in this pattern as the progressive form of the complement verb. Lee would like us to think that "isolated -ing forms qualify as an example of progressivity." (2007; 185) That the progressive form in English can be used to stativize active or dynamic verbs is well-attested in the literature. Michaelis (2011) argues that "progressive predications, despite containing dynamic participial complements, qualify as stative. Such predications can therefore be considered derived states: they act like states although they are not states by virtue of lexical

Aktionsart." (1367) Chilton (2007; 104) suggests that the progressive is stative inherently because it can't be applied to stative verbs (?*I was knowing*; although as an aspectual complement, we will see that the *-ing* form is indeed applied to lexical-Aktionsart stative verbs). Mittwoch (1988; 233) concurs: "the function of the progressive is to make stative sentences". So, as in Example 1c, "bringing" implies a stativized "bring": that is, the speaker is (or had been, prior to Speaking Time (Steedman, 1982; 128-9; Michaelis, 2002; 135-6)) in a state of "bringing my phone to class". Accepting the interpretation of the progressive form as a stativizer, we can make the preliminary judgment that SNX provides speakers with a way to discuss some kind of change of state.

Of course, given its form, we may want to consider the complement of the aspectual in the SNX pattern as a gerund rather than a progressive participle. Mair, for one, without discussion calls this form a gerundive complement, while contrasting the choice of the infinitive complement (*start to V*) versus the form *start V-ing*. (2002; 116) To cite ter Meulen again, use of the gerundive complement allows for a construal of an instantiated, ongoing event. (ter Meulen, 1991; 349) Further, lexical Aktionsart States are presumed not able to be used in the progressive. (Van Valin & LaPolla, 1997; 94; Mittwoch, 1988) However, we see examples such as the following:

(2) *...when I **started not fitting** into my clothes...*

In the classic criterion for stativity using the progressive, we should not be able to produce ?*I am (not) fitting into my clothes*. If we accept this prohibition, the fact that we can produce *started (not) fitting* suggests that perhaps we should see the *-ing* complement as a gerund rather than a progressive form of the verb, so that it is not prohibited.

An analysis from Duffley (1999) casts the *-ing* complement as the direct object (so nominal and gerundive rather than progressive-participial) of the main verb, and suggests that in the construction *start X-ing*, "*-ing*'s direct object function represents its event as 'that which was initiated.'" (315) So, in the example

(3) *When my forehead starts aching... ,*

the *aching* is the event "which was initiated". He describes the *-ing* as denoting "an attribute which applies to the subject" of the sentence, (Duffley, 1999; 305) therefore in the role of a kind of predicate adjective (and therefore perhaps a state, condition, or attribute (Marchand, 1966; Bolinger, 1967)). So, in *started fitting*, the *fitting* event is that which was initiated, and the attribute *fitting* is now applicable to the subject. Succinctly, he proposes that though it is wrongly treated as an (imperfective (Duffley, 1999; 296)) progressive (303), "the gerundive -ing can be used as complement of an aspectual verb to evoke a state." (302) This supports the analysis of the pattern as describing a change of attribute of the subject, which is not dissimilar from a State experienced by the subject.

Pullum and Zwicky (1999) offer yet a third interpretation, that the *-ing* forms in this type of pattern are their own category, which they describe as "complements to intransitive verbs of temporal aspect" (1999; 253), one of twenty-five uses of *-ing* forms that they identify in English — or, indeed, that perhaps trying to distinguish *-ing* forms from one another is a futile endeavor. They explain:

> "While we distinguish derivational from inflectional *-ing*, we nonetheless agree with Milsark on uniting all the inflectional cases of *-ing*. In particular, we would defend the position … that **no separate gerund and progressive forms of the verb should be morphologically distinguished**. There seems no more reason to distinguish the gerund *-ing* form from the progressive *-ing* form than to posit a different *-ing* suffix for each of the 25 constructions listed … above. There is a compelling argument from parsimony for analyzing them as the same word form being called upon in different syntactic constructions." (257, emphasis mine)

Following the lead of Pullum and Zwicky, the distinction between gerundive and progressive complement is moot if we accept that either or any interpretation — potentially some other, not discussed or proposed — allows the utterance to convey information about a state, activity, habitual, or situation, ongoing at reference time. So in the context of SNX, the *Xing* had been ongoing at reference time, while the speaker is orienting the listener to the offset of the state, which only **begins** at R. In this interpretation, placing the Δ/τ within a constant/ongoing ϕ leads to a stative interpretation of the phases

surrounding the Δ/τ.

If *start Xing* is interpreted as a construction employing the progressive, it indicates the commencement of a new state; if *start Xing* is interpreted as a construction employing a gerundive argument, it indicates the acquisition of a new attribute or characteristic. The difference between a state and an attribute is, perhaps, fuzzy or unnecessary, as Filip exemplifies: "*be a hero* expresses a property that holds of an individual. The corresponding progressive predicate, as in *John is being a hero* … expresses a temporary eventuality … that counts as a temporary manifestation of the disposition expressed by the basic non-progressive predicate *be a hero*. … the denotation of the static predicate is here reinterpreted as a contingent, temporary property." (Filip, 1999; 214) The interpretation of these necessarily being contingent properties remains, in our opinion, up for debate; the salient point is that *-ing* form denotes a property of its subject. Regardless, then, of whether we choose to understand the *-ing* form as a progressive, gerundive, or something else, in employing it the speaker is describing a (temporary) characteristic of or ongoing situation relevant to the subject of the utterance.

2.1.2 Negation and Negation with Quantification

Because the SNX pattern is characterized in part by its containing *not*, understanding the role of that negation is important. It should be noted that the *not* in the pattern modifies the complement, and not *start*, despite our descriptive labeling of it as a *start not* pattern:

(4) '...but then suddenly this year, he **started [not caring]** and **[taking]** me for granted'

(bracketing my own)

If the *not* attached to *start*, the utterance would have to be understood as meaning both *he started-not caring* and *he started-not taking me for granted* (in addition to being interpretable as *didn't start*, which introduces an entirely different communication — the negative in this case cannot be raised, or is not

an "NR" predicate (e.g. (Gajewski, 2007))), which is improbable since *not caring* is unfavorable (undesired) but *not taking me for granted* is favorable (desired). Thus (assuming *he* is a rational actor), *he* must be both *not caring* and *taking me for granted*; both unfavorable new situations.

Further, if we accept Duffley's analysis of the -ing complement as a gerundive, we do not want to separate the [not] from the [caring] in the previous example, because the whole phrase itself can act as a gerundive direct object. This allows the contrast of two "states": one characterized by *caring* and one by *not-caring*, as in the previous example. This is comparable to the negation of a predicate adjective which, like *-ing* (as previously discussed), serves to describe the subject of an utterance via negation of a situation: e.g. *I am not happy* or even *I am unhappy*.

Described in different terms, the scope of the negation is quite narrow, over only the complement of the aspectual verb. (Moeschler, 2010) This is particularly restrictive; if the negative is raised over the aspectual verb, the sentence changes meaning entirely.

(5a) … the moment you start **not** [[being able to produce] **as much**], …

(5b) ? the moment you didn't [[start being able to produce] as much]

In fact, attempting to raise the negative in these examples leads to an underspecification. *Start not being able to produce as much* is quite specific as to the quantity of production (*less than before*), and as to the fact that the quantity is what is under discussion. But *didn't start being able to produce as much* can refer to literally any other event in the world other than the *ability to produce as much*, or indeed the lack of any change whatsoever. With internal negation, it is the phase (ϕ) that is affected. If the negation is raised, it is the transition (τ) — on the surface, the aspectual verb — that is negated. Thus, the narrow internal scope of the negation is critical to an accurate understanding of the construction.

In the context of comparison with *stop*, we might interpret *stop* as a negative verb, scoping over its own complement. To modify the previous example, *the moment you* **stop** *[being able to produce as*

much], like *not*, *stop* also scopes over the quantity of production. Thus the difference between *stop Xing* and *start not Xing*, both indicative of a transition, a negative, and a new phase, must partly lie in our understanding of *start* versus *stop*. This will be discussed further in §2.1.3.

Following Horn's (1985) dichotomy of descriptive and metalinguistic negation, the negation strategy employed in this pattern is descriptive negation, because it refers to a state of affairs in the world. (Lee, 2005; 596) In contrast, a superficially-similar pattern but one we are *not* investigating, e.g. *I started not running but walking,* would be a case of metalinguistic negation, in the sense that the speaker "cannot assert the clause that negation scopes over" (Moeschler, 2010; 30); the *running* is unassertable but the *walking* is. SNX is rather a case of proposition denial: *I am not happy* denies the proposition that you are happy, (Pitts, 2007; 208) and *I started not running* denies the proposition that you are still running.

However, Pitts also proposes an alternative scale of negation, which is attuned to semantic-pragmatic representations of the denial. (Pitts, 2007; 208-209) From this perspective, the utterances this work addresses could also be seen as somewhat metalinguistic, falling into her Type C (meta-conceptual: "targeting some societal norm or salient expectation") or non-metalinguistic Type D (descriptive: "targeting some descriptive state of affairs or situation in the world") pseudo-categories. (Pitts, 2007; 210)

Further relevant to the nature of the negation in question, SNX patterns frequently occur with scalar or quantifying modifiers. In such cases, entailment and implicature are also effects of negation that we will want to address. Simply by virtue of being a negative statement, some theories would say that SNX carries a certain amount of presupposition inherently. Many have argued that "every negative statement presupposes an affirmative," (Horn, 1989; 63) though not necessarily "'that which is denied.'" (Bosanquet in Horn, 1989; 66) (*I am not happy* does not necessarily presuppose your happiness, rather more it presupposes that you are *something*.) Horn quotes Givón, explaining "that

negative sentences are used 'always in context where the speaker believes that the hearer holds a certain belief in the truth of the corresponding affirmative,'" (Horn, 1989; 73) or at least that negatives are used "'in a context where the corresponding affirmative has been discussed, or else where the speaker assumes that the hearer's bias toward or belief in...the corresponding affirmative.'" (Horn, 1989; 73) In a way, perhaps, negation is anaphoric: if negatives can be used to inform the hearer of their mistaken belief in the truth of the affirmative of the utterance, the negative presupposes a hearer's belief in the affirmative. If a speaker asserts that they are *not -ing*, the hearer must have some basis to believe they would or could have been *-ing*. This idea will return later, as theoretical support for SNX being used to inform interlocutors of an unexpected change of situation.

Regardless of one's view of the necessity of presupposing an affirmative in order to craft a meaningful negative, it can be agreed that one purpose of negatives is to restrict the legal options available to the hearer. (After Bosanquet, in (Horn 1989; 66)) That is, in the contexts we are concerned with, if a speaker informs a hearer that they are *not crying*, we may or may not be able to presuppose that they had previously been *crying*; but we can certainly understand that they are not *crying* now, so if we are curious as to what their state is, we can be sure it does not include *crying*. In this way, "negation is determination," (Horn, 1989; 77) by way of asserting a negative fact (77), and the speaker of these utterances is entirely cooperative in providing the hearer with relevant information. The remainder of the SNX utterance puts this negative fact in context, via scalar modifiers, temporal modifiers, quantifiers ("minimizers" (Horn, 400)), and other polarity items (Israel, 2004), etc., bounding the interpretation of the negation to the real world.

We might also argue that *not* is a scalar operator by its very nature. It stands to reason that the default meaning of *I am not happy anymore* is that you are now less than happy "... by treating the negation as expressing a 'less than' relation". (Pitts, 207; also Horn, 204) However, this utterance does not truth-conditionally preclude you from being *more than happy*, but an increase on the <happy> scale

would require an explicit additional clause (e.g. *I am not happy, I am thrilled*), and it would then become an instance of metalinguistic negation. (Horn, 1989; Ch. 6.2) Because in this pattern we do not see a correction towards the unpredictable end (increase) of the scalar spectrum (e.g. ?*I started not eating, I started feasting!*, which is contrastive focus via negation (Horn, 1989; 427), a metalinguistic negation strategy which is not present in these utterances), we know that the speaker is indicating a move towards a less-than state through their use of (descriptive propositional) negation.

This is evident in the following example.

(6a) *I am not feeling well anymore.*

This utterance suggests that the speaker was previously feeling well; from a scalar implicature perspective, the speaker makes no implication that they previously felt any less than the maximum on that particular scale, perhaps <bad,well>. Previously, they felt well. However, there is an implicature that they can no longer truthfully attest to being at the maximal end of the scale in question; they are now somewhere less than well.

(6b) *I am not feeling as well as I used to.*

Here, however, the speaker implies that though they had felt better than they do now, their previous health may not have been at the polar extreme of the <bad,well> scale; easily both conditions could be in between *bad* and *well*. Though informative in a different way, we can still be sure that the speaker is implying a less-than relationship. The maximum in this case is "as well as I used to", and the "not" indicates some location less than that.

As Horn (1989; 239) explains, "...if *I love you* entails *I (at least) like you*, then my acknowledging that I like you, in a context where my loving you would be relevant, will (ceteris paribus) Q-implicate that I don't in fact love you." Similarly, if a speaker expresses that they are *feeling okay*, when they could be *feeling well*, they are scalar-implicating that they could feel better. *Feeling well* entails all lower constituents of the positive end of the *feeling* scale, something like <neutral, okay,

well, good, great>; *feeling okay* then entails fewer of these same constituents. But both *okay* and *well* in the affirmative case don't preclude *good* and *great*; after Horn (1989; 239), we could acceptably produce *I feel well; I (might) even feel great*. However, if the speaker expresses that they are *not feeling well*, the entailment-reversal and downward compatibility of the *not* (Horn, 1989; 234; von Fintel, 1999; 97-8) allows the implicature to extend from below *well* through *neutral* into *feeling bad*, *feeling ill*, *feeling poor*, and all other constituents of the *feeling* scale that were not entailed or implicated by the affirmative *feeling well* (which is limited to positive feelings). That is, if a speaker says they are *feeling well*, they can be understood to be *feeling at least okay*, but probably not worse than that, and possibly better. However, if a speaker says they are *not feeling well*, they are capping their maximum positive *feeling* at just below *well* but not limiting the downward scope of the scale, and can easily be understood to be *feeling horrible*. Succinctly, "...*not-P* is interpreted as 'below **P** on **P**'s scale" (239-40):

(7a) *I am **feeling okay**, and maybe even feeling well.* (upwards-compatible)

(7b) *I am **not feeling well**, so neither am I feeling great, and maybe even feeling horrible.* (downwards-compatible)

This is a function of *not* as a scale-reversing operator. (Horn, 1989; 234) In both cases, the affirmative and the negative, the predicate scalar allows for certain entailments and implicatures to be associated with the utterance.

As we see from previous description and examples, if *-ing* denotes a state or attribute, and *not* is a scale-reversal operator, then *not -ing* should be used to express a scalar-unbounded decline or descent from the polar *-ing* state. Further, there are numerous examples which include an additional modifier which serves to limit the upper-bound scope of the scale in question. The following utterance from the enTenTen corpus exemplifies a use of *not* with such a modifier in the SNX pattern:

(8) … *I noticed one day that they started **not fitting in my bra like they used too***[sic] …

The implicature in this utterance is such that the addressee can infer — or rather the speaker implicates

— that the speaker's bra previously fit better than it currently does. The maximum of the scale allowed via this implicature is <fit like they used to, … >, and the current location on the scale is below this maximum. Of course, there is no lower bound to the scale, because of the reversal and downward compatibility of the *not*. It is clear that this type of utterance is used with the communicative intention of reversing the scale (via use of *not*) and obliterating the possibility of a lower bound for the descent from the maximum.

Examples of SNX from natural language data include both quantified/modified and un-modified negative complements, but either all predicates are (a) lexically scalar (Hypothesis 1.6), (b) have scalar modifiers (Hypothesis 3.2), or at the very minimum (c) make use of *not* to combinatorially invoke scalarity.

It would serve us to recall that our overarching goal of this work is to construct an argument for non-synonymy between SNX and *stop* or other similar patterns. We have established various entailments and presuppositions that are inflicted by the presence of *not* in SNX, but *stop* itself carries its own set of presuppositions (as briefly mentioned in consideration of *stop* as a negative verb); specifically, that in order to felicitously report *stopping something*, one must have been *doing that something* prior. If the speaker reports that they have *stopped crying*, this presupposes *crying*. Further, we know that by expressing a state of *not crying* we can infer that the speaker can be described by some situation on a crying-scale which is less than *crying*, or something entirely other. If the speaker expressed that they have *started not crying*, we are now introduced to an entailment from the inclusion of the aspectual verb. That is, to have *started not crying*, we must have been *crying* to begin with, but the exact location on the scale of *crying* is unclear. This leads us to the role of *start* in the SNX construction.

2.1.3 Start

Widely considered an aspectual verb, which bestows temporal structure on its arguments, (Dowty, 1986, with respect to adverbials) it is broadly understood that when a speaker uses *start* they indicate that they are talking about a nascent state. According to Duffley, the lexical content of *start* "evokes the notion of breaking out of a state of rest or inactivity," or perhaps we might postulate, another state entirely. (1999; 298) The use of the inchoative *start* can also provide stative predicates with an "onset transition" that they would otherwise be lacking, again contributing to the notion of beginning. (Michaelis, 2011; 1373)

In ter Meulen's description, aspectual verbs ought to be represented as relations between "reference-time t … and the event-type E," as in "V_{aspect} (t, E)". (1991, 347) As such, a verb such as *start* indicates a relationship between its complement (E) and some reference time t; specifically, E is not true prior to t. She also describes essentially two modes of use for aspectual verbs: (1) "aspectual verbs which concern the internal structure of an event" and (2) "aspectual verbs which govern the external temporal relations between events". (348) The relation between t and E which we discuss in this work is that of (1), as previously discussed regarding the use of the gerundive complement, presupposition of an ongoing event, and the necessity that the change in question be applied to an already-instantiated event.

These perspectives suggest that in their use of *start*, the speaker's focus is not only on the negative state (*not -ing*) but also on the forward-facing transition, rather than the backward-facing transition (*stop*). This could be due to the necessity of making an ameliorating decision or action, or because the speaker is looking ahead to a precipitating event. These potential implications will be further discussed in Chapter 3 (Hypotheses).

Start also seems to carry some of its own entailment. When used in conjunction with an *-ing-*

form complement, *start* can suggest transitioning from some previous state into some new state by invoking the transition between conditions itself. Indeed, as already cited, "the gerundive -ing can be used as complement of an aspectual verb to evoke a state." (Duffley, 1999; 302) So Duffley's so-called "breaking out" in combination with the evocation of a state imparted by the *-ing* form, renders a phrasal meaning of roughly "breaking into a new state" for *start Xing*. In context, if *start Xing* suggests the beginning of a new state, then

(9) … *it isn't just tickets to Thomasland that **start getting** expensive and impractical …*

implies that previously, tickets to Thomasland were inexpensive and practical; or at least, less expensive and more practical than they currently are, a level which seems to be entailed by *start*. Similarly:

(10) … "*I **started drinking** when I turned 21," Abraham said. "Most people **start drinking** a little younger in college. I was catching up." …* (COCA (Davies, 2008))

Before Abraham and his peers could be characterized by a state characterized by habitual drinking, they can be understood to have been characterized by a state not characterized by habitual drinking: this could be a state characterized by non-habitual drinking, or a state characterized by habitual non-drinking; regardless, the frequency of drinking during the previous state was *less than habitual*. Previously to *t*, E — *drinking* — could not be truthfully reported.

Drinking is an attribute of Abraham and/or most people; the drinking itself is a habitual state which didn't exist prior to Abraham's being 21. In Duffley's terms, the "breaking out" is the transition into the (habitual, or heterogenous) activity or state of *drinking*. Thereby, *start* entails a previous condition where its complement must not have been true (supported by ter Meulen's $V_{asp}(t,E)$ model). That is, if Abraham said he started drinking when he turned 21, he could not also truthfully report that he drank when he was 20. *Start* entails the inception of or the transition into the *drinking* state, and entails the previous *non-drinking* state to have been true. It should be noted that while we focus here on

start, any aspectual verb can be said to entail some truth-conditional information about the previous (pre-transition) condition.

In our discussion so far, we have not addressed the rate of change of states. Several symbols will be employed in this discussion and throughout the remainder of this thesis: Δ, which will signify gradual change (as in a chemical reaction); τ, which will signify an instantaneous change; and φ, indicating the phase being entered and exited, both homogeneous and heterogeneous. Traditionally, the τ between φ and φ (or φ and ¬φ (Filip, 1999; 150)) is taken to be instantaneous, and *start* typically assumed to be an instantiation of such a τ. But based on our observations of the SNX data, we are concerned with modeling the rate of onset of the new state in this pattern. Filip discusses the difficulty of representing gradual change in formal semantics, identifying both BECOME() (after Dowty, 1979) and Δ (according to Filip, after Pott, 1969) as insufficient attempts to code for this kind of change, (150-151) further noting that "the notion of 'incremental change' appears to be an essential category of human experience," (107) and one which we would like to suggest SNX encodes. As described in Binnick's (1991) description of Aktionsart and other representations of aspectual verbs, "the 'inchoative' refers to processes which are beginning and are leading to a state which is increasingly the case... . 'Decessive' refers to processes which are coming to an end, which represent states that are diminishingly true." (203) We understand *start* as an inchoative aspectual, and therefore indicates the transition into "a state which is increasingly the case"; but in combination with *not*, can it not be read as decessive, referring the gradual offset of a "diminishingly true" state? Regardless, we must understand that *start* refers to a gradual change (to be represented by Δ for symbolic simplicity), while *stop* refers to an instantaneous change (τ).

It might serve us to remember here that the complements we have been discussing have been established to be in some sense Stative, due in part to the *-ing* form they take, and scalar, from the inclusion of *not*. But as discussed in Michaelis (2011), "the inchoative construction requires a

[complement] verb whose temporal representation includes an onset transition." (1373) The state described by the complement in such cases must be one that CAN be "subject to change." (Michaelis, 2011; 1375) That is, we would not expected to see complements with *start* that describe inherent states: neither ?*I started being tall* nor ?*I started not being tall* should occur. Luckily for us, it seems that the effect of *start* in SNX cases is to Achievement/Accomplishment-ize the state transition referred to in the resulting construction in its entirety. So even if *fitting* does not necessarily include an onset transition in its temporal representation, as a complement of *start,* it is given such an onset transition by virtue of the aspectual verb; thus *fitting* is gradually instantiated (or decessed (Binnick, 1991)). In the case of *start*, perhaps semantically depicted as BECOME() (Van Valin & LaPolla, 1997), it can also be said to be a gradual change. However, *stop* is not presumed to be gradual, and better represented by τ.

In a final comment on the semantics of *start* and *stop*, in considering the contrast in the choice to use *start not* or *stop*, "the use of a weaker predicate suggests (implicates) that for all the speaker knows, the stronger predicate on the same scale could not have been *substituted*." (Horn, 1989; 212) So if *start not Xing* indicates gradual offset of a previously-existent state — as we have developed in the previous sections — can we assume that gradual offset is a weaker claim than absolute cessation? Compare this case to *not happy* versus *unhappy*, whence *unhappy* is a stronger claim, as *not happy* is underspecific in comparison: if you cannot be said to have *stopped Xing*, only that you have *started not Xing*, it is not a cessation but a descent, and therefore propositionally weaker. Here, then, an argument against synonymy, which leads us to a combinatoric examination of our SNX pattern.

2.1.4. In Combination

It is well-established that lexical entities with the form *-ing* have the properties of states and/or attributes. We have discussed in previous sections that *not Xing* indicates a less-than-X scenario or

state, due to scalar properties of *not*. We have also established that *start Xing* refers to the gradual transition into a new state. Thus, the combined *start not Xing* refers to a slow transition into a downward-compatible or scalar-declining new state, which is most efficiently and accurately referred to in terms of what it isn't instead of what it is. As a relatively weaker proposition than *stop*, with SNX the speaker doesn't want to claim non-existence of *Xing*, only that there is less *Xing* than before. Further, while *stop Xing* presupposes an ongoing, already-instantiated *Xing* scenario which has come to an end, *start not Xing* entails a similarly ongoing, instantiated *Xing* scenario, the transition out of which is implicated via the use of *start*.

By looking at each component of the pattern — *-ing*, *not*, and *start* — we see that it focuses on the inception of the new state *not-x* (if we assume some interaction between negation and focus (Van Valin & LaPolla, 1997; 219, Glanzberg, 2009)), thereby commenting on the "abnormality" of that new situation. (Levinson, 2000) It is "an assertion of the absence of something expected." (Horn, 1989; 163) Perspectually, it also appears to signify the speaker's entry into awareness of the new, *not-x* situation. Preliminarily, it indicates the unexpected gradual transition out of a previously instantiated situation.

However, even taking our understanding of each of the component parts in combination, the full communicative purpose of the pattern is still not fully understood. By introducing some typical forms of the utterance, we will lay the groundwork for our corpus analysis, as well as begin to recognize some common patterns present in SNX which will assist in developing our hypothesis in Chapter 3, and lead towards comprehension of SNX's use and communicative role.

2.1.5 Typical Usages

The following intuitive typological classification of SNX instances is presented in order to structure our discussion as we proceed into analysis, and to provide a simplified picture from which to

construct a preliminary explanation of the meaning and purpose of this utterance. As is perhaps evident from the examples in (1) (repeated below), all uses of this pattern can be funneled into one of three categories: with an inanimate subject, with an animate subject and a non-volitional complement, and with an animate subject and a volitional complement.

Repeated here for convenience:

Ex. 1

*a. "My phone **started not working** so I switched off."*

    Type A: inanimate subject ("my phone")

*b. "...within half hour she **started not feeling well**"*

    Type B: animate subject ("she"), non-volitional complement ("feeling")

*c. "I **started not bringing** my phone to class..."*

    Type C: animate subject ("I"), volitional complement ("bringing")

Identifying these types or lexemes[2] for the pattern is well-informed based on the data because all examples of *start not Xing*, *stop Xing*, *start Xing*, and *stop not Xing* (all four points of comparison we will look at in order to determine unique characteristics, as well as those which are combinatoric effects from *start* or *not*) can be categorized into one of the three types. Further, this is a fairly straightforward way to classify verb usages in general, as nearly every instance of a verb can be categorized into one of these three classes. The only difficulty this strategy truly presents is that of anthropomorphism, where an inanimate subject participates in a volitional act:

(11) *... the oceans started throwing fierce waves ...*

These utterances were classified as C (animate subject, volitional complement) because within the domain or world of the utterance, the hearer should understand 'oceans' as animate actors.

Classifying utterances in this way allows for a convenient and universally-applicable

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2   Each can be considered a lexeme because it has its own use patterns/requirements and/or selectional restrictions.

organizational system both within and between complement types, and provides another dimension for comparison, as we suspect the utterances may display different selectional patterns according to these Types. The following figure (Figure 1) shows these three typical usages along with more examples.
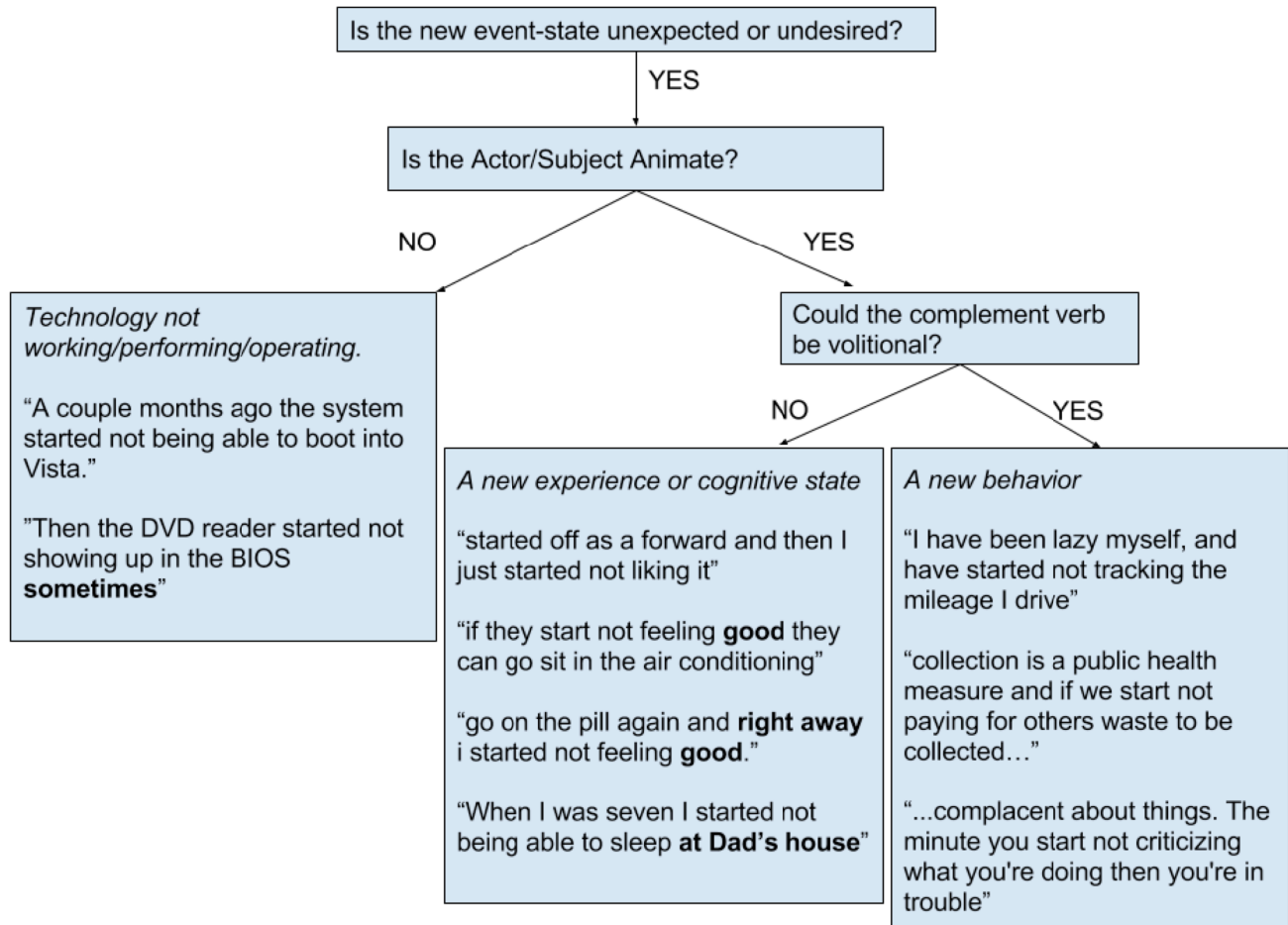
Figure 1

Type A examples are typically comments on mal-performance of technology. Type B examples are typically experiential, painting the subject in a luster of victimhood. Lastly, Type C examples are typically representative of active decisions on the part of the subject which are undesired and/or deviations from normal behaviors or activities. Note that in each of the Typed examples given, the complement is taken to be intuitively typical and expected in the affirmative; thereby the negative is unexpected. The theoretical bases used in previous sections to interpret each component of the pattern

support these preliminary interpretations: *not*, as a downward-compatible scale reversal operator focuses on the decline towards the lower end of some scale. Further, ter Meulen's analysis of gerundive complements as referring to an already-instantiated, ongoing event or state support the idea that SNX refers to an immediately-relevant transition out of a just-currently-applicable state or condition. Thus whether the utterance is A, B, or C, the transition seems to be noteworthy because of its undesiredness and unexpectedness.

2.2 Theoretical Arguments for Why SNX Should Not — or Should — Occur

We have established that this pattern combinatorially expresses the onset of a new, "negated" situation, or the transition between two situations related by the offset of one in favor of the other. But it should, according to a variety of diverse linguistic theories, not exist. After all, *stop Xing* expresses such an offset τ much more efficiently, and with more propositional strength. If this is a speaker's concern, why bother to use SNX at all? These characteristics of *stop Xing*, though, suggest exactly why a speaker might opt for SNX. After addressing its theoretical improbability, we will introduce a theoretical basis to explain why it does, in fact, exist (or rather, that the fact of its existence is in a way entirely predictable), and what this means for our understanding of language as a communicative tool.

According to Gricean Theory, including theories/philosophies of communicative efficiency (e.g. Jaeger & Tily, 2011), a more-burdensome, seemingly synonymous alternative to a simpler mode of expression should be rejected in favor of its simpler synonym across all contexts. Of course, the asterisk on this prohibition against burdensome constructions is that if what the speaker is expressing is *not* truly synonymous to the simpler pattern, is used in different contexts, or serves some different function (which (naturally) is indicated by its form; e.g. in Hopper's (1998) description of Emergent Grammar: "structure...comes out of discourse and is shaped by discourse in an ongoing process … its

forms … reflect the individual speakers' past experience of these forms, and their assessment of the present context" (156)), then it *must* be expressed in a different manner. In the following sections, we will discuss whether the SNX pattern should or should not exist according to various theories.

2.2.1 Grice's Maxim of Quantity

Grice's Maxim of Quantity (Grice, 1975; 45), of course, dictates that interlocutors "make their contribution as informative as required", and no more. Under the dictum of the Maxims of Manner, neither should we be prolix, verbose, disorderly, ambiguous, or obscure, all of which are adjectives we could use to describe our initial impression of SNX. (Grice, 1975; 46) This suggests that such a cumbersome expression should be disused in favor of the more compact, concise "synonym", *stop Xing*. After all, both should refer to the transition between a currently-ongoing event and its incipient non-occurrence. It is presumably non-cooperative to use more words than necessary, or to obscure one's intentions with undue complexity. However, the pattern occurs; thus we can conclude that either speakers are being non-cooperative, or there is some implicature they are intending to communicate by this light flouting of the Maxim of Quantity. After all, one premise of Grice's Maxims is to establish what indeed is implicated when they are ostensibly disobeyed. Thus by being somewhat prolix in using SNX, speakers must have something specific they would like to implicate, and it is the job of the hearer to correctly interpret that implicature. "Grice, who characterized implicature as part of nonnatural meaning, defined in turn as an aspect of the speaker meaning, and only indirectly in terms of what the addressee is entitled to infer." (Horn, 1989; 232) Whether or not the hearer correctly interprets the intended implicature is a different issue altogether.

Further, post-Gricean theoreticians (e.g. Levinson, 2000) have provided a refined framework for understanding conversational implicature that assists us in understanding the role filled by SNX, and

seeing its non-cooperation as cooperative in its own way. After all, neither should a speaker use a stronger statement than they can make, and we have previously established that *stop Xing* is likely propositionally stronger than *start not Xing*. In this way, then, the speaker is being entirely cooperative by using such prolixity, since if they can not truthfully report complete cessation but instead only a graded offset, they cannot report the stronger proposition cooperatively.

In the Gricean tradition, Levinson's 2000 treatise on Generalized Conversational Implicatures (GCIs) (*Presumptive Meanings*) provides one framework which enables us to understand the communicative motivation behind a speaker's choice to use *start not Xing* instead of *stop Xing*, and an addressee's ability to understand the communicative intent therein. His theory of GCI states that an utterance in a marked or peculiar form (such as *start not Xing*) leads us to understand that "what's said in an abnormal way, isn't normal". (33) If we have chosen to refer to the transition between states or situations in a peculiar way, then there must be something peculiar about the change. Levinson theorizes that in such a case, the marked or prolix form — here, e.g., "start not eating chocolate" — *must* indicate a deviation from the predictable, stereotypical "stop eating chocolate"; that is, there is something about the cessation of *chocolate-eating* that is worth noting. If stopping crying is normal, then starting not feeling well is abnormal.

Based on Levinson's aforementioned theory of GCI, start not carries a so-called "abnormal" implicature, while stop carries a "stereotypical" implicature. Levinson provides a series of tests to determine whether or not an utterance is stereotypical or abnormal, based on his three genera of implicature, Q (essentially Gricean Q1), M ("what's said in an abnormal way isn't normal" (38)), and I ("what is expressed simply is stereotypically exemplified" (37)). Essentially, Q-implicature is established according to "sets of alternatives of essentially similar form with contrastive semantic content" (40), while M — what we propose *start not* is an instance of — "relies on sets of alternates that contrast in form but not in inherent semantic content" (40). Further, I inferences "are direct

inferences from unmarked expressions without stronger contrastive alternates to … stereotypical interpretations." (41) Thus it seems that by I, *stop* presents the stereotypical situation. Further, by M implicature, which suggests a "contrast between synonymous surface forms" (41) or based on "sets of synonyms differing in markedness" (41), it seems that *start not,* in contrast to superficially-synonymous *stop*, is indeed an abnormal form indicating an abnormal situation. Thus Levinson has established theoretical support for both the existence and communicative role of the SNX pattern, and further established a rationale to support our hypothesis (expanded upon in Chapter 3) of non-synonymy with *stop*.

The specificity of the marked pattern indicates to the addressee exactly what the speaker wants her to infer from the utterance, and we will demonstrate that this pattern is regular and predictable enough that it has acquired a specific and distinct meaning from its non-synonymous near-cognate "stop eating chocolate". It is this regularity and predictably which allows us to assert, as we will, that the SNX pattern should be recognized as a Construction on its own merits, one which perhaps lies on the continuum of idiomaticity towards the end characterized by a fixed syntactic pattern but flexible lexical components. (Kay & Michaelis, 2009) Construction Grammar thereby also provides us a lens through which we are able to understand this pattern and the speaker's communicative intent in choosing to use it. "Proponents of CxG have sought to show that there are constraints on form and interpretation that cannot be explained except as the products of grammatical constructions, form-meaning pairings of varying degrees of productivity and internal complexity." (Michaelis, 2006) This will be further discussed towards the conclusion of this section.

2.2.2 Grice's Maxim of Manner: Communicative Efficiency

Principles of communicative efficiency, perhaps informed by Gricean Maxims of Manner

regarding prolixity and obscurity of expression, (Grice, 1975; 46) likewise would suggest that "wordier" phrasing should be avoided when a shorter one is similarly applicable. Speakers would theoretically like to be efficient, after all. (e.g. Jaeger & Tily, 2010) So what makes them decide to to use a more or less complex form?

I will introduce this point via a slight deviation: known referents tend to be expressed in terms of anaphoric pronouns, or perhaps better said, first-mentions should occur with full NPs and later references with anaphora. (e.g. Fox, 1993; 20) This is partly because it is shorter and more efficient, and referring to an already-understood referent in any other way would be bizarre, and unnecessarily prolix. Similarly, in referring to known events, speakers are unlikely to repeat the event. (Schuster, 1988) If a speaker had already discussed *running*, given there was nothing else notable they would likely then just say that they had *stopped*, or *stopped doing so*, or maybe even *started not doing so*, but it is unlikely that *running* would be repeated. Thus by mentioning the event in the utterance itself, it almost certainly is a discourse-new topic, which partly contributes to why this pattern exists despite being prolix. If we already knew we were discussing *running* or *crying* or *fitting*, it is unlikely, as efficiency would have it, that the full concept of the event would be overtly expressed. Thus rather than succumbing to general principles of communicative efficiency and writing off SNX as an improbable pattern, we can understand its existence in terms of discourse-newness, which can in turn inform our understanding vis à vis its notability and unexpectedness.

2.2.3 Lexical Synonymy

Why use a convoluted form when a less-convoluted one can express the same meaning? This is a fundamental component of Grice's Maxims of conversation, but also has bearing on a lexical-rewrite interpretation of the SNX pattern. If we look purely lexically at SNX, we might assume it can be

lexicalized into SX. After all, both *start not crying* and *stop crying* result ultimately in a decrease (*start*) or offset (*stop*) in *crying*. That is, they express one and the same transition from some state *crying* to some state *not crying*. They are arguably synonymous forms. So because of their surface-similarity in meaning and in use, they may be considered lexical synonyms, and one of the two ought not ever to surface.

It has been established that the *-ing* complement describes an attribute of the subject, further that *not Xing* is an attribute of the subject, characterized by the lack of (habitual) *Xing* or perhaps being characterized by less-than-*Xing*. Thus *start Xing* describes the embarkation on some state *-ing*, and *start not Xing* describes the embarkation on some state *not -ing*; meanwhile, when you *stop* you disembark from *Xing*. Succinctly, "when you start to read, you stop your not-reading state. When you stop reading, you start a not-reading state." (Ter Meulen, 1997; 28)

The moment one stops reading is the same moment as the one during which one starts not-reading, but they orient differently on a timeline and describe different situations with respect to the speaker: the reading (no longer true) versus the not-reading (now true). Ter Meulen herself describes this in ter Meulen (1991): if stop(p,t) (where p is a proposition) is true iff t is the last point in time at which p is true, then start(p,t) must comparatively be true iff t is the **first** time at which p is true. (1990, 348; After Lübner, 1987) In timeline below, time moves along the x-axis; we see that "start reading" and "stop reading" temporally bound the habitual state reading; in contrast, "start not reading" and "stop not reading" temporally bound the habitual state not reading. The moment of "stop reading" and the moment of "start not reading" are the same, which would suggest synonymy and interchangeability. However, American English speakers perhaps unpredictably refer to the inception of a negative state rather than the cessation of a positive state — indicating some truth-condition for *p* — in some contexts which begs the question, why did they make that choice, and what are they implicating?

<start reading>-----reading-----<stop reading><start not reading>-----not-reading----<stop not reading>

> Ter Meulen, arguing for synonymy:

> "...we see that the internally negated existentially aspectual verb **start not V-ing** is lexicalized in English by verbs describing the suspension, ending, or completion of the event." (ter Meulen, 1997; 21; emphasis my own)

That is, she argues that the entire phrase *start not* is lexicalized in *stop*. However, this simplistic treatment glosses over several issues. First, that *start not Xing* is an attested pattern. Second, that by lexicalizing the *start not* component, or using *stop Xing* as a semantically-equivalent construction, English-speakers are robbed of the ability to describe the onset of a new state, equating this with the ending of the old state. Thirdly, Ter Meulen's analysis and rule-rewrite grammars in general would seem to fall prey to the rule/list fallacy when it comes to such a pattern as SNX, a fallacy which states that if a form can be generalized, in this case assumed synonymous with or lexicalized to stop, it does not deserve a schematic discussion specifically. ("Explicit rules are superfluous" (Langacker, 1990); "The presence of a feature on a list does not exclude it being predictable by a rule", and vice versa (Bybee, 2003; 21) This fallacy, and ter Meulen's lexicalization argument, presume that the form **can** be generalized, which in turn presumes identical semantic and pragmatic meaning. However, what we will attempt to show is that the pattern is used in specific contexts, and as such that it neither should not nor can not be generalized, rewritten, or lexicalized to *stop*, and therefore merits its own discussion. *Start not Xing* is an attested pattern, and its use and purpose should be investigated.

Fundamentally, if both *start not Xing* and *stop Xing* exist, in discrete contexts with identifiable characteristics, then it can be shown that *start not* is **not** lexicalized by *stop* and the two patterns are not synonymous, and do not refer to the same experience as expressed by the speaker. Thus the argument for lexical rewriting is deemed insufficient to describe the very real phenomenon of the SNX pattern.

2.2.4 Head-Driven, Lexeme-based

One method of classification that we will introduce here, which doesn't necessarily predict the non-existence of SNX but rather provides a systematic way to classify and understand it via different *start* utterances, thus a different perspective on the isolation of SNX rather than comparison with *stop,* is the lexeme model e.g. from HPSG. (Pollard & Sag, 1994) In this model, every lexical entry is endowed with, among other traits, SEM and PRAG, which dictate the kind of context in which a lexeme can appear, and VAL list, which is the "shopping list" for the lexical head (in this case, *start*).

We make the argument that, from this perspective, there are essentially two (or more) lexemes for *start*, which differ for example in their PRAG dimension, and in VAL; $start_2$ (the *start* of the SNX pattern) selects specifically for a negated *-ing* complement. In this case, $start_1$ selects a non-negated *-ing* complement. We could then go further, and suggest $start_{2A}$, $start_{2B}$, and $start_{2C}$, which specifically require the animate-volitional pairings of types A, B, & C as described in §2.2. $Start_2$ would inherit some characteristics from $start_1$, and $start_{2A,B,C}$ from $start_2$, in that $start_1$ and $start_2$ both are indicative of gradual change and take *-ing* complements, but $start_2$ requires the complement to be negated, allows e.g. for temporal modification, and e.g. requires a pragmatic contexts of a change from a typical state into an atypical one. The specific contextual and valence requirements of $start_1$ and $start_2$ and their sub-types will be established through our investigation/analysis of our hypotheses.

This kind of division also allows us to explain the fact that for some features analyzed, *start not* patterns with *start*, sometimes with *stop not* (so *not*), and sometimes patterns by itself; there are some effects which we will see cannot be entirely explained by the combinatorics of the phrase.

2.2.5 Construction Grammar

Another theoretical model which provides an understanding for this phrase structure is

Construction Grammar. Construction Grammar in particular, with its attention to form-meaning pairings, provides a robust theoretical basis from which to claim legitimacy for our investigation of SNX. In earlier parts of Chapter 2, we have established that SNX exists despite well-developed theories which would seek to discredit it. In particular, considering its similarity to *stop Xing*, it would seem that while not ungrammatical, neither is SNX strictly lexically predictable according to its component parts, considering its predicted communicative role and specific use requirements. Construction Grammar suggests that any form, whether lexically predictable or not, should be included in the "constructicon" if its use or meaning is somehow unpredictable. (Goldberg, 2006)

It is this unpredictability which leads us to suggest that perhaps we should consider the SNX pattern a Construction of its own. With little in the way of case studies of combinatoric properties of this pattern or the combinatorics of its component parts; perhaps some of what has been laid out may be used to supplement this lack, and establish the requisite "conventionalized pairings of form and meaning with idiosyncratic use conditions" (Michaelis, 2011; 1394) to validate its inclusion as a Construction. SNX is not "strictly predictable" (Goldberg, 2006); that is, it cannot be lexicalized into *stop Xing*, and its meaning and communicative role cannot necessarily be predicted according to a strict lexical-combinatoric interpretation.

Another component of Construction Grammar which serves to support the idea of SNX as a Construction is the phenomenon of frequency effects and the role of fixed expressions. This is essentially the exemplar argument. We can look at the patterning of *stop smoking* and *start not feeling* — two complements which almost never occur within the opposite pattern structure — to provide the basis for this theoretical argument in support of a distinction between *start not* and *stop* and their disparate selectional restrictions. Basically, *stop smoking* essentially demonstrates frequency effects in that it is quite common, so constitutes an exemplar for *stop Xing* pattern. (Bybee & Thompson, 1997) In contrast, *start not feeling* essentially constitutes an exemplar for SNX, and due to relatively high

frequency within the bounds of SNX patterns could demonstrate frequency effects on semantically-similar patterns (i.e. other complements that express experiential, non-volitional phases or states). Thus if a speaker wants to express a change of state that is semantically similar to *feeling*, they will use *start not*; if they want to express a change of state similar to *smoking*, they will use *stop*. Thus these utterances can be said to be highly frequent, thus pseudo-prototypical or -exemplar, influencing construction choice for the speaker, and impacting the selectional restrictions of the *stop* or *start not* head of the construction.

This idea is further motivated by the ideas of Emergent Grammar, briefly explained earlier, and which we will recall suggests that "structure, or regularity, comes out of discourse and is shaped by discourse in an ongoing process." (Hopper, 1998; 156) That is, if regular use patterns can be found in SNX and in *stop*, this would mean that speakers and hearers are attending to these patterns and are in turn using them in their own discourse.

Fundamentally, whether we take a constructionist or an emergent perspective, we are inextricably linking SNX's form and its meaning, and it is that pairing which plays a role in the communication between interlocutors.

This idea of lexicalization of SNX into *stop Xing*, and thus true synonymy, as suggested by ter Meulen, suggests that SNX has no business existing, as would strict interpretations of Gricean theory, and communicative efficiency, previously discussed. However, empirical problems with these theories — namely that this pattern is attested (386 instances from a ~13 billion word corpus) and in quite predictable contexts/situations, as will be shown — drive us to find motivating factors behind the use and communicative role of this particular peculiar *construction*. Further, we have discussed several theories which present a schema which allows us to explain and structure the differing uses of *start not*, *start*, and *stop*. Between a constructionist and a head-driven lexicalist model, emergent grammar, and Levinson's GCI model, we are starting our analysis from a strong theoretical foundation which serves

to begin to explain the phenomenon of SNX.

2.3 Further Comments

Though several classical theories of linguistics, such as Gricean Maxims and lexicalization might take issue with the existence and legitimate role of this pattern, we have also presented others which enable our understanding. It is under the auspices of these traditions that we attempt to uncover linguistic cues that will (act as proxies to) allow us to determine what is normal and what is abnormal, à la Levinson, and to hypothesize and hopefully determine what, indeed, this structure means and when it is used, and that it is a verifiable Construction at all, and/or is a product of differing lexical entries for *start*.

We have been able to approximate a combinatoric understanding of this pattern by looking at each of its components one-by-one. We have also presented a theoretical motivation for why it is an interesting subject of discussion; that is, it exists despite being theoretically improbable yet fits conveniently into the structure of language imagined by other theoreticians. We have argued against the narrow-minded viewpoints, and suggested several re-imaginings of linguistic principles that provide a foundation necessary from which to establish our most basic of hypotheses: that despite surface-level lexical similarities, SNX is neither synonymous nor used in the same contexts as *stop Xing*; it fills a communicative role all its own.

Now, assuming our interpretations of each component of the pattern are well-informed (to recap, *start* = inchoative, gradual; *-ing* = state or attribute, ongoing instantiated event; *not* = scale reversal, downward-compatible, less-than-P), and our theoretical underpinnings sound, we can expect to see certain indications of these characteristics in the data, and begin to hypothesize about SNX and to develop contextual criteria with which to determine the distinction between SNX and *stop Xing*.

CHAPTER 3

HYPOTHESES

The overarching hypothesis of this work is that *start not Xing* fills a different communicative role than *stop Xing*: they are not synonymous (**Hypothesis 0**)*.* That is, *start not Xing*, despite being cumbersome or improbable (from a Gricean perspective), is licensed because we believe it allows speakers the flexibility to express a changing situation and perspective thereupon that they would not otherwise be able to, contrasting a negative inchoative as cessation against cessation as cessation. The choice speakers make when deciding how to describe changes of states or habits in their lives is influenced by numerous pragmatic concerns such as whether the new state is desired or not, the accessibility of certain lexemes and modifiers in context (fixed expressions), the nature of the new situation, and others. As such, it is the broad hypothesis of this work that the two patterns differ across any number of these and other measures.

If the two are truly synonymous and acceptable to native speakers, one might expect that they should occur in free variation: they should occur with (roughly) the same frequency; they should occur in the same contexts; and they should occur in those contexts in (roughly) the same frequency. (Lyons, 1981; §9.6) Further, they should display similar syntactic, semantic, and discourse-pragmatic features at approximately the same rates.

Of course, there is usually a preferred or exemplar way to say something (at least within a community of speakers), (Kidd et al., 2010) so it is unlikely that, even if understood to be synonymous by interlocutors, the two patterns would occur with equal frequency across contexts. What is instead

being proposed is that if the distribution of certain contexts or features is higher (or lower) in the presence of *start not* than *stop*, then this would suggest that *start not* is the preferred way to express those particular situational features and express a certain perspective, and the two are thus non-synonymous. We argue that the two patterns display different selectional restrictions with respect to numerous syntactic and other features. Similarly, if certain features distribute differently across *start not* and *start*, it would suggest support for the two-lexeme idea put forth in the previous chapter.

Further, as a corollary to H0, though we are hypothesizing that they are not synonymous, we do not want to imply that they are unrelated. As **H0.1** we will hypothesize that *start not* is a marked form of *stop*. Because they can be construed as synonymous, and *start not* is the complex, difficult, abnormal version of *stop not*, (Haspelmath, 2006) it can be seen as a marked form of *stop*, a marked way to express cessation. In a way, we can see *start not* as a sub-type of *stop*, the marked form which indicates undesiredness, gradual change, and a hope of reversion to the previous situation. These specific use characteristics are subsumed under communicative non-synonymy.

The hypotheses that will be developed henceforth ask questions about particular contextual or lexical features of the various patterns in use. Thus if it is demonstrated *start not* and *stop*, and *start not* and *start*, differ in terms of frequency along the dimensions chosen, then it can be shown that the two patterns are truly distinct, and *start not Xing* ought to be considered a construction with its own rules, patterns, combinatorics, specific-use requirements, etc.; its own lexeme. Further, we will consider (a) the effects of *start* and *stop* and (b) the effects of *not* on the selectional restrictions of SNX and *stop Xing*, in order to inform our understanding of the combinatoric effects of each component, above and beyond a simplistic two-way comparison between SNX and *stop Xing*.

Based on observations of the data, we have developed hypotheses about these specific uses of SNX and selected features in order to measure or approximate measures of our hypotheses. Each of the components of the pattern hint to the whole pattern's purpose vis à vis the communicative intent of the

speaker. The choice between *start not* and *stop* — that is, the choice between describing a negative (or less positive), downward-orienting condition and otherwise — is nuanced and indicates a particular perspective on the situation being described.

In observing the data, several patterns are immediately evident that will guide our hypotheses as to both the textual contexts in which *start not* is used as well as to the communicative purpose of this peculiar pattern. First, to lay the groundwork for developing our specific hypotheses, we notice that the *start not* utterances seem to occur in narratives relating true, past events, and in the expression of situation changes which seem to be undesired or particular deviations from the norm:

(12) *[All of a sudden, several] months ago, the almonds and the almond butter **started not tasting right**, and I suddenly tested allergic to [them]*.

(13) *... started to call me less and less. Then she **started not picking up** the phone, and she started going out ...*

(14) *... is looking better and better, and when he **starts not overthrowing** the receivers that he spots open, watch ...*

These broad observations lay the groundwork for Hypotheses 6 and 7, and inform the feature selection for Hypotheses 1-5 and their sub-parts. Hypotheses range from lexical characteristic to syntactic and contextual features, to discourse context and features, to pragmatic assumptions and broad combinatoric hypotheses informed by multiple contextual features. Recall though that our goal is two-fold: (1) to demonstrate that SNX and *stop* are quantifiably different, and (2) to demonstrate *how* they differ. Thus not every hypothesis/analysis will have a direct semantic-pragmatic-discourse correlate; some address only the differing selectional restrictions of SNX and *stop*.

3.1. Lexical Features

H1. **The *start not* pattern differs from the *stop* pattern on the lexical, surface level in the specific and type of complement verbs that it accepts.**

       H1.1. **The distribution of possible complement verbs differs between *start not* and *stop*.** One of the most obvious features is the complement verb itself. If *start not* and *stop* are synonymous, they should employ the same complements at roughly the same frequency. But if we see frequency distribution differences between complement lexemes occurring with each aspectual pattern, we can conclude at least preliminarily that the two patterns are not synonymous, and fill specific and distinct communicative roles. Data such as that for *stop smoking* motivates this hypothesis: *start not smoking* never occurs in the corpus data, while *stop smoking* constitutes 4.5% of *stop* complements, the second-most frequent complement. (enTenTen 2012) Similarly, *start not feeling* occurs at a higher relative frequency than *stop feeling*: *start not feeling* accounts for 7.54% of *start not* instances in enTenTen, the second-most frequent complement of *start not*; *stop feeling* for only 0.20% of *stop* instances. Further *stop* accepts a wider variety of complements (see Results, Chapter 5). These observations inform the following hypotheses (specifically H1.3 and H1.4); observing a distributional difference of lexical complements, we hypothesize then that the distribution of Aktionsart classes should also differ between *start not* and *stop* patterns, as well as according to a more semantic verb class division, which will be discussed in Methods (Chapter 4).

       H1.2. Based on further observations of the data, it appears that due to the cumbersomeness of *start not,* it should take simpler complement structures that *stop*. Specifically, we hypothesize that, due to constraints of communicative efficiency, ***start not*** **should occur less often with phrasal and/or light verbs than *stop*.** However, light verbs are known to often encode states, which could also suggest an inverse prediction; that *start not* more often occurs with LVCs. (Bonial, 2014) If this distribution differs, in either direction, it

would contribute to our understanding of the differences between the patterns in terms of what we know about the use of phrasal and light verbs and communicative efficiency, and extend these understandings to building a description of the non-synonymy between *start not* and *stop* vis à vis differing selectional restrictions.

H1.3. As mentioned in the description of H1.1, we have observed that the distribution of lexical complements differs between *start not* and *stop*. Thus, we also hypothesize that the distribution of Aktionsart classes differs between *start not* and *stop*. Specifically, we hypothesize that ***start not* more often occurs with Aktionsart State complements than does *stop***. This also means that we hypothesize a higher proportion of Types A & B (non-volitional) patterns with *start not* than with *stop*, but this will be addressed in H2.1. We also hypothesize that *stop* occurs more often with Activity complements. Neither should be particularly frequent with Accomplishment or Achievement complements, because of the habitual or stative nature of the predicate (see H1.5). This can be evidenced preliminarily by the differing frequencies of *start not/stop feeling* and *stop/start not smoking*, as described above: *feeling* occurs with *start not* and is a State; *smoking* occurs with *stop* and is an Activity. In the models of these event structures, a state is represented by ϕ, a homogeneous activity by $\tau\phi\tau$, a heterogeneous activity by $\tau\phi[\tau\phi]^+\tau$, etc. (Michaelis, 2011; 1372) Of course, we would like to represent the change of state represented by *start* as $\neg\phi\Delta\phi$, by *start not* as $\phi\Delta\neg\phi$, and by *stop* as $\phi\tau\neg\phi$.

H1.4 As mentioned above, **the sense and type/class of verb, independent of Aktionsart classifications, should also differ between *start not* and *stop***. In a non-specific prediction, we hypothesize that *start not* should more frequently occur with performative, cognitive, and/or experiential complements, the types that would intuitively tend to co-occur with Stativity, habituality, and non-volitionality. On the other hand, *stop* should occur more frequently with action/activity-type complements. This hypothesis is theoretically supported by

verb class classification schemas as presented by Levin (1993), VerbNet (Kipper et al., 2008), WordNet (Miller et al., 1998), and various other ontologies. However, our system, because we are working with such a small data set, is much simpler than these systems which are designed to not only capture all verbs in a language, but semantic verb constructions that are present cross-linguistically. Our methodology for testing this hypothesis is described in the next section.

H1.5 ***Start not* more often occurs with habitual complements than does *stop*.** By habitual complements, we mean to suggest volitional activities that are engaged in regularly by the subject. The reason to hypothesize that this occurs with *start not* and not with *stop* is because even though we believe *stop* selects for more volitional complements, *start not* more strongly selects for so-called structural, or typical behavior, complements while *stop* selects for inherently temporary or contingent situations. The distinction between structural and contingent complements will be hypothesized about in H5.2. This is related to our general impression that *start not* is employed in situations of gradual offset, while *stop* is employed in situations of immediate cessation.

H1.6. We next hypothesize that ***start not* occurs more often with scalar complements.** Some predicates are inherently scalar (Levin & Hovav, 2010); that is, they entail non-binary sets of degrees. *Liking*, for example, is one such predicate: one can *kind of like* something, but it is often said that one cannot be *kind of pregnant*; thus *pregnant* is not a scalar predicate. We could imagine one saying that they *started not liking something*, but unlikely that they would say they *started not being pregnant* (*stop being pregnant* is also a bit odd, but perhaps more acceptable that the former).

> (15) *... I broke up with him cause he started **not caring about me**, cause he started talking 2 girls ...* (enTenTen 2012)

Here, the addressee can infer that previously *he* did care about *me*, and now *he* doesn't. No

explicit scalar modifier (to be discussed in Hypothesis X) is employed, but through use of the *not* and the principle, repeated here, of "*not-P* is interpreted as 'below **P** on **P**'s scale'" (Horn, pp)*, and *caring* being a scalar predicate in the sense that one can experience or express *caring* along a continuum*, not caring about me* implies the current condition of the subject can be described as being less-than-*caring*.

The distribution of inherently-scalar complements is theorized to differ between *start not* and *stop* constructions, which if found to be true would further support our hypothesis of non-synonymy as well as that of gradual change. While **we hypothesize that *start not* is more likely to encode a degree or location on a scale, we hypothesize that *stop* has a higher concentration of binary-opposite situations (such as *pregnant*), which code absolute, polar situations**. Thus, SNX selects for scalar predicates, and *stop* doesn't.

3.2 Syntactic Features

H2. **The *start not* pattern demonstrates a distinct set of syntactic characteristics from *stop*.** In observing the data, it becomes apparent that the two patterns differ on various syntactic dimensions, which can also contribute to our understanding of each pattern and to our discussion of synonymy and non-synonymy.

H2.1. We observe that *stop* tends to occur with volitional predicates, describing an active and willing cessation of some activity, and *start not* tends to occur in contexts describing experienced changes of situation. Thus, we hypothesize that animate actor, volitional contexts occur more frequently with *stop* than with *start not*. Because we have already established the Types A, B, and C, which code for both animacy and volitionality, we hypothesize that ***start not* displays a higher density of Type A (inanimate subject) and B (non-volitional) patterns;**

while *stop* more frequently selects for Type C (animate subject, volitional) complements.

H2.2. We also observe that *start not* occurs with first and third person subjects, while *stop* appears to demonstrate a higher proportion of second person subjects. This will contribute to our Hypothesis 4.1 and Hypothesis 4.2 regarding the narrative uses and realis contexts of each pattern, but for the time being the testable hypothesis will simply be that **start not predicates occur more frequently with first and third person subjects than do *stop* predicates**.

H2.3. As the corollary to H2.2, *stop* should display a higher proportion of second person subjects and more frequent instances of imperative constructions. Thus Hypothesis 2.2 tests both **second person subjects (2.3.1) and the imperative (2.3.2), with the hypothesis that *stop* should more frequently occur with both features**. Disparate patterns of imperative use, if demonstrated, will also serve to support the non-synonymy hypothesis initially set forth in this section.

H2.4. As an offshoot of H2.2 and related to our observations of the data, we observe that the subjects of *start not*, which again we believe are often first and third person, are also often pronominal in form. This also correlates to theories of efficiency, and known-reference anaphora, previously discussed, as complex noun phrase subjects in conjunction with complex predicates should be burdensome for both speaker and addressee. This also relates to the broader hypotheses previously mentioned, that *start not* serves to narrate true events, in which case the known participants would naturally be referred to pronominally. By extension, **the new information in start not utterances is contained in the predicate**, and is indicated by the focus marker not. Thus we hypothesize that **start not should occur with pronominal subjects, and stop occurs with a higher proportion of simple or complex noun phrase subjects** because it does not necessarily report true events with known participants.

H2.5. The final purely syntactic characteristic we encode is based more on the desire to establish syntactic non-interchangeability than any particular observation gleaned from the data. We were curious to see if *start not* more often occurred in detached-phrase position or in core clause position, and the same for *stop*. (Van Valin & LaPolla, 1997; 38) If a difference could here be established, it would identify different patternings of the phrase's use, which contributes to supporting arguments for non-synonymy and non-lexicalization. It could also relate to our hypotheses concerning narrative and true event reporting, in that a core clause position would signify a component in a sequence of events, and relate to H2.4 in that *start not* likely reports a new event or new information (focus on predicate), while a detached phrase position would serve only to contextualize or provide topical information about the content of the core clause. (Lambrecht, 1996; 182) **Thus we will hypothesize that *start not* occurs in core clause position more frequently than does *stop*, and *stop* occurs in detached phrase position more frequently than does *start not*.**

3.3 Specification

H3. Patterns of specification differ between *start not* and *stop*. In observing the data, we notice that *start not* occurs frequently with contextual specification of various kinds. Temporal, quantifying, locative, and other modifiers are frequent components of SNX patterns, which contribute both to real-world contextualization as well as scalar implicature employed by the speakers of these utterances.

H3.1. Temporal modifiers, which serve to locate the situation change specifically with respect to speaking time (S), are frequent additions to *start not* utterances. The related motivations for this observation are twofold: 1) temporal identification locates the change of situation in real time (E with respect to S &/o R), which relates to broader hypotheses about

narrative and true-event reporting; and 2) temporal modification can serve to limit the span of time occupied by the change of situation (length of E), thus indicating temporariness, which in turn could suggest the perspective of undesiredness on the change of situation, which the *start not* pattern is also hypothesized to express. Thus, we hypothesize that **start not more often occurs with temporal modifiers**, such as adverbs.

(16) *Because they have so many safety instructions all the time, you can get bored after a while and **start not considering** them **anymore**.*

H3.2. Observing the data suggests that scalar and quantifying modifiers frequently occur with *start not* utterances.

(17) *... having problems hearing out of that ear, I **started not being able** to hear **quite well** from that ear ...*

(18) *... So, if other people **start not needing** him **as much** it's easier for him to abandon ...*

In both of these examples, a modifier referring to some scale is included to specify exactly at what level the speaker/subject is establishing as a baseline. In the first, the speaker is not suggesting that they cannot hear, only that they *cannot hear quite well;* and in the second, it is purported that people should not *start not needing him at all,* only that they should *start not doing so as much as before*. This highly-specified scalar modification is characteristic of *start not*. Considering we also hypothesize that (a) *start not* occurs with scalar predicates (Hypothesis 1.6) and (b) *start not* is used to expressed gradual change and undesiredness, it follows that *start not* should also frequently occur with these types of modifiers. If we observe a distributional difference between the occurrence of quantification and scalar modifiers, including but of course not limited to NPIs, between *start not* and *stop*, then non-synonymy, gradual change, undesiredness, differing selectional restrictions, and other broad hypotheses of

this work can be supported. Concisely, we hypothesize that ***start not* occurs more often with quantifiers, modifiers of scale, and other syntactic components which de-polarize, or specify a scale for, the new situation.**.

H3.3. A third specification or contextualizing syntactic characteristic that we observe in *start not* utterances is a locative specifier. These are not quantifiers or scalar modifications, nor are they temporal. Rather, they restrict the particular, real-world physical location and/or situation in or under which the change of state is occurring or has occurred.

(19) … *I **started not sleeping** when I was **at my dad's house***.

In this example, the speaker is constraining the not-sleeping experience to those nights when s/he is at her/his dad's house. This characteristic increased specification relates to reporting of true events and gradual and undesired change, as well as potentially to implications for rectification of the changed situation: if change is only occurring in specific instances or locations, perhaps there is still hope of reverting to the old, preferred state of being. Further, by constraining the change to particular real-world locations, the speaker essentially establishes truth conditions, which can ground the utterance in reality. Due to its presumed correlation with reporting real-world events, **we hypothesize that these locative specifiers are a more-frequent feature of *start not* patterns than of *stop* patterns**.

3.4 Discourse Features

H4. We have observed that the *start not* pattern occurs in different discourse contexts than *stop*. Some of these have already been introduced in the syntactic features already discussed, in that our hypotheses surrounding the discourse purposes of the *start not* pattern inform many of the feature-based hypotheses already developed. Overall, demonstrating that the two patterns differ on discourse

context measures would go a long way towards both (a) describing their specific use contexts/requirements, (b) establishing non-synonymy, and (c) understanding their selectional restrictions. The syntactic features discussed up until this point serve as proxies for analyzing the discourse contexts and features of the two patterns, since combinatorially they can contribute to our understanding of the discourse-pragmatic purposes of the variation between *start not* and *stop*.

H4.1. As mentioned previously, we have observed that *start not* occurs frequently in narrative contexts. Several of the features previously recounted serve to establish a basis for this hypothesis; first and second person subjects, pronominal subjects, realis inflections (H4.2), specifiers, and others support the present hypothesis by taking features common to and indicative of narrative contexts and demonstrating (or attempting to demonstrate) that they occur more frequently in *start not* utterances than in *stop* utterances. Thus, **here we hypothesize more broadly that *start not* serves a narrative purpose in communication, while *stop* carries less of this burden**. We will measure narrative context here particularly as including coordinating conjunctions and other sequencing and narrative markers such as "and", "so", and "then". Therefore, **we hypothesize that *start not* utterances have higher frequencies of these tokens than do *stop* utterances**. By demonstrating that *start not* and *stop* occur in different discourse contexts, such as narrative and non-narrative, the hypothesis of non-synonymy is supported.

H4.2. Also previously discussed, we have observed that *start not* frequently serves to recount true events. So here we hypothesize more generally that ***start not* will more often appear in realis contexts, while *stop* appears more often in irrealis contexts**. This feature is likely correlated with H4.1 regarding narrative; realis constructions relate true events, so if *start not*'s communicative role is to express real-life experiences, then it would certainly occur in realis forms in narrative contexts. If this hypothesis can be demonstrated to be supported by the

data, it would provide strong evidence that *start not* is not a lexicalization or synonym of *stop* because of differing discourse use concerns.

H4.3. The final discourse-context hypothesis we present is again based on observations of the data. **We hypothesize that as a component of its characteristic narrative structure, SNX either expresses a cause for a corrective action, or expresses an effect of a precipitating event or other change of situation.**

(20a) Cause: *Of course **when my husband and I started not spanking we were ridiculed** by family and friends*

The not-spanking causes ridicule.

(20b) Effect: *Syd **took too much** acid as we all know **and started not performing** onstage or barely performing at all.*

The acid causes non-performance.

Though there is no specific contextual cue that indicates such cause-effect relations, sequential or narrative markers can approximate these measures and native-speaker intuition completes the assessment. The cause-effect nature of a given utterance serves to situate an (undesired) change of situation within the chain of events that lead to and/or from its inception. By framing a *start not* pattern within a cause-effect sequence, speakers can indicate the undesiredness of the new state, express their desire to ameliorate or revoke the new situation, seek advice form interlocutors, and other communicative acts. (Locher & Limberg, 2012) Thus, we hypothesize that ***start not* is more often present in a cause-effect narrative than is *stop*.** That is, as a result of a triggering event the speaker expresses *starting not Xing*, or the speaker expresses *starting not Xing,* the change of situation of which causes a subsequent precipitating event. This hypothesis is further motivated by previous hypotheses regarding the use contexts for *stop*; specifically, if *stop* is less-commonly (or as hypothesized) used in narrative contexts, it

would likewise not occur as frequently in cause-effect recounting. So here again, we support our argument for non-synonymy of *start not* and *stop* regarding their specific use requirements.

3.5 Discourse-Pragmatic Features

H5. Our fifth umbrella set of hypotheses begin to bridge the gap between identifiable contextual features and discourse-pragmatic assessments of the utterance as a whole and its broader context. What these discourse-pragmatic features and our hypotheses thereof suggest is that the two patterns are used intentionally to convey different meanings and perspectives to the addressee, which we have established is well-motivated because of speaker-generated implicature. In building support for these hypotheses, we also support our broad hypothesis of non-synonymy and contribute to our understanding of the specific-use requirements for the *start not* pattern.

H5.1. ***Start not* new situations are more often undesired than are *stop* new situations.** In observing the data in conjunction with a basic amount of sociological understanding and assumption, we see that *start not* patterns are frequently used to express changes of situations, the inceptions of which seem to be stereotypically undesired. In contrast, *stop* pattern utterances are frequently used to demarcate the transition from undesired situation to desired situation. This can be understood even from looking at the lexical frequency distribution of *start not* versus *stop* complements, previously discussed: the second-most common *stop* complement is *smoking*, and the second-most common *start not* complement is *feeling*, often with *well*. Cessation of smoking is overwhelmingly understood to be a good thing in our society; cessation of feeling some way (*well*, at least) is generally understood to be a negative change. **As we've observed that *start not* tends to express undesired situation changes, so we hypothesize.**

The tendency of speakers to grammaticalize undesiredness is a cross-linguistic phenomenon. Grammars and typologies note codified expressions of undesirability in a wide range of languages including Ibaloi (Longacre, 2013), Czech (Bybee and Fleischman, 1995), and Taiwanese (Lin, 2015). Lin notes too that "what constitutes undesirability depends on the speaker's viewpoint" (150). Speakers employ specific verbs along with adjectives which denote undesirable qualities. It is our position that the SNX construction in American English serves a same or similar purpose.

The difference between undesired change and desired change, too, relates to the supposed revocability or possible amelioration of the new situation. It seems reasonable that a speaker facing an undesired change, or one which the speaker believes may not be permanent, will choose to express that with a grammaticalized form that indicates the possibility of revocability: SNX. A desired change, or perhaps one that the speaker has accepted as unchangeable, should be expressed with a non-revocable grammatical form: *stop*. Though we would like to know about revocability, it is truly a function of the grammaticalization of SNX, a phenomenon which we have not yet fully established. Thus we will have to settle for assessing desirability.

H5.2. ***Start not* new situations are a deviation from a structural state; *stop* situations are the cessation of a contingent state.** As described by Filip (1999), "static state predicates denote unchangeable, permanent properties of individuals and are not easily reinterpreted as properties of temporally limited and contingent states of individuals, which excludes their occurrence … with the progressive in English" (201-2) Though we have already established that state predicates can in fact occur with the *-ing* form, it is the distinction between "temporally limited" states and "unchangeable...properties" that we are interested in. Thus we suggest that with *start not*, speakers invoke more-permanent, habitual, or stereotypical properties by way of

the complement predicate, and with *stop* they express the expected cessation of a temporary state, one that exists because of and is contingent on outside factors.

This approximates 'unexpectedness' as a feature, in that the cessation of a structural (permanent or semi-permanent) situation is a deviation from the norm, and therefore unexpected. There were numerous contrasts (or theories of contrasts) that could have been drawn on to make this distinction, such as stage and individual level predicates (as expounded by (Fernald, 2000; 1), and others). However, this classification scheme was selected because the SLP/ILP distinction is too strict in terms of unchangeable properties; we were more interested in habituals and temporary situations, so chose to classify essentially by contingent or non-contingent. Observation of the data preliminarily supports our hypotheses; examples such as *stopped crying* versus *started not feeling well* encourage us to hypothesize that ***start not* reports changes from structural, inherent, or typical situations, while *stop* reports changes from contingent, temporary situations**.

H5.3. We also hypothesize that ***start not* patterns indicate a gradual change between situations,** including both homogeneous situations and intermittent or habitual situations; ***stop* indicates more often an instantaneous change.** This feature is somewhat difficult to extract from the utterance and its context; to a great degree, it depends on the Aktionsart class or other lexical characteristics of the complement lexeme. In that sense, this feature is essentially a function of other, previously-established features and of the nature of *start* as describing gradual change Δ, versus *stop* describing instantaneous transition τ, as described in §2.1. However, it is important to single it out as its own feature since it is a component of our core hypotheses, and further relates to desiredness (if a change is undesired, the speaker may want to express it as a slow, gradual change; if it is desired, or encouraged (as with imperative), the speaker may want to express and instantaneous change) and numerous other discourse-pragmatic characteristics.

3.6 Composite Hypotheses

H6. All of these hypotheses serve to support the following intuition: ***Start not* indicates an undesired or problematic deviation from a typical situation, and one which the speaker hopes to revoke or ameliorate.** Because the two constructions are not mutually exclusive (both can to some extent be used to serve the other's purpose), *stop* <u>can</u> indicate this, but more often indicates a desired cessation from an undesired activity or situation. This analysis is approximated as a function of other features/factors, which have heretofore been described. However, we list this here as a separate hypothesis because it is a key combinatoric property of the features already discussed and contributes richly to our understanding of the construction as described, uniting our understandings of the pattern up to this point under one overarching hypothesis.

H7. It has been mentioned that w**ithout the *start not* pattern, speakers would be lacking a way to describe the change of situation from a structural norm to an undesired new state-activity**; the implicatures and specific-use requirements of *stop* leave it not entirely suited to that task. Hypotheses addressed up to this point have served to establish a basis for this claim; *stop* and *start not* are not synonymous, based on all the features previously discussed, and ***start not* therefore fills a unique communicative role, one which is not and cannot be fulfilled by *stop***. Though this is not a feature-based hypothesis in the sense that there is one utterance or context feature that can be identified, it is a feature-based hypothesis in the sense that it is over-arching, subsuming under it all the hypotheses already established. We suggest here then that markedness is employed with a specific communicative purpose in mind. As such, the differences in communicative intent and use between *start not* and *stop* demonstrate a capacity for diversity of perception and expression of changes between situations, states, and/or habits, a distinction that without this pattern speakers would have to do

without. Many languages, for example, differentiate between intrinsic and extrinsic or temporary states (e.g. Spanish and Portuguese verbs *to be*). We see through the distinction of *start not* and *stop* that English speakers are also making this distinction, albeit when referring to changes of states which should be seen as habitual or characteristic, or temporary afflictions.

What all of these hypotheses seek to support is the idea that the form (and context) of an utterance can give clues as to the function, and by extension, differences in form between two closely-related utterances can in turn be used to understand the difference in communicative roles between them. If we can show that two presumed "synonyms" in fact appear in distinct contexts and are selectionally-different patterns rather than synonymous utterances with the same communicative intent, then this supports the idea that form matters for function.

How do we determine, according to the features selected, that *start not* means something different from *stop*?

CHAPTER 4

METHOD

In this section, we will review the data source and corpus selection, randomization for sample size selection, and explain how each feature-based hypothesis was annotated.

4.1 Data Selection and Description

In accordance with the hypotheses developed above, various textual features were selected and annotated in sample sizes of 50 per pattern *start, start not,* and *stop,* while *stop not* was represented by a sample size of 26, due to it being too rare to provide any more usable samples, from the enTenTen corpus. All four patterns were analyzed in order to determine not only the difference between *start not* and *stop*, but also to determine what aspects of *start not*'s selectional characteristics were due to *start* or to *not*, in order to contribute to a combinatoric understanding of these patterns, something which is lacking in the literature.

The enTenTen 2012 corpus was selected for its size (12.9 billion words), genre and register (internet writing, so casual and conversational), synchronicity, and relatively recent release date (2012), and was accessed via SketchEngine. (Jakubíček et al., 2013) One problem encountered in using enTenTen was because it is web-based data, not all of the samples produced by the search were sensical or grammatical. Further, the data had to be examined sample-by-sample in order to exclude samples which did not fit the pattern. For example, structures such as … *started, not running* … or … *started*

*not running but … * or *… started [out, by] not knowing anyone … * needed to be omitted but there was

no efficient way to do so via SketchEngine's interface.

All instances of *start not Xing* (n = 386) and *stop not Xing* (n = 53) were downloaded, as were

randomized sets of n = 1000 for each of *start Xing* and *stop Xing*. From these, randomized sets of 50

were generated, and supplemented with new randomly generated samples when a sample was deemed

to be insufficient (either the wrong construction, or ungrammatical/ill-formed).

We attempted to make annotation decision-making highly systematic. If an example was truly

unclear across multiple features, it was omitted from the analysis and a new sample randomly picked.

Despite different absolute frequencies for each of the four patterns, an attempt was made to select an

equal number of examples —50 each — for consistency of denominator when comparing relative

frequency. Here I will review the feature-based hypotheses again, with an example or more for each

demonstrating how annotation decisions were made, particularly in ambiguous contexts.

4.2 Measurable Hypotheses

4.2.1 Lexical Features

H1. **The *start not* pattern demonstrates a distinct set of possible complement verbs from**

***stop*.**

H1.1. **The distribution of possible complement verbs differs between start not and**

stop. The decision-making for lexical features is straightforward; simply, each lexical

complement was tallied and its relative frequency (per aspectual pattern) calculated. This

feature was analyzed on the basis of the entire n = 1000 (*start* and *stop*) and n = 386 (*start not*)

sample sets, rather than the n=50 subsets selected for annotation. For phrasal and predicate

adjective complements, the main verb was considered the lexeme:

(21) ... *Then she started not **picking** up the phone ...*

(22) ... *"I really wish you'd stop **being** so negative all the time!" ...*

(23) ... *What I don't understand and start not **being** too happy about any more is that ...*

In the latter two examples above, though the predicate adjective differs, both would be counted under the complement 'being'. Further, even though *picking* and *picking up* have different meanings (hence being a phrasal verb), for ease of process they would both be considered lexically *picking*.

H1.2. ***Start not* should take shorter complements (fewer phrasal/light verbs) than *stop***. This measure was counted with 1/0 tallies; simply, if the complement was a phrasal or light verb, it was counted as 1; otherwise, 0. The example below demonstrates an instance of a phrasal verb complement.

(24) … *if you guys keep talking things will start not **adding up**, stories will become inconsistent …*

H1.3. ***Start not* more often occurs with Aktionsart State complements than does *stop***. Aktionsart class was determined on a lexical basis according to the complement of the aspectual verb. This required assuming an uninflected or past-tense version of the complement verb. The tests presented by Van Valin and LaPolla (1997) were used as the basis for determining membership in a given class, with reference to the event structure models as exhibited in (Michaelis, 2011). Rather than differentiation across all event structures, the [+telic] classes were combined, considering we were not particularly concerned about the differentiation between these two, only with the State and Activity distribution of the patterns in question. (Dowty, 1986; 42)

[+telic]:

> (25) *... out of finances, is confused, the bills start not **getting paid** and the lawyer's enthusiasm weakens ...*

The modified "the bills got paid" is +telic, +durative. Once the bills are paid, the event ceases.

> (26) *… that is the same period when my friends start not **inviting** me to things …*

Class was determined based on "my friends invite(d) me". The event of invitation happens +punctually, and is then over, after which you have been considered invited, thus this event ends as τφ.

> (27) *… We need to do everything we can to prevent further damage to the ozone layer, stop **destroying the rainforests**, curb greenhouse emissions, reduce pollution, etc. …*

Analyzed as "destroy the rainforests", this complement can be understood as an activity that leads to an endpoint. Thus once the rainforests are destroyed, the destruction ceases.

Activity:

> (28) *... I started not **sleeping** again, and began to wish ...*

This is an example of a habitual activity which includes pauses or rests ("episodes of stasis" (Michaelis, 2011)); it is a heterogeneous activity. There is no inherent endpoint to the pattern of sleeping, only to individual episodes thereof.

State:

> (29) *… I noticed one day that they started not **fitting in my bra** like they used too …*

Because "fit in my bra" is a homogenous situation without an inherent endpoint, it is a State. That is, it is modeled accurately by φ.

H1.4. **We hypothesized that the semantic sense of the complement verb should differ across patterns, with *stop* taking more active complements and *start not* taking more experiential complements.** There are several ways to classify verbs other than via Aktionsart

classifications, many using the semantic sense of the verb. For example, Levin's classes map verbs to their alternations and constructional behaviors. (Levin, 1993) VerbNet uses semantic grouping of verbs, based on what arguments they take and in what forms they are found, to categorize verbs. Though we considered using Levin's two-pronged classification strategy — one for alternation pattern and one for semantic/selectional class — some complement verbs we encountered were not classified by her work so we could not achieve 100% coverage with that classification scheme. Further, VerbNet is a huge network drawing from several different verb and word class ontologies, which was too fine-grained for our purpose. So we developed our own small classification scheme based on the type of verbs we tended to see as complements of these aspectuals.

We used a simplistic categorization, with 7 possible annotations: Activity (for physical activities); Attributive (typically with *being*, for attributes of the subject); Cognitive (for cognitive functions, including *think*, *worry*, and *want*); Experiential (for things the subject undergoes, including physical ailments, such as *itch*, *ache*, *fit*, and *grow*, as well as *have solar eclipses*); Feeling (for emotive verbs such as *like*, as well as *feeling well,* though it would probably be preferable to re-allocate *feeling well, etc.* to experiential, which may occur in revision), Performing (mostly for inanimates, such as *work*, *cover*, *heart beating*, *holding a charge*), and Speaking (for verbal acts, including *talking* in specific instances while general *talk* is an activity, *asking*, and *shouting*). It is important to note that this classification was made via including phrasal verb components, direct objects, and other extra-complementary particles. In the examples below, the relevant components of the complement are emphasized.

Activity:

(30) … *behavior. Of course when my husband and I started not* **spanking** *we were ridiculed by family and friends* …

Attributive:

(31) … *the kids in the checkout lines started not **being afraid of me** and some even started to smile …*

Cognitive:

(32) … *eternal. The immediate joy is because you stop **worrying about** the things that usually worry people …*

Experiential:

(33a)… *I didn't exactly freak out when I started not **fitting into** my clothes, but it did put a damper …*

(33b)… *than at present. Long before then we'll stop **having total solar eclipses**. The solar tides will …*

Feeling/Emoting:

(34a)… *need to stop using the 20D, that is when I start not **liking** the 40D. …*

(34b)… *including Windows 7 On Saturday night I started not **feeling very well**, so Morgan and I spent most of …*

Performing:

(35)… *The phone was good, but the battery started not **holding a charge** long and it was cheaper to buy …*

Performative complements can be paraphrased as *operating, functioning, working,* or generally an inanimate object (not) doing what it is supposed to.

Speaking:

(36)… *I've just started not **saying thank you** in the past few days because[the H's insistence on having everything "appear" nice make me feel used and disgusted.] …*

H1.5. We were curious about whether or not SNX typically encoded habitual activities or behaviors in its complement. Thus we classified for 1/0 habituality of the utterance (whether, if *start not* or *stop*, the previous situation was habitual, or for *start* or *stop not*, the new situation could be considered habitual). This would presumably be somewhat co-occurring with features like Aktionsart Activity and the structural/contingent distinction (H5.2). One possible problem with this annotation is that only non-stative verbs were considered habitual, since it seemed like an event structure should be iterative in order to be considered habitual. Thus even inherent traits like States would not be considered Habitual. In revision, it may make more sense to classify for Habitual|¬State.

For each of the four pattern-types, "habitual" complements are exhibited below:

Start not:

(37)… *the bills start not* **getting paid** *and the lawyer's enthusiasm weakens* …

Both because "bills" is plural and because "getting paid" is an iterative event, this was classified as Habitual.

Stop:

(38)… *Corporations will stop* **shipping jobs overseas** *and just ship* …

Because "shipping jobs overseas" does not occur in one fell swoop, this utterance is classified as Habitual because it is an iterative series of events or multiple instances of offshoring that contribute to "shipping jobs overseas" in the general sense as executed by "corporations".

Start:

(39)… *exponents is no longer an issue when you start* **using algebra**. …

In the scope of one's daily life, one does not use algebra incessantly. There are moments when you might need algebra and moments when you might not, thus the use of algebra is iterative and, in this case, Habitual.

Stop not:

(40)… *Stop not **hanging out** at all the places you usually hang …*

"Hanging out" is an iterative activity or behavior, thus it is Habitual.

H1.6. ***Start not* occurs more often with scalar complements.** That is, *start not* is more

likely to encode a degree or a location on a scale rather than an absolute. Again, the example of

"fitting" will be presented to demonstrate a scalar complement.

(41) *...I noticed one day that they started not fitting in my bra **like they used too**...*

This use is scalar because "fit" exists on a scale from perhaps <not fitting,fitting perfectly>.

Fitting can be true between the two poles of that spectrum. Especially in conjunction with the

modifying "like they used to" (H3.2), this utterance is an example of a scalar implicature

licensed both by *start* and *not*, as well as because the predicate *fit* is inherently scalar. An

example of a non-scalar use is the following:

(42) *… Of course when my husband and I started not spanking we were ridiculed by*

family and friends ...

Though it is a habitual, there is no indication that the "spanking" or "not spanking" exists on a

scale; either the speakers are or are not spanking. This is partly discernable from the lack of

scalar modifier, which will be further discussed under H3.1.

4.2.2 Syntactic Features

H2. **The *start not* pattern demonstrates a distinct set of syntactic/contextual characteristics**

from *stop*.

H2.1. ***Start not* occurs more often with Types A & B**; *stop* moreso with Type C. Refer

to Chapter 2 for examples of each of A, B, and C prototypes. This feature should co-occur with

subject animacy and also related to narrative accounts.

H2.2. ***Start not* occurs more frequently with first and third person subjects.** Annotation for this is straightforward; however, when the long-distance dependency was greater than the window of the sample, as in

(43) … *many parallel requests as an attack (and stop responding). When that happens, it looks… ,*

an educated guess must suffice. Here, because the speaker seems to be describing a state of affairs, it is unlikely that the subject is in the second person, so we can fairly-safely assume 1st or 3rd.

H2.3. Also related to narrative, ***stop* will appear more often with second person subjects (2.3.1), and more often in the imperative (2.3.2)**. *Start not* should not appear as often with the imperative since we hypothesize (3.1) that it is predominately used to relate true events. Following are examples of imperative with both *stop* and *start not*. Again, this is straightforward to assess.

(44) ...***Start not doing so***. *Your goal is to learn from the examples...*

(45) ... ***Stop crying***, *my dearest," he said. "You've had your..."*

H2.4. ***Start not* should occur with pronominal subjects.** Nominal category was classified as either pronominal, or noun phrase (including simple and complex). The following are examples of several nominal patterns observed:

(46a) **Pronominal:** … *and when **he** starts not overthrowing the receivers …*

(46b) **Zero**: … *Add more muscle; ⌀ stop limiting your tools …*

Zero or gapped subjects were grouped with pronominal, in they they also refer to a known referent so subserve the same anaphoric or non-new information role as pronouns. Pronominal or known-referent subjects are contrasted to the following three types, which are subsumed

under the annotation noun phrase (NP):

> (47a) **Proper Noun:** … *Syd took too much acid as we all know and started not performing onstage or barely performing at all …*

> (47b) **Common Noun:** … *if you guys keep talking,* **things** *will start not adding up, stories will become inconsistent …*

> **Common Noun, Noun Phrase:**

>> (47c) … *The phone was good, but* **the battery** *started not holding a charge …*

>> (47d) … **the kids in the checkout lines** *started not being afraid of me and some even started to smile …*

H2.5. In order to establish whether or not the syntactic context of SNX as compared to *start* and *stop* was differentiated, we counted core clause versus detached phrase instances.

Core Clauses:

> (48a) … *I broke up with him cause* **he started not caring about me***, cause he started talking 2 girls …*

> (48b) … **He will start not responding to his name***, verbal commands and will even …*

Instances where the SNX or other pattern was part of the main informational component of the utterance were considered "core clause" instances.

Detached Phrases:

> (49) … *Of course* **when my husband and I started not spanking** *we were ridiculed by family and friends …*

Because the "when my husband and I …" component serves as a contextualizer or specifier for the core "we were ridiculed", this was considered a detached phrase. A similar structure is seen in the following example:

> (50) … **When he started not feeling well***, he and a friend started up a training …*

Parentheticals were also considered detached phrases because they were not part of the core:

(51) … *time to physically mirror our audience (**stop moving***, *stand straight up, hands at our sides) …*

4.2.3 Specification

H3. Hypothesis 3 addresses specifiers, which may scope the complement of SNX or *stop* (quantifying/scalar), or the aspectual verb itself (locative, temporal). There is also a distinction between internal (to the aspectual) modifiers and external (to the aspectual) modifiers, such as in the following temporally-modifying examples.

Internal:

(52) … *My 4yr old has just **started [not [wearing a nappy [at night]]]**. She had 3 dry …*

The four-year-old did not during the nighttime commence this new situation; it is only that the nappy-wearing or its lack is relevant at night.

External:

(53)… *but **then suddenly this year**, [he started not caring and taking me for granted] …*

In contrast, the external modification situates the entire start-not-caring situation within *this year*.

This would be a feature to consider in revision or upon further examination, and perhaps would be more informative in some ways than the approach taken; however, in this iteration, we were more concerned with the semantic role or purpose that the modifier served with respect to the utterance as a whole rather than what component part was receiving modification.

H3.1. ***Start not* more often occurs with temporal modifiers**, such as adverbs, or modifiers which locate the situation change specifically within (deictic) time. The window for

consideration included the entirety of the example as generated by enTenTen/SketchEngine. Thus, a temporal modifier could be a detached phrase, and proximity to the aspectual verb is not a prerequisite. These modifiers are also not limited to adverbs; they can overlap with narrative indicators (H3.1), such as in (c) below, or bound the new situation as temporary, as in (d). Bounding the change of situation in a specific temporal window serves three purposes: (1) to contribute to the narrative structure of the report; (2) to indicate the unexpectedness or deviance from normalcy of the new state; and (3) to indicate focus on the inception of the new situation, rather than on the cessation of the old situation, as would *stop*.

(54a) *[All of a sudden, **several] months ago**, the almonds and the almond butter started not tasting right...*

(54b) *...and **right away** i started not feeling good. i had a history of anxiety so i didnt...*

(54c) *...**Then** she started not picking up the phone, and she started going out...*

(54d) *...if you start not pitching **for a while** or you have a couple of bad...*

H3.2. ***Start not* occurs more often with quantifiers, modifiers of scale,** and other syntactic components which de-polarize the new situation. As previously discussed in Chapter 2, modifiers in conjunction with the negative particle can implicate scalarity that may otherwise not exist. Since *stop* tends to indicate absolute cessation,[3] it is hypothesized that it occurs less frequently with such scalar implicatures. Below are examples which carry scalar implicature. These annotations were 1/0.

(55a) *... I noticed one day that they started **not** fitting in my bra **like they used too**.*

(55b) *... the moment you start **not** being able to produce **as much**, it all adds up...*

(55c) *... "I really wish you'd **stop** being **so negative** all the time!" ...*

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3   Duffley (1999) differentiates "stop" and "cease" as follows: stop "applies primarily to action or progress" and cease "applies to states or conditions." (310) He says that cease V-ing focuses "on the termination of what exists and not on a transition into a new state", (327) but does not allow this analysis for stop. In contrast, "stop denotes the idea of obstructing or preventing the further progress of something" (311), but not necessarily preventing the resumption of some activity or state (324). However, given the sheer popularity of start over cease (Google N-Grams: stop was 7.5x more common than cease in 2008), I think it is fair to assume that the characteristics of cease as described by Duffley also apply to stop.

H3.3. **Start not occurs more often with locative or directional specifiers**; e.g. *I started not sleeping at my dad's house.*

(56a) *... Why did you want to stop running **on the treadmill**? ...*

(56b) *… Syd took too much acid as we all know and started not performing **onstage** or barely performing at all.*

This kind of specifier was annotated 1/0 depending on whether the reasonable interpretation could be made that the new situation or change of situation was relevant only to a particular milieu.

4.2.4 Discourse Features

H4. The *start not* pattern occurs in different discourse contexts — serving different communicative roles — than *stop*.

H4.1. **Instances of *start not* are more frequently found in narrative contexts than stop instances.** This was assessed based on the presence of coordinating conjunctions, narrative markers, and sequential indicators.

(57a) *...**Then** she started not picking up the phone, and she started going out...*

(57b) ***So** I started not publishing the running point total, which seemed to ...*

(57c) *...I started not letting the scale dictate how I felt **and** stopped...*[4]

Such markers also have a bearing on hypothesis 4.3, regarding cause and effect contexts.

H4.2. ***Start not* will more often appear in realis contexts, while *stop* should appear more often in irrealis contexts**. Again, this is because we hypothesize (H4.1) that *start not* is

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4   This example is very interesting, because we see that the speaker is, within the same utterance, differentiating between *stop* and *start not*. This alone can be used as support of our hypothesis, suggesting that speakers are clearly attending to the difference between the two.

used to relate true events/narrative. The realis/irrealis distinction was made according to whether the utterance reported (contextually) true events: if the utterance reported the past or present without hypothetical modifiers/indicators, it was classified as realis. This included several examples which recounted fictional narratives, but within the domain or world should be considered realis. If the utterance was subjunctive, hypothetical, imperative, interrogative, epistemic, futurate, or otherwise not-provably realis, it was categorized as irrealis. Every utterance is classifiable as realis or irrealis.

(58a) (Realis) ...*Of course **when** my husband and I **started** not spanking...*

(58b) (Irrealis) ...***if** you start not pitching for a while or ...*

Both Realis 1/0 and Irrealis 1/0 were annotated but they are of course entirely complementary.

H4.3. ***Start not* is more often present in a cause-effect narrative.** That is, as a result of a triggering event the speaker experiences a change expressed by *starting not Xing*, or the change of situation expressed by *starting not Xing* causes a subsequent precipitating event. This hypothesis relates to the hypothesized narrative character of *start not* utterances, as well as to undesiredness-reporting, advice seeking, or other rectifying acts. For utterances which display neither characteristic, both cause and effect are noted as -.

(59a) (Trigger/Cause) ...*Of course **when** my husband and I started not spanking **we were ridiculed by family and friends.***

Here, the commencement of the not-spanking causes ridicule.

(59b) (Result/Effect) ...***hearing might diminish** as he ages. He **will start not responding to his name**, verbal commands...*

Here, as a result of age-related hearing loss, responsiveness will decrease.

(59c) (Neither) *... It seems like just yesterday that we started not using Microsoft Bing for all our daily searches …*

No cause for or effect of the change in search engine is clear from the utterance; it is simply a fact stated.

4.2.5 Discourse-Pragmatic Features

H5. The two patterns SNX and *stop Xing* are used intentionally to convey different meanings/perspectives to the addressee. As we have described, under the framework laid out by Generalized Conversational Implicature (Levinson, 2000), what is said in an abnormal way is not normal. The abnormal form and therefore situation expressed by SNX is communicated as such to the hearer.

H5.1. ***Start not* new situations are more often undesired than are *stop* new situations.** Undesiredness (of the new situation) was basically assessed either according to social norms, or whether there was some kind of applicable intuition. Of course, lexical cues would also be considered if they exist, but they tend not to. If this hypotheses can be demonstrated, that would support the broader hypothesis which suggests that this pattern overall is used to indicate unwanted or abnormal changes in situation. Every utterance could be classified as either desired or undesired; if it was truly ambiguous, it was classified as desired because the quantity of undesiredness-expressing utterances is the statistic truly of interest.

(60a) (Desired) *… I started not letting the scale dictate how I felt …*

Typically, the situation in which one allows their weight to dictate how they feel is undesired so "not letting the scale dictate" how one feels is, in contrast, desired.

(60b) (Desired) *… I've just started not saying thank you in the past few days because[the H's insistence on having everything "appear" nice make me feel used and disgusted.]*

Here, we categorize the new situation — "not saying thank you" — as desired, since the speaker indicates that saying thank you was a factor in her (?) feeling "used and disgusted". Notably, both of these examples of a desired situation change are instances of expressing personal empowerment or achievement, which would signify a long-awaited or long-desired change from a structural state which is, in some way, destructive or harmful.

(61a) (Undesired) … *My cat Behr started not eating. The food would just come back up*. The new situation expressed in this utterance is clearly undesirable, as one typically would like their cat to eat.

(61b) (Undesired) … *started to call me less and less. Then she started not picking up the phone...*

Here, it is the perspective of the speaker that establishes the new situation as undesired. The speaker wants the subject to pick up the phone; thus, the new situation is undesired.

H5.2. ***Start not* new situations are a deviation from a structural condition; *stop* situations are the cessation of a contingent condition.** This approximates 'unexpectedness' as a feature; if a structural or typical situation is no longer the case, it could be considered unexpected; however, a temporary or contingent situation that has ceased is the expected outcome. Note here that habitual complements are considered structural and considered behaviorally typical, rather than restricting structural to the class of properties which are permanent and inherent.

(62a) (Structural, Habitual) ... *I started **not bringing my phone to class**, and would keep my pens ...*

Here, "bringing my phone to class" describes a habitual behavior and therefore (in our interpretation) structural situation/condition, so the incipient cessation is unpredicted or unexpected since it is a deviation from the norm.

(62b) (Structural, Stative) ... *I noticed one day that they started **not fitting in my bra like they used too** ...*

As a homogenous condition, "fitting" is a stative complement so is structural, and a deviation from this state is (typically) unexpected.

(62c) (Contingent) ... *"Stop crying, my dearest," he said.* ...

Here, the "crying" is a temporary, contingent situation, presumably the result of extenuating circumstances. Thus, cessation of crying is a return to normalcy, or the structural state of not-crying.

H5.3 **Start not patterns indicate a gradual change between situations, including intermittent; stop indicates an instantaneous change.** This can be construed as a function of *start* and of *start*, respectively, and a function of the event structure of the predicate, as described via the distinction between Δ and τ, and ϕ (see Chapter 2). However, there is still the possibility that *start not* could indicate an instantaneous change and *stop* a gradual one, so this feature was annotated, according mostly to repercussions of verb class and intuition.

(63a) **Gradual: ...** *Youngsters started not migrating to cities* **...**

Because this presumably takes place over an extended period of time, it was classified as a gradual change.

(63b) **Instantaneous:** ... *but i just wont stop itching* ...

Because *stopping itching* is something which one would like to happen immediately, due to itching being unpleasant, this was classified as instantaneous.

4.3 Composite Hypotheses and Measuring Success

Success regarding the remainder of the hypotheses, those which are essentially an

amalgamation of the feature-based hypotheses listed above, will be established based on whether the quantifiable hypotheses can be supported or not. (H6-7) That is, undesiredness and amelioration (H6), speaker perspective on $\Delta\phi$, that the use is unpredictable and it is therefore a construction, and theories regarding SNX being an exemplar/fixed expressions, are all essentially products of the various syntactic features and support for these hypotheses will be established as such.

Regarding statistical analysis, each datum was classified as 1/0 for the feature in question, or a discrete number of values (subject number, subject nominal category, e.g.) was tallied; distribution for these classifications was analyzed with respect to the A-B-C prototype category as well as the overall total, maintaining separation between *start, start not, stop,* and *stop not*. Thus, for e.g. Desired/Undesired with respect to *start not*, the number of Desired (new situation) utterances was counted and the frequency calculated per total number of *start not* utterances (n=50). This would be the total number of Desired utterances with the form SNX. Further, the number of Desired && Prototype A (&& *start not*) utterances were counted and the frequency per Prototype A (&& *start not*) utterances was calculated. This was repeated for *start, stop*, and *stop not*, and for Prototypes A, B, and C and total utterances for each of the four utterance types.

An approximation of significance in differences between frequencies in feature characteristics across the four utterance types was determined by the spread of the frequencies; typically if two data points differed by about 0.2 (20% in absolute terms) the difference was considered noteworthy. This was particularly the case if one pattern displayed such different frequencies with respect to all of the other patterns. However, we have not made any claims about significance at this time.

Though establishing separate frequencies for each of Prototypes A, B, and C per utterance type does not include large enough sample sizes to make any claims about significance, some patterns can still be hypothesized based on these preliminary results, and directions for potential further research established. These will be discussed in Discussion, Chapter 6.

Experimental success will be determined according to whether feature-based hypotheses are generally supported, and from thence, whether the overarching hypotheses about the meaning and usage rules/contexts of *start not* can be argued to be supported by the results thereof. If we can experimentally support that SNX's feature distribution differs from *stop,* and if we can determine to what extent those differences are attributable to the combinatoric effects of *start*, *not*, etc., then we will have demonstrated both that SNX ≠ *stop*, supporting our H0, and will have contributed to a more in-depth understanding of combinatoric effects of aspectual verbs.

CHAPTER 5

RESULTS

The following section will report the results of the corpus analysis according to each of the dimensions described in the previous sections. Overall, some key syntactic and pragmatic features can be shown to differ according to whether the utterance contains *start not* or *stop*. This would allow us to tentatively support the hypothesis that *start not* and *stop* are not synonymous, and are used in different discourse-pragmatic situations to express a particular perspective on situation change on the part of the speaker. Further, we can assess what aspects of the difference can be attributed to the aspectual verb, the negative particle, and/or a combination of the two. This analysis will help us understand both the specific use requirements of each pattern, as well as combinatoric implications of this construction. Note that in all tables, except where clearly percent, data is given in frequency. In frequency measurements given in tables, each cell is calculated as follows:

	State			
	A	**B**	**C**	**Total**
start not	'=#[state&A]/#A	'=#[state&B]/#B	'=#[state&C]/#C	'=#[state&start_not]/start_not

Figure 2

5.1 Lexical Features

H1. **The *start not* pattern demonstrates a distinct set of possible complement verbs from *stop*.** For example, *start not feeling* occurs at a higher relative frequency (per instance of SNX) than

stop feeling (per instance of *stop*), while *stop smoking* occurs at a higher relative frequency than *start not smoking*.

H1.1. **The distribution of preferred complement verbs differs between *start not* and *stop***. This hypothesis is supported by the data; the following chart shows the most frequent complements of *start not* (yellow) compared to those complements' frequencies with *stop*. Thus it compares selectional behavior of the two aspectual verb patterns. The frequencies measured are relative:
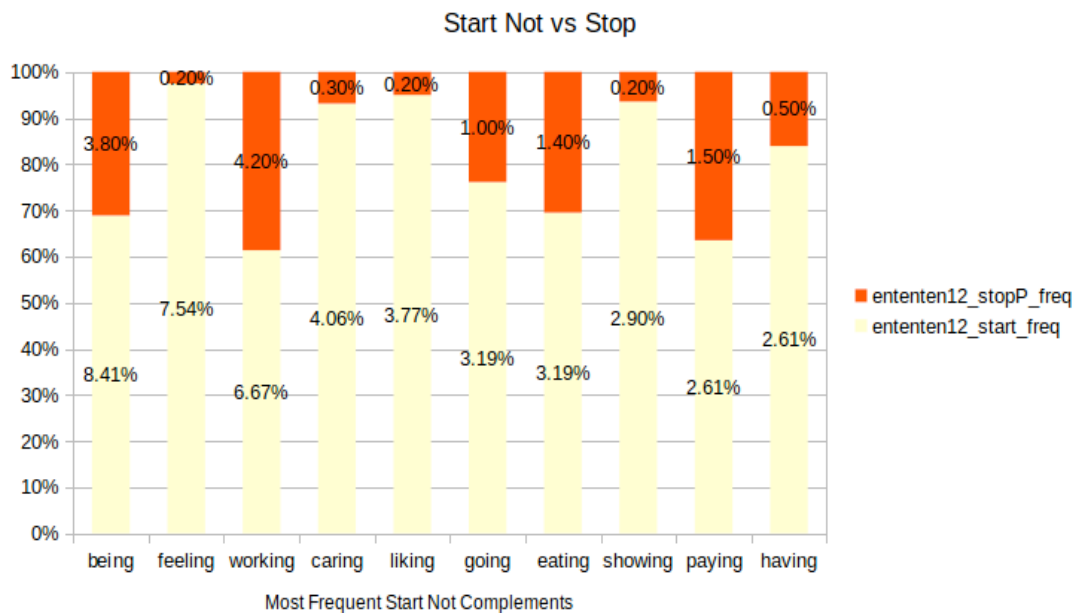
Figure 3

In contrast, the following chart shows the most common complements of *stop* compared to their frequency of occurrence with *start not*. Again, *start not* is yellow.

Stop vs Start Not
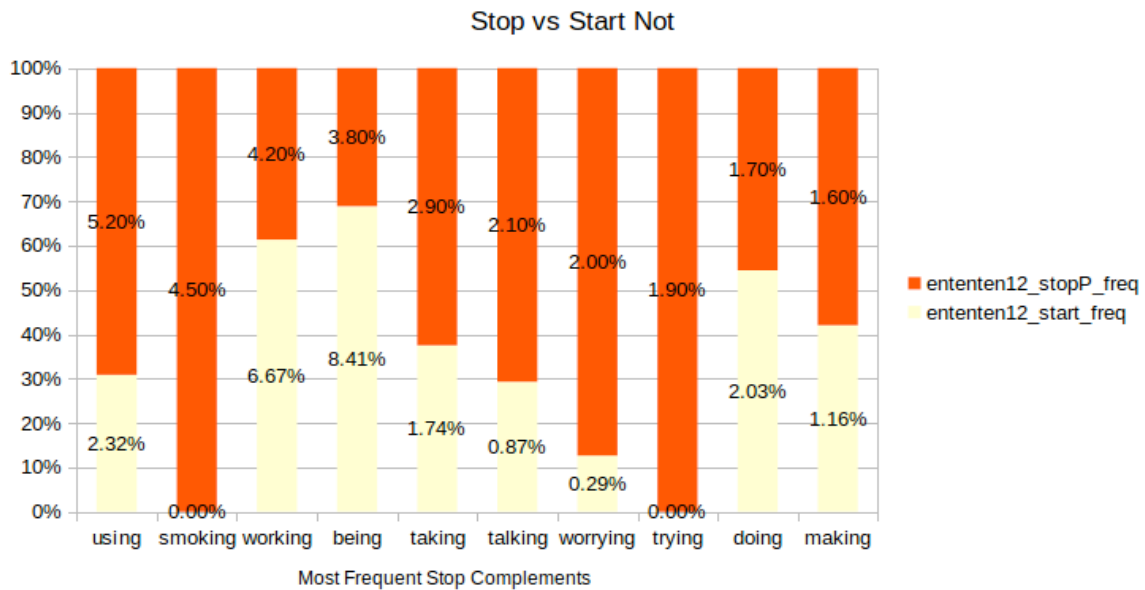
Figure 4

It should be noted that in both of these charts, *working* is typically the 'performing' or 'operating' sense, rather than the 'engaged in business' sense.

Frequency here is the number of times the complement occurs divided by the number of times the relevant head verb (*start not* or *stop*) occurs. That is, it is P(feeling|stop), e.g.. These data tell us about the selectional preferences of *start not* and of *stop*, but not about the behavior of *feeling*, *smoking*, or any other complement. If we look at the general trends displayed in these charts, we see that SNX selects for more stative or behaviorally-habitual complements, while *stop* prefers dynamic complements. SNX and *stop* diverge on their most-preferred complements in eight out of ten cases; this alone should be noteworthy.

In comparing *start*'s most common complements to their frequency with *start not*, the following distribution appears.

Start Most Common Complements

vs their frequency with SNX
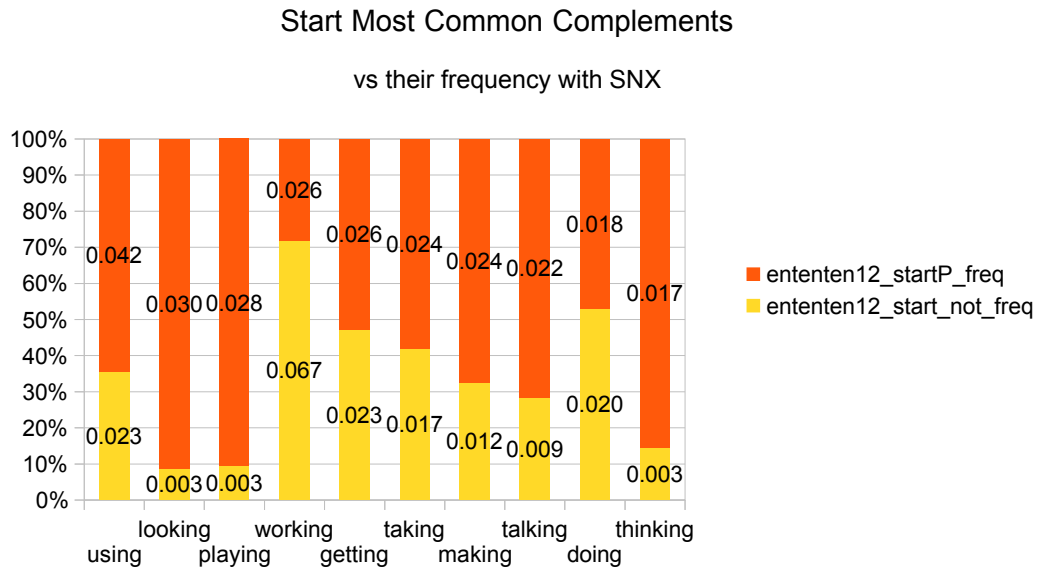
Figure 5

And the reverse, *start not*'s most common complements and their frequency with *start*:

Start Not Most Common Complements

vs their frequency with start
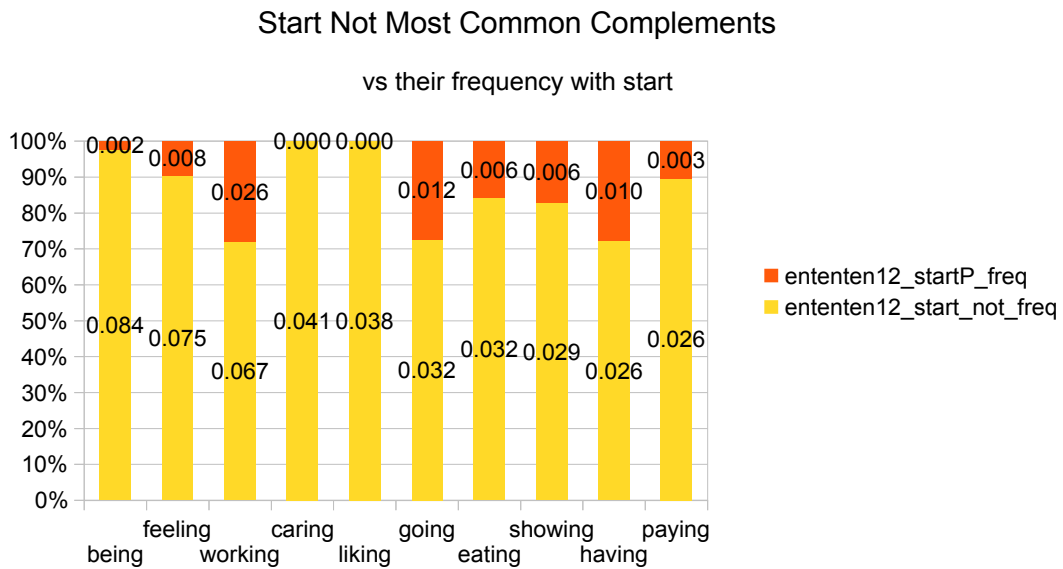
Figure 6

It is clear from this visualization that complements that are common with *start not* are typically less common with *start*. The following shows *start not*'s most frequent complements, compared to the other three patterns: from the outside in, it displays the proportions for *start not*, *stop not*, *stop*, and *start* in the interior.
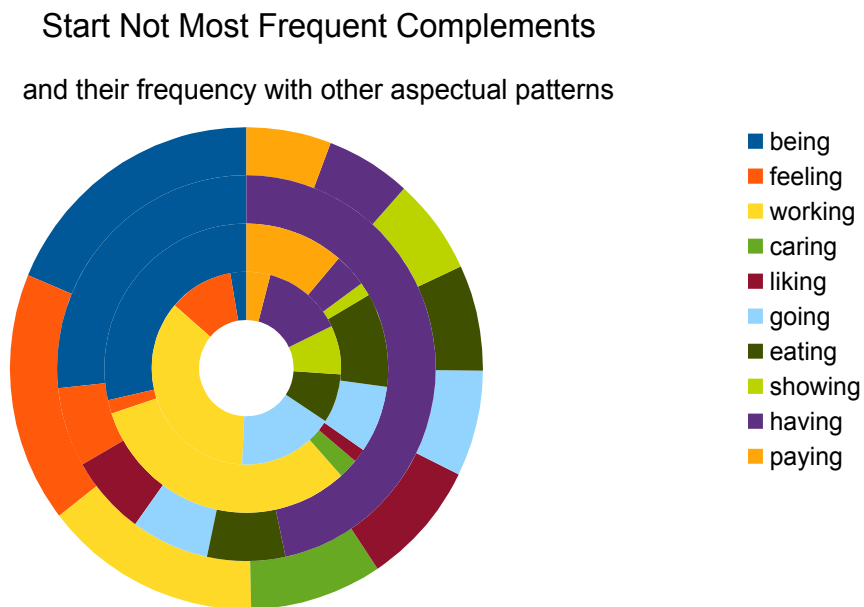
Figure 7

Further, as mentioned previously, the variation in potential complements is greater with *stop* and with *start* than with *start not*. *Start not* occurs with 113 different complements in our entire data set (386 results from SketchEngine/enTenTen; this include bad samples, as previously discussed; average frequency per complement ≈ 0.009). *Start* occurs with 411 unique complements over 1000 samples (average frequency per complement ≈ 0.002), *stop* with 360 over 1000 samples (average frequency per complement ≈ 0.003), and *stop not* with 37 unique complements over 53 samples (average frequency per complement ≈ 0.027). This encourages our argument for classification as a Construction, and for *start* as distinct from the *start* in *start*

not: if *start not* has a more limited set of selectional possibilities, this motivates our understanding of it as a specific-use, fixed-form, semi-idiomatic structure employed by English speakers.

H1.2. Because of communicative efficiency, **start not should take shorter complements (which we will approximate as taking fewer phrasal/light verbs) than *stop*;** or, because LVCs often encode states, *start not* should appear more frequently with LVC/phrasal verbs.

From an efficiency perspective, it had been hypothesized that *start not* should have simpler, less-complex (fewer-word) complements than *stop*. However, it seems *start not* actually makes used of more light and phrasal verb complements than *stop*. It is possible that this difference is attributable to phrasal or light verbs more often being used to express stative or habitual situations, or more often being used with adverbs or other temporal modifiers, as it also seems *start not* prefers.

	Light Verb or Phrasal Verb Complement			
	A	B	C	Total
start not	0.286	0.286	0.136	0.220
stop	0.000	0.143	0.132	0.120
start	0.333	0.000	0.176	0.160
stop not		0.222	0.313	0.280

Table 1

SNX seems to differ slightly from *stop* in its proportion of phrasal/LVC complements across types A and B (non-volitional), but this difference is neutralized for C type utterances. Overall, SNX and *stop* seem different in their proportion of phrasal/LVC complements, but *stop not* most frequently selects these types of complements, suggesting that perhaps this is a combinatoric effect of the negative particle *not*. Further, the differences between the four patterns overall are not particularly drastic, and the overall frequency of such complements is

fairly low; thus, solid conclusions are difficult. Additionally, because there are essentially two theoretical bases from which we can form opposite hypotheses about the distribution of phrasal verbs and/or LVCs (communicative efficiency versus stativity of LVCs), it is difficult to draw conclusions here.

H1.3. ***Start not* more often occurs with Aktionsart State complements than does *stop*.** *Stop* occurs more often with Activity complements.

It was hypothesized that *start not* should accept more states and activities than the telic classes, which was somewhat supported. Overall there were few +telic classes and their overall distribution (across all A/B/C types) between patterns was roughly comparable. Activity had more representation with *stop* and *start*. Interestingly (though there was so little 'stop not' data that drawing concrete conclusions is impossible), *start not* and *stop not* both out-scored *start* and *stop* in their overall proportion of lexically-Stative verbs. This could be explained with an observation that *not* more often modifies stative or habitual situations, given its propensity to carry scalar implicature especially when paired with a quantifier or scalar modifier (H3.2).

	State			
	A	**B**	**C**	**Total**
start not	.714	.810	.000	.440
stop	.200	.429	.026	.100
start	.000	.300	.000	.060
stop not		.778	.000	.280

Table 2

	Activity			
	A	**B**	**C**	**Total**
start not	0.000	0.190	0.545	0.320
stop	0.200	0.571	0.684	0.620
start	0.500	0.400	0.765	0.660
stop not		0.000	0.625	0.400

Table 3

	+Telic (Accomp./Achiev.)			
	A	**B**	**C**	**Total**
start not	0.286	0.000	0.455	0.240
stop	0.600	0.000	0.289	0.280
start	0.500	0.300	0.235	0.280
stop not		0.222	0.375	0.320

Table 4

What is most interesting is that in Type B utterances (animate, non-volitional), where we might expect to see more stative complements because of the nature of the utterance, only *start not* and *stop not* displayed a majority of stative predicates; *stop*'s Type B majority were Activity predicates, as were *start*'s plurality. Further, for inanimate constructions (Type A), where again we would expect a large proportion of Statives across the board, *start* and *stop* tended instead towards selections for +telic class predicates, while the majority of SNX's Type A utterances employed statives.

	+telic	**Activity**	**State**
	Total	**Total**	**Total**
start not	0.240	0.320	0.440
stop	0.280	0.620	0.100
start	0.280	0.660	0.060
stop not	0.320	0.400	0.280

Table 5

H1.4. We had hypothesized that **the distribution of verb classes would differ across the 4 patterns**. It seems that to some extent, *start not* patterns differently than the other verbs, at least in that it has a lower proportion of Activity-class verbs, slightly more attributive, and a higher combined feeling-experiential-cognitive-performing combined proportion at least than *stop* and *start*.

Because of sparsity of data, it is somewhat difficult to draw any concrete conclusions from the broken-down A-B-C-type data, but it seems that there are no overwhelming differences

in the A-B-C type patterning between aspectual frame. That is, all of the verbs tend to select similarly to each other across senses when broken down by Type. It is only in the combined total measure that any strong differences are made apparent, particularly with SNX's greater proportion of Feeling/Emotive complements than the other verbs.

	Activity	Attributive	Cognitive	Experiential	Feeling (Emotive)	Performing	Speaking
Verb Sense							
A							
start not	0.000	0.000	0.000	0.286	0.000	0.714	0.000
stop	0.000	0.000	0.000	0.000	0.000	1.000	0.000
start	0.000	0.000	0.000	0.333	0.000	0.667	0.000
stop not							
B							
start not	0.000	0.190	0.143	0.095	0.524	0.048	0.000
stop	0.000	0.000	0.286	0.571	0.143	0.000	0.000
start	0.000	0.000	0.300	0.500	0.100	0.100	0.000
stop not	0.000	0.111	0.222	0.444	0.222	0.000	0.000
C							
start not	0.682	0.000	0.182	0.000	0.000	0.000	0.136
stop	0.684	0.026	0.184	0.000	0.000	0.000	0.105
start	0.824	0.000	0.059	0.000	0.000	0.029	0.088
stop not	0.563	0.000	0.188	0.000	0.000	0.125	0.125
Total							
start not	0.300	0.080	0.140	0.080	0.220	0.120	0.060
stop	0.520	0.020	0.180	0.080	0.020	0.100	0.080
start	0.560	0.000	0.100	0.140	0.020	0.120	0.060
stop not	0.360	0.040	0.200	0.160	0.080	0.080	0.080

Table 6

H1.5 It was hypothesized that *start not*, as a result of expressing changes out of typical situations, should more often describe the offset of a habitual activity. Thus *stop* and *start* and *stop not* should demonstrate fewer habitual complement structures (whether onset or offset would be dependent on whether *start* or *stop*, respectively).

Habitual				
	A	**B**	**C**	**Total**
start not	0.286	0.048	0.909	0.460
stop	0.800	0.286	0.658	0.620
start	0.333	0.300	0.559	0.480
stop not		0.222	0.750	0.560

Table 7

This hypothesis is not supported by the data; however, this is partly because in our classification scheme a complement could not be +stative *and* +habitual. Thus this measure is most informative for Type C, where most patterns saw their highest density of Activity verb types. If we look only at Type C, we see that *start not* indeed attends to more habitual activity or behavior complements than the other patterns. However, because "habitual" is closely tied in with Aktionsart class as well as the structural-contingent distinction (H5.2), this feature is somewhat superfluous and we won't be too concerned with teasing out the sub-parts for further specification.

H1.6. We hypothesized that ***start not* occurs more often with scalar complements**, while *stop* has a higher concentration of binary-opposite situations. That is, *start not* is more likely to select for a predicate that inherently encodes a degree or a location on a scale rather than an absolute or binary situation.

Scalar Predicate				
	A	**B**	**C**	**Total**
start not	0.429	0.857	0.000	0.420
stop	0.200	0.571	0.158	0.220
start	0.500	0.500	0.088	0.220
stop not		0.444	0.125	0.240

Table 8

This hypothesis is supported, in that *start not* appears more frequently with scalar predicate complements than does *stop*. However, as mentioned in Chapter 3, H1.6, it is possible

that the scalarity of these complements might approximate stativity; we do see a roughly similar pattern for the density of stative complements and the density of scalar complement for each pattern. Still, it does reflect a perspective on the event that suggests a desire for or view of graduated change. It is interesting that despite our theory as established in Chapter 2 that *start* suggests a gradual change, *start* selects as frequently as *stop*, an instantaneous-change verb, for non-scalar complements. It would have been expected that for this feature, *start not* and *start* (start$_2$ and start$_1$, respectively) would pattern together, which it does for Type A utterances but not overall. The four aspectual patterns are comparable in proportion of scalar predicates when we consider C types, but overall we can fairly confidently suggest that SNX selects more scalar complement than *start* or *stop*.

5.2 Syntactic Features

H2. **The *start not* pattern demonstrates a distinct set of syntactic/contextual characteristics from *stop***, such as the type of utterance (animate subject, volitional or non-volitional complement), subject number and nominal category, etc.

H2.1. We hypothesized that ***start not* occurs more often with Types A & B than does *stop*; *stop* moreso with Type C**. This measure informs us both about subject animacy (types B & C) as well as volitionality (C) simultaneously. However, we found that all four utterance types are majority- or plurality-C, with *start not* being the least-C, proportionally, and *stop* being the most-C, which somewhat supports our hypothesis. Further, SNX has significantly more Type B utterances than *stop* (and *start*), but not than *stop not*, which could suggest that this is correlated with the presence of *not*, at least for animate, non-volitional contexts. Though all patterns are roughly equivalent in their appearance in inanimate contexts (except for *stop not*

which seems to never take inanimate subjects), it is the difference between B and C types which provide true fodder for comparison.

	A (inanimate)	B (animate, non-volitional)	C (animate, volitional)
start not	0.140	0.420	0.440
stop	0.100	0.140	0.760
start	0.120	0.200	0.680
stop not	0.000	0.360	0.640

Table 9

Animate Subject	
	Total
start not	0.860
stop	0.900
start	0.880
stop not	1.000

Table 10

If we imagine A-B-C types as lying on a scale or spectrum of volitionality from less to more, we can say, based on density of types per utterance shape, that *start not* is the least volitional of the four patterns, and *stop* the most. This chart can approximate increasing volitionality, and we can see visually which patterns communicate more-volitional situation changes, and which patterns communicate less-volitional situation changes. This kind of visualization of the data does suggest our hypothesis is supported, at least regarding *start not* encoding experienced situation changes and *stop* encoding intentional changes. See Figure 7 below.
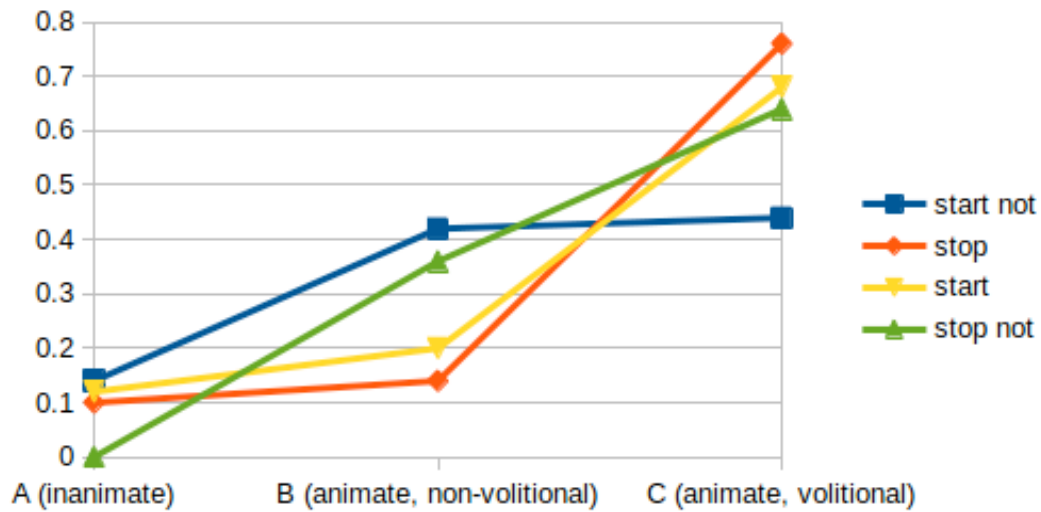
Figure 8

H2.2. ***Start not* occurs more frequently with first and third person subjects**, due to hypothesis 3.1 regarding narrative.

This is supported in that SNX appears most frequently with 1st and 3rd person subjects — mostly due to Type B utterances — but without this Type category, the rate of 1st and 3rd subjects is equal across all pattern types. These are similar results for Type B as we see with the results for presence with a narrative marker or conjunction (see H4.1, this section), where SNX's B-type quotient of the measure in question is far greater than the other pattern's. However, in H4.1, the *start not* – B result is also much greater than all A-type and C-type results for all patterns (that is, it is the most-narrative-y), whereas in this case, the most we can say is that non-SNX B-type patterns are more-2nd-person. The narrative effect may drive the correlation, but it is difficult to say for certain.

1P or 3P Subject			
	A	**B**	**C**	**Total**
start not	1.000	0.905	0.864	0.900
stop	1.000	0.429	0.711	0.700
start	1.000	0.500	0.735	0.720
stop not		0.667	0.813	0.760

Table 11

H2.3. Also related to narrative, ***stop* will appear more often with second person subjects, and more often with imperative**. *Start not* should not appear as often with the imperative since we hypothesize (4.2, realis contexts) that it is predominately used to relate true events. The second-person proportions are simply the inverse of the above chart (neither first nor third person). The imperative is less frequent than the second person; however, second person seems to be rarely used to recount narrative, which again was the motivation behind H2.2. When second person is not used in the imperative, it tends to be with hypotheticals or similar.

	Imperative			
	A	**B**	**C**	**Total**
start not	0.000	0.000	0.045	0.020
stop	0.000	0.143	0.158	0.140
start	0.000	0.100	0.029	0.040
stop not		0.222	0.125	0.160

Table 12

Stop does appear more frequently in the imperative, as does *stop not,* thus this is likely a combinatoric effect of *stop*. Notably, when SNX does appear in the imperative, it is in conjunction with a volitional complement, which further supports the interpretation that *start not* is used in scenarios of unintentional change. However, the imperative is overall quite rare in our data so we neither can nor should draw any strong conclusions from this result.

H2.4. ***Start not* should occur with pronominal or zero-anaphora subjects**, because we

believe the utterance focuses on the change encoded by SNX while the known-referent subject is merely the topic, while we predict that *stop* may have more complex noun phrase subjects because it is more neutral as a topic-comment structure. As discussed, this is due to the propensity of speakers to employ anaphoric pronouns when referring to known referents, and we also believe that the informational-structural focus of these utterances is on the new situation, framed and scoped by *not*.

Pronominal (or Zero) Subject			
	A	B	C	Total
start not	0.286	0.857	0.727	0.720
stop	0.200	0.857	0.737	0.700
start	0.167	1.000	0.706	0.700
stop not		1.000	0.688	0.720

Table 13

This hypothesis was not entirely supported; though SNX is used predominately with known-referent subjects, so too are all the other patterns. This, though, is likely predictable for the same reasons that the Core/Detached Phrase results (H2.5, below) should have been predictable, which is that (a) unknown referents rarely take subject position (Michaelis & Francis, 2007; Francis, Gregory, & Michaelis, 1999) and (b) the new information in these types of clauses is within scope of the verb and its complement, and speakers typically don't introduce two pieces of new information at once (Van Valin & Lapolla, 1997; 200).

What is interesting here is that Type A utterances are rarely used with known-referent subjects, as in the truncated examples below:

(64a) … **the almonds and the almond butter** *started not tasting right …*

(64b) … **Several things** *stopped working. Although the ethernet driver …*

(64c) … *until* **the steam** *started running out. And then …*

These are highly specified subjects, which may suggest that in such utterances, the complement

may not contain as revolutionary a piece of information as it does in Types B & C; that is, perhaps we expect the inanimate objects around us to break or stop working or otherwise change state, and what we are most concerned with is which one is it this time. Of course, this is quite speculative; all we can say for sure is, as with several other hypotheses results (e.g. Irrealis), Type A structures tend to pattern differently than the others.

H2.5. Differing frequencies of **core or detached phrases** would establish different patternings of the phrase's use, which contributes to non-synonymous differentiation. Focus of the utterance or a contextualizer for some other new information.

We predicted only that SNX and the other patterns should differ along this vector. However, this cannot be shown to be the case, and indeed all are almost always used in core clause position. This makes sense, though, if we consider that while *start not* is a highly focused phrase, *stop*, *start*, and other change-of-state indicators are also likely to be new information which in turn should be contained in the core clause. These kinds of phrases are almost never used to contextualize the introduction of other new information; rather, they almost always contain the new information themselves.

	Core Clause			
	A	**B**	**C**	**Total**
start not	1.000	0.905	0.818	0.880
stop	1.000	1.000	0.895	0.920
start	0.833	0.900	0.882	0.880
stop not		0.889	1.000	0.960

Table 14

	Detached Phrase			
	A	**B**	**C**	**Total**
start not	0.000	0.095	0.182	0.120
stop	0.000	0.000	0.105	0.080
start	0.167	0.100	0.118	0.120
stop not		0.111	0.000	0.040

Table 15

5.3 Specification

H3. We had hypothesized that *start not* occurs with more specifiers of various types, which serve to restrict the extent of real-world contexts to which the new situation can be said to be truthfully applied.

H3.1. We hypothesized that ***start not* more often occurs with temporal modifiers**, such as adverbs, or modifiers which locate the situation change specifically within time, with respect to speaking or reference time.

Again related to conveyance of true events (realis) and narrative and the undesiredness of the new state, it was hypothesized that *start not* should be used with temporal adverbs or other time-oriented modifiers, indicating the commencement of the new situation in real time, while *stop* should employ fewer of these tactics. This is supported in comparison to *stop*, as well as in comparison to the other two phrase structures, which suggests that indeed *start not* situations are bounded with respect to reference and/or speaking time, which can indicate both the narrative nature of the utterance, a focus on the onset of the change of situation (an awareness of the change), and the undesiredness or gradual onset of the new situation.

Temporal Boundary (+ Temp. Adverb/Modifier)			
	A	**B**	**C**	**Total**
start not	0.286	0.429	0.364	0.380
stop	0.000	0.143	0.237	0.200
start	0.000	0.100	0.235	0.180
stop not		0.000	0.125	0.080

Table 16

Across all types (A, B, & C), SNX more often than the other patterns demonstrates temporal modification/specification. This suggests that the propensity to locate the change of state encoded by SNX is unique to that pattern, and not a general property of *start* or *not* which

is being combinatorially injected into the utterance. We see that the speaker in these situations in keenly aware of the change, and is bringing it to the hearer's attention. Here we see $start_1$ and $start_2$ patterning differently.

H3.2. We had hypothesized that ***start not* occurs more often with quantifiers, modifiers of scale,** and other syntactic components which de-polarize the new situation and locate it between two ends or poles of the expressed or unexpressed scale.

	+ Scalar or Quantifying Specifier/Modifier			
	A	**B**	**C**	**Total**
start not	0.429	0.571	0.045	0.320
stop	0.000	0.000	0.053	0.040
start	0.000	0.000	0.029	0.020
stop not		0.222	0.000	0.040

Table 17

It was hypothesized that *start not* should more frequently take specifiers such as quantifiers and scalar modifiers (e.g. 'as well', 'as much') than would *stop.* This is related to hypotheses of scalarity, gradual change, and the perspective of the speaker. This hypothesis is supported; *start not* appears more often with quantifying and scalar modifiers than any of the other phrase patterns. However, overall the frequency of use for scalar-izing modifiers is less than would have been expected. Overall, *start not* utterances were most scalar (or most often used such modifiers) in A and B — so non-volitional — utterances. This would support the perspective that speakers are discussing a slow-onset, experiential new situation, by emphasizing its gradual rate of change.

H3.3. *Start not* occurs more often with **locative specifiers**; e.g. *I started not sleeping at my dad's house.* This is related to the reality of the situation change being expressed, as well as to the speaker's desire to confine the change only to a relevant domain, because it is presumed to be an atypical or unexpected or undesired change of situation. This kind of modification

either modified the whole phrase (as in the hypothetical example *at the baseball game, he started not pitching*), or just the complement (as in the real example *why did you want to stop running on the treadmill*); in both cases, the activity or the change of situation is limited to a specific location (or situation).

+ Locative Specifier			
	A	**B**	**C**	**Total**
start not	0.143	0.190	0.227	0.200
stop	0.000	0.000	0.105	0.080
start	0.000	0.000	0.147	0.100
stop not		0.000	0.000	0.000

Table 18

We see that our hypothesis is somewhat supported; for all three Types, SNX more often includes a locative or directional specification than do the other phrase types. However, they are still not particularly common and significance is unclear.

Overall we can probably make the suggestion that SNX phrases are just more highly specified than other types of change-of-situation phrases. This supports the idea that they are undesired, in that the speaker would like to constrain them only to the truthful and relevant domain, whether that be of quantity, time, or space.

5.4 Discourse Features

H4. The *start not* pattern occurs in different discourse contexts than *stop*.

H4.1. **Instances of *start not* are more frequently in narrative contexts than *stop* instances.** This was assessed based on the presence of particles such as coordinating

conjunctions and narrative markers.

It was hypothesized that *start not* should be used in narrative contexts (those relating sequences of events) to indicate true events, and to locate that change within an overarching sequence of events.

	Narrative (e.g. +conjunction)			
	A	**B**	**C**	**Total**
start not	0.571	0.857	0.591	0.700
stop	0.600	0.429	0.395	0.420
start	0.500	0.300	0.471	0.440
stop not		0.222	0.250	0.240

Table 19

The hypothesis is supported in that *start not* does seem to have a slightly higher proportion of narrative examples, particularly in B- and possibly C-Type utterances, in comparison to all three other phrase patterns, suggesting again that it is the particular nature of this phrase's use that finds narrative contexts favorable. This is particularly true for Type B, suggesting that speakers locate $\Delta\phi$ in a string of event sequences; this could be because they are seeking to explain an undesired change of state as an effect of factors outside of their control, to relieve the speaker of agenthood or responsibility, since this type indicates undergoer status rather than volitional changing of states. (B is largely an experiential category.) Note that for A, where the subject is inanimate and the complement non-volitional, across the board the utterance is located in an event or narrative sequence, suggesting that when used inanimately, *stop* and *start* are used similarly to *start not* in describing a sequence of events affecting inanimate objects.

H4.2. We hypothesized that ***start not* will more often appear in realis contexts, while *stop* should appear more often in irrealis contexts**. Again, this is because we hypothesize (4.1) that *start not* is used to relate true events/narrative.

It was hypothesized that *start not* should appear in more realis contexts than *stop*, because it reports actual events that have happened rather than a desire, a plan, (e.g. with *should* or *want* to) or a command to change one's situation, all of which seem intuitively to be more characteristic of *stop*.

	Realis			
	A	**B**	**C**	**Total**
start not	0.714	0.810	0.682	0.740
stop	0.600	0.000	0.316	0.300
start	0.667	0.300	0.559	0.520
stop not		0.222	0.188	0.240

Table 20

	Irrealis			
	A	**B**	**C**	**Total**
start not	0.286	0.190	0.318	0.260
stop	0.400	1.000	0.684	0.700
start	0.333	0.700	0.441	0.480
stop not		0.700	0.813	0.800

Table 21

This contrast is supported by the data; even though *start* also occurs more frequently than *stop* in realis contexts, *start not* displays realis even more frequently, which means that though this characteristic is probably partly attributable to *start*, there are pragmatic effects in addition to the combinatoric effects of *start* that are at play here. That is, this is a function of *start$_2$* rather than an effect of *start$_1$*. Further, *stop not* has as low of a proportion of realis as does *stop*, which suggests that *start not*'s characteristic reality is not due to the *not*. Thus, the realis preference demonstrated by *start not* is a characteristic of its combinatoric properties <u>and</u> its selectional requirements, and is unique among the set.

Notably, again, A-type utterances pattern differently with respect to the realis/irrealis distinction; regardless of pattern, if an utterance is Type A it is likely to be realis. This would

suggest that the strong irrealis nature of *start* and *stop* with animate subjects has much to do with expressing situation changes that one believes should be undergone, rather than those that necessarily have.

H4.3. ***Start not* is more often present in a cause-effect narrative.** That is, as a result of a triggering event the speaker expresses the transition into *starting-not-Xing*, or the speaker expresses a *starting-not-Xing* transition which causes a subsequent precipitating event. Cause-effect event sequences should be less common with *stop* patterns, party because *stop* is less likely to encode true events, and because with *start not*, the speaker is trying to absolve themselves of responsibility for the change by attributing it to extenuating circumstances.

Cause				
	A	**B**	**C**	**Total**
start not	0.429	0.381	0.227	0.320
stop	0.000	0.143	0.132	0.120
start	0.167	0.000	0.118	0.100
stop not		0.222	0.000	0.080

Table 22

Effect				
	A	**B**	**C**	**Total**
start not	0.143	0.333	0.182	0.240
stop	0.400	0.429	0.158	0.220
start	0.167	0.600	0.147	0.240
stop not		0.222	0.125	0.160

Table 23

Cause &/or Effect				
	A	**B**	**C**	**Total**
start not	0.571	0.714	0.409	0.560
stop	0.400	0.571	0.289	0.340
start	0.333	0.600	0.235	0.320
stop not		0.444	0.125	0.240

Table 24

The use of *start not* to indicate a triggering event which is followed by perhaps a

corrective or other action, or vice versa, that *start not* expressed a change of situation due to a triggering event, was discussed. Interestingly, resulting (effect) situations were about equally frequently across the board, thus this segment of the hypothesis was not supported, but *start not* appeared more frequently than *stop* and the others as a triggering (cause) change of situation, which supports the latter part of the hypothesis H4.3. Note that for determining both of these, the window used was the default window provided by SketchEngine (-9 and +9 from the complement). Though SNX can be said to more generally be used to indicate a cause or trigger for a later event versus other patterns, it is by no means the majority of utterances; though when we combine cause and effect, we see that a slight majority of SNX utterances fall into this category. What these data suggest is that in employing SNX speakers are (a) noting the new state, then (b) reporting their corrective action; with *start, stop,* and *stop not* speakers are reporting effects of earlier events, if any cause-effect structure at all. The slight upper hand that SNX has over the other three patterns for Cause and combined Cause/Effect context measures holds true across A, B, and C types.

5.5 Discourse-Pragmatic Features

H5. The two patterns are used intentionally to convey different meanings and perspectives to the addressee. This is related to PRAG in the lexical (lexeme) depiction of the patterns/uses of the two *starts*.

H5.1. **Start not new situations are more often undesired than are *stop* new situations.** Notably, *start not* is most frequently used to express undesired situations; the other patterns (*stop, start,* and *stop not*) most often express desired changes (except in Type A utterances, in which the majority of all utterance types express an undesired change), thus

expressing an ultimately favorable perspective on the change of situation. This supports the hypothesis that *start not* reports undesirable situations, or ones that the speaker wishes to convey some discontent towards. As mentioned, desiredness is essentially a social-intuitive measure. Note that if an inanimate subject undergoes a change, it is almost always undesired, while this is not the case for an animate subject which, if the change is *not* reported by SNX, is likely undergoing a desired change. If an animate-subject change is reported by one of the other three patterns, it is likely to be a desired change.

	Desired			
	A	**B**	**C**	**Total**
start not	0.000	0.095	0.500	0.260
stop	0.200	0.571	0.711	0.640
start	0.167	0.800	0.735	0.680
stop not		0.889	0.750	0.800

Table 25

	Undesired			
	A	**B**	**C**	**Total**
start not	1.000	0.905	0.500	0.740
stop	0.800	0.429	0.289	0.360
start	0.833	0.200	0.265	0.320
stop not		0.111	0.250	0.200

Table 26

H5.2. It was hypothesized that ***start not* new situations are a deviation from a structural — permanent or semi-permanent — state; *stop* situations are the cessation of a contingent or temporary state.** This approximates 'unexpectedness' as a feature, via assessing a deviation from the norm. While it was certainly the case that SNX expressed a deviation from normalcy, so too did *stop. Start* was fairly evenly split between the two overall, with most of its Type A utterances expressing a transition into an atypical (contingent) state, as in the following example:

(66) … *a movie moves me so much that it **starts affecting** a certain part of my brain* …

It is implied here that the brain-affectation is temporary.

	Structural (Permanent or Semi-Permanent)			
	A	B	C	Total
start not	1.000	1.000	1.000	1.000
stop	1.000	0.714	0.816	0.820
start	0.333	0.500	0.647	0.580
stop not		0.778	0.875	0.840

Table 27

	Contingent (Temporary)			
	A	B	C	Total
start not	0.000	0.000	0.000	0.000
stop	0.000	0.286	0.184	0.180
start	0.667	0.500	0.353	0.420
stop not		0.222	0.125	0.160

Table 28

While we can conclude that *start not* expresses a deviation from normalcy, we cannot conclude that the other patterns do *not* express a similar deviation. However, we can be fairly sure that this characteristic of the SNX component is not a combinatoric effect of *start*, and we can further add this pragmatic concern to the list of contextual differences between $start_1$ and $start_2$.

H5.3. We had hypothesized that ***start not* patterns indicate a gradual change between situations, including from intermittent, habitual behavior-type situations; *stop* indicates an instantaneous change from one to another.**

	Gradual or Intermittent Change			
	A	B	C	Total
start not	0.714	0.952	1.000	0.940
stop	0.400	0.286	0.474	0.440
start	0.667	0.900	0.735	0.760
stop not		0.556	0.500	0.520

Table 29

This hypothesis seems to be supported with respect to *stop*; however, it is not as strongly supported in comparison to *start*. This patterning is in line with our earlier theoretical assessment, that *start* indicates a gradual transition or onset of a new behavior or state, while *stop* should indicate an immediate cessation. Thus the tendency of SNX to code a gradually-changing situation is likely in large part due to the combinatoric effects of *start*. We see similar patterns; that *start not* and *start* seem to indicate gradual or intermittent change across all three Type categories; thus neither animacy nor volitionality of the utterance have much bearing on the gradual-ness of the change coded.

Analysis of the results with respect to the following two hypotheses will be discussed further in the next chapter.

5.6 Composite Hypotheses

H6. All of these hypotheses serve to support the following: ***Start not* indicates an undesired or problematic deviation from the typical situation (state or habitual), and one which the speaker hopes to revoke or ameliorate.** *Stop* can indicate this, but more often indicates a desired cessation from an undesired activity.

H7. The differences between start not and stop demonstrate a capacity for diversity of perception of and expression of changes between situations/states/habits. Markedness is employed with a specific communicative purpose in mind, filling an otherwise-lacking communicative role.

CHAPTER 6

DISCUSSION

Preliminarily, the data do support our hypotheses, overall; the marked and unmarked forms of this utterance are used alternatively for marked-unmarked/expected-unexpected/normal-abnormal contexts.

The corpus analysis undertaken and explained in the previous section/chapter has provided some interesting results, which for the most part support the proposed different between *start not* and *stop*, and for the recognition of *start not* as a particular-use pattern. It should be noted that there is overlap in usage between all types of *start not, stop, start,* and *stop not* utterances; almost no feature or context was seen with one pattern to the absolute exclusion of all others. However, given the fluidity of the human experience and the presumed desire to speaker to represent that as accurately as possible, we would expect to find non-exclusivity in usage. The needs and uses of natural language are perhaps better understood from the perspective that meaning exists on a spectrum, rather than within discrete categories. Yet we discretely categorize our features, in order to efficiently examine general trends in use of the four patterns. In this section we discuss those results.

Many of the results supported the division between the proposed A, B, and C types, which in turn support our proposition of lexical $start_1$ and $start_2$, and A, B, C sub-types thereof. This section will discuss the results of the previous section and with respect the broad hypotheses 0, 6, and 7; that is, with respect to the distinction between SNX and *stop*, and between SNX and other uses of *start*, and with respect to the discourse-pragmatic requirements for SNX again in contrast to those for *stop* and

other uses of *start*.

We should take the A-B-C division results with a grain of salt, due to low sample size. However, as will be discussed below, some interesting patterns arise which at the minimum would suggest directions for further research.

6.1 The Complement

In our initial analyses, we saw that the specific complements and the distribution thereof that were selected by each of *start not, start,* and *stop* differed. *Start not* appeared with a different set of complements than each, and perhaps more importantly, showed somewhat less variation in terms of the diversity of complements that it accepted. This was our first clue that *start not* should indeed be considered different from *stop*, and that the selectional requirements of the *start* in *start not* are different from those of elsewhere-*start*.

Then, we saw that *start not* differed from *start* and *stop* in terms of the quantity of phrasal and/or light verbs that it selected; it appeared with these kinds of complements slightly more frequently. Here, **A and B Types** patterned together, in that *start not* demonstrated more of this type of complement than the other two patterns in these types of utterances, but all were roughly similar in Type C utterances. Because *stop not* also seemed to select for this type of complement, we can suggest that this is a combinatoric contribution from *not*; it is possible that these kinds of verb constructions often appear with *not*.

Next, we considered the Aktionsart class of the complement for each head verb set. We saw that overall, *start not* selects for stative complements, while *start* and *stop* both prefer Activity verbs. The differences here were much more stark, again, for **A and B Types** (Stative in SNX) than for C Types; very few (~0%) C Types appeared with Stative complements, and the proportion of Activity

complements for C Type utterances was fairly comparable across *start not*, *start*, *stop*, and *stop not*. *Stop Not* also selected for a high number of stative complements in B Type utterances, suggesting again that this may be partially a function of *not*.

Then, we attempted to classify complements according to semantic class. The only defensible conclusion we could draw from this examination is that *start not* tended to select for feeling/emotive classes of verbs. No other pattern selected as frequently for this type of verb so we can draw the tentative conclusion that this is a particular use feature of *start not*. It is surely partly due to the large proportion of the complement *feeling* with SNX. The Type-A-B-C breakdown did not uncover any identifiable patterns in this analysis.

Following this analysis, we attempted to determine what proportion of complements of each pattern indicated habitual behaviors or activities that were either ceasing or commencing. What we found was that for Type A utterances, *stop* most frequently selected for habitual complements (in these instances, *start not* almost never displayed activity complements so could not be considered habitual in our analysis); for Type B, *start not* selected for habitual complements the least frequently with rough equivalency between the other three patterns; and for Type C, all selected for a majority of habitual complements, with *start not* demonstrating the highest proportion. Overall, though, there was little difference between the four. Because it patterned with none of *stop not*, *stop*, or *start* across the board, but neither was it distinct from them in the aggregate, we can probably not draw any substantive conclusions from this data.

For our last complement-based hypothesis, we examined the proportion of inherently-scalar complements in each of the four patterns. Here, the proportions for Type B were noteworthy, with far more scalar complements appearing with *start not* than with the other patterns. However, with Type A and C utterances it was not particularly distinct from *start*. In the aggregate measure it displayed slightly more scalar complements than the other three patterns. Thus, we can suggest that at least in

Type B utterances, *start not* uniquely selects for more scalar complements than other patterns.

6.2 Syntax

Next, we looked at syntactic characteristics of the utterances. First we hypothesized that *start not* occurs more frequently with Types A and B than does *stop*, and *stop* appears more frequently with Type C. We did not find substantive differences across patterns for Type A; however, SNX demonstrated more B-type utterances proportionally than *start* and *stop* (but not than *stop not*), while *start*, *stop*, and *stop not* all had much higher proportions of Type C utterances than did SNX. Because *start not* only patterned uniquely with *stop not* for one sub-type, we can not draw the conclusion that *start not*'s patterning for A-B-C type is related to *not* specifically; thus, its higher proportion of B, and A and B combined (so lower overall volitionality), is arguably a unique feature of the SNX pattern.

Our next syntactic feature was the presence with first or third person subjects. Here, there was no distinction across Type A utterances, but SNX displayed a much higher proportion of these subjects than the other patterns in Type B utterances; in Type C, the distinction was less pronounced (within a spread of 0.15). Thus we suggest that the propensity for first and third person subjects is a feature unique to SNX in Type B. As a corollary we looked at second person and the imperative; we saw here that *start not* is almost never used in the imperative, but neither particularly was *start*. Thus it seems that, though relatively infrequent over all, the imperative, as is intuitively predictable, is a function of *stop*.

Next we looked at the type of noun phrase occupying the first argument (subject position) of the aspectual. Specifically, we distinguished between known-referent subjects (pronouns and zero-marked) and new-information subjects (common nouns, complex noun phrases, etc.). This hypothesis was not supported at all, in that the overall proportion and the by-type proportion of subject type was roughly

equivalent across the board. However, as discussed in the Results section, this is likely due to the fact that in these utterances, the verb phrase contains the new information. The except was that in Type A utterances, the subject was far more frequently an "unknown" referent. Refer to the Results section for more discussion on why this might be the case.

Our next syntactic analysis was to determine whether SNX appears in core clause or detached phrase position more or less frequently than the other patterns. Again, the proportions of core/detached positions was equivalent across patterns and across A-B-C Types. This, as discussed in Results, makes sense if we refer again to the idea that new information, in these instances, is presented in the VP, and therefore as part of the core clause of the utterances, rather than a contextualizing detached phrase.

6.3 Specifiers

Subsequently, we looked at three different kinds (semantic groups) of specifying or contextualizing modifiers; quantifying/scalar, temporal, and locative/directional. These modifiers locate the utterance or the change within real time, space, and/or quantity. *Start not* appears somewhat more frequently with temporal modification or specification across all Types compared to the other three patterns. Thus this kind of specification seems to be unique to *start not*, to the extent that its significance can be upheld. With scalar or quantifying modifiers, *start not* Types A and B display a higher proportion than the other three patterns, but the proportions for Type C are roughly equivalent. Thus types A&B pattern together here, as with Aktionsart State, and we can conclude that the propensity for A and B types to take this kind of modification is unique to *start not* patterns. Lastly, the locative modification appears with *start not* patterns somewhat more frequently than the other patterns, across all of A, B, and C types. However, the overall differences in proportion are not terribly large (overall .2 (SNX), .08 (*stop*), .1 (*start*), and 0 (*stop not*), so we will omit this quantification from our

success list for now.

6.4 Discourse Role

We hypothesized, in terms of discourse/pragmatic concerns, that *start not* should appear more often in narrative contexts. This was not supported for Type A utterances, but was for Type B, and less so for Type C. Overall, *start not* appeared with more narrative contexts than the other patterns, but given its much stronger differential in Type B utterances, we can confine our conclusion that *start not* is indeed a narrative tool to those contexts which accept Type B.

Next we looked at realis/irrealis contexts. For Type A, most utterances across pattern types were realis. For Type B, *start not* demonstrated a much higher proportion of realis contexts (0.810 versus 0.00, 0.3, 0.222) than the other patterns. For Type C, both *start not* and *start* were more frequent with realis, while *stop* and *stop not* were more frequent with irrealis. Thus *start not* somewhat seems to pattern with *start*, at least with Type C utterances, while it patterns by itself with Type B utterances, and non-uniquely with A.

Then we looked at aspectual phrase as cause and/or effect within the sequence. We thought *start not* would appear more frequently both as the cause of a later event, and as the effect of the earlier one. However, the patterns for the most part appeared with equal frequency as an Effect (*stop* slightly more frequently an Effect in Type A, *start* in Type B, equal across the board in Type C and overall). This is therefore inconclusive with respect to SNX. With Cause, in Type A and B and less so C, *start not* displayed a slightly higher proportion, as well as overall. Neither did it particularly pattern with any other aspectuals. In combination (Cause+Effect), neither were the differentials between patterns particularly noteworthy. Thus, we can at least suggest that *start not* Types A and B are more frequently used in the case of a Cause of a precipitating event.

6.5 Pragmatic Role

In terms of the pragmatic concerns attended to by *start not* and friends, we considered whether *start not* was more often used in case of an undesired change than would be *stop*, *start*, or *stop not*. Overall, this hypothesis was supported, particularly across B and C Type utterances, and somewhat across A Type utterances. Further, it was unique across pattern types in that all three others demonstrated somewhat similar proportions to each other. Thus we can strongly conclude that *start not* does indeed uniquely code undesired changes of situation.

Next we considered whether *start not* indicated a deviation from a structural (permanent or semi-permanent) state or characteristic, or from a contingent (temporary) situation. What we found however was that while *start not*, *stop*, and *stop not* all indicated changes out of (or into, in the case of *stop not*) more-permanent states, *start* more often coded change into a temporary state. Thus we can draw no conclusions about the behavior of *start not*.

Then we considered gradual/intermittent or instantaneous change, for which we thought *start not* should code more gradual change, as in fact should *start* because of the theoretical assumption that *start* indicates gradual onset while *stop* indicate instantaneous offset. We found indeed that *start not* seemed to indicate gradual change, patterning with *start*, though with a slightly higher proportion of gradual-change situations. *Start not* and *start* demonstrated the most-similar rate of gradual change scenarios in Type B utterances; however, across all Types they were far more gradual than the *stop* patterns. Again, this was assessed both due to the nature of the complement and its context, and the nature of the aspectual.

6.6 Composite Features and Overall Discussion

Overall, we have supported the hypothesis that *start not* is neither equivalent to *stop*, nor equivalent to *start*. Eleven features we measured demonstrated unique patterning of *start not* with respect to the other patterns over at least one of A, B, or C Types. Two could be construed as combinatoric effects of *not*, and three as combinatoric effects of *start*. Several more still were inconclusive.

Based on the features we have established as different between *start not* and the other patterns, **we can conclude that *start not* indicates undesired change in realis time with all Types, and with A and B Types refers to scalar changes in feeling or emotive states, is used in realis narrative context, and codes the trigger for a rectifying action.** For the most part this supports H6, with the exception of the permanence or temporariness of the changing state; this was a feature of all of the patterns. We have supported H7, in that SNX is distinct from all similar patterns across numerous measures, suggesting that speakers are indeed attending to these kinds of distinctions and choosing their utterances and implicatures in line with this perspective. SNX is filling a specific communicative role, described at the beginning of this paragraph, which arises in real life and which other aspectual patterns — whether with *stop* or *start* — are more poorly-suited to fulfill.

A breakdown of the supported hypotheses and which component of the pattern they are attributable to is as follows, with specific Type in parentheses if the difference was only applicable to one or two such Types:

Unique to SNX:
  – Lexical complement
  – Feeling/emotive verbs
  – Scalar complements (B)
  – (A&)B Types
  – First and third person (B)
  – Temporal modification
  – Quantifying/scalar modification (A&B)
  – Narrative (B)

- Realis (B)
- Cause (A&B)
- Undesiredness

Combinatoric effect of *not*:
- Phrasal verb/LVC (A&B)
- Aktionsart class State (A&B)

Combinatoric effect of *start*:
- Not imperative
- Realis (C)
- Gradual change

Essentially, these are all measures in which *start not* is distinguishable from *stop*; we can thus conclude both overall and particularly with respect to *start not* utterances of B and to some extent A types, *start not* fulfills a distinct communicative role from *stop*.

6.7 Lexeme Representation of Start$_1$ and Start$_2$

From the head-driven lexeme perspective, this would suggest that *start$_1$* and *start$_2$* are all non-imperative, gradual change-encoding verbs. *Start$_{1C}$* and *start$_{2C}$* are realis. However, *start$_2$* differs in the lexical complements it is allowed to select from those of *start$_1$*, and takes more feeling/emotive verbs (as classified in this study), and more verbs of Type B. The following chart exemplifies all of the determined characteristics of each *start* type and sub-type. This allows us to see how start$_1$ and start$_2$ differ, and how A, B, and C types differ therein. I have included one further characteristic, which kind of *-ing* complement each *start* lexeme takes, in order to differentiate between start$_1$ and start$_2$. Not all measured features are included in this chart; only those which differentiated the *start* patterns from *stop*. In parentheses are some features which have not been discussed with respect to *start*, but whose statistics suggest their validity of inclusion.

	← sub-types, increasing volitionality		← Lexeme Start₁	Lexeme → Start₂	sub-types, increasing volitionality →		
start₁C	**start₁B**	**start₁A**	**start₁(A,B,C)**	**start₂(A,B,C)**	**start₂A**	**start₂B**	**start₂C**
-ing complement	*-ing* complement	*-ing* complement	*-ing* complement	negated *-ing* complement	negated *-ing* complement	negated *-ing* complement	negated *-ing* complement
not imperative	not imperative	not imperative	not imperative	not imperative	not imperative	not imperative	not imperative
gradual change	gradual change	gradual change	gradual change	gradual change	gradual change	gradual change	gradual change
				feeling/ emotive verbs	feeling/ emotive verbs	feeling/ emotive verbs	feeling/ emotive verbs
				[proportion of B-type]			
				temporal modification	temporal modification	temporal modification	temporal modification
(desired)	(desired)	undesiredness		undesiredness	undesiredness	undesiredness	undesiredness
realis	(irrealis)	realis		realis	realis	realis	realis
						scalar predicate complements	
						1st and 3rd person subjects	
					quantifying/ scalar modification	quantifying/ scalar modification	
						narrative	
	(effect)				cause	cause	
			(contingent/ temporary)				

Table 30

This chart visually demonstrates that there are substantive differences between the two uses of *start*, aside from the negation of their complement. Further, it delineates the similarities and differences between Types within a lexeme, and across lexeme boundaries. For example, we see that undesiredness and realis-ness characterize both *starts'* A-types, but characterize also B and C for start₂ but not start₁. This suggests some kind of unifying pragmatic or semantic role carried by the inanimacy and non-volitionality of A Types generally speaking.

Of course, there is nothing to say there are not more types of *start*; for instance, *start* with

negated and non-negated infinitival complements would be a reasonable addition to this lexeme inventory. Of course, for the purposes of this work we have focused on the negated and non-negating *-ing* complements.

6.8 Constructional Representation of SNX

Based on the prototypical meanings of the components parts of the SNX pattern, and the contexts in which it is typically seen, we suggest this pattern should be acknowledged as a decessive construction, one whose specific use is contributed to by the individual semantics of its component parts but whose particular meaning is contributed to by its surrounds. Though it is fairly productive in the lexical complements it accepts, it is quite strict in terms of their semantic character and its discourse contexts. The characterization "decessive" comes after Binnick's identification of the transition out of a state as "decessed" (1991) rather than inceptive or instantiating, despite the fact that the decession must, at some point, begin. It is the beginning of the descent and its possibly-unbounded descent which this construction encodes; the discourse and pragmatic concerns speakers attend to in using it have already been discussed. We will leave this brief mention as simply a short acknowledgement of this construction.

6.9 Further Comments and Directions for Future Research

Each of the hypotheses discussed, whether supported or not, contributes to our understanding of the meaning and use of the *start not* construction in opposition to *stop*, which we now understand does not and can not fulfill the full spectrum of communicative needs regarding offsets of states and situations, thus violating our expectation for that pattern, and/or the lexical requirements for our

proposed start$_2$. Further, when taken as a combinatoric whole, we further our understanding of how these components interact in natural language settings, as well as how American English speakers conceptualize situation changes and report them to interlocutors. This kind of understanding, and realizing that speakers are innovative and need to reach out beyond the strict bounds of conversational cooperation or phrase structure rules in order to express the full human experience, are realizations that can be applied to numerous questions and problems in understanding language.

Based on the results of our analyses, we can postulate some further discourse-pragmatic uses that the SNX pattern might fulfill, ones for which without sufficient data we can make few concrete claims or tests. For example it could be part of a negotiation with the hearer, as in giving or receiving advice; or insinuating via abnormal structure that the new event is, in fact, bizarre and unwanted.

We can also propose some directions for further research, which would help us understand further the communicative role of SNX and its cognitive implications, specifically with respect to its differences from *start* and *stop*. Obtaining full conversational data, in order to look at these utterances from a CA perspective, would contribute to a better understanding of the discourse contexts and prior and subsequent sequences that are characteristic of SNX. Further, recorded instances of the utterance in the natural speech could suggest prosodic effects such as differentiation from superficially-similar utterances, as well as disambiguating the focus of the utterance. Simply using more data would also contribute to a more complete picture of the utterance, and help determine whether there are fixed expression effects or frequency effects from common exemplars (e.g. *stop smoking*, *start not feeling well*).

CHAPTER 7

CONCLUSION

We discussed in the previous section that the SNX pattern indicates undesired change in a temporal narrative and can refer to scalar changes in feeling or emotive states. It is used in realis narrative context, and encodes the trigger for a rectifying action on the part of the speaker or subject. More importantly from a theoretical perspective, we have established that it is equivalent neither to *stop* nor to other uses of *start*. That and how it differs indicates that speakers compose all types of discourse and pragmatic concerns to form their utterances, which influence the semantic and syntactic realization of those utterances, in order to express changes in heir lives.

As laid out in the introduction, the goals of this thesis were to (1) determine in what forms this pattern exists and why (what communicative abilities would interlocutors be missing without it?), (2) describe what discourse purposes this pattern fulfills, and (3) develop more evidence in support of hypotheses which describe form/function relationships.

In response to (1) and (2), we have established that the SNX pattern is a specific verbal lexeme which selects for a particular type of complement: negated, stative/experiential/emotive, scalar, modified, and expressing an undesired, gradual change of state. *Stop* and other uses of *start* do not express these same pragmatics; thus it is the ability to express this specific kind of gradual, undesired change that SNX provides for us. While the SNX pattern is rare (n=386 out of enTenTen's 12.9 million tokens versus tens of thousands for *start Xing*), the fact (a) that it is present in such predictable contexts and (b) of its function as a marker of inchoative aspect suggests that this predictable, default function of

start is exploited by speakers to express an unpredictable discourse-pragmatic function. In response to (3), we have supported the idea that form matters for function, both due to exemplar/frequency effects and due to combinatoric effects of particular patterns. Not just any combination of words can express the particular state-offset expressed by *start not*; it is a function of its component parts, as well as a function of the typical discourse roles in which it appears. Hearers, noting this pattern, in turn use SNX instead of some alternative in the appropriate real-world situation, thereby cementing its unique communicative role.

This pattern has been discussed from the perspective that syntax, semantics, and pragmatics should be examined in tandem in order to understand the full purpose and expressiveness of natural language. We have used a variety of quantifiable features to measure these, which can only serve as a proxy to approximate speaker intention due to the non-discrete nature of the human experience and the need to express that with the finite building blocks of natural language. Despite this necessary approximation, we have been able to conclude that, at the very least in the case of SNX, form indeed matters for function, and this is a distinction to which speakers attend.

In this thesis I have presented a compositional expression which takes its meaning both from its component parts as well as from the contexts in which it is typically used. It can be described as a specific use of *start*, in the sense that from a lexeme-based perspective it takes specific valence, semantic, and pragmatic features. It can also be described as a construction, whose form may be predictable but whose particular use is not necessarily. Regardless of the perspective taken, the meaning of the SNX pattern, which is syntactically contributed to by all components of the expression (*start, not, -ing*), relies intrinsically on features of the world and experience that the speaker is trying to communicate (desirability, revocability).

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