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A CONCEPTUAL SEMANTICS ACCOUNT OF NEGATIVE POLARITY LICENSING: A STUDY OF THE *ANY* EXPRESSION

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ABSTRACT

This thesis, in the spirit of work done in generative grammar, focuses its attention on the crucial link between a theory of meaning and a theory of understanding and how this link may be expressed in the form of a linguistic theory for it to enjoy psychological plausibility. The current approach adopts Jackendoff's (1983; 1990) model of grammar which primarily conflates "semantics" and "pragmatics" into an autonomous level called Conceptual Structure (CS). Another aspect of the CS model which will be emphasized in this thesis is the correspondence between phonological structure and conceptual structure and its effect on syntactic structure. In essence, the model underscores the creative capacity of all three levels while de-emphasizing the "syntactocentrism" (Jackendoff 1990) of previous models of grammar.

This thesis uses the CS model to account for the phenomenon of negative polarity licensing in general and to provide an explanation, in particular, for examples such as the following:

(1)a. *John didn't see anyone. He saw Bill.

b. John didn't see ANYONE. He saw Bill.

(2)a. *Anyone cannot enter.

b. (Just) ANYONE cannot enter.

The fact that metalinguistic negation is significantly different from truth-conditional negation and that it is, in many cases, coerced by contrastive stress which, in turn, affects grammaticality reflects the "correspondence" between the various levels of grammar. Besides linking various levels of grammar by correspondence rules rather than hierarchically arranged derivational rules, this model allows us to propose a conceptual notion of negativity in order to unify the class of negative polarity licensers.

The advantage of using such an approach rests on the fact that the level of conceptual structure, and the process of conceptualization in itself, is not completely language-dependent. Hence, this means that some of the hypotheses proposed in the thesis are universally applicable. Overall, this thesis suggests that conceptually relevant semantic theories can indeed give us what we need from a theory of interpretation – which is, *general* rules of interpretation that are able to go beyond the "formal pyrotechnics" (Hornstein 1984; p.149) of "semantic and pragmatic approaches to meaning".

ACKNOWLEDGMENTS

This thesis is the culmination of an exciting and challenging program in linguistics at the University of Ottawa. I will always remain indebted to Professor Hans Henrich Hock of the University of Illinois, Urbana-Champaign, who as Visiting Professor of Linguistics at JNU, inspired me to pursue higher studies in linguistics. I also thank all the professors at the Centre for Linguistics and English, JNU, for their support.

I am grateful to my advisor, Marc Authier, for providing me with useful feedback that included both bouquets and brickbats, which gave rise to critical revisions during the course of the writing of this thesis. I also wish to thank the other members of my thesis committee for their valuable help: Brendan Gillon, Marie-Odile Junker, Ljiljana Progovac and Marisa Rivero.

The process of writing a thesis, I must admit, can be one of the most exhausting tasks for a student-cum-mother-cum-wife. At times it felt like running around in circles looking for my tail! But I also remember cheering myself up with dry humour muttering, "Double the *negative* 'n' accentuate the positive!" I thank all my friends at the Department of Linguistics for the cheer and good-will that they shared so generously with me: Galina Alexandrova, Olga Arnavdova, Shahla Raghib-Doust, Ejike Eze, Malcolm Finney, Michele Foley, Stephane Goyette, Margarete Ling, Louise Manga, Ahmad Moinzadeh, Keemla

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Last but not least, I have my parents and parents-in-law to thank for being there for me through thick and through thin.

It is astonishing what language can do. With a few syllables it can express an incalculable number of thoughts, so that even a thought grasped by a human being for the first time can be put into a form of words which will be understood by someone to whom the thought is entirely new. This would be impossible, were we not able to distinguish parts in the thought corresponding to the parts of a sentence, so that the structure of the sentence serves as an image of the structure of the thought.

GOTTLOB FREGE

Je croye veritablement, que les langues sont le meilleur miroir de l'esprit humain, et qu'une analyse exacte de la signification des mots feroit mieux connoitre que toute autre chose, les operations de l'entendement.

LEIBNIZ

"The secret of creation is known only to The Creator."

Bhagavan Sri Sathya Sai Baba

I dedicate this thesis with love to Shyamie

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CHAPTER 1

INTRODUCTION

1.1 Aim of The Present Study

This thesis is an attempt to investigate the properties that constitute 'linguistic meaning'. Most studies concerned with the semantics of natural languages most often circumscribe their research simply to truth-conditional systems in order for it to be captured in formal model-theoretic terms. There is an increased emphasis being placed on rigorous argumentation and formalism with the notion that the principles of scientific inquiry as they apply to linguistics, particularly to semantics, must be captured in mathematical, algorithmic terms. This is not to say that all formalism must be eschewed. Nevertheless, one ought to recognize that the practical virtues of formalism have been overstated and its potential pitfalls overlooked. It is, therefore, important to keep in mind some of these shortcomings and find a way to work around them in order to build a conceptually strong, yet empirically testable, model of grammar. It is certainly necessary to conform to formalism as much as possible in order to make a theory testable, but without necessarily allowing the formalism of a theory to restrict emerging issues that are mainly conceptual in nature. A truth-conditional

approach to the study of meaning, in effect, ignores the magnitude of the influence conceptual meaning systems have on the study of 'linguistic meaning'. Once again, this is not to say that conceptual meaning cannot be represented in model-theoretic terms as rules of construal, inference, etc. Nevertheless, it is somewhat paradoxical that the conceptual systems that give human beings an understanding of themselves and their world are themselves not properly understood. I will, therefore, underscore the importance of the role of conceptual knowledge in a succinct analysis of natural languages and will work under the assumption that conceptual knowledge along with empirical knowledge can provide us with answers to many questions regarding certain natural language phenomena, particularly the issue of negative polarity licensing.

The program of research that I adopt for the present study assumes Jackendoff's (1990) view of a conceptual level of semantics – a level of mental representation (or conceptual structure) at which linguistic, sensory, and motor information is compatible. More importantly, this is also the domain over which both logical inference as well as pragmatic inference takes place. Hence, under a Conceptual Semantics (CS) framework both 'semantic' as well as 'pragmatic' rules of inference are carried out at the same level of mental representation (i.e., at the level of Conceptual Structure). Hence, in order to judge a sentence as "true" potentially involves a combination of extralinguistic as well linguistic information. That is, the truth-value of a sentence is based on information conveyed by the

sentence itself plus rules of inference. Not only does the CS framework consolidate the two kinds of linguistic rules (viz., *semantic* and *pragmatic* rules) prevalent under a theory with an autonomous semantic level, in addition, it accounts for certain "aspects of meaning that are determined directly by phonological structure without syntactic intervention..." (ibid. p.17). This aspect of meaning will receive significant attention as well, particularly when dealing with the distinct characteristics of the *any* expression brought about by the use of contrastive stress. The features of stress and intonation in English have been commonly believed to be mere "stylistic factors" which do not contribute much to the essential meaning of sentences[1]. In this thesis, as one of the tasks, I will attempt to construct an account of these phonological phenomena in relation to the phenomenon of negative polarity and show how they fit into the CS framework proposed here.

In order to exemplify the core mechanism of the CS framework relevant to the present study, I will represent diagrammatically the main ideas mentioned above in the spirit of Jackendoff's overall organization of the mental information structure involved in language.

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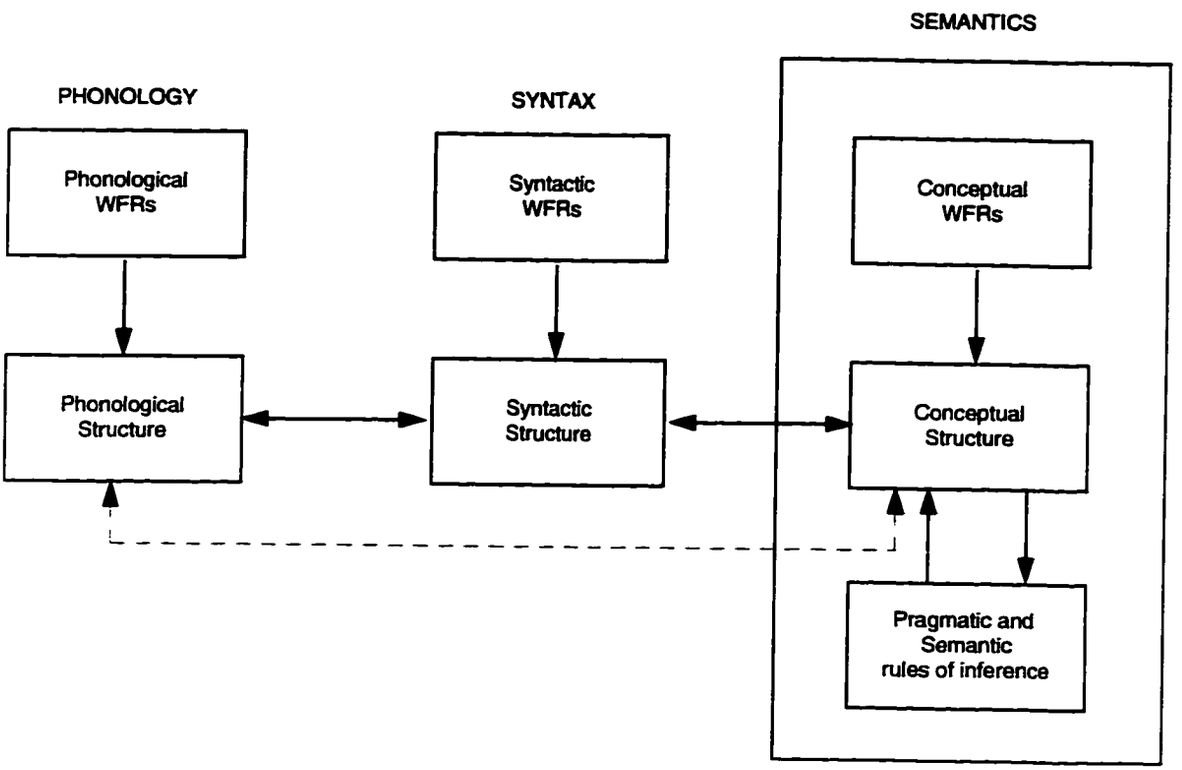
[1] Jackendoff (1972) recognizes the importance of the phonological phenomena of stress and intonation and shows how they can be brought to bear on generative grammar and into a possible theory of discourse. More recently, Cinque (1993) and other syntacticians have also discussed stress/intonation and its overall significance in the study of interfaces.

Figure 1.1 Organization of the Semantics Module under the CS-Framework



The two important issues that I would like to emphasize on once again as being relevant to the present study are (a) that both semantic as well as pragmatic rules of inference are rules for the manipulation of conceptual structures and (b) that phonological structure too is responsible for certain aspects of meaning.

This thesis emphasizes, in particular, the fact that a proper analysis of a natural language phenomenon such as polarity sensitivity must recognize that a "formal" account (one that ignores underlying construal mechanisms) does not answer all the questions regarding the well-studied, albeit enigmatic phenomenon. The present study, on the other hand, reinforces the extent of the role of conceptual

semantics (i.e., a non-autonomous view of semantics) and its influence on the grammaticality of a sentence. Linguistic structure depends on (and itself influences) conceptualization, the latter being conditioned by our experience of ourselves, the external world and our relation to that world. Hence, a purely syntactic account may not be able to explain why two sentences with similar structural form (such as (1) and (2) below) have varying strengths of grammaticality, but a semantic view may be able to.

(1)a. If (just) *anyone* can fix this leak with LeakSeal, why should we pay a plumber $50 an hour?

b. ?If (*just) *anyone* can fix the leak, I will be very happy.

(2)a. ?We let in *anyone* at 6 o'clock for the show.

b. We let in at 6 o'clock *anyone* who had tickets for the show.

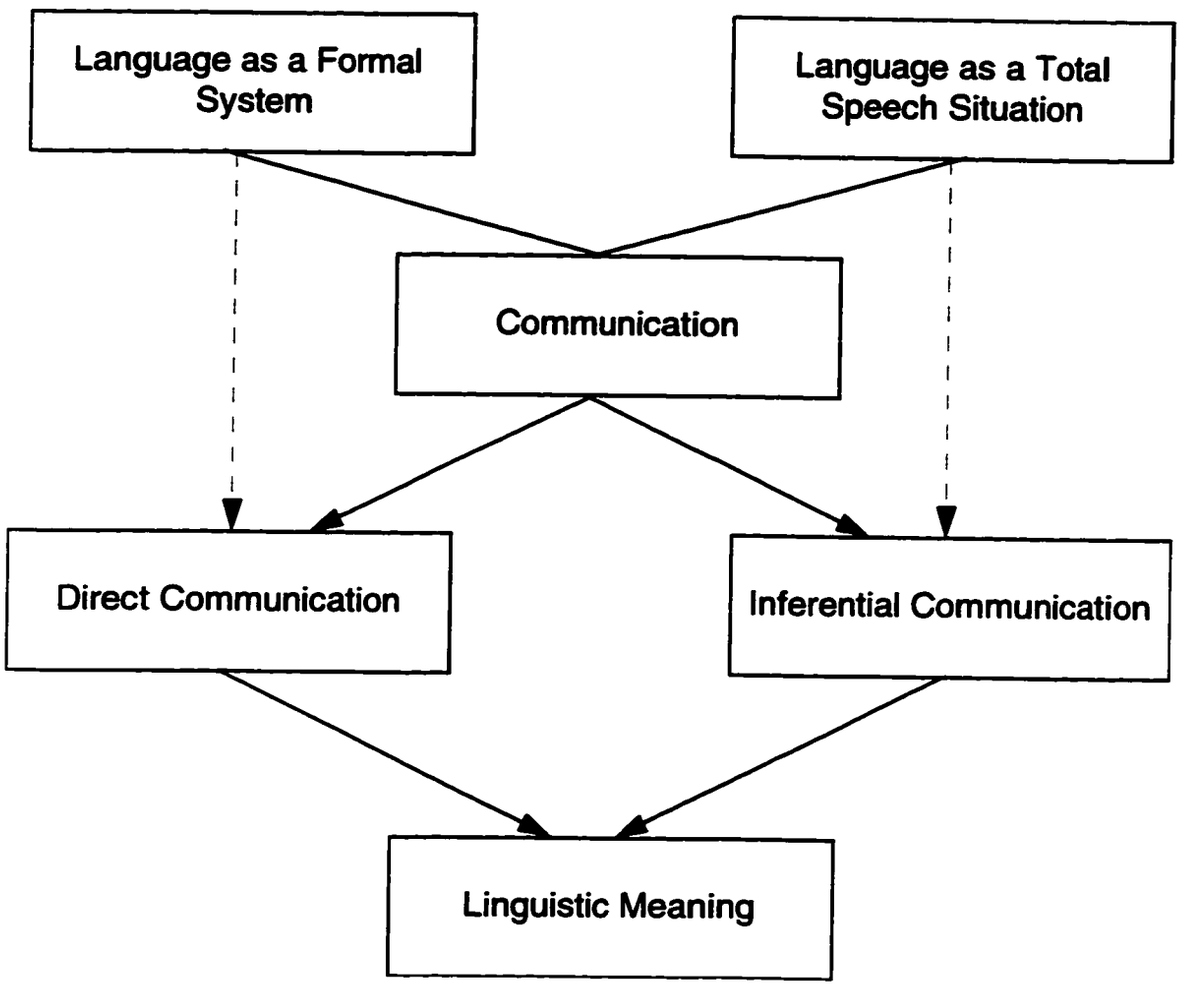
The fact of the matter is not simply whether we resort to a syntactic, semantic or another form of linguistic analysis of such instances, but rather it is an issue concerning what factors we must consider – under the label of *communication* – that directly influences the grammaticality of such sentences. It is implicitly agreed upon that there are two basic modes of linguistic communication (c.f. Sperber and Wilson 1986). One way is to provide direct evidence for the information to be conveyed, which may be called *direct communication*, while the second way of conveying information is to "provide direct evidence of one's intention to convey it", which is called *inferential communication*. Indeed, the

first method is what is acknowledged under a formal (syntactic or semantic) study of a given phenomenon of a language since it is the easiest to assess. In other words, there are not too many empirically inadequate variables present that might alter one's decision about whether a given structure is grammatical or not. Therefore, linguistic structure for a formal study of meaning is of utmost importance. This position is reckoned as *Language as a Formal System.* However, the second method or inferential communication has a number of factors, both grammatical and extra-grammatical, that could influence the reading of the sentence as well as its grammaticality. This position, which I adopt under the name of cognitive / conceptual grammar, is referred to under *Language as a Total Speech Situation.* Hence, communication as a whole is successful not simply when the hearer discerns the linguistic meaning of the utterance from its structural ramifications, but when s/he also *infers* the speaker's meaning from it. As a corollary to the point just made, I will henceforth assume that linguistic meaning is one that accounts for inferences and other non-truth-conditional aspects of meaning as well, since they seem to play an important role in the grammar of a language. Hence, regardless of whether we call this notion of meaning the *non-autonomous view of semantics* or the *total speech situation view of semantics*, the notable fact that remains is that semantics under any rubric must incorporate both logical and non-truth-conditional aspects of meaning. Under the present framework, I will assume that for a correct and equitable analysis of polarity

sensitivity, *both* truth-conditional meaning and speaker meaning ought to be considered in order to make the right grammaticality judgments. Thus, the *unobservable* features[2] of a sentence as well as its *observable* features (c.f. Katz 1966) must be considered as information that a speaker utilizes to produce it on the appropriate occasion and to understand it when it is produced by other speakers. The following figure illustrates the above discussion.

[2] *Observable* grammatical features of a sentence can be described as features predicted directly from its structural representation. Anything that requires information from other sources, such as logical inferences or even emphatic stress, for example, that requires activating some inferential processing, is not considered an *observable* grammatical feature.

Figure 1.2 Two Views of Language as Communication



Some of the more specific purposes of this thesis are:

(a) To study the linguistic phenomenon of polarity sensitivity and to consider conditions on occurrence of negative polarity items. More specifically, it will attempt to detail the complicated anatomy of the notion of linguistic meaning in light of this phenomenon, which has threatened to erode the traditional distinction within linguistics between semantics and pragmatics. This study will converge on

the manifold uses of the *any* expression and the implications it holds for the study of linguistic meaning.

(b) To emphasize the *prima facie* differences between formal languages and natural languages; that is, language as a formal system (which largely ignores inferential meaning) versus the linguistic activities of actual human beings. The latter pertains mainly to the context-bound nature of language and its use in "total speech situations". Applying a conceptual notion of semantics, the specifics of which were provided earlier, will likely provide a better tool for analyzing sentences of a given language; and in providing answers to many of the questions that were left unresolved by a uniformly syntactic approach or for that matter, a traditional semantic view that took into account only the formal aspects of meaning. In addition, I will defend the position that linguistic semantics (which includes truth-conditional as well as non-truth-conditional aspects of meaning (see Fig. 1.2)) is a branch of scientific psychology as opposed to the Quinean contention that it cannot be scientific because it uncovers nothing factual. In fact, such views were expressed by logical empiricists who wanted to cure semantics of the 'disease of metaphysical speculation'. Despite the commonly held belief that any study of meaning that transcends formal truth-conditional semantics is not within the domain of grammar *per se* I will maintain the global, non-autonomous view of semantics. I will stress that a careful investigation of natural languages reveal the extent of "extra-grammatical" features and its influence on the

grammaticality of sentences (which will show that it cannot merely be "metaphysical speculation"). Hence, this study will contribute to the body of work devoted to studying the composition of Logical Form within a model-theoretic framework.

(c) To establish a proposal that concerns the best way of dealing with the complicated phenomenon of polarity sensitivity and for the precise accounting of facts within a given language. To further demonstrate that the above-mentioned phenomenon is best defined by the function of a linguistic semantics where sentence-meaning is almost entirely dependent upon contextual features of utterance.

(d) Finally, it is hoped that this body of work will also contribute (albeit minimally) to the understanding of the language acquisition device, in that it will indicate that there exists a connection between the form of the phonological, syntactic, and semantic components of a linguistic description and that an awareness of this connection is necessary in the understanding of natural language processing.

Even though this thesis stresses on the point that language is a means of communication where the notion of communication spans both the interpretive as well as the empirical levels, it is not to be confused with a so-called "theory of communication". Despite the fact that language is essentially used for communicative purposes, the latter theory presupposes that the fact that language

can be used to convey information explains as well as determines the nature of rules by which this is done. In other words, it is assumed that communicative function determines linguistic structure – effectively conflating the competence-performance distinction. On the other hand, this thesis assumes that it is impossible to cast all the principles of the language faculty in a semantical vocabulary since it is clear that this is not the case for large domains of data.

It is also necessary to mention at the outset that there exists some fundamental differences between the program called Conceptual Semantics (Jackendoff 1983; 1990) and the program called Cognitive Grammar (Langacker 1983; 1987; 1990). However, I use the words *conceptual* and *cognitive*, often interchangeably, to refer to a mental representation that serves as the meaning of a linguistic expression. In this regard, I will follow Jackendoff (1990) in suggesting that the act of understanding a sentence is to be regarded as placing that sentence "in correspondence with a mentally encoded concept which has internal structure derivable from the syntactic structure and lexical items" of the sentence. Essentially, Jackendoff's vision of grammar maintains the autonomy thesis but Langacker's "cognitive paradigm" abandons the various autonomy theses and dichotomies proposed in the linguistic literature claiming that it is impossible to separate linguistic knowledge from extra-linguistic knowledge. Therefore, the three types of linguistic units, namely phonological, semantic and symbolic units, are assumed to form a continuum describable by means of symbolic units. In

Conceptual Structure, on the other hand, well-formedness conditions on say, anaphora, are distributed between the syntactic and the conceptual components (see Culicover & Jackendoff (1995) for details). In other words, the syntactic component is seen as an independent grammatical component.

1.2 Some Fundamental Issues in Polarity Sensitivity

One of the fundamental problems encountered in the treatment of Negative Polarity Items (NPIs) is the definition of *negative context.* A negative context intuitively conjures up situations that are overtly specified as negative and is used to explain the ungrammaticality of the (b) examples and, conversely, the grammaticality of the (a) instances under (3) and (4). The (un)grammaticality is explained in terms of the absence of the licensing factor, i.e., negation in one case and its presence in another. Hence, traditionally speaking, NPIs have been defined as those lexical items such as *anyone, at all, ever, budge an inch,* etc., which are licensed by the presence of negation[3].

(3)a. I did not see *anyone.*

b. *I saw *anyone.*

(4)a. I did not *budge an inch.*

b. *I *budged an inch.*

[3] Under many analyses, licensing by negation is explained in terms of covert negation, which is explained in various ways under various approaches, for many non-negative licensing contexts.

However, apart from the traditional definition of a polarity context, NPIs are also licensed in contexts such as yes/no questions, conditionals, complements of factive adversatives, comparatives, etc. which, more often than not, seem to defy the intuitive meaning of a "*negative* polarity item[4]". In other words, a few of the above-named licensing contexts for an NPI do not show any propensity for negation (cf. Ramachandran 1993).

(5)a. If I find *anything* interesting at the book fair I'll give you a call.

b. Did you find *anything* interesting at the book fair?

To an ordinary speaker of English, the above examples conveys very little that can be classed as "negative". But what could be the explanation behind the numerous instances of NPIs occuring in so-called polarity environments such as the above? There certainly is no visible presence of any negative element that warrants the existence of the NPI. What do all the licensing contexts have in common? I will essentially assume that consistent answers to these questions are to be found only when we resort to a semantic frame of reference[5]. This is by no means an attempt to undermine the importance of syntactic arguments to certain linguistic phenomena, but rather it is an exercise in understanding the extent to which semantics constrains

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[4] Giannakidou (forthcoming) discusses licensing of "NPIs" (use of quotes are Giannakidou's) in Greek and argues that the expressions standardly characterized as NPIs do not really form a natural class. Instead, she demonstrates that negative polarity forms a heterogeneous domain consisting of several different kinds of semantic licensing dependencies.

[5] On realizing that "NPIs" is a very broad term to capture the wide distribution of these items, Giannakidou (ibid.) proposes to use the term SLIs (semantically licensed items). SLIs are defined as expressions whose grammaticality is dependent on some semantic property of the context of appearance. Hence, if the context provides the required semantic property, SLIs are licit; if not they are not grammatical.

syntax in the study of certain other phenomena. The basic claim is that there are areas where semantics "rather naturally takes over some of the work normally attributed to syntax" (cf. Jackendoff 1990) and that the phenomenon of negative polarity is perhaps one of the areas.

Although the main impetus for proposing a conceptually relevant framework for negative polarity licensing arises out of preliminary instances such as the ones in (5a-b), one cannot ignore the fact that there seem to be some striking parallels between Condition A of the Binding Theory and the licensing of "core" PS *any* as they both appear to be sensitive to c-command. This of course is what prompted Progovac (1988) to liken polarity licensing to binding. Consider the following paradigms:

(6) *Anyone didn't sneeze.

(7) *Anyone$_i$ wasn't seen t_i.

However, according to the theory of binding based on CS-superiority (advocated by Jackendoff (1990) within his CS framework) the mechanism of encoding binding in conceptual structure rather than in syntax is a way of working out machinery that is essential, while reducing the expressive power of syntax. The reasons provided for this approach to binding trace back to two types of instances that run counter to the θ-criterion. One relates to cases where multiple NPs hold a single θ-role (8) and the other to cases where an NP has more than one θ-role (9).

(8) The list includes my name on it.

(9) X buys Y from Z. (Jackendoff 1990; p. 59-60)

I will omit lengthy arguments provided in support of the idea that coreference is fundamentally a semantic notion[6]. Jackendoff, however, sums it up in the following words: "Whatever notation is introduced into syntax, conceptual structure still needs some sort of formal machinery to indicate that two conceptual constituents are intended to describe the same individual – this is part of *meaning*" (p.65). Hence, binding in conceptual structure according to Jackendoff reduces duplication of descriptive machinery while enriching conceptual structure in order to accomodate a more adequate version of the binding phenomenon. I will adopt the above position that supports CS-superiority over asymmetrical c-command for NPI licensing at least for the English data in the context of overt truth-functional negation. Consider the following examples which display a marked analogy between anaphors and NPIs in that both are sensitive to c-command:

(10)a. ?I showed *John* himself in the mirror.

b. *I showed himself *John* in the mirror.

(11)a. I showed *nobody* any of my stamps.

b. *I showed anybody *none* of my stamps.

In Jackendoff (1972) instances such as (10) above are analyzed in terms of a Thematic Hierarchy Condition on the interpretation of reflexives, in that "a reflexive

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[6] In standard transformational theory of pronouns and reflexives it was assumed that pronouns originate as fully specified NPs identical with their antecedents in deep structure. Jackendoff (1972) explores the alternative theory that pronouns and reflexives are present in deep structure and that their antecedents are determined in the semantic component.

must be lower on an ordered list of θ-roles than its antecedent" (p.148). This explains why (10a) sounds better than (10b) where the reflexive is *higher* on the thematic hierarchy than its antecedent. Even though the Thematic Hierarchy Condition may seem stipulative, in the CS framework this requirement may be seen as a configurational condition in conceptual structure comparable to the syntactic conditions on binding such as c-command[7].

Therefore, in the spirit of the above arguments for a CS account of certain binding phenomena I will suggest that negative polarity licensing, particularly in the context of overt truth-conditional negation (11), is parallel to the c-command requirement for anaphors notably that under the present approach such conditions are specified in conceptual structure. The structural configuration for the licensing of NPIs (specified at conceptual structure) is provided in terms of the licenser (negation) being structurally higher than the licensee (the NPI).

This thesis, in the study of the polarity phenomenon, uses as its focal point an analysis of *any*. Naturally, therefore, this study looks at the two varied uses of *any* – *any* as a polarity item as well as *any* as the free-choice item. These are two of the issues I will consider in the following chapters. The rationale behind focusing primarily on the case of the *any* expression is that the distinction between free-choice and polarity *any* begins to get fuzzy in some of the 'traditional' polarity licensing contexts giving rise to a need to define more clearly what

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[7] Grimshaw (1990) provides suggestions to this effect.

licensing contexts (whether for FC or PS *any*) are all about. Most of the vagueness is commonly attributed to the fact that the *any* expression in English is ambiguous between the two readings: not only is it a polarity sensitive element but it also represents the free-choice item. An account of both these aspects of an *any* expression provides much-needed answers for the correct analysis of negative polarity items in general. It enables us to comprehend and hence, define the exact nature of a negative polarity item and its possible licenser(s). Yet another noteworthy advantage of looking more closely at the *any* expression is that unlike English, most other languages[8] do distinguish lexically between the polarity and the free-choice readings of the expression. I will use this vital difference between English and a few other languages to make some substantiated predictions about the phenomenon of polarity sensitivity.

Further, in defining some of these basic issues regarding the exact nature of a negative polarity item we may find a common denominator, a common unifying factor, in the licensing of NPIs in various contexts. I maintain that any discussion of NPI licensing should distinguish two levels of the different components that constitute the correct definition of negative polarity licensing. First, the class of potential licensers must be defined and second, the relation between the licensers

[8] I will also consider the case of languages such as Tamil and Dutch (in Chapter 6) that are "English-like" in that they too display lexical ambiguity between FC and PS *any*.

and NPIs must be precisely specified so as to make possible the availability of a general principle for negative polarity licensing.

Lack of overt negation in some of the above contexts (viz. (5a-b) is explained by the fact that the licensing environments somehow display forms of covert negation. Linebarger (1987) advanced the notion of a negative implicature (the NI theory) which was responsible for all non-negative polarity licensing while Progovac (1988) (also Laka (1990)), on a similar vein, suggests that the only binder for polarity items is negation. She argues that in the case of non-negative polarity licensing a null negative operator appears in the Spec of Comp which fulfills the binding requirement that an NPI be c-commanded its licenser.

The phenomenon of polarity sensitivity has captured the attention of linguists over the last thirty years and of late, this phenomenon has proved to be a touchstone for those theories of grammatical representation that have tenaciously been engaged in debates over the relationship between syntax and semantics. So influential is the evidence for adopting an interactive model, that Progovac (1993) softened her (primarily syntactic) stance (1988, 1990, 1991, 1992) to accommodate a modified version of Ladusaw's (1980) downward entailing (DE) theory with her earlier Binding approach. This new approach is called the ENBI (ENtailment + BInding) approach and is "designed to solve the problems raised by either a purely semantic or a purely syntactic approach, while combining the virtues of both."

It is a logical possibility, of course, that among the various components that presumably conspire in determining what licenses the occurrence of NPIs in a language, the combined roles of syntax, semantics, pragmatics and often, even phonology (no matter how insignificant its part is) is set aside for a unilateral treatment of this phenomenon that fits harmoniously into an existing model[9]. For instance, a lot more attention has focussed on providing a unified syntactic, semantic or a pragmatic account (Progovac 1988, Ladusaw 1980 and Krifka 1990, respectively, among many others) while a theory that ties in the significance of all these areas in the proper treatment of polarity licensing is few (Linebarger 1987; Progovac 1993) and far between. Several attempts to formulate strong licensing conditions that might capture the distribution of NPIs in terms of negation or Downward Entailment (DE) has been shown (Giannakidou (1994), Israel (1994) and several others) to make only partially correct predictions and to always leave a wealth of data unaccounted for.

Monovalent syntactic treatments function under the view that besides certain structural requirements of NPI licensing, all other effects are of minimal importance to an accurate account of polarity licensing. Klima (1964), for instance, was interested in the syntactic criteria for sentential negation, and for him the most important fact about NPIs was the range of contexts they were sensitive to. Even

[9] Giannakidou (forthcoming) also agrees that it is far from clear whether the lexical item *any* or the items characterized as NPIs crosslinguistically form a natural class either in terms of their distribution or in terms of their sensitivity to negation or DE.

though Klima does introduce a syntactic feature [+Affective] in order to delineate them as a class, he does not explain why these assorted contexts function as a natural class. While the syntactic literature does not provide a viable solution to this problem, pragmatic approaches such as Krifka's (1990) tend to overgenerate[10]. Hence, a purely syntactic account of polarity licensing fails to account for the data (empirical evidence for the above claims will be provided in the following chapters) while a satisfactory account of the pragmatics of negative polarity - one that will not overgenerate - "has yet to be formulated" (cf. Linebarger 1991).

Part of the problem faced in providing a balanced account of negative polarity licensing lies in the fact that the diversity of NPIs, especially in a language such as English, makes it hard to postulate a unilateral theory which might account for the entire phenomenon. In the thesis, I will maintain that unilateral treatments of the polarity phenomenon cannot fully explain a variety of crucial generalizations that seem to be resolved only through the mediation of certain conceptual processing. While the explanatory power of the syntactic approach is significant, the above observation only serves to highlight the current tendency of underappreciating the complexity of the data. Besides, a more coherent account of the phenomenon of polarity sensitivity can be offered when all aspects of the data are taken into consideration, thereby minimizing the so-called 'crosslinguistic gap'.

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[10] For a more detailed criticism of Krifka's approach, consider Linebarger (1991).

The thesis will, therefore, argue for a cognitive approach to polarity sensitivity in an attempt to comprehend better the role played by semantics in the correct definition of polarity items. This stance also has consequences for the present view of the syntax-semantics interface. The fairly popular autonomy-of-syntax view essentially claims that even though lexical, phonological and semantic information is present in the syntactic tree, syntactic rules cannot see them. This means that the phonological and semantic information of a lexical item is towed along through a syntactic derivation, "inertly" (cf. Jackendoff 1994). I consider this assumption to be incorrect and will show that certain phonological and semantic pieces of information do have an impact on the proper categorization of polarity sensitive items. Take for instance the phonological device of contrastive stress. A stressed *any* expression in a typical polarity environment alters the item from a polarity item to a free-choice item. Along with the above statement comes an important semantic reality as well: the endorsement that negation is not unambiguous (contra Atlas (1977), Kempson (1975), Boër & Lycan (1976) and Gazdar (1979), but similar to Horn (1989) and Karttunen & Peters (1979)) – that is, truth-conditional negation is fundamentally different from metalinguistic negation.

(12)a. I didn't see anyone. Truth-conditional Negation

b. I didn't see ANYONE (I saw John Doe). Metalinguistic Negation

Metalinguistic negation does not focus on the truth or falsity of a proposition, but rather on the assertability of the utterance. Even though present-day linguistics

focusses on the empiricism of natural language as attested by the native speaker, certain fundamental problems exist under a formal system of language. One of them is as follows: Similar to the monoguists' view that negation is not ambiguous, almost all syntactic analyses of NPI licensing have assumed that all instances of negation ought to be assimilated to a single truth-conditional operator. This view, however, does not hold in light of the above examples. These examples are also sufficient proof that phonological information has a bearing on the semantic information and that these two together are pertinent for an accurate analysis of negative polarity items[11]. Therefore, this study of polarity licensing will attempt to show that the syntactic component is not a water-tight compartment and that semantic, and even some phonological information, is allowed to permeate at that level, making it necessary to redefine the syntax-semantics interface.

1.3 Organization of the Thesis

Chapter 1 of the thesis will provide a theoretical background as well as serve to introduce the organization of the thesis material. A brief outline of the content of the subsequent chapters and a number of remarks will help set the tone of the study. In chapter 2, I will review some of the more well-known perspectives of NPI

[11] In other languages, including French, negation can be marked in a variety of morphologically distinct or overlappping ways, depending on the syntactic environment and the semantic context (for instance, *(ne)...{pas / point / aucun / personne / rien / jamais}*, on the one hand, and *{aucun / nul / personne / rien...} ne*, on the other (cf. Gaatone (1971)).

licensing, namely, Ladusaw (1980), Linebarger (1987), Progovac (1988) and also Krifka (1990), in order to present the varying standpoints assumed in the search for answers to the phenomenon of polarity sensitivity. The theoretical landscape for this phenomenon, unlike any other, is so wide that potential solutions, which are based on the presumably disjoint areas of syntax, semantics and even pragmatics, have been proposed. Therefore, it is only natural to assume that at least some of the issues of polarity licensing may have to do with factors other than mainstream syntax or the traditional notion of semantics. In a way, Linebarger (ibid.), and so too Progovac (1993), recognizing this feature, have attempted to find answers by tying in semantics with syntax, even though many questions remain unanswered. In this chapter, I will also present a detailed view of conceptual semantics (c.f. Jackendoff 1990), and the validity of the arguments presented under this view for treating meaning as a system of "mental representation that can serve as the meaning of a linguistic expression". This position is opposed to Frege's (1892) view of disassociating *sense* from *reference*. In other words, I take the paradigm of language use to be its use in communication and communication abilities. More specifically, a theory of meaning for a language should not only explain how a hearer H understands what the speaker S says but also explain why speakers produce the utterances they do in particular circumstances since obviously more than knowledge of meanings alone is involved here. The discussion in this chapter culminates in the introduction of the importance of contrastive stress as a "meaning-determining act"

(cf. Tsohatzidis 1994), which in turn shows that inferential meaning indicated by such *meaning determining acts* contributes to the overall linguistic meaning of utterances. I will show that the contrast between truth-conditional semantics and conceptual semantics is a significant one – one which leads to altogether different insights. In other words, truth-conditional semantics relies heavily on *observable* grammatical features (cf. Katz 1966; refer to footnote 1) which essentially is the mandate for Language as a Formal System (model-theoretic semantics), whereas conceptual semantics as interpreted in this thesis assumes that linguistic meaning is the result of observable as well as unobservable grammatical features of a sentence, that is, of both truth-conditional as well as non-truth-conditional semantics.

Chapter 3 of the thesis will address the issue concerning the nature of the polarity sensitive *any*. Recent research in the area of negative polarity has yielded significant information regarding the factors that contribute towards the licensing of NPIs. This chapter aims to provide a precise definition of a polarity context. I will assume that licensing by negation is the *core case* phenomenon (cf. Linebarger 1987), in that the feature of negativity is the true licenser for negative polarity items. Besides, as observed earlier there certainly is a structural requirement on NPI licensing in the context of overt truth-functional negation. However, there also seem to be other instances of NPIs that do not necessarily rely on such configurations. I will discuss varieties of truth-conditional and metalinguistic negation to show that not both types of negation license polarity *any*. The discussion sets apart truth-

conditional negation as the product of a formal approach to meaning and metalinguistic negation as an illustration of a natural-language speech situation. This bifurcation of negation and its implications on a theory of grammar underpins the current approach to meaning as *conceptual semantics*. It reiterates the importance of treating 'linguistic meaning' as a consolidation of both truth-conditional as well as non-truth-conditional aspects of meaning which Jackendoff (1990) refers to as the non-autonomous view of semantics. As illustrated in Figure 1.2 I will claim that all linguistic meaning is derived wholly from both direct as well as inferential-ostentive forms of communication as opposed to the algorithmic standpoint that all linguistic meaning originates solely from the truth-conditional aspects of the proposition. The purpose of formal truth-conditional semantics, as it were, is to explicate Truth as a relation between language and reality independent of language users. This view naturally cast off many contextually dependent inferential devices into the pragmatic waste-basket because it apparently gave room to too much fuzziness. Under the present view, it will be assumed that truth-conditions in a natural language cannot be speaker-independent because no language is an abstract artifact, extrinsic to its speakers. Once again, the notion of predominance of I-language over E-language is reiterated.

In the course of attempting to find a 'common denominator' for the varied licensing contexts, I appeal to a **conceptual semantic** notion of *non-positive* that seems to characterize certain sentence types. I will first of all define this notion and

as the next logical step, will hypothesize that *an NPI is licensed in any sentence that is non-positive*. As a preliminary note, a non-positive sentence is one that carries either a negative or an indeterminate truth value. Therefore, *any* under negation and in some of the licensing contexts where the truth value is either negative or indeterminate, as the case may be, is of the polarity type. Incidentally, free-choice *any* is available in exactly the same (non-positive) contexts (the issue of FC *any* will be dealt with in more detail in Chapter 4). At this point in the thesis, I will also examine the influence of contrastive stress on an *any* expression in all of these licensing contexts. Under negation, the stressed variety most naturally gives rise to a metalinguistic reading and I will also show that this variety represents the free-choice item (FCI) and not the NPI. This new insight is further substantiated by crosslinguistic evidence which shows that only an FCI, and not an NPI, is licensed under metalinguistic negation. These facts are easily observable in languages that have two distinct lexical items – one for PS *any* and another for FC *any*.

Since both PS and FC *any* are available in non-positive contexts, I will seek to find out what exclusive feature(s) distinguishes PS *any* from FC *any*. One of them is the feature of stress. I will assume that only the unstressed variety of *any* can be taken as a legitimate NPI[12]. All this shows that the line dividing PS *any* from FC

[12]I will also discuss in detail cases of emphatic stress on *any* which do not result in a FC interpretation. These are cases where stress is accompanied by falling intonation to signify the end of the statement, rather than a continuation as is the case for a FC interpretation.

(i) I didn't see ANYONE (at all).

any is thin and may not always be syntactically motivated. In fact, the two types often merge to such an extent that it is hard to tell them apart, especially when they occur in the same context. In essence, the most significant claim made in this chapter is that "negation" as a licenser of polarity items is best treated under the conceptual notion of *non-positive* rather than in the strict sense of structural negation or instantiations thereof. This approach helps in the explanation of (among other things) why NPIs are licensed in neutral questions.

Chapter 4 endeavours to sort out the tangle of PS and FC *any* that we encounter in Chapter 3. Aside from metalinguistic negation / contrastive stress, which induces a free-choice reading of *any*, there are contexts other than the putative 'polarity licensing contexts' which also license FC *any*. Among them are the traditionally acknowledged contexts such modals and directives, and contexts under generic tense. In order to set apart FC *any* from PS *any* in licensing contexts I will define FC *any* – in the spirit of Vendler (1967) – as an *any* expression that conveys "indetermination" mixed with "generality"[13]. When a speaker S conveys (or a hearer H infers) a meaning equivalent to "no matter which x" through the use of an *any* expression, the *any* expression in such a case is the FC one. I will hence consider FC *any* to be a generic NP in that it is not associated with any distinct entity or group of entities. In connection with this discussion I propose two constraints, namely, (a)

[13] Horn (forthcoming) labels this feature conveyed by *not just any* phrases as denying not universality but INDISCRIMINACY.

Genericity Constraint and (b) Carlson's Constraint, both of which characterize FC *any*.

Once again, the factor that distinguishes a FC *any* expression from a PS *any* expression is that in the case of FC *any* the "no-matter-wh" reading is predominant. I use the term 'reading' in order to suggest that what is important is the inference drawn out from such sentences which suggest free-choice use. The FC reading is more readily available in the so-called traditional free-choice licensing contexts (modals, directives, etc.) than it is in some of the 'polarity licensing contexts'. In the latter situation, emphatic stress or a metalinguistic attribute to the proposition teases out the FC reading. The overlapping situations in which PS and FC *any* appear is bound to make any meaningful account of these two items a difficult task. This chapter attempts to provide all the possible licensing contexts for FC *any* and from these contexts extrapolate triggers that govern the licensing of FC *any*. In this chapter, I will also introduce some of the other views on FC *any*, namely those of Kadmon and Landman (1993), Progovac (1994) and Scullen (1992). I will also point out the drawbacks of not considering instances of FC *any* in contexts other than modals and generics. In the concluding section, I will point out that a comprehensive analysis of FC *any* is possible only by taking into account meaning derived from an inferential level that is often introduced by factors (contrastive stress, metalinguistic aspect) that fall outside the purview of grammar in the formal

sense[14]. In essence then, I will take this opportunity once again to indicate that only if we consider language as a total speech situation, as speaker-dependent, and meaning as a conglomerate of both the truth-conditional and the inferential levels can we provide answers to certain (apparently) inexplicable phenomena. While I do point out that a syntactic analysis by itself is insufficient to explain the polarity phenomenon, it does not mean that all syntactic analysis is merely incidental to language processing. It simply suggests that a conceptual semantic analysis allows a more perspicuous solution to the Polarity Problem.

Chapter 5 will deal with the quantificational force of both FC and PS *any* appearing in all of the previously defined contexts. At the present stage of linguistic research when syntax, and particularly, the semantics of natural languages are studied more keenly it has become clear that there are all sorts of subtle problems about natural language quantifiers which have no counterpart in the quantification theory of formal logic. Formalized quantifiers and their generalizations have been extensively studied by logicians and too often the logician's view is directly imported into linguistics under the study of natural language quantifiers. Of course, there have been good reasons for embracing the formalism of quantificational logic since it solved certain aspects related to the inference problem and also since it seemed so firmly established in producing precise, mathematical solutions. A model-theoretic

[14] However, it is imperative that the reader is made aware of work on intonation emerging from syntacticians such as Cinque (1993) and Reinhart (1982; 1995) and other literature on focus and intonation. In this thesis, I assume that the study of negative polarity licensing has not been usually been approached from this perspective.

approach to language, in the Tarskian or Davidsonian sense, dwelt on the fact that language is an abstract phenomenon which was contrary to the view that perceives language as an interaction of many influences based on possible worlds and one that is not extrinsic to its speakers. In fact, the self-defeating assumption that *natural languages* are highly unstructured and unsystematic conglomerations of verbal constructions went wholly unchallenged under such a radical view that espoused formalism in absolute terms.

As anticipated of course, the behaviour of quantifiers in, say English, has very little to do with the precisely formulated theories of quantifiers propounded by logicians. In fact, very little attention has been paid to the true characteristics of the logical behaviour of quantifiers in natural language. In chapter 5, I shall therefore restrict my attention to the logical existential and universal quantifiers and their counterparts in natural languages, more specifically, I will concentrate on the role of the quantifier *any* in various contexts – in its role as the negative polarity item as well as the free-choice item – and will attempt to provide new insights which may eventually serve to consolidate old results.

To begin with, I will consider some of the earlier works that dealt with the question of assignment of quantificational force to the *any*-expression, namely Linebarger (1981), Fauconnier (1975), Carlson (1979), Horn (1972) and Ladusaw (1979) on one hand who proposed that polarity *any* is best represented as the existential quantifier while free-choice *any* is represented as the universal quantifier

(the E-theory) and Lasnik (1975), LeGrand (1975) and Hintikka (1977), on the other hand, who propose to eliminate this distinction by suggesting that *any* in both cases is best represented as a universal quantifier (the A-theory).

Subsequently, I will present the intricate pattern of quantificational assignment to PS and FC *any*. In contrast to the widely held belief that PS *any* represents the existential quantifier while FC *any* represents the universal quantifier, I will show that both FC and PS *any* in traditional 'polarity' licensing contexts represent the existential quantifier, except in the case of the comparative construction – a situation which is discussed in detail. In the conventional free-choice contexts which include modals, stative verbs and adjectives, predicated nominals, imperatives, relative clauses and prepositional clauses, *any* is best represented as the universal quantifier, except in the case of imperatives. The reasons for the alternation in the assignment of quantificational force to both PS and FC *any*-expression is derived exclusively from an interpretation of the proposition within a mental representation of possible worlds – the *cognitive environment* of the speaker / hearer that are manifest to him / her. In other words, I will regard manifestness as cognitive rather than as epistemological (cf. Sperber and Wilson 1986). Hence, quantificational force of an *any* expression is not predetermined, but rather recovered from context. These arguments are presented in order to counter the inflexibility of applying modern formal logic uniformly to all natural language quantifiers.

In determining quantificational force I will hypothesize that an *any* expression represents the universal quantifier only if it is modifiable by *almost*[15]. Notice in the following instances how this hypothesis is used to determine the quantificational force of the *any* expression[16].

(13)a. I didn't see (*almost) *anyone*.

b. I didn't see (just) ANYONE. I saw John Smith.

c. I didn't see (*just about / *almost) ANYONE. I saw John Smith.

(14)a. I will be surprised if (*almost) *anyone* were to help me.

b. I will be surprised if (just) ANYONE and not the king himself knighted Galahad.

c. I will be surprised if (*just about /*almost) ANYONE and not the king himself, knighted Galahad.

(15)a. Did you see (*almost) *anyone?*

b. Would you marry (just) ANYONE and not a millionaire?

c. Would you marry (?just about / *almost) ANYONE and not a millionaire?

(16)a. If I see (*almost) *anyone* in the hallway, I'll let you know.

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[15] Modification of an *any* expression by *just* is indicative of genericity which I assume to be characteristic of a FC *any* expression.

[16] As Marc Authier pointed out to me there seems to be a significant difference between modification by "just" on the one hand and modification by "just about" on the other. I will discuss these instances in greater detail in Chapter 5 even though a preliminary idea of what we are dealing with is provided in the following examples in the text.

b. If you see (just) ANYONE and not Elvis himself, don't bother calling me.

c. If you see (*just about / *almost) ANYONE and not Elvis himself, don't bother calling me.

(17)a. John's lecture lasted longer than (*just about / *almost) *anyone* had expected.

b. John ran faster than (*just / just about / almost) *anyone* (*at all) else in his class.

Instances such as the above representing the various licensing contexts will be discussed in detail. In each of the following examples the NP (*any / any x*) can be said to be 'used generically' and it is common to see analyses in which generic sentences are analyzed as having logical structures in which the NP under consideration has a universal or near-universal quantifier or the 'sort of universal' quantifier *most*. I will show that the case of *any* in imperatives versus *any* in other FC contexts establish that even near-universal and 'sort of universal' propositions have different truth conditions from the class of generics in general (cf. McCawley 1981, p.443). All of the following examples represent the generic use of *any* but not all qualify as universal quantifiers. Notice once again that in the following examples *just about* sounds much better than plain *just*. Whether this suggests that we are dealing with two distinct types of *just* modification will also be considered.

(18) Pick (*almost / just about) *any* number.

(19) (almost / just about) *Anyone* can recite a nursery rhyme.

(20) (almost / just about) *Any* cat drinks milk.

(21) (almost / just about) *Any* bat is a mammal.

In addition to the study of the quantificational force of PS and FC *any*, this chapter will try to address some residual problems by drawing possible parallels between FC *any* in generic contexts and bare plurals.

(22) Any cat drinks milk. / Cats drink milk.

The NP in both cases (*any cat / cats*) are quasi-universals; that is, they allow exceptions. According to Carlson's (1977) theory of bare plurals they name a kind. In drawing up an appropriate interpretation of "kind" we might be able to tie this up to FC *any* under metalinguistic negation (and other metalinguistic forms of a proposition) as well because of the equivalence of (23a) and (23b).

(23)a. I didn't buy ANY car. I bought a BMW.°

b. I didn't buy any *kind* of car. I bought one of those cars that belong to the *kind / class* of BMWs.

Aside from some of the digressions that ultimately stress the importance of considering propositions in the context of utterance the aim of this chapter will be to clarify the controversy surrounding the quantificational force assigned to an *any*-expression in all possible contexts and also to demonstrate that the notion of meaning and the implication it has on other related areas such as quantificational assignment is based on a conceptual view of semantics rather than primarily as truth-

conditional. In this context, I will assume that the best way of arriving at quantificational values for an *any* expression is to treat them as relations between sets (cf. Heim & Kratzer 1992).

Chapter 6 will discuss NPI licensing in languages such as Tamil and Dutch to show that the *any* homophony observed in English is not an isolated case. A detailed sketch of two NPIs in Tamil will be provided. The discussion of one of the NPIs shows that homophony does not necessarily mean ambiguity regarding their meaning or even, as some accounts such as Kadmon and Landman (1993) claim, equivalence, with regards to their function. The study of the *any* expression in Tamil shows that not only does English display homophony, but also Dutch and an unrelated language such as Tamil use the same expression in both FC and PS contexts. I will show how these languages use syntactic means of delineating two varieties of PS *any* in overtly negative contexts that is, between (i) the Wh-NPIs and (ii) the *even*-NPIs (Rullman 1995). The discussion of the second type of NPI serves to illustrate the point that certain conceptually relevant inferential processes are also responsible for some varieties of NPI licensing, since no formal syntactic account will satisfactorily explain why certain NPIs in Tamil appear in ostensibly affirmative contexts. In general, I will attempt to provide a conceptual semantic analysis to the distribution of NPIs in Tamil. It will essentially be maintained that licensing by negation symbolizes the core case phenomenon, that is, it is a necessary but not a sufficient explanation to the distribution of these items. In order to demonstrate that the

licensing of lexical items is not the prerogative of the syntactic module of grammar alone and that the role of semantics (under a non-autonomous view) impinges upon the process of licensing of certain lexical items, I will provide instances from Tamil where a particular type of NPI is licensed uniquely by the contextual meaning of the utterance. The NPI is used as a device to extrapolate non-positive qualities of the utterance by assuming a speaker-hearer common-ground. Consider (24) and then (25).

(24) Mary paDika-*ve* maaTaaL.

Mary study-NPI does not

Mary doesn't study *at all.*

(25) Mary netikki paDika-ve paDi-cc-aaL

Mary yesterday study-NPI study-PST-3p.f.sg

Mary (even) studied yesterday. (She doesn't ever, normally.)

In addition to such instances of extra-syntactic licensing in other languages, I will provide a comprehensive study of NPIs in Tamil[17], which will include an analysis of PS and FC *any,* in order to point to similarities that exist between the various languages under consideration throughout the thesis regarding the co-existence of the two types of *any* in putative 'polarity licensing contexts'.

[17] It will be observed that the distribution of a class of NPIs in Dutch parallels the distribution of the same class of NPIs in Tamil.

The aim of this chapter, therefore, will be to present facts about polarity licensing from a variety of languages to show that licensing conditions may vary from language to language but that it is the result of parametric variation. All languages allow NPIs in the scope of overt negation but where NPIs are licensed elsewhere, the contexts are almost always non-positive. In some languages, the quality described as *non-positive* may be a semantic condition but in some others the parameter is set at the level ascribed to speech act theory and/or cognitive semantics. At any rate, the fact that certain inferential processes are indeed responsible for the grammaticality of a sentence suggests that a conceptual semantic framework is equipped better to handle such 'exquisite' cases of polarity licensing that we come across from time to time across languages.

Finally, chapter 7 will contribute to a culmination of thoughts about the arguments for a cognitive / conceptual view of semantics in addressing the issues presented in the previous chapters regarding the licensing of polarity items across languages. It will also discuss potential problems to the current analysis of negative polarity items and will seek to provide possible solutions. I will attempt to reanalyse some of the data that prove to be problematic under Linebarger's account. Besides, I will also address certain issues that seem to be a problem for a purely semantic analysis as well. For instance, I will attempt to provide an answer to one of Progovac's strongest motivations for a syntactic account which deals with the case of why PS *any* is not licensed in a phrase that is in the scope of an adversative

predicate as in (26a) but is licensed in clauses (26b) within the scope of adversative predicates (Progovac 1992; 1994):

(26)a. *Mary forgot *anyone*.

b. Mary forgot that *anyone* (at all) visited her.

Progovac's syntactic analysis provides us with a solution which goes back to her original claim that the Comp position has an empty polarity operator which, consequently, licenses PS *any* in clauses but not in phrases. However, Progovac does not consider cases like the one below where an *any* expression is licensed in a phrase within the scope of an adversative predicate not preceded by a Comp position.

(27) Mary forgets ANYTHING rude that you might have said to her.

With respect to cases such as (27) above one can assume that as per the CS framework, which allows certain aspects of meaning to be directly determined by phonological structure, the sentence is well-formed even though the *any* expression is not licensed by an operator in Comp.

The thesis will offer a new theory of polarity sensitivity with the dual advantage of broad empirical coverage at a small theoretical cost. The basic concept of the account will be that a proper understanding of lexical semantics will address many of the distributional complexities of NPIs and that the scalar model adopted in order to account for certain classes of NPIs in English (that have proved to be

difficult to analyze) may be a promising alternative to previous attempts at explaining polarity licensing.

CHAPTER 2

NEGATIVE POLARITY ITEMS AND CONCEPTUAL SEMANTICS

2.1 Introduction: Fundamental Principles of Cognitive Knowledge[1]

Negative Polarity Items, Polarity Sensitive Items and Negative Idioms as they are variously called, are lexical items that occur typically – though not exclusively – in environments containing negatives. The distribution of polarity items is also determined by the presence of so-called polarity environments which include conditionals, comparatives, yes/no questions and adversative predicates. A typical instance of a Negative Polarity Item (NPI) is seen in (1) below:

(1) John wouldn't *lift a finger / move a muscle* to help a lady in distress.

(2) *John *lifted a finger / moved a muscle* to help a lady in distress.

While the NPI *lift a finger / move a muscle* is acceptable in the environment of a negative element, as seen in (1), it is not acceptable in the absence of negation as observed in (2). However, the presence of a negative element is not a sufficient condition on licensing as seen in (3) below where the presence of a quantifier preceded by a negative is also not enough to ensure grammaticality.

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[1] I use the terms cognitive semantics and conceptual semantics interchangeably to refer to a level of mental representation in which speakers encode their construal of the world. Jackendoff (1990) however, draws a fine distinction between Conceptual Semantics and Cognitive Grammar.

(3) *Not everyone in New York would *lift a finger* to help a lady in distress.

Also observe the difference in grammaticality of superficially similar sentences as given below.

(4) No more than two people in New York would *lift a finger* to help a lady in distress.

(5) *No less than two people in New York would *lift a finger* to help a lady in distress.

This difference is one of the many clues that lead us into believing that the constraints on NPI licensing too go beyond the simple requirement that a negative element be present. Baker (1970c) has proposed that the acceptability of NPIs in sentences depends, in some not fully specified way, on the existence of an equivalent sentence in which a positive polarity item (PPI) is not in the scope of a negative, or the NPI is in the scope of only one negative. Baker's conjecture is supported by the example below which is a perfectly grammatical paraphrase to the ungrammatical (3).

(6) Some people in New York wouldn't *lift a finger* to help a lady in distress.

In other words, the PPI *some* in sentence (6) – which is the equivalent of sentence (3) – is not in the scope of a negative and the NPI is in the scope of only one negative. This is theoretically correct and even expected considering that there is a

logical equivalence between ~∀ contexts (as in (3)) and ∃~ contexts (as in (6)). However, Baker's explanation only spells out why sentences such as (6) are grammatical without really providing a suggestion as to why sentences such as (3) are not. Linebarger (1987) addresses this issue within the context of the Immediate Scope Constraint (see section 2.2.2) by suggesting that no logical material may intervene between NOT and the NPI: in the case of (3) it does but in (6) it does not. In that case why is (3') – where logical material intervenes between NOT and the NPI – perfectly well-formed?

(3') Not a single soul in New York *lifted a finger* to help a lady in distress.

Under an inferential schema, (3) entails that there do exist a few people that would *lift a finger* to help. Since the NPI *lift a finger* is used in a non-negative proposition (in the entailment), the sentence in (3) is ruled out[2].

Once again, similar to examples (4) and (5) which are structurally alike, there are more cases where an NPI is acceptable in one sentence but is unacceptable in another which is only marginally different from the former. Compare (7) with (8) and (9) with (10).

(7) Fewer than two people would *lift a finger* to help a lady in distress.

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[2] Notice the difference between the minimally contrastive pair (i) and (ii) below. (i) but not (ii),is the equivalent of (3).

(i) *A few people would *lift a finger* to help a lady in distress. (=*Some people... NPI)
(ii) Few people would *lift a finger* to help a lady in distress. (=Not many...NPI)

(8) *No fewer than two people would *lift a finger* to help a lady in distress.

(9) At most two people would *lift a finger* to help a lady in distress.

(10) *At least two people would *lift a finger* to help a lady in distress.

In (7) the NPI is licensed because the sentence entails that not more than two people would lift a finger to help. Since the NPI here appears in a negative context it is licit. But in (8) the entailment suggests that at least two people would lift a finger to help. The NPI in a positive inferential context is illicit even though it structurally appears in a negative sentence. Similarly, (9) entails that not more than two people would lift a finger to help, but (10) suggests that there exist at least two people who would lift a finger to help.

Often NPI acceptability seems to be dependent on the relative size of the set in which the item appears and not on absolute numbers. For instance, fifty people in the whole world is a very small number compared to fifty people in an average-sized room.

(11) There aren't fifty people <u>in this world</u> who would *lift a finger* to help a lady in distress.

(12) #There aren't fifty people <u>in this room</u> who would *lift a finger* to help a lady in distress.

The sentence under (11) suggests that not many people would lift a finger to help, while the pragmatically odd (12) suggests that many people would lift a finger to help.

The above examples call to our attention the importance of considering the "cognitive" aspect of meaning, rather than taking into account the meaning of words and sentences in abstraction from the various speech contexts in which they might be called upon to serve. In other words, on a note similar to the one proposed by Wittgenstein (1958) and Austin (1962), in this study of polarity licensing, I will focus more on the almost total dependence of sentence-meaning in a number of cases upon contextual features of utterance. Also of particular interest is the more recent work of Jackendoff's (1990) which relies on the basic machinery of E(xternal)-language versus I(nternal)-language as proposed by Chomsky (1986). Jackendoff adopts Chomsky's terminology and speaks of meaning as *I-concepts* versus meaning as *E-concepts*. The primary motivation behind characterizing knowledge as I-concepts rather than E-concepts stems from the overarching goals of generative linguistics which is to view ordinary language as a system composed of rules that represent a *mental* grammar. Since it is fairly clear[3] that grammar must represent the "characterization of the mental resources that make possible human knowledge of language", I will implicitly assume that

[3] Even though notions parallel to I-language / conceptual systems were discussed widely in the late 1960s (Katz 1966), it was ignored for the most part during the growth of generative semantics and model-theoretic semantics (Katz 1981).

there exists a straightforward parallel between Chomsky's notion of I-language and Jackendoff's notion of meaning as I-concepts. Therefore, the study of meaning under the current framework embodies the notion that meaning is a truth-functional concept while also taking into consideration that meaning is essentially also an inferential process. This is the essence of a non-autonomous view of semantics under the CS framework.

The downside to the study of meaning under generative grammar however is that generative grammar is a code that pairs phonetic and semantic representations of sentences without seriously considering that a single sentence can be used to convey a number of different thoughts which are often realized by variable phonetic representations of the sentence[4]. As mentioned in footnote 2, model-theoretic semantics ignores the fact that language is essentially intrinsic to speakers. From this oversight came about algorithmic models of semantics which only suggest what a language *should be* rather than clarifying what a language really *is*.

Crucial to the current assumption is also the difference between *sentences* and *utterances* as suggested by Sperber & Wilson (1986). I will use these two terms in a broader sense to suggest that a syntactic approach to the study of language, and even model-theoretic semantics, looks at *sentences* as grammatical

[4] I refer here to the instances where the use of contrastive stress on an *any* expression can set apart two entirely different meanings of the proposition, even though they are structurally identical.

structures that abstract out the purely linguistic properties of utterances disregarding certain extra-grammatical properties, and possibly some non-truth-conditional aspects of meaning that can have some very important grammatical implications, while the study of meaning as I-concepts discerns the larger picture of the nature of language. For instance, different *utterances* of the same *sentence* may differ in their interpretation. Consider carefully (13c) and (13d):

(13)a. I am glad you got *some* tickets for the Beatles' concert.

b. I am glad you didn't get any tickets for the Beatles' concert!

c. *I am glad you got *any* tickets for the Beatles' concert.

d. I am glad you got ANY tickets for the Beatles' concert.

We notice that different *utterances* of the syntactically uniform *sentence* results in conflicting grammaticality. This goes to show that so-called extra-linguistic / extra-grammatical factors do indeed play an important role in grammaticality judgments. Based on this *a priori* argumentation, I will henceforth take *sentences* to mean *utterances* and further, that I-concepts are expressed in natural languages by both non-linguistic means of gesture, drawing, etc. and by linguistic means of contrastive stress, intonation, etc.[5].

The two important motivating factors behind generative syntax are (i) creativity of language and (ii) the apparent paradox of language acquisition.

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[5] Notice here that factors such as contrastive stress, intonation, etc., are not considered extra-grammatical factors, as opposed to popular belief. They play an important role in the semantics as well as the syntax of languages.

Jackendoff (1990) derives parallel arguments for I-concepts. Corresponding to the infinite number of syntactic structures, there must be an infinite number of "concepts that can be evoked in the production and comprehension of sentences." However, as in the case of (finite) syntactic rules there must also be a (finite) set of rules of mental combination[6]. Corresponding to the logical problem of language acquisition, Jackendoff claims that there must also then exist a logical problem of concept acquisition. "Like the rules of syntax, these principles must be acquired on the basis of some combination of linguistic experience, nonlinguistic experience, and innate constraints on possible principles." Drawing such a parallelism between syntax and semantics has as one of the advantages, the possibility of arriving at a potential answer involving the paradox of acquiring sentential concepts in all their variety. That is, it has to do with, for instance, how a speaker of English recognizes (13c) as ungrammatical but (13d) as perfectly legitimate. In other words, concepts (including lexical concepts) are "learnable on the basis of some realistic combination of linguistic and nonlinguistic experience".

The basic purpose behind discussing a cognitive approach to semantics is to emphasize the point that the study of meaning under the view of language as a formal system amounts to the characterization of E-language (Chomsky 1986), where "the construct is understood independently of the properties of the

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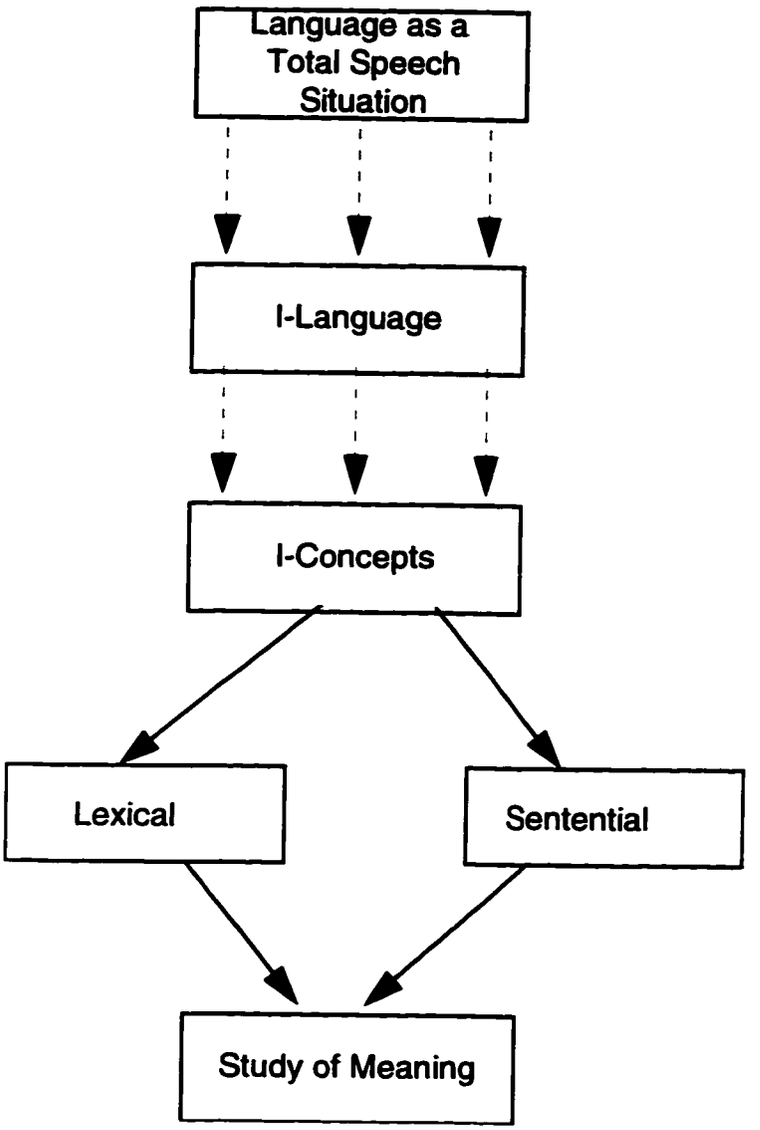
[6] Jackendoff characterizes I-concepts in terms of as a finite set of mental primitives and a finite set of principles of mental combination. For convenience, he refers to these two sets together as the *grammar of sentential concepts*.

mind/brain", whereas the study of meaning that approaches language as a 'total speech situation' closely resembles Chomsky's notion of I-language and Jackendoff's I-concept, where a "mental representation serves as the meaning of a linguistic expression." The following figure thus attempts to broadly define the study of meaning under current assumptions about language.

Figure 2.1 Study of Meaning under Language as a Total Speech Situation



* The dashed arrows represent analogy. For instance, the view of language as a Total Speech Situation is analogous to the notion of language as I-language, etc.

Even though an argument that supports the study of meaning as I-concepts seems rational, it is by no means universally acceptable. One of the best known traditions in the study of meaning is that espoused in Frege's *On Sense and*

Reference (1892). In this study, Frege disengages the notion of the "reference" of an utterance[7] – parallel to E-concepts – from the "sense" of an utterance which is subjective, variable and analogous to I-concepts[8]. This concept of systematic disassociation is implicitly carried over commonly in the study of meaning even today – which I consider to be a major drawback witnessed, for instance, in the study of NPIs such as *any*.

Keeping in mind the preceding exposition of our approach to the study of meaning, I will provide an overview of previous theories of NPI licensing and point out the merits as well as some of the shortcomings of these analyses.

2.2 Theories of NPI Licensing: An Overview

2.2.1 Ladusaw

Ladusaw (1979; 1980; 1983) attempts to subsume the phenomenon of negative polarity entirely under the realm of semantics. He argues that not all triggers to polarity sensitivity can be reduced to negation and suggests that the semantic property of a lexical item or a phrasal expression being "downward entailing" is what predicts triggerhood, even though negation is one of the "very

[7] Sense and Reference essentially correspond to the traditional philosophical distinction between intension and extension, respectively.

[8] I draw this rather simplistic analogy to show how a lot of earlier studies distinguish between a formal view of language from a more composite mental representation of language.

obvious subclass of downward entailing expressions. The definition for downward entailment, as given by Ladusaw (1989; 149), follows in examples (14a) and (b):

(14)a. For any determiner D, if 'D men walk' entails 'D fathers walk', then D is downward entailing. If 'D fathers walk' entails 'D men walk', then D is upward entailing.

i) no men walk ⇓ no fathers walk

ii) every man walks ⇓ every father walks

iii) some fathers walk ⇑ some man walks

This definition establishes the fact that 'no' and 'every' are downward entailing determiners, while 'some' is an upward entailing determiner.

b. For any quantifier NP P, if 'P walks' entails 'P walks slowly', P is downward entailing. If 'P walks slowly' entails 'P walks', then P is upward entailing.

i) no man walks ⇓ no men walk slowly

ii) every man walks slowly ⇑ every man walks

iii) some man walks slowly ⇑ some man walks

Using the above definition, Ladusaw establishes 'no men' as a downward entailing quantifier NP and 'every man' and 'some man' as upward entailing quantifier NPs. In short, a downward entailing expression is one that "licenses inferences in its scope from supersets to subsets" (Ladusaw 1982). Ladusaw's claim is that

negative polarity items are licensed by any lexical item or phrasal expression that is a trigger [+Affective]. A trigger, in turn, is described as a lexical or phrasal item whose meaning is downward entailing. Consequently, what decides the polarity of a sentence, and what polarity items can occur in a sentence is determined by the property of downward-entailingness and not simply by the presence or absence of negation. In this connection, Ladusaw claims that negation is only one of the "very obvious subclass of downward entailing expressions", that is, it is a trigger, and it therefore licenses the presence of negative polarity items. Take for instance the following two propositions P and Q:

(15) P: John likes animals ⇓ Q: John likes dogs

The direction of entailment is from the superset 'animals' to the subset 'dogs' and is, therefore, downward entailing. Negation, too, being downward entailing, must therefore warrant a similar entailment relationship; and it does:

(16) P: John doesn't like animals ⇓ Q: John doesn't like dogs.

Having thus established that negation is a downward entailing environment, it follows that NPIs are licensed in instances such as (17) but not (18).

(17) I did not buy *anything*.

(18) *I bought *anything*.

In fact, this analysis extends to other NPI environments such as Conditionals, Comparatives, and certain other contexts as observed from in the examples from (a-c). However, the (d) instances show that the DE analysis does not always work.

(19)a. If John owns a pet, he cannot live in this building. ⇓

b. If John owns a cat, he cannot live in this building.

c. If John owns *any* pet, he cannot live in this building.

d. *If you were more caring, you would have *any* friends.

(20)a. John wins the lottery more often than he eats a green vegetable. ⇓

b. John wins the lottery more often than he eats broccoli.

c. John wins the lottery more often than he *lifts a finger* to help Jill.

d. *The sun rises more often than John *lifts a finger* to help Jill.

Even though Ladusaw's DE theory predicts that an NPI is licensed in DE contexts as observed in the (c) instances, it is not able to account for the ungrammaticality of the (d) instances. In addition to these cases, DE account predicts that in the case of NPIs in questions, the speaker poses a question only when he believes that the answer will be a negative sentence. The exception to this claim, however, are cases where NPIs are paired with non-NPI synonyms as in *any-some*, *yet-already* and *anymore-still*, etc. In short, such a clause makes it possible for the 'paired' NPIs to appear in questions without it being construed as rhetorical.

According to Linebarger (1991), not only is the notion of 'paired' NPIs unappealing, but it also uses an entirely different mechanism to license NPIs in questions and a different one for NPIs in other contexts. In addition, there seems to be no valid motivation to further sub-divide the class of NPIs into 'paired' ones and ordinary ones other than the reason that paired NPIs in questions need not

always be construed as rhetorical while the others must. This variability gives the impression that a DE account is not applicable uniformly in the explanation of NPIs in all contexts. One more drawback against the DE account stems from the fact that adversative predicates are not DE contexts, yet NPIs are licensed in exactly these contexts.

(21)a. Jill was annoyed that John called her names. ⇓ (does not D-entail)

b. Jill was annoyed that John called her a fool.

Another fine argument against a DE account is the one provided by Progovac (1994). Referring to data on NPI licensing and parametric variation, Progovac suggests that even though the semantic notion of DE is constant across languages, "they will not all license NPIs in other languages." In addition to all of the preceding arguments against a DE analysis to polarity licensing, it must be mentioned that even the semantic notion of DE does not distinguish between an NPI such as *any* and the free-choice item *any* appearing in many of the DE contexts such as negation, questions, conditionals, etc. If downward entailment is what licenses polarity items, how can we distinguish between polarity *any* and FC *any* available in one and the same context? Consider the following for instance:

(22)a. Did you see anyone? (NPI *any*)

b. Did you see (just) ANYONE (or did you see the Queen)? (FC *any*)

In general, the DE account makes strong predictions about NPI licensing but is not able to explain why some DE contexts do not license NPIs. Conversely, it is also

not able to explain why NPIs are licensed in non-DE contexts such as adversative predicates.

2.2.2 Linebarger

Linebarger argues that "the distribution of negative polarity items in English reflects an interplay between syntax and pragmatics". She argues that all triggers to negative polarity licensing can be reduced to negation. This position is in contrast to Ladusaw's who argued for the role of a 'pure' semantic representation. Linebarger contends that speakers of English use a grammatically-stated contextual requirement on negative polarity items in order to induce negative implicature. This contention is used in order to substantiate her claim that LF plays a role in grammatical processes.

Linebarger's analysis reflects Baker's (1970c) study which sees negative polarity licensing as a two-stage process: either the negative polarity item be licensed by an overt negation c-commanding the polarity item, or else it be licensed by entailment. Thus, the first stage of NPI-licensing represents the paradigm or core case and the second stage is taken as derivative. Linebarger's reformulated version of Baker's analysis still rests on the two-stage process of NPI-licensing, however, she argues that NPIs are "grammatically marked to appear in the *immediate* scope of negation" as defined at LF and not at S-structure. Regarding the second stage, Linebarger maintains that the acceptability of negative

polarity expressions in environments other than in the immediate scope of negation, is determined by extragrammatical conditions on use.

The first stage, or what is also referred to as the paradigm case, of NPI-licensing is accounted for by the Immediate Scope Constraint (based on Baker's analysis of licensing by overt negation) which is a syntactic condition on licensing.

The Immediate Scope Constraint (ISC):

> A negative polarity item is acceptable in a sentence S if in the LF of S the subformula representing the NPI is in the immediate scope of the negation operator. An element is in the immediate scope of NOT only if (1) it occurs in a proposition that is the entire scope of NOT, and (2) within this proposition there are no logical elements intervening between it and NOT. (Linebarger 1987, p.338)

'Logical elements' according to Linebarger are elements that enter into scope ambiguities. Among some of the propositional operators that she includes are quantified NPs, quantificational adverbs and causal predicates lexicalized by 'because' (*because*-clauses). Linebarger appeals to this feature of the ISC to account for the fact that the same negation cannot license an NPI and simultaneously take a *because*-clause in its scope as seen in the following examples.

(23) *He didn't budge an inch because he was pushed, did he? (Tag-question)

(24) *He didn't budge an inch because anyone pushed him. (NPI in *because*-clause)

(25) *He didn't budge an inch because he was pushed, but because he fell. ('... but because....' continuation)

These examples display a paradigm of the three diagnostics for wide-scope negation, which is said to render a sentence with an NPI and a *because*-clause in the scope of negation unacceptable. However, when only the narrow-scope reading (where the NPI takes narrow scope with respect to NOT) is available for a sentence with an NPI followed by a *because*-clause within the scope of negation, acceptability is restored.

(26) He didn't budge an inch because he was pushed.

'It was because he was pushed that he did not budge'.

The reason for the unacceptability of sentences (23-25) is the presence of the NPI *budge an inch*, since replacing the offending item with an almost synonymous non-NPI (viz. *move*) does not result in unacceptability. According to Linebarger (ibid.) the difference in representation of logical elements and the 'distance' of the negation operator from the NPI is what decides between acceptability and unacceptability.

(27) Wide-Scope: * NOT CAUSE (he was pushed, he budged an inch)

(28) Narrow-Scope: CAUSE (he was pushed, NOT(budged an inch))

In the case of (27) the logical element CAUSE intervenes between NOT and the NPI thereby 'distancing' the negation operator and the NPI; but in (28) it is the immediacy of these two elements that renders this sentence acceptable.

In light of the above explanation, Linebarger suggests that an NPI must be present in the *immediate* scope of negation, in some predicate calculus-like representation as given above and not simply stated as being present in the scope of negation. This formulation presented as the Immediate Scope Constraint (ISC) also requires that it be stated at the level of LF, analogous to the raising of quantifiers.

The second stage of NPI licensing, that Linebarger calls the *derivative licensing mechanism*, accounts for the large set of data (from English) that do not fall under the specifications of the ISC. She categorically states that "negative implicatum (NI) must not be restricted to logical entailment"; but rather suggests that "in a significant set of cases the host sentence implicates rather than entails its NI" (p.362). In fact, Linebarger (1991, p.165) argues that the data from English points towards the view that "negative implicature is central to NPI licensing". The proposal that Linebarger (1987,1991) makes is as follows:

Negative Implicature Account: (NI Account)

The basic constraint on NPI licensing is this.

A negative polarity item N contributes to a sentence S expressing a proposition P the CONVENTIONAL IMPLICATURE that the following condition will be satisfied in the context of the utterance of S:

P entails or implicates some proposition NI, which may be identical to P. In the LF of some sentence S' expressing this negative implicatum NI, N occurs in the immediate scope of negation.

There are three conditions on this NI, which guarantees the requirement that NI be quite salient in the context of the utterance.

i) The AVAILABILITY requirement: The speaker must be actively attempting to convey NI by the utterance of S.

ii) The STRENGTH requirement: The truth of NI itself must virtually guarantee the truth of P.

iii) The FOREGROUND requirement: If NI is not identical to P, then the representation of the NPI may not occur as background information in either P or NI, nor may NI serve as background to P.

Linebarger's (1987) claim that negative polarity licensing in English cannot be predicted on the basis of truth-conditional meaning alone rests on *two* crucial pieces of evidence. First, there are cases where NPIs are acceptable even when they are *not* in the scope of a downward entailing (DE) operator. Under the list of licensing expressions that are not DE is the category of adversative predicates and expressions such as *only*, *after*, and *exactly*. Linebarger (ibid. p.374) indicates that

Ladusaw's claim that "a negative polarity expression is acceptable *only* if it is interpreted in the scope of a downward-entailing expression" is a necessary condition but not a sufficient condition on NPI licensing. Second, there are also expressions that are indeed within the scope of DE operators but which seem to be licensed by negative implicature and other pragmatic factors. These cases include NPI licensing in the non-immediate scope of negation, in comparatives, in relative clauses and in the antecedent of conditionals.

The elements of the DE theory and, indeed, of any purely semantic explanation of polarity licensing is ruled out by Linebarger following the above two pieces of evidence. Her analysis of NPIs in English explores the relationship between grammar and meaning. She has argued that NPIs "provide evidence that grammatical processes are sensitive to certain aspects of meaning: namely to those aspects of logical structure that are expressible in the vocabulary of a level of grammatical representation such as the LF" (p. 382). Under the analysis that she has proposed, the only grammatical expression of the constraint on NPIs is the Immediate Scope Constraint. If the ISC is satisfied outside the LF of the host sentence, "then it may be said that the NPI has triggered an allusion to the sentence" in which the ISC is satisfied. Hence, according to Linebarger, negative polarity licensing in English reflects the interplay between syntax and pragmatics.

Linebarger (1991) claims that the importance of the role of NI in NPI licensing provides support for Sperber and Wilson's (1986) claim that pragmatic

inferencing is not always explicit. Consequently, she specifies more precisely the conditions under which NPIs may be licensed by negative implicature. English has a large set of data where NPIs are acceptable only because there is an NI that meets the availability, strength and foreground requirements outlined above. Linebarger (1991) therefore claims that NPIs represent "close associates" of negation be it in the paradigm case or in the NI account.

One of the foremost critics of the above analysis is Linebarger herself. As she herself acknowledges (ibid.), the biggest drawback to her analysis is that an NI account of NPIs in neutral questions and in certain conditionals are unconvincing because these contexts license "NPIs with no 'conscious' negative implicature". One other point that she makes criticizing her own account is that "the NI approach....is so unconstrained....(The) indeterminacy of the implicatures, the fact that one NI cannot be claimed to be the only one.." is one of the downsides of Linebarger's account. In this thesis, I will suggest that even though the basic claim of the NI account – that there is some inferential process that licenses NPIs – is correct, there is a need to specify what type of implicatures can and cannot be invoked to account for the occurrence of NPIs. In this connection, I will propose that a Negative Generalized Conversational Implicature (NGCI, cf. Grice's 'Generalized Conversational Implicature'; 1989) is what is suitable for making the right predictions about the inferential process of obtaining a licenser for NPIs in a number of instances. The constraint on the type of NI most suitable for a proper

account of polarity licensing, also helps in obtaining a clearer picture of all the polarity licensing contexts in general. In short, licensing contexts for NPIs are no longer simply an arbitrary list of contexts in which NPIs are allowed, but on the other hand, these contexts all share a common factor which is the (conceptual) quality described as non-positive. Furthermore, non-positive contexts containing an NPI also display a contextually relevant NGCI. I will therefore form a cursory hypothesis that NPIs are licensed in contexts where the *cumulative* meaning of the utterance (an "I-concept" view of meaning) results in the quality that I characterize as *non-positive*. Details in support of this view are provided in the following chapter.

2.2.3 Progovac

Progovac advances the claim that polarity sensitivity must be accounted for by the Binding theory considering that NPIs and PPIs are in complementary distribution just as pronouns and reflexives are, which also happen to be adequately explained by the Binding theory. She (Progovac 1994, p.6) proposes that NPIs and PPIs are subject to the same locality restrictions that have been incorporated in the Binding theory:

> NPIs are subject to Principle A: they must be bound to negation (or other truth-functional operator) in their governing category.

PPIs are subject to Principle B: they must not be bound to (fall within the scope of) negation (or a truth functional operator) in their governing category.

According to Progovac, the main impetus for using the binding approach to polarity sensitivity is its ability to account for variation across languages. She applies two separate factors to help capture attested variation: 1) different Raising options and 2) different Binding principles.

As per the Raising factor, there are NPIs that raise and those that do not. NPIs are able to raise either by IP-adjunction or by movement through Comp where they can be bound either by truth-conditional operators or by superordinate negation. Certain NPIs (in some Romance languages and Chinese) can move only through IP-adjunction and can be bound by operators in Comp, but not by superordinate negation. Certain others, that move only through Comp, can be bound by superordinate negation but not by operators in Comp (e.g., Turkish).

Along the Binding dimension, all NPIs are said to be bound by negation or a truth-conditional operator. While most NPIs are subject to Principle A of the Binding theory (e.g., English, Italian, Chinese etc.), some NPIs obey Principle B which requires them to be bound only outside the clause either by superordinate negation or by other operators, but not by clausemate negation (e.g., Serbo/Croatian I-NPIs).

One of the problems with the Binding account, as with other accounts, is that it does not clearly disambiguate between PS *any* and FC *any* (in English) in contexts which allow the *any*-expression. Drawing this distinction is crucial since it makes some important generalizations that will help solve many problems, especially those relating to the distribution of the *any* expression across languages. Progovac explains this occurrence in Serbo-Croatian by suggesting that the Binding analysis works for FC *any* as well. However, the licenser for FC *any* and PS *any* ought to be independently identified in order to explain examples such as the following:

(28)a. I doubt that *anyone* is here.

b. *I doubt *anyone*.

c. I doubt *ANYONE* who is overly generous.

Progovac appeals to examples such as (28a) and (28b) to show that the presence of a Comp position with a licensing operator in it is what makes the NPI *anyone* in (28a), but not in (28b), licit. However, by the same token a Binding analysis is not able to explain why instances such as (28c), which lacks a Comp position, allows the appearance of the *any* expression.

Another advantage of distinguishing between FC and PS *any* in English as well minimizes the crosslinguistic gap that we often encounter in the study of polarity licensing across languages. For instance, it is not necessary to make brute-force generalizations that amount to saying that "Language X allows both FC and

PS *any* under negation, but Language Y does not". In this context, I distinguish between truth-conditional negation and metalinguistic negation which license the two types of *any* across languages. Under a syntactic account, much like the monoguists' view, there exists only one type of negation, and I will show that this perception leads to problems in all such accounts of polarity licensing.

2.2.4 Krifka

Krifka (1990), like Fauconnier (1975b) and Ladusaw (1982), takes as pivotal the fact that NPIs represent scalar end-points. However, Krifka reanalyzes the notion of scalarity in terms of lattices. Polarity lattices, to put it simply, are ordered sets of alternatives to NPIs, and indeed, this revision is not at all crucial for the present purposes. Krifka's theory is based on the notion of informativeness and perhaps, it is important to reanalyze NPIs in relation to certain pragmatic influences, considering how sensitive NPIs are to such extra-grammatical factors. The concept of polarity lattices can be related to Fauconnier's notion of pragmatic scales, in that, the elements of a particular sort are ordered. The only refinement to Fauconnier's idea is the assumption that the "denotation of the NPI is the smallest element on that ordering" (p.166).

An NPI such as *a red cent* is associated with a lattice of other elements containing at least one other candidate in addition to the NPI. Therefore, in a lattice associated with amounts of money, the NPI is smaller than any other

arbitrarily selected component in the lattice. The scalar NPIs, in effect, represent the most informative elements in the lattice within the scope of negation, since if *Jim didn't contribute a red cent to charity*, then it can be deduced that he did not perform any other greater act of charity.

According to Krifka, the reason why NPIs are unacceptable in positive sentences like (29) below is because it is uninformative and also because it violates the following condition (provided in (30)) on polarity expressions.

(29) * *Anyone* came to the party[9]. (=(50b), p.182)

(30) If a speaker makes an assertion on the basis of a sentential polarity item, then he DELIBERATELY DOES NOT MAKE AN ASSERTION ON THE BASIS OF ANOTHER ELEMENT IN THE LATTICE SORT OF THIS POLARITY ITEM. That is, he can be assumed to have reasons not to make such an assertion.

Such assertions based on sentential NPIs generated by *any* are ruled out because an episodic sentence deals with a specific event in the real world and "as the alternative assertions are based on all possible subproperties of person', many of these alternative assertions are bound to be false, as specific events have specific participants to which not every subproperty of person' will apply" (p.182). According to Krifka, negative polarity items in positive sentences are unacceptable because the truth of the sentence with the NPI would be predictable on the basis of

[9] This example may not be the greatest since its negative counterpart is also ungrammatical.

the truth of the sentence with the other element(s) in the lattice sort; and the speaker has no good reason for his uninformativeness.

Krifka looks at only three contexts – negation, directives and questions – to propose an account and to formulate rules for the occurrence of polarity items in sentences of different moods. He also tries to give motivations for these rules. However, Krifka's analysis of all *any* expressions as representations of the negative polarity item (similar to Kadmon & Landman's generalization of the *any* expression; 1993) is a gross misstatement of facts. This view disregards the two different types of *any* in English which happen to be homophonous; and homophony does not necessarily amount to semantic uniformity. It does not take into consideration the varying meanings of an *any* expression that may occur in one single context. In fact most of the previous analyses have neglected this aspect of the *any* expression, which perhaps holds the key to a possible solution. The feature of stress, and the metalinguistic aspect of expressions brought out by emphatic stress are conditions which seem to offer more valuable insight into the phenomenon of polarity licensing. These are some of the considerations that this study will undertake. A preliminary introduction will be provided in the following section.

FC *any* in assertions such as *Mary likes anyone*; *Anything could be in that box*; *Any man can move this stone*, etc. are NPIs, according to Krifa, though they represent the universal quantifier. Under such an analysis how can the so-called

NPIs denote the smallest element on a lattice ordering? These "NPIs", therefore, contradict Krifka's construal of all NPIs as representing a scalar endpoint. In fact, I will set aside all accounts (including Kadmon & Landman (ibid.)) that conflate both types of *any* under their respective explanations, since it overlooks important facts that may help in providing a more universal account of polarity licensing.

2.3 Emphatic Stress as a Meaning-Determining Act

It is always important to take into account any factor that may influence the meaning of a proposition, no matter how insignificant that factor may seem. Such a study of a meaning-affecting factor is a necessary component of the holistic study of meaning, that is, in treating meaning as I-concepts rather than as E-concepts. In the study of semantics, it is not enough that you know which proposition a speaker purports to be expressing in uttering the sentence he utters. What is required, in addition, is that you know what the *meaning-determining act* (cf.,Tsohatzidis 1994) in the context of which the speaker expresses that proposition is. For example, in uttering a proposition P it must be clear whether the speaker expresses it in the context of an act of giving permission, or in the context of an act of asking a question, in the context of an act of making a prediction, and so on. These are some of the acts that, under a generic name of *illocutionary acts* that was given by Austin (1962), constitute the primary subject matter of speech act theory.

Sometimes it is difficult to determine what a speaker means in uttering a sentence of his language (even after the proposition he purports to express has been identified) unless the meaning-determining act is identified. Very often, this meaning-determining act is introduced by the speaker in the form of emphatic stress on an element, which allows one to distinguish between ordinary negation versus metalinguistic negation, and between FC *any* and PS *any*, for instance. The difference between (31) and (32) would be unaccounted for if we did not consider the effect of the meaning-determining factor, namely, emphatic stress, to delineate the two purported meanings that are associated with the sentence type.

(31) I did not buy any car. (I have no money).

(32) I did not buy ANY car... (I bought a Ferrari).

By means of emphasizing the *any* expression we are able to derive not only new meaning, but a new syntactic category. That is, the emphatically stressed *any* expression in the scope of negation is no longer a negative polarity item; it is a free-choice item – two lexically distinct categories.

Therefore, the question of why speech acts should be deemed worthy of linguistic or even philosophical interest is a rather naïve one. If the study of what speakers of a natural language mean by uttering sentences of that language is a central object of linguistic and philosophical investigation, it is no wonder that the study of illocutionary acts be acknowledged as an indispensable component of the

study of meaning. Consequently, I reiterate that the study of linguistic meaning is not simply a property of *sentences* alone. It is a property of *utterances*.

Syntactic or structural characteristics are important in our attempt to distinguish the many subtleties of meaning possibilities in natural language. For instance, the phenomenon of scrambling, the positioning of an element in one of the salient positions of a sentence, the alteration of the position of the verb and the deletion or insertion of material in a sentence, all contribute to the nuances of meaning – points that have been previously acknowledged. However, the effect of emphatic stress, or even a difference in intonation contour and its effect on polarity sensitive elements, has never really played a major role in previous analyses of polarity sensitivity in particular, even though it has been widely accepted as a significant factor in grammatical theory in general (Jackendoff 1972; Kingdon 1958; Bolinger 1956). Therefore, it is definitely appropriate that we incorporate some of these important 'meaning determining acts' into our analyses of natural language structures considering that the present purpose (in line with the purpose of generative grammar) is to explicate I-language. On the other hand however, (Davidsonian or Tarskian) truth-conditional semantics interprets Truth independent of language-users which, in turn, relates to a theory of language extrinsic to speakers, i.e., E-language. As Jackendoff (1990; p.12) puts it: "It is sometimes proposed that there is no inherent conflict between the two approaches

to semantics[10]. One is about the way the world *is*, and the other is about the way we *grasp* the world. They may lead to altogether different insights – hopefully complementary ones." I take the contrast, between the two approaches that Jackendoff refers to, to be of great significance in the current approach to the study of meaning, which does indeed result in "complementary" insights. In other words, a model-theoretic semantic approach, for instance, would not distinguish between sentences such as (31) and (32) but a conceptual view of semantics, one that recognizes the fact that phonological structure may impinge on conceptual structure, would discern the important difference between these examples. I will, therefore, commence by applying the above reasoning to arrive at a possible solution to some of the problems put forth by the *any* expression.

[10] Truth-conditional semantics versus Conceptual Semantics.

CHAPTER 3

POLARITY SENSITIVE *ANY*

3.1 Introduction

One of the problems that the treatment of Negative Polarity Items (NPIs) pose is how to make precise the notion of negative context. What do all the licensing contexts have in common? In this chapter, these questions will be given close consideration focusing on the behaviour of *any* in a number of licensing contexts. The goal of this chapter, in keeping with the projected goal of the thesis, is to define the exact nature of a negative polarity item and to find a common denominator, a common unifying factor if any, in the licensing of NPIs in various contexts[1]. Any discussion of NPI-licensing should distinguish two levels of the different components that constitute the correct definition of negative polarity licensing. First, the class of potential licensers must be defined and second, the relation between the licensers and NPIs must be precisely specified so as to make possible the availability of a general principle for negative polarity licensing. However, the task of determining the answers to the above two concerns is not an

[1] Realizing that negative contexts are by no means uniform in terms of negativity, studies in the past (Ross 1973a; Ross 1973b) have proposed that there exists a complex hierarchy of negative contexts. Van der Wouden (1994) develops a semantic system based on Ladusaw's notion of downward entailment and other mathematical properties to build a natural hierarchical typology of negative contexts.

easy one, especially because the phenomenon of negative polarity is by no means a homogenous one. Certain principles of syntax, semantics and pragmatics interact in a complex way which is why it is perceived as pointless to look for a generalization that may characterize all polarity items under the rubric of one grammatical module alone. In other words, what this means is that one and the same mechanism or property is not responsible for the polarity behaviour of all NPIs.

In this chapter I will address the issue concerning the nature of the ubiquitous *any* (of PS *any* in particular) which seems to have captured the interest of both linguists and philosophers in its ability to defy a precise linguistic and logical explanation. Besides, this item also has the singular status of being ambiguous between its polarity and free-choice uses. In addition, it has also been observed (Haspelmath (1993)) that many languages have NPIs of the *any* type (and PPIs of the *some* type). I therefore assume that a detailed study of the *any* expression will have cross-linguistic implications as well; in that it may be possible to arrive at a solution that could be applied to other languages as well. All these factors taken together make the study of this lexical item both challenging and exciting. I will, hence, focus my attention solely on the behaviour of PS *any* and use the results of the study to define the nature of a negative context.

It has been claimed (Vendler 1967) that logicians hail the simplicity of technical notation when faced with linguistic complexities, especially when formal

theory cannot account for all the aspects involved in the use of a certain lexical item. It is also commonly maintained that technical notation brings out the logically important features and that quantification cuts across the vernacular use of *all, every, some, a certain* and also *any*, in such a way that it clears away the tangle of ambiguities and obscurities[2]. I will take this assumption to be a rather short-sighted approach in resolving the problem of the immense complexities put forth by certain guileless-looking lexical items, particularly, *any*. I will discuss the various aspects of use of *any* and in the course of the discussion we will encounter many new facts that might help in defining the functions of this very interesting lexical element. As an alternative, I will explore the possibility of assigning a conceptual semantic treatment to the phenomenon of *any* and attempt to provide a unified analysis of the licensing contexts, which have always been grouped together informally as some kind of a deviant phenomenon, some bearing non-overt negative qualities (this aspect has been defined variously under each theory, as seen in Chapter 2), some without any obvious overt or non-overt licenser.

In my attempt to find a 'common denominator' for the varied licensing contexts, I will essentially make two claims: First, I invoke a broadly conceptual notion of the *non-positive* character of certain sentences, which will lend support to the preliminary claim I make that any sentence which is non-positive, licenses a

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[2] It is well known that two logical quantifiers are insufficient to capture all the necessary non-numerical denotations that exist in natural languages (cf. Frawley 1992). For instance, how are the English quantifiers *many, most, a few, several, much* and *a lot of* to be treated in absolute terms of logical quantification?

polarity item. The term 'non-positive' becomes self-explanatory in the context of the data discussed later in this chapter. The second claim I will make is that any valid licensing of polarity sensitive (PS) *any* by negative implicature is legitimate only if the implicature is a Generalized Conversational Implicature[3,4].

In the course of the discussion, it will also be observed that not all "polarity licensing contexts" license PS *any* alone. Some of these contexts license the free-choice (FC) reading of *any* and this is often triggered by emphatic stress on the *any* expression[5]. All this shows that the line dividing PS *any* from FC *any* is thin and may not always be syntactically motivated. In fact, the two often merge to such an extent that it is hard to tell them apart, especially when they occur in the same context. This phenomenon, however, is partially resolved in certain languages which have different lexical items to distinguish between the two.

As is well known, *any* can function either as a negative polarity item (PS *any*) or as a free-choice item (FC *any*), and often in the literature, it has been seen

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[3] Linebarger (1987) treats the issue of Negative Implicature (in her NI account) as being parallel to a conventional implicature, where the implied meaning of certain propositions is tied to certain lexical items. In her analysis, an NPI gives rise to a Negative (conventional) Implicature. I assume that the implicature arising out of the use of PS *any* must be a Negative Generalized Conversational Implicature.

[4] It must be made clear at the outset that I adopt Grice's proposals (1975; 1978; 1981;1989) that both scalar and clausal implicatures are *generalized converational implicatures* (GCI). A hearer calculates a GCI with access to some very basic beliefs to communication and other widely available assumptions about social norms. They are typically direct in the sense that the speaker does not mean to draw attention to the contrast between what is literally said and what is conversationally implicated; and finally, a GCI is like a second sense in being immediately available. The defeasibility of a GCI is therefore attributed to the failure of a conversational premise.

[5] The claim that [+stress] is all there is to metalinguistic negation is clearly an oversimplification. In fact, in cases where the context is obvious stress isn't even there. Besides, other factors such as sentential rising intonation / pitch accent are equally relevant for deciphering metalinguistic negation.

as being ambiguous between the two types. Kadmon & Landman (K&L 1993) however, believe that *any* is unambiguous, but their explanation[6] regarding the different uses leads them to propose a unified analysis of the semantic and pragmatic effects of *any* which may apply to it on *both* its uses. K&L claim that the function of *any* is uniformly to "indicate reduced tolerance of exceptions". They suggest that *any* has a parallel in Hindi (*koi-bhii*, *kuch-bhii*) which behaves in precisely the same manner as its English counterpart. That is, in PS contexts these expressions have an existential meaning, while in FC contexts they take on a universal meaning. Such "crosslinguistic" evidence, for K&L, indicates that the view that English *any* is lexically ambiguous between PS and FC interpretations cannot be a historical coincidence. Although items such as *any* with a free-choice reading and a polarity sensitive one may not be uncommon in the world's languages, it is equally important to note that despite the similarity of the English *any* and the Hindi *kuch-bhii/koi-bhii* (that K&L use to come to a conclusion about its reduced-tolerance behaviour) there are also several languages where different lexical expressions distinguish PS *any* from FC *any* (cf. Ramachandran 1993). This leads us to believe that in English (and perhaps a few other languages) *any* is lexically ambiguous between the universal and the existential interpretation. This aspect of the discussion is the main focus of Chapter 5.

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[6]I will not enter into the discussion that K&L propose, in order to conflate the two *any*s, but suffice it to say that they provide a unified analysis of the two types based on the assumption that they have the same function. My view differs crucially on this very assumption.

FC *any* and PS *any* are each conditioned by their own unique characteristics even though, as we will see, the environments in which they occur may overlap. At first sight this statement appears paradoxical, but it will become clear that it is not. Until now, it has always been believed that *any* in the scope of negation and in other "affective" contexts is an instantiation of the polarity item and *any* under modals and generic tense, on the other hand, represents the free-choice item. This delineation seems very clear. However, in certain 'licensing contexts', say, a conditional, an *any*-expression can be interpreted as the polarity item or as the free-choice alternative; but we will observe that each interpretation is conditioned by its own characteristic licensing environment. PS *any* and FC *any* are definitely distinct entities and it will be noted that there is no valid motivation to conflate the two notions in the name of economy since, in fact, they *are* fundamentally different.

In the following discussion we will see contrasting environments that license the validity of the two types and show that the *any* expression in English, contra K&L's analysis, is lexically ambiguous. The distributional aspect of NPIs in general, and of PS / FC *any* in particular, has always been the most notorious problem for all previous accounts and it is therefore the purpose of this chapter to clearly provide all the environments in which *any* may appear, and to also draw out the common unifying thread that runs across the disparate group of licensers. For instance, licensing contexts that allow the polarity reading of *any* will be shown to

fall under the classification of *non-positive* environments – these environments may seem to present a hierarchy in negation (cf. Ross 1973a, 1973b; Van der Wouden 1994) that ranges from overt truth-conditional negation to the *non-affirmative* quality found in conditionals, questions and adversative predicates, but I will not go into any explanation of this hierarchy since it does not significantly contribute towards the main concern in this chapter[7]. On the other hand, contexts that allow the free-choice reading of *any* (in so-called "polarity" environments) either come with metalinguistic negation or with emphatic stress which often underscores Vendler's "freedom-of-choice quality" of that sentence.

Put in a nutshell, we will come across evidence to show that the polarity **and** the free-choice uses of *any* are to be found quite easily in presumed 'polarity sensitive' contexts[8]. Following this, I will show that what constitutes as a polarity environment is the proposed feature of *non-positive* traits and I will also point out the significance of qualifying implicature in terms of a Negative Generalized Conversational Implicature.

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[7] Van der Wouden (1994) essentially classifies different negative contexts into a tripartite categorization of weak, medium and strong negative and positive polarity items based on a Boolean algebraic formulation proposed by Zwarts (1986). Contexts that allow NPIs fall under the following hierarchy, where the first context represents the strongest licensing context for an NPI: 1) Antimorphic 2) Antimultiplicative 3) Antiadditive and 4) Downward monotonic contexts. Based on this hierarchy, he characterizes the distributional patterns of polarity sensitive items (PSIs) in Dutch. This approach has also been adopted for the treatment of PSIs in Persian by Raghibdaoust (1995). At first sight it appears that downward monotonic contexts such as questions, conditionals, adversative predicates and overt negation in themselves may be classified in terms of inherent strength but it is not clear to me at this point how such a classification may be achieved.

[8] As the reader may have already noticed, it seems very difficult to talk about polarity *any* in isolation, without mentioning FC *any* even though this chapter is devoted to the study of PS *any*.

3.2 Licensing Environments for Polarity Sensitive *any*

3.2.1 Overt Negative Contexts

Polarity *any* occurring in overtly negative contexts, which I will refer to as the strict[9] polarity-sensitive (PS) *any*, is the most unproblematic instance of the manifold nature of *any*. It is always licensed by negation or a reflex of negation structurally higher up in the syntactic tree than PS *any* itself. There are at least four different environments in which strict PS *any* can appear. As is well known, PS *any* is licensed in contexts with clausal negation like (1), but not in affirmative contexts like (2) below.

(1) John did not see *anyone*.

(2) *John saw *anyone*.

This contrast and the apparent requirement of a negative element has traditionally been explained as the most significant prerequisite for the licensing of a PS element. Indeed this does seem to be the case in most environments. In the following example, we notice that PS *any* can also be licensed by a clause-external negation which is also referred to as superordinate negation.

(3) I don't think I saw *anyone*.

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[9] The terms 'strict' and 'weak' in relation to NPIs has been used slightly differently by Horn (1970), Hoeksema (1983) and Linebarger (1987). Linebarger, for instance, argues that NPIs such as *any* that are acceptable in a much wider array of contexts are weak NPIs, while NPIs such as *until* or *in weeks* that are acceptable in fewer contexts are termed strict NPIs.

There are also cases where a reflex of negation such as *neither...nor* in a sentence like *I saw neither John nor Mary* license PS *any* as well, but once again *any* lies within the scope of the negative element.

(4) I didn't see John nor *anyone* else / I saw neither x nor *anyone* else.

In all the above cases, we notice that PS *any* seems to be licensed only in object position and incidentally this was an observation made in Ramachandran (1993) and was duly attributed to the significant difference in licensing environments between English on the one hand and Tamil, Turkish, Serbo-Croation, Japanese and many other languages, on the other. I claim (Ramachandran, ibid.), as also Linebarger and many others, that PS *any* in English cannot be licensed in the subject position. However, this is not true as we can see from the following example.

(5) Never has *anyone* seen Groucho smile so much.

(6) **Anyone* has seen Groucho smile so much.

In (5) PS *any* does seem to be licensed in subject position though the stipulation now seems to just be that it cannot occur as the very first element[10] of the sentence

[10] As pointed out by an anonymous reader, the above stipulation does not seem to hold in cases such as "Anyone call this morning?" and "Any further noise and I will have to report you", where the *any*-expression appears in the first position. I will claim that in the first instance, there is a covert auxiliary element 'did' (or an expletive CP node in the syntactic tree) which is often dropped in casual speech. As for the second instance, it can be taken as a covert conditional — a conditional of the "if...then" formulation. For example, "If there is any further noise, then I...." At any rate, what seems to be crucial is the fact that *any* is not properly licensed in declarative contexts.

as it does in Tamil, Japanese, Korean and Serbo-Croatian for instance, seen in the following examples:

(7) *Yaarum* avan-ai paarka-le — Tamil

Nobody him-ACC see-NEG

'Nobody has seen him'

(8) *Daremo* nanimo tabe-na-katta — Japanese (Harada, 1992)

anyone anything eat-NEG-PAST

'Nobody ate anything'

(9) *amwu-to* swkcey-lul ha-ci an-assta — Korean (Lee, 1992)

anyone homework-ACC do-NMZ NEG-did

'No one did the homework'

(10) *Ni(t)ko* ne vidi Milan-a — Serbo-Croatian (Progovac, 1994)

nobody not sees Milan-ACC

'Nobody can see Milan'

After briefly listing the distributional properties of PS *any* in overtly negative contexts, an explanation is in order to account for the same. Especially significant from the above instances is the falsity of the brute-force stipulation that English does not allow subject PS *any*. This may seem to have something to say about the commonly asked question: Why is '*Anyone* didn't come?' ungrammatical? That is, the answer possibly has to do with the structural location of PS *any* in relation to its licenser, which is negation in this case. That it is

acceptable only when licensed by a c-commanding negation is a purely syntactic requirement. Moreover, the licensing of *any* in first position in non-declaratives (as seen in the last footnote) can also be conceived as a syntactic case whereby the CP elements *did* and *if*, in their covert c-commanding position, license PS *any*. But in order to put a finger on the pulse as to what really counts as negative in the above cases of Questions and Conditionals and indeed, other non-negative contexts that license PS *any*, one has to reach out beyond the domain of pure syntax to come up with a valid solution.

In fact, the case of PS *any* occurring in the area of the so-called "other licensing contexts" — that is, contexts other than overt negation — the situation seems to, at first glance, defy a uniform logical solution to a complex phenomenon. This is especially so because there is no apparent uniformity underlying the licensers of PS *any* in these contexts. In this regard, we probably do have to resort to factors other than syntax to motivate a correct and an economical way of accounting for the range of data[11].

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[11]Linebarger (1980) notes that while sentences such as "Anyone didn't come" are ungrammatical, there are examples where a PS *any* can be licensed even though it is not c-commanded by NEG at S-S:
[A doctor who knew *anything* about the bubonic plague] was not available.
Her account of such sentences involves an LF reordering operation between the indefinite subject and NEG. However, she points out sentences like the one below which her solution leaves as a mystery:
* [A doctor who knew *anything* about the bubonic plague] was not intelligent.
Apparently, the semantics of *available* vs. *intelligent* plays a role in NPI-licensing. Since *available* is a stage-level (SL) predicate and *intelligent* is an individual-level (IL) predicate, one could say that NPIs in subject-position are licensed if the verb is a SL predicate. However, this is false since the following, which contains an SL predicate, does not license the NPI:
* [A doctor who knew *anything* about the bubonic plague] wasn't lying on the floor.
Even though the answer to this particular problem is unavailable at the moment, it shows that NPI-licensing simply isn't a matter of syntax alone. Such problems only assert our need to find other viable solutions, possibly to be found in the semantic component of a conceptual grammar.

As a first step towards pointing to the complexity of the *any*-expression in terms of its distribution, and before moving on towards ascertaining the possible licenser(s) for *any* in other contexts, I will demonstrate the effect of contrastive stress on an *any*-expression in overtly negative contexts and the effect it has on the overall meaning of that expression. Horn (1985) argues convincingly that negation, in addition to other types of operators, can have a metalinguistic use besides its standard use as a logical operator. Metalinguistic negation is used to reject the use of the sentence it applies to, on the grounds of pronunciation, word-formation, conversational implicatures, connotations, register etc. Consider (11a) through (11d):

(11) a. I didn't see ANYONE (at all) backstage. Everyone had left by then.

b. I didn't see (just) ANYONE backstage. I saw Elvis Presley himself.

c. I didn't see (*just) ANYONE backstage. Everyone had left by then.

d. I didn't see ANYONE (*at all) backstage. I saw Elvis Presley himself.

As is obvious to any speaker of English, the denotation of the *any*-expression in (11a) is clearly distinct from that of (11b). The one in (11a) represents the polarity expression (even with emphasis on *any*, which in this case, only serves to highlight negativity), while the one in (11b) represents the free-choice item. This claim is further supported by the fact that a modifier such as *at all*, which is considered to

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I will try to address the above problem, and other similar problems, in the concluding chapter.

be a negative polarity item itself[12], can modify (11a) but not (11b), as seen in (11d). In addition, *just* modification, which has been claimed to be an appropriate test for FC *any* (Carlson 1981), is licit only in contexts similar to (11b) and not to (11a), as seen in (11c). This suggests that the *any*-expression in (11a) and (11b) is denotationally different even though it appears in contexts with overt negation.

On the basis of the foregoing evidence, I propose that (11a), which represents TRUTH CONDITIONAL NEGATION, is a PS context while (11b), which represents METALINGUISTIC NEGATION[13], is taken to be a FC context. In addition, we observe that emphatic stress on the *any*-expression in sentences representing truth-conditional negation only enhances the negativity of that sentence, while emphatic stress associated with the *any*-expression in sentences representing metalinguistic negation brings out the FC quality of the expression.

This observation is significant in that it is no longer true that all instances of *any* appearing in negative sentences is an illustration of PS *any*, as was previously believed. In other words, the presence of overt negation must not be taken as the decisive diagnostic for concluding that a given context is a PS one. On the contrary, it is possible to effect a PS-FC variation of the *any*-expression by means

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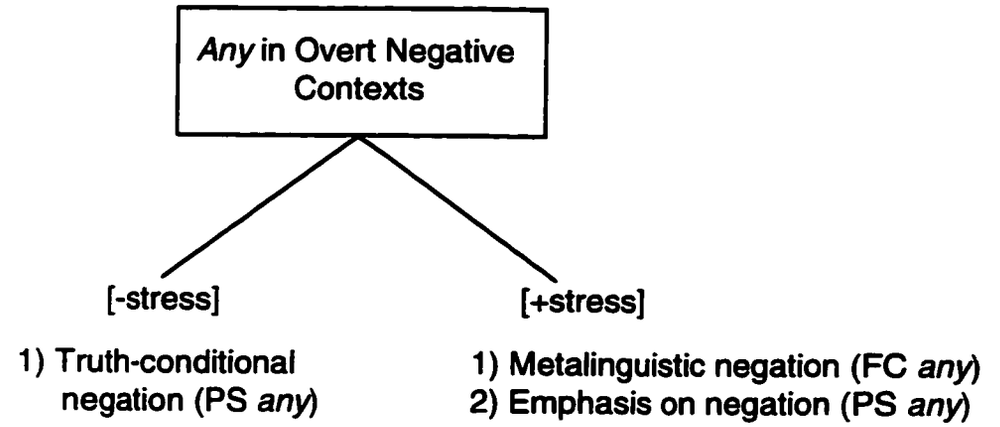
[12] Hoeksema (1983) uses the possibility of *at all* modification for Dutch to demonstrate the existence of two types of comparative constructions, one which (the S-comparative) allows the modification, while the other (NP-comparative) does not. The test, in this case seems to be useful in trying to resolve questions about which expressions are polarity sensitive and which ones are not.

[13] As mentioned in an earlier footnote there is more to metalinguistic negation than contrastive stress, even though metalinguistic negation in the preceding examples in the text is effected by contrastive stress on the *any* expression. I use 'contrastive stress' as a cover term to encompass other primarily phonological factors such as sentential rising, pitch, intonation and accent.

of contrastive stress. Keeping this important detail in mind, let us now proceed to examining other licensing contexts in order to study the effect of contrastive stress and the implications it might have on drawing up a common bond among the putatively disparate contexts for PS licensing and defining precisely what is and what is not polarity sensitive *any*. For now, it may be adequately inferred from the above observations that contexts with overt negation may be divided into two groups – one that represents truth conditional negation and one that represents metalinguistic negation – and that these two types are completely different from one another. This is one of the first indications that an analysis from a syntactic point of view covers only the most obvious cases of negation but falls short of providing a more detailed breakdown of natural language negation which may have serious theoretical implications. In this context, the significant role of contrastive stress is useful in delineating the different types of *any*. The diagram below illustrates the preceding discussion.

FIGURE 3.1 *Any* in Overt Negative Contexts



Unstressed *any* under overt negation represents truth-conditional negation and *any* under truth-conditional negation represents the polarity sensitive item. Stressed *any* under overt negation can either represent metalinguistic negation, where *any* is the free-choice item or it can simply signify an emphasized truth-conditional negation, where the *any* expression in such a case is the negative polarity item.

3.2.2 Other Licensing Contexts

The fact of the matter is that in certain environments where there is no overt negative element present the traits of *any* is often hard to define. In the following sub-sections I will explore various contexts in which *any* can take shape and provide an account of not only its syntactic qualities but also show that in its semantic analysis lies the difference (that has often been ignored) between two classes of *any* even within the PS type. In other words, while the general tendency has been to draw a line between overtly negative contexts and the so-called 'licensing environments', much of recent research has overlooked the possibility that even within the ostensibly unified class of licensing environments there may exist semantic evidence to show that all *any*s are not created equal. In pointing out this difference, we will be able to better understand the properties of this oft-misconstrued expression that has been at the heart of both linguistic and philosophical discussions for so long.

3.2.2.1 Questions

The distribution of PS *any* in the context of questions is one of the most problematic areas in the explanation of its characteristics as a "negative polarity item", for both Ladusaw's DE account as well as for Linebarger's NI account. In fact, Linebarger (1991; p.181) admits that "..it is a rather unappealing feature of the NI account that for neutral questions containing weak NPIs it must appeal to negative implicature which most speakers do not report being aware of". On the DE account, questions denote sets of propositions which constitute their true and complete answers. In this context, Ladusaw (1979) then requires the following:

> *S[peaker] should pose the question q only when he believes it to be possible for H[earer] to express its denotation set without major revision in the form of the question.*

This generalization is based on Borkin (1971) who finds that when NPIs appear in questions, it is usually used only when a negative response is expected. Similarly, according to R.Lakoff (1969; p.612), in questions of certain types, the use of *some* implies that the speaker hopes for, or at least anticipates, a positive answer; while the use of *any* implies the expectations of a negative answer, or at least neutral feeling on the part of the speaker.

Thus under the DE account, NPIs in questions convey the speaker's expectation that a negative answer is expected. However, it is clear that it is not always the case that every time a question containing *any* is posed, it leaves no other option but to expect a negative answer, as was rightly pointed out by

Linebarger (ibid.). This tends to leave the previous explanations about the status of *any* as a "negative polarity item", and more so the status of the context of questions as a licensing environment, rather questionable.

From a syntactic standpoint, Progovac (1988,1994) suggests that all non-negative polarity environments, including questions, involve an empty polarity operator (Op) in Comp position which licenses NPIs.

(12) $[_{CP}$Op $[_{C'}$ Has $[_{IP}$ anyone come?]]]

Indeed, Serbo-Croatian seems to have an overt counterpart of Op (*li*) which seems to license yes/no questions.

(13) Da li Milan voli iko-ga?

that Q Milan loves anyone-ACC

Does Milan love anyone?

However, the question regarding this approach is to consider why *li* does not appear in other licensing contexts in Serbo-Croatian which license NPIs. What happens in the context of conditionals, adversative predicates and comparatives, in Serbo-Croatian, remains unclear from the data provided. If *li* appears in yes/no questions while in other licensing contexts, the empty polarity operator functions, it gives rise to reasonable speculation about the status of *li*. Is *li* in interrogatives simply the question particle that is commonly found across languages? Even though the idea of an empty operator in Comp position as licenser of NPIs, is an attractive one – especially when no plausible solution has been found – other

contexts in Serbo-Croatian with *li* are not demonstrated, which might clearly indicate that the phenomenon of overt operators in Comp position is uniform in that language.

Kadmon & Landman (1993) suggest that there is a difference between a question with *any* and a counterpart without *any*.

(14)a. Is there something I can do for you?

b. Is there *anything* I can do for you?

They observe that (14b) sounds more polite and is the normal formula adopted by a shop attendant serving a customer. They claim that the function of *any* (be it PS or FC) is to induce 'widening'. That is, in (14b), "the thing that the attendant might be able to do for the customer is to be chosen out of a larger set of things (widening of a 'thing')." Notice, however, that widening is not a plausible solution when we consider examples like (15) below:

(15)a. Have you seen some Speilberg movies lately?

b. Have you seen *any* Speilberg movies lately?

It is not clear to me that the use of non-emphatic *any* here has an effect on what counts as 'Speilberg movies'. The general semantic analysis of *any* as an inducer of widening effects does not seem to address the issue at all. We have to find out what counts as a true licenser of PS *any* – is it merely its presence in the context of questions? If so, what is special about questions that triggers NPIs in general.

It is absolutely clear that questions license NPIs and that they are somehow very different from statements; the former allows PS *any* (NPIs), the latter does not.

(16)a. Did you visit *any* museums while in Paris?

b. * I visited *any* museums while in Paris.

c. Did you visit museums while in Paris?

Also of interest is the fact that (16a) and (16c) differ from each other at least in the following two ways: First, with stress on *any* in (16a), the speaker clearly expects a negative answer[14], resulting in a rhetorical question, while no such reading is available with (16c). Second, even though (17) can be a perfectly natural response to the question in (16c), it is only marginal as a response to (16a).

(17) No, I visited art galleries.

This suggests that Heim's (1984) proposal that *any N* (as in 16a) and the bare plural (as in 16c) are semantically identical, is misleading. As before I will also consider here the role of contrastive stress on an *any* expression, its significance in the interpretation of the overall meaning of the sentence containing it, as well as in deriving the right facts about the fundamental question of whether the *any* expression in yes/no questions is a FC or a PS one.

[14] This is not necessarily true with neutral stress, which brings us to the question of the role of emphatic stress in the interpretation of sentences.

As a point of departure, I will indicate once again that not all yes/no questions inherently bear rhetorical affect. First of all, the difference between (18a) and (18b) is very obvious to most native speakers of English. (18a), with neutral stress, in most cases is not taken as a rhetorical question with a "negative-answer-expected" gloss attached to it, unless the rhetorical effect of *any* is achieved via contextual "D-linking", (cf. Pesetsky (1987) to be discussed shortly). However, (18b), with heavy stress on the *any* expression comes with a "negative-answer-expected" gloss and is not compatible with a reading where *something* replaces it, even though in (18a) the *anything/something* switch is not a problem.

(18)a. Are you doing *anything* this weekend?

Are you doing *something* this weekend?

b. Are you doing ANYTHING this weekend?

?Are you doing SOMETHING this weekend?

In fact, (18b) also has the implicit "Are you doing anything *at all*[15]?" reading which presupposes that the answer will be "I'm doing nothing at all". In such a case, where the presupposition of a negative answer is strong, replacement of *any* by *some* (a positive polarity item) results in only marginal acceptance. We take ANY here to be a polarity item. However, such a rhetorical effect is absent in the unstressed *any* sentence (18a).

[15]Note that *at all* is negative polarity item. When it is possible to felicitously apply this NPI to the *any* question, either implicitly or explicitly, the rhetorical quality is more clearly brought out.

At any rate, the *any*-expression in both (18a) and (18b) are considered PS items. In the case of examples similar to (18b), which warranted a rhetorical reading, *any* was more easily licensed in the analysis of Linebarger (1987), Robin Lakoff (1969) and others. Unstressed *any* in examples like (18a) was still looked upon as a PS element but no adequate explanation was provided in terms of its legitimate licenser.

In certain other cases, an *any* expression with no contrastive stress, inherently takes on a negative quality via certain connotations associated with our knowledge of the world or through the facts established during the process of discourse, what I previously introduced as contextual D-linking.

(19) How can John pitch a tent on Mercury? Is there *any* life out there?

(20) Did Surly Fowlmouth say *anything* nice to you at the party?

From our knowledge of the world, we believe that all life is limited to Earth; therefore, (19) can be taken as a rhetorical question even without special emphasis on *any* (but perhaps with a sharply rising intonation). On the other hand, in (20) let us assume that it has previously been established, as background information, that Surly Fowlmouth is a nag and that s/he never has a kind word for anyone. In that case then, (20) will quite naturally be interpreted as a question expecting a negative answer, regardless of the absence of contrastive stress on the *any* expression, which is normally taken to convey rhetoricity.

In natural speech attested everyday of our lives, certain aspects of meaning are derived from relevant conceptual dimensions that are available to the speaker / hearer, that is, from the acquired knowledge of what is real to this world and what is not, as well as from extra-syntactical strategies like stress, intonation, pitch, etc., not to mention the many other semiotic strategies of gestures, facial expressions and the like, which is best relegated to the domain outside the purview of our concept of grammar[16].

Despite all the attention on the importance of stress – which has been regarded as a feature that falls outside the domain of mainstream syntax – the important question relating to examples (16a) and (16b) has still not been answered. That is, why is *any* licensed in questions but not in statements. What is it about the context of questions (and those of other contexts, to be discussed in the following sections) that allows for this polarity sensitive, yet highly pervasive lexical expression to be licensed?

Before proceeding to provide arguments to answer the above question, we must, first and foremost, recognize that there do exist genuine yes-no questions containing *any* (contra R. Lakoff and others) which rely on the premise that the questioner does not know the answer. Despite the opposing view about the status of questions containing *any* (i.e., whether it is genuine or rhetorical, as brought up

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[16] Under the present notion of grammar (as discussed in Chapter 1), I will be concerned with the mental representation of the world and its relation to language, in the spirit of many other earlier works such as Talmy (1983, 1985), Fauconnier (1984), Lakoff (1987) and more recently, Jackendoff (1990, 1994).

earlier), virtually all parties agree with the idea that a question is a request for information. "From a truth-conditional standpoint", by uttering a question, "the speaker is unsure of the truth" of the sentence (cf. Authier 1994b; p.10). Logicians expound the notion that all that there is to the logic of questions (studied under what is called 'erotetic' logic) is a combination of the logic of knowledge (epistemic logic) with the logic of requests (logic of imperatives / optatives). Hintikka (1974, p.104) dubs the description of the epistemic state of affairs that a questioner wants to have brought about the **desideratum**[17] of his question. Under these circumstances, we can conclude that any question that is a request for information, such as genuine yes-no questions, are taken to represent a *non-positive* quality that, in turn, licenses PS *any*. This preliminary assumption helps us to answer some fundamental questions. Even though the following question is a genuine, and not a rhetorical, one, some of the earlier studies did not have an answer as to why the PS element was licensed in this case.

(21) Baa, Baa, black sheep, have you *any* wool?

If a question containing *any* were to be always regarded as a rhetorical question, then the question in (21) above, cannot have an affirmative (22) as the normal response. Of course, as we all know this is not the case.

(22) Yes sir, yes sir, three bags full.

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[17]According to a standard dictionary, a desideratum is described as "anything that is missing and felt to be needed".

Hence, we must discard all previous accounts that depend solely on vague and often incorrect intuitions about the apparent existence of a negative implicature that licenses *any* in questions. To recapitulate, the licenser for NPIs in genuine questions is the conceptual quality of a desideratum which qualifies this category as non-positive.

Apart from an indeterminate truth-value associated with unstressed *any*, a stressed ANY in questions brings out the possibility of rhetoric affect as was seen earlier in (18b). This brings us to the point where we must acknowledge the existence of the not-so-subtle difference between stressed versus unstressed *any*. Emphatic stress, as in (23) and (24), gives rise to an implicature which I classify as a Negative Generalized Conversational Implicature (NGCI)[18]. (An NGCI is an implicature that is not dependent on context[19], is not vague, but one that *is* cancelable (Grice 1989: p.37-38; cf. Authier 1994a)). On the other hand, neutral stress in a genuine yes-no question, as in (25), does not give rise to the phenomenon of NGCI. The following sets of examples illustrate two varieties of questions: one which is induced by contrastive stress (23-24) that gives rise to an NGCI and the other, which is associated with neutral stress (25) that does not produce an appropriate NGCI. Regardless of this distinction between stressed and

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[18]Linebarger (1987) defines Negative Implicature as being conventional. That is an NPI "contributes to a sentence S expressing a proposition P", a (negative) conventional implicature. In other words, a conventional implicature is tied to certain words; and in this case, according to Linebarger, to NPIs.

[19] Grice agrees that non-controversial examples are hard to find since "it is all too easy to treat a generalized conversational implicature as if it were a conventional implicature." However, it is not impossible to find examples that are fairly non-controversial as Grice himself points out.

unstressed *any* in questions, they are still considered PS items by virtue of falling into the broader category of *desideratums*.

(23) Do you have ANY respect for women?

NGCI: You don't have any respect for women.

Well, perhaps you do. How else could you be married for 27 years?! ....NGCI canceled

(24) What did ANYONE at the conference say that really made sense?

NGCI: No one's talk at the conference really made any sense.

In fact, Tom's talk was good and only his made sense.

....NGCI canceled

(25) Do you have *any* lasagna left over from dinner last night?

.....no NGCI

To summarize, under the present analysis *any* in yes/no questions is licensed by virtue of one of two reasons. The first is this: the desideratum (indeterminate truth value) which characterizes all questions universally is what licenses polarity items in neutral questions (while it disallows them in statements). Incidentally, this type (neutral questions) does not always produce an appropriate NGCI (see (25)) or as Linebarger (1991) suggests, even an NI. The second reason for *any* licensing in questions is the rhetoric affect, often introduced by contrastive stress, which in turn, quite naturally gives rise to an NGCI (see (23) and (24).

We can use these two reasons to account for the difference between (16a) and (16b), that is, between *any* (or other NPIs) in questions and *any* in statements. Any kind of information that is seen as *non-positive* allows PS elements while affirmative sentences do not allow for such elements. The precise scope of non-positive sentences will become clear as we discuss other environments in which *any* appears. For now, let us assume that a non-positive sentence is one which includes not only overtly *negative sentences* that express truth-conditional negation, but also one that encompasses sentences that either express a **desideratum** (as in *genuine questions*), or those that express **negative affect** (as in *rhetorical questions*).

Another aspect of emphatically stressed *any* that remains to be considered is the one that produces a metalinguistic flavour.

(26) Did you meet (just) ANYONE (or did you meet the President)?

Once again, we notice that what appears in the above context is the FC variety and not the PS one. "Did you meet any x (no matter which x), or did you meet the President?" It is interesting to note that *just* modification seems to apply to cases of FC *any* and not to PS *any*.

This phenomenon is also observed in Serbo-Croatian (Progovac, ibid.) where the *any* expression in Yes/No questions with a contrastive reading stands for the FC variety. "Did Mira listen to *any* x (no matter which x), or was it her mother?" Moreover, since in Serbo-Croatian the lexical item corresponding to FC

any is not homophonous with PS *any* as in English, it is much easier to observe its distribution.

(27) Da li je Mira poslušala *bilo ko-ga* , ili svoj-u majk-u?

that Q is Mira listened-to be-it who(m), or her-ACC mother-ACC

'Did Mira listen to just anyone, or was it rather her mother'

This observation makes it necessary to acknowledge the fact that the context of yes/no questions can allow both PS and FC *any*. It appears that the metalinguistic / contrastive reading is what contributes towards the availability of FC *any* in both English and Serbo-Croatian.

Table 3.1 below, which sums up the reasons provided in the literature for *any*-licensing in Questions, will contrast these reasons with the present analysis (illustrated in Figure 3.2):

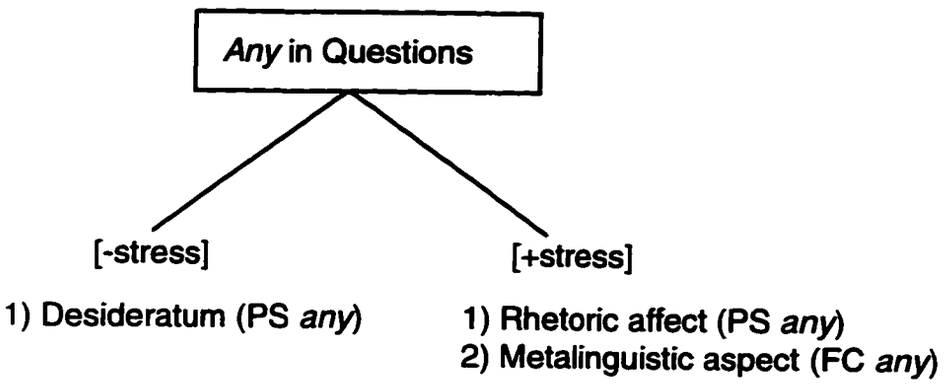
TABLE 3.1: Reasons for *Any*-Licensing in Questions in the Literature

Reasons for *Any* Licensing	Syntactic Reasons	Semantic Reasons		Pragmatic Reasons	
	Progovac	Linebarger	Ladusaw	Kadmon & Landman	Krifka
Empty operator in Spec of Comp	✓				
Expectation of negative answer /negative implicature		✓	✓		
Reduced tolerance of exceptions Widening effects				✓	
Informative in Lattice					✓

theory					

The preceding discussion of *any* in questions seems to have stirred up quite a range of variation within this context. The following figure sums up the various properties of the *any* expression in yes/no questions in order to illustrate the main points of the discussion.

FIGURE 3.2 *Any* in Yes/No Questions



Unstressed *any* in Yes/No Questions, simply by virtue of being a question form (expressing a desideratum) entails non-positive qualities, thereby marking it as PS *any*. The stressed counterpart of *any* in Questions – the one that expresses rhetoric qualities – stands for the PS item; but the stressed *any* introducing the metalinguistic aspect symbolizes FC *any*.

3.2.2.2 Conditionals

It has always been inadvertently assumed that *any* in conditional sentences is an NPI and conversely, that a conditional sentence is one of many 'licensing environments' for an NPI. This may be true in some cases. However, because of oversight of important data, one is naturally inclined to force all conditional sentences with an *any* expression, into the straitjacket prescribed by the existing

theory on licensing environments for NPIs. We will come across data where *any* in a conditional sentence, in fact, is endowed with a free-choice quality.

In descriptive terms, a conditional sentence is one whose consequent is dependent or conditional upon the happening/eventuation of the antecedent. It is a *conjecture* of the possibility of a consequence Q in the event of P, (which is expressed in the antecedent), taking place. As Authier (1994b; p.10) points out, by uttering a conditional, the speaker "is not necessarily sure of the truth" of the sentence. Once again (as in the case of yes/no questions), by reason of an indeterminate truth-value, conditionals can be taken to express a *non-positive* quality.

(28) If I meet *anyone* nice at the party, I'll dance with him.

(29) If you find *any* bloodied clothes, call the police right away.

Notice also that these sentences, with non-contrastive *any*, can felicitously take the intensifying adverb, an NPI, such as *at all*, "If *at all* I meet...", "If *at all* you find..." etc. which often give rise to a legitimate NGCI (to be discussed later). We, therefore, group conditionals too as non-positive because they are conjectures and not constatives. As expected, these environments can give rise to a valid NGCI as well. Therefore, the *any* expression in conditionals can be perceived as a polarity item with a legitimate licenser, namely, the cognitively non-positive quality of *conjecture*.

Meanwhile, according to Linebarger (1987), there exist three types of conditionals, based on what their meanings connote, all of which quite predictably give rise to an NI.

(30) If John says *anything* rude to you, he'll be punished.

(31) If you eat *any* stale food, you may fall ill.

(32) If he had *any* concern for his health, he would stop drinking.

Examples such as (30) are referred to as **direct threats** or warning; (31) is an example of an **indirect threat**; and (32) expresses a **contrapositive entailment** (a counterfactual conditional). According to Linebarger's theory, it is a relevant *conventional* implicature found in these examples, that licenses the NPI. However, under her theory there is no strategy in place to account for examples like the ones provided in (28) and (29), which do not obligatorily bear any negative implicature because they are neither direct threats, indirect threats, nor contrapositive entailments. This fact notwithstanding, to tease out the relevant implicature in examples such as (28-29), the NPI *at all* can be felicitously attached after *if* (If *at all*...). In fact, any proposition starting out with "if at all..." underscores the remote possibility (more likely, the impossibility) of the proposition expressed by the antecedent ever taking place. In other words, attaching *at all* produces the desired NI even in the case of *conjecture*-type conditionals.

(33) If *at all* I meet *anyone* nice at the party, I'll dance with him.

NI: I don't have much hope of meeting *anyone* nice at the party.

However, in these conditional-types, a strong NI highlighted by *at all* (as in (33) above), is often unavailable. Consider (28) repeated below for the sake of convenience.

(28) If I meet *anyone* nice at the party, I'll dance with him.

This sentence does not express an NI which is readily available[20] for the ordinary native speaker. In fact, the speaker of (28) does not necessarily imply that s/he will not meet anyone nice.

Regardless of the unavailability of a relevant negative implicature in the above case, (28) is still treated as a legitimate environment for PS *any* because of what was said earlier about *conjectures*. Conjectures express a non-positive quality associated with an indeterminate truth-value which, under the current analysis, is ideal for licensing negative polarity items.

From the above discussion, we gather that conjecture-type conditionals may or may not have a relevant NI, depending on whether *at all* is used to tease out the implicature. However, what is pertinent at this point is that when an implicature is available it must be classed as a Negative Generalized Conversational Implicature (NGCI). More precisely, an NGCI, rather than a regular NI, accounts for instances such as (33) that Linebarger has omitted in her analysis. The NGCI is not vague since it is obvious even at first blush to the native speaker, it is not context-

[20]By "readily available", I mean that the implicature is not context-dependent. This gives us one possible lead that the negative implicature, which seems to arise in all contexts, may be a Generalized Conversational Implicature.

dependent because the implicature arises in all possible contexts, but it *is* cancelable. The feature of cancelability of the implicature (which makes it a *conversational* implicature) arising out of a conditional sentence containing *any* is illustrated clearly in the following examples which represent the different types of conditionals.

(35) If (*at all*) I meet *anyone* nice at the party, I'll dance with him.

NGCI: I don't have much hope of finding *anyone* nice at the party.

(And in fact, I think I will meet someone nice at the party, since the fairy Godmother told me so). ....GCI canceled

(36) If (*at all*) your brother says *anything* rude to you, he'll be punished.

NGCI: Your brother mustn't say anything rude to you.

(Even though he must, sometimes, to keep you in check).

....GCI canceled

(37) If (*at all*) you eat *any* stale food, you will fall ill.

NGCI: You must not eat stale food.

(Even though in certain places of the world you must, if you have to keep body and soul together). ....GCI canceled

(38) If he has *any* concern for his health, he would stop drinking[21].

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[21] What kind of implicature arises from counterfactual conditionals of the type seen in (38) has been the object of much debate. The debate goes back to Lakoff's (1970) article in *Synthese* 22. At the heart of the debate is the question of whether or not the inference that the antecedent is false can be defeated; for example whether or not the following sentence can in fact suggest that the antecedent is true. Some say the inference is defeasible, others say it is not.

1) If John had any illness, he would have exactly the symptoms he is showing.

NGCI: He has no concern for his health.

(Even though he has enough concern to exercise regularly).

....GCI canceled

Based on the current assumption that non-positive sentences, in general, license PS *any*, we include NGCI-inducing conditionals, as well as those that are simply of the *conjecture* / speculation type (as in (28)). The reason for including the latter type is to allow for the correct analysis of what can be counted as polarity sensitive and ruling out what is not. In fact, Progovac too (1994; p.63) states that "antecedents of conditionals are not committed to the positive outcome" and that the truth value of such sentences is not fixed positively. Conjectures, very similar in nature to genuine questions in this respect, are clearly non-constative; the truth or falsity of such sentences is not easily verifiable. Such cases, of sentences with indeterminate truth conditions, are what we call *non-positive* sentences, under the current definition of a negative context.

At this point, following the discussion of PS *any*, it is only expected that contrastive stress on this item will produce the FC variety, as was observed in the case of yes/no Questions. It is, therefore, important to notice that not all *any*-expressions in a Conditional should be treated as PS *any*.

(39) If I see ANYONE with a red nose, I'll kiss him.

I take Kattunen & Peters' (1979) view that the inference in (38) can be defeated and therefore call it a GCI. This is a plausible analysis, but it is by no means uncontroversial as suggested by the above example.

A conditional with contrastive stress on *any* expresses the free-choice (FC) variant that we encounter in a sentence like (40) below.

(40) If I see *anyone* (no matter who it is), with a red nose, I'll kiss him.

This use of *any* is what Vendler (1967; p.80) remarks is the "blending of indetermination with generality, freedom of choice." (39) above makes the conditional prediction that if there is an x, such that x is a person with a red nose, then I will kiss him. This is the reason why, very often, a free-choice *any* appears in the guise of a conditional, especially under stressed *any*. Once again, we notice that contrastive stress plays a very crucial role in determining the exact meaning of the eclectic *any* expression. Notice also that these variations are not merely a matter of style: they affect truth-values as well.

This result encourages us to face a tough but important task, which is the examination of the logical behaviour of *any* and its import on the current definition of polarity and free-choice *any*. Hence, conditionals with unstressed *any* are *conjectures* (considered a non-positive environment that licenses PS elements), where the truth of the proposition expressed in the consequent is dependent on the satisfying of the condition expressed in the antecedent. The sentence with a stressed ANY, on the other hand, clearly denotes the FC variant. The feature of contrastive stress is what switches a polarity environment to a free-choice one, and it is therefore of paramount necessity to incorporate this feature into our study of the behaviour of *any*. These instances of contrastive stress have been introduced

to highlight the fundamental difference in perception between stressed and unstressed *any* in conditionals. Another effect of contrastive stress on the *any*-expression that we are familiar with, is the display of FC characteristics associated with the metalinguistic use of the *any*-expression. Once again, as in yes/no questions and in case of overt negative sentences, we find that the so-called PS environment licenses a FC reading when the metalinguistic use is introduced.

(41) If you see (just) ANYONE and not Elvis, don't bother reporting it.

Not surprisingly, we notice that Serbo-Croatian (cf. Progovac ibid.) too licenses FC *any* in Conditionals associated with a contrastive reading:

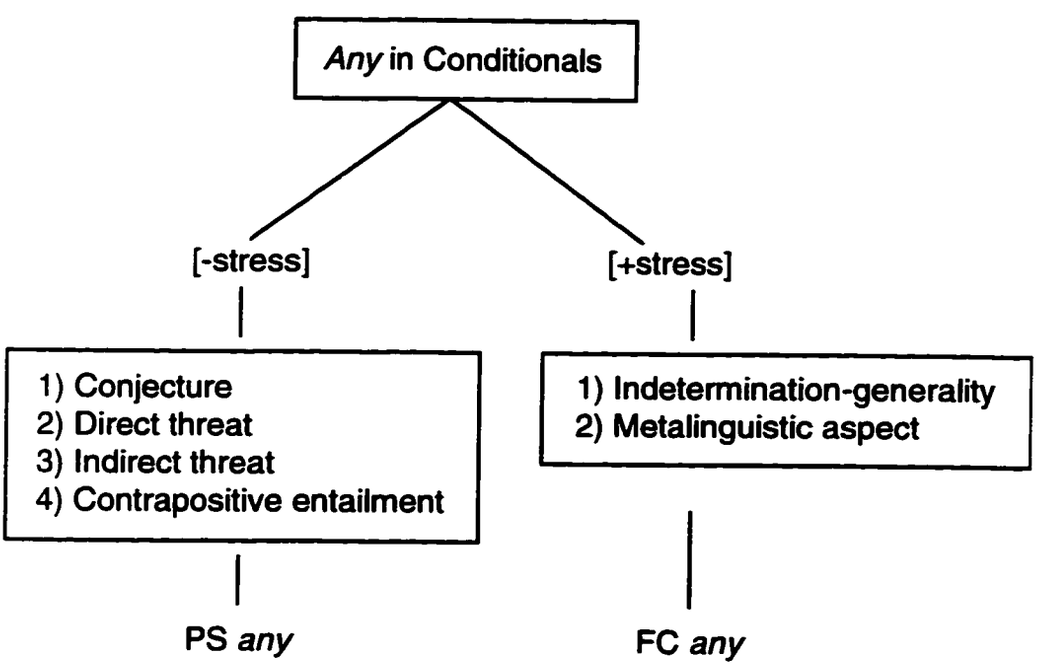
(42) Ako je Mira poslušala bilo ko-ga, a ne svoj-u majk-u,
If is Mira listened-to be-it who(m) and not her-ACC mother-ACC
pokaja-ce-se
regret-FUT-self
'If Mira listens to just anyone, and not to her mother, she will regret it'

Regardless of whether emphatic stress on the *any* expression in conditionals produces a metalinguistic reading (as in (41)) or not (as in (39)), it always, however, seems to convey the free-choice quality of the expression.

Keeping this contrast in mind, between stressed and unstressed *any* as introduced in the preceding paragraphs, let us recapitulate the essence of what was expressed in this section. *Any* in the antecedent of conditionals, comes in two

main forms – the stressed and the unstressed variant. Stressed *any* represents the free-choice item, while unstressed *any*, which is taken to represent the PS variant, may or may not give rise to an NGCI in some cases (e.g., *conjectures*). The absence of an NGCI notwithstanding, unstressed *any* is considered the PS item because it expresses a *conjecture* (whose truth value is indeterminate) as opposed to a *constative* (where truth values are fixed as either True or False). Once again, a detailed argument such as the preceding one, is summed up in the following figure:

FIGURE 3.3 *Any* in Conditionals



This illustration clearly brings to the fore the undeniable fact that the environment of conditional sentences do not license PS *any* alone as was

previously assumed. FC *any* can also be teased out from these very same contexts when the feature of contrastive stress is used to effect this variation in reading.

What licenses PS *any* is the feature of non-affirmativeness, wherein the truth-value of conditional sentences is not fixed positively. Hence, the preferred reading of a conditional sentence with *any* is one where the expression denotes the PS item. FC reading is brought about by switching on the feature of [+stress].

3.2.2.3 Adversative Predicates

The obvious licenser for PS *any* in adversative predicates should not be difficult to obtain because this class includes verbs and adjectives such as *doubt, deny, refuse, stop, surprise* etc. which are usually felt to be 'inherently negative'. In that case, an adversative predicate should be predicted to always make readily available a negative implicature as explained in Linebarger's treatment of NPIs in this context. Also, under Ladusaw's treatment, an NPI is allowed whenever it appears in the scope of a downward entailing element; and considering that adversative predicates are downward entailing, it must allow *any* in its scope. First of all, let us look at a few examples to see whether PS *any* in the scope of an adversative predicate gives rise to an NI.

(43) I'd be *worried* if *anyone* were to phone me after midnight.

NI: I don't expect *anyone* to call me after midnight.

(44) Ann was *surprised* that *anyone* helped her do the dishes.

NI: Ann didn't expect *anyone* to help her do the dishes.

(45) Bill was *annoyed* that *anyone* dared rearend his new Cadillac.

NI: Bill didn't expect *anyone* to rearend his new Cadillac.

Linebarger (1987; p.363) claims that the "presence of an NPI in the embedded proposition seems actually to *compel* this implicature" but it is inaccurate to assume that it is the presence of the NPI (in this case PS *any*) that gives rise to the negative implicature. On the contrary, the negative implicature arises out of the lexical meaning of the adversative predicate. This makes it seem like a conventional implicature. According to Grice, conventional implicatures are assigned on the basis of the conventional meanings of the words occurring in the sentence. Further, a conventional implicature is not context-dependent and it cannot be canceled; but in the above cases, even though the implicature arises in all possible contexts, it is cancelable. In the following sets of examples, notice how the NI arising out of sentences containing adversative predicates are obvious straight-away to a native speakers' intuitions. It arises in all contexts, including instances when the sentence is uttered in isolation, and above all, it can be canceled in the normal course of a conversation. These diagnostics lead us to conclude that the NI is a Negative Generalized Conversational Implicature (NGCI).

(46) I'd be *worried* if *anyone* were to phone me after midnight....

(NI: I don't expect *anyone* to call me after midnight.)

....But I should expect one tonight, for it's my birthday tomorrow.

(47) Ann was *surprised* that *anyone* helped her do the dishes....

(NI: Ann didn't expect *anyone* to help her do the dishes.)

....But somehow, she knew her boyfriend Bob would help her.

(48) Bill was *annoyed* that *anyone* dared rearend his new Cadillac....

(NI: Bill didn't expect *anyone* to rearend his new Cadillac.)

....But he always suspected that his arch rival Dan would do it.

This test also challenges Linebarger's (ibid.) view that the implicature in an adversative predicate arises "obligatorily, and is rendered unacceptable by the continuation which explicitly cancels it." In this connection, Linebarger gives the following example:

(49) I was surprised that John had *any* llamas in his apartment.

(*....I had no idea that such creatures existed).

The explicit cancellation of the NI associated with (49) is assumed to not be possible. But, in fact, in this example it is not the legitimate implicature that is canceled but rather the pragmatic presupposition of existence which is canceled. In other words, the true NI should be something like this: "I didn't expect John to keep any llamas in his apartment". As expected, this NI is easily cancelable: "...but knowing the 'weirdo' that John is, I should have expected it". The cancellation-of-NI that Linebarger provides in the above example, cancels the pragmatic presupposition (not an implicature) that the speaker makes – that llamas

exist. The existential presupposition of sentences cannot be altered by the speaker half way along the conversation because it violates pragmatic coherence and is not acceptable under normal rules of conversation.

On the syntactic side of arguments, Progovac (1988) challenges Linebarger's NI account and Ladusaw's DE account with regard to polarity licensing in adversative predicates by coming up with a counterexample such as:

(50) * I refused anything.

On one hand, this sentence does give rise to a negative implicature, namely,

(51) I didn't accept anything.

Yet, (50) remains ungrammatical. On the other hand, *refuse* is a downward entailing expression, as exemplified in (52) and still (50) is not legitimate.

(52)a. John *refused* to eat vegetables. ⇓

b. John *refused* to eat asparagus.

Naturally, an NI (according to Linebarger) or DE expressions (according to Ladusaw) ought to license NPIs, but it does not. Given this predicament, Progovac suggests that it is the polarity operator in the Spec of Comp that does the licensing and not the adversative predicate, nor the negative implicature or even the feature of downward entailment. According to Progovac, non-negative NPI licensing will be a property of clauses, rather than phrases, since only clauses have Comp positions:

(53)a. Mary forgot [CP Op that [IP *anyone* dropped by]].

b. *Mary forgot *anything*.

However, consider the example in (54). The sentence becomes acceptable with the use of generic tense.

(54) Mary forgets/*forgot *anything* rude that her boss says to her.

In this example, we do not have a Comp position, stipulated by Progovac as a requirement for polarity licensing, but the *any* expression seems to be licensed[22]. Yet, it could be argued that in this case, it has something to do with the generic tense of *forgets*. It is possible that what the generic tense licenses is FC *any* and not PS *any*. In fact, this hypothesis could well answer Progovac's question about the type of *any* in a sentence such as the one in (55). Progovac (ibid., p.144) provides the following example and wonders whether *any* in this case is a PS or a FC element.

(55) ?This house lacks *any* place to sit outside when it rains.

Incidentally, in Serbo-Croatian it is only the FC *any*, and not the PS *any*, that can appear in this position as illustrated in (56).

(56) Ovoj kuc-i nedostaje *i-kakvo / bilo kakvo

---

[22]Progovac's second argument, to support the claim that it is the operator in the Spec of Comp that licenses PS *any*, is provided by the following example:

(1) *Mary forgot where anybody put her books.

The presence of a wh-word blocks the appearance of an NPI in the same position, indicating that whatever licenses NPIs has to be in the Spec of Comp. However, the following examples seem to contradict this claim.

(2) Mary forgot (just) where any of those books went.

(3) I forget (just) when any of those dents on my car happened.

I will not discuss this issue any further in this thesis.

this house-DAT lacks any-what-kind / be-it what-kind

mesto da se sedi napolju kad pada kiša

place that self sits outside when falls rain

Assuming that English and Serbo-Croatian (and perhaps other languages as well) are underlyingly uniform with respect to *any* licensing, I will claim that *any* in the above case (in (55)) is the FC item.

This encounter with adversative predicates and generic tense leads us to postulate, what may be called, a subcategorization requirement for adversative predicates in relation to NP quantifiers:

(57) *Polarity sensitive <u>any</u> cannot appear in the immediate scope of an Adversative Predicate, while free-choice <u>any</u> can provided the tense is generic.*

The above requirement[23] rules out examples such as (58) but allows examples such as (59):

(58) *I forgot *anyone*.

(59) I forgot to invite *anyone* for the party.

---

[23] Even though (57) appears to be merely a stipulation, one can find instances where certain verbs can subcategorize only for certain objects. This possibility makes (57) as a grammatical device a little more credible. A verb such as *eat* may subcategorize only for edible objects and a verb such as *knit* may subcategorize only for items normally made of fabric, etc. Conversely, verb meanings may also differ with respect to the environment in which they occur (Pustejovsky 1989). For example, the verb *bake* as in 'to bake a cake' is a verb that signifies creation, but the same verb in 'to bake a potato' signifies change of state. Briefly then, a verb may select an appropriate nominal and, certain nominals may affect the meaning of the verb.

The list of adversative predicates includes items such as *refuse, doubt, deny, lack, forget, surprised, annoyed* and *worried* and each of these items may freely take *something/someone* within its immediate scope but never *anything/anyone*, unless the tense is generic. Consider a few examples:

(60)a. John forgot *something* / *John forgot *anything*.

b. John *forgets* (almost) *anything* that you say to him.

(61)a. Tom refused *something* / *Tom refused *anything*.

b. Tom *refuses* (almost) *any* free offer that needs his credit card number.

The fact that *almost* modification is possible in the grammatical examples with *any*, in the above examples shows that the expression stands for the FC variety, and not the PS one. Hence, it is true that both Serbo-Croatian (e.g., 56) and English allow only FC *any* in the scope of generic tense. The above subcategorization requirement may seem stipulative, but it is useful in answering questions about why instances such as (60b) and (61b) are licit despite the absence of a Comp position while (60a) and (61a) with *any* in the immediate scope of an adversative predicate is ungrammatical.

In spite of the fact that adversative predicates normally give rise to a NGCI, which in turn licenses PS *any*, we must observe what happens when contrastive stress is placed on the *any* expression, since stress does seem to play an important role in discerning new meaning in the case of questions and conditionals.

(60) He denied that ANYONE (at all) was offered a bribe.

(61) He refused to help ANYONE (at all) in need.

(62) She was surprised that ANYONE (at all) could that.

(63) I doubt if ANYONE (at all) will show up in this rain.

It appears that contrastive stress on *any* in sentences with adversative predicates is used merely as a conversational strategy to significantly highlight the NGCI arising out of these sentences. This is more obvious when an NPI such as *at all* can felicitously be attached to the sentence. In fact, the device of emphatic stress makes *anyone* seem more like the scalar endpoint expression *not even one x.*

The feature of emphatic stress on PS *any* in the case of adversative predicates functions the same way that it would in the case of emphatic *any* in sentences containing overt negation. It, therefore, seems that when a licensing environment (such as adversative predicates) is intrinsically felt to be more negative than some others, emphatic stress on PS *any* only highlights this negativity. This may be suggestive of a hierarchy among licensing contexts for PS *any*. However, I will not venture into this endeavor since it is beyond the scope of the present study.

But of significance in the present discussion is the question of what happens to the interpretation of *any* in the scope of adversative predicates when the metalinguistic aspect is introduced. As always, the emphatically stressed *any-*

expression denotes the FC quality and not the PS one as indicated by the felicitous use of the *just* modifier.

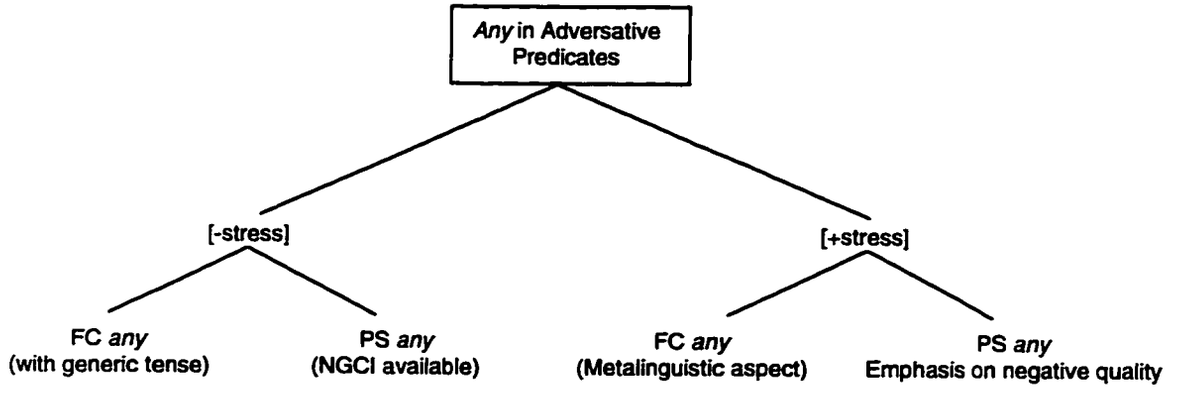
(64) I doubt that li'l Scottie left with (just) ANYONE and not his mother.

But of course, this possibility is also available in Serbo-Croatian.

(65) Sumnja-m da je Mira poslušala bilo ko-ga.
doubt-1sg that is Mira listened to be-it who-m
Ona sluša samo svoj-u majk-u
she listens-to only her-ACC mother-ACC
'I doubt that Mira listened to just anyone. She takes advice only from her mother'

So far, it is evident that metalinguistic negation licenses FC *any* and not PS *any*. As in previous sections, the following figure illustrates the different types of *any* available in Adversative Predicates.

FIGURE 3.4 *Any* in Adversative Predicates



Under normal stress, *any* in the scope of adversative predicates with generic tense represents the FC item but elsewhere (where licit) it is the PS item. *Any* with contrastive stress may be used either to signify metalinguistic use or to highlight negativity. In the case of the former, *any* represents the FC item while in the latter, it represents the PS item.

3.2.2.4 Comparatives

The context of comparatives, even though identified as an environment that allows PS *any* as well as other NPIs, has always proved to be a difficult issue for most analyses. Linebarger (1987) applies the NI account to comparatives containing NPIs, claiming that an appropriate implicature is available where the 'strengthening' requirement is met.

(66) Cows fly more often than John lifts a finger to help Louise.

NI: John usually doesn't lift a finger to help Louise.

However, as noticed by Hoeksema (1983) for Dutch and by Progovac (1994) for Serbo-Croatian, certain types of comparative constructions license FC *any* as well. What does this mean for Linebarger's account, since an NI seems to be available even when it is FC *any*? This question will be answered in the course of the discussion.

To start with, I will present Hoeksema's argument to illustrate the two types of comparative sentences available in both Dutch and English.

(67) Moscow is older than [Washington].

(68) The Sahara was hotter than [I expected it would be].

In (67) the comparative particle *than* is followed by a noun phrase, hence called an NP-comparative, and in (68) it is followed by a clausal complement, appropriately called an S-comparative.

Hoeksema uses both syntactic as well as semantic arguments to lend credence to the claim about the existence of the two types. In providing evidence for the syntactic part of his argument, he uses the distribution of the Dutch negative polarity item *ook maar*, approximately translated into English as *at all, what(so)ever or who(so)ever* to judge whether the *any*-expression in comparatives is PS *any* or FC *any*. It turns out that *ook maar /'at all'*, is allowed in the S-comparative (examples (69) and (70)) but not in the NP-comparative (examples (71) and (72)). Surprisingly, the English translations provided for each of the Dutch examples (cf. Hoeksema 1983; p.407) also display this contrast between the two types of *any*.

(69) Het feest duurde langer dan *ook maar iemand* verwacht had.
the party lasted longer than *at-all* *anybody* expected had
'The party lasted longer than *anybody at all* had expected'.

(70) Wim was minder vervelend, dan *ook maar iemand* voor hem was.
Wim was less obnoxious than *at-all* *anybody* before him (had) geweest

been

'Wim was less obnoxious than *anyone at all* before him had been'

(71) *Wim is gevaarlijker dan *ook maar iemand.*

Wim is more-dangerous than *at-all anyone*

'Wim is more dangerous than *anybody whosoever*'.

(72) *Mijn tante is slimmer dan *ook maar een speurder.*

My aunt is smarter than *whosoever a detective*

'My aunt is smarter than *any detective whosoever*'

Using these two sets of examples coupled with a formal semantic analysis of the comparative construction, Hoeksema shows that the S-comparative is a negative polarity environment and that the NP-comparative is not. Progovac (1994, p.71) shows that the same is true for Serbo-Croatian.

The NP-comparative versus the S-comparative contrast seems to be a valid one looking at the above examples, but in a sentence like (73) below, there is some confusion regarding the status of the comparative construction.

(73) John ran faster than anyone else in his class.

If (73) is derived from (74) below by the rule of Comparative Ellipsis, as Hoeksema claims, then constructions like (73) should naturally be construed as an underlying S-comparative as observed in (74).

(74) John ran faster than *anyone* else in his class did.

If (73) is an S-comparative (following the logic of Comparative Ellipsis), consequently, a negative polarity environment, then it should allow the *at all* modification but not the *almost/nearly* modification as was noticed in Hoeksema (1983). However, the opposite effect seems to hold in such cases, where superficially different sentences (syntactically described) are perfectly synonymous. The S-comparative, in fact, disallows *at all* but is acceptable with *almost* modification.

(75) John ran faster than *anyone* else(*at all) in his class.

(76) John ran faster than (almost) *anyone* else in his class did.

It becomes difficult to judge the veracity of a test if the opposite results are derived, even if it is for one or two cases. Consequently, is (73) an NP- or an S-comparative? The thin line dividing the two varieties of comparatives is the reason for this apparent confusion. Assuming that there *is* a difference between the two varieties, let us consider this difference in terms of the availability of an NGCI.

We will notice that in some cases of the comparative containing *any*, a readily available NGCI is present, but in some others there is none. In both instances, however, an NI (à la Linebarger) is available. This factor, concerning the availability of an NGCI, seems crucial in determining the difference between the two types of comparatives. I claim that only when an NGCI is available, is it also possible for *at all* to be felicitously introduced after the *any* expression. The

availability of an NGCI, in turn, makes the comparative in this case a 'true' polarity environment. In the absence of an appropriate NGCI, even though the environment looks like a polarity environment (because an NI is available), the *any* expression in such cases turn out to be the FC *any*. In other words, the presence of an appropriate NGCI is taken as the true test for a polarity environment. (75) above, repeated here for convenience, does not produce an NGCI, but rather a non-cancelable NI.

(75) John ran faster than *anyone* else in his class[24].

NI: No one other than John ran as fast.

...*In fact, Dan (from John's class) ran faster than John.

Now let us take a look at a comparative construction where the resulting implicature is an NGCI.

(77) The lecture by John lasted longer than *anyone* had expected.

NGCI: No one expected the lecture to last that long.

(...But, given the fact that John likes to digress into politics,

quite a few people, however, expected a lengthy lecture).

---

[24] The fact that the NI in (75) cannot be canceled might have something to do with the presence of *else*. The obviative element *else* roughly means "other than α" and by attaching it to *anyone* it gives rise to the same sort of antecedent dependency that Culicover & Jackendoff (1995) talk about at length in their paper that concerns certain aspects of the Binding theory that fall outside the purview of syntactic (i.e., intrasentential) binding. *Anyone else* then essentially refers to an individual or to individuals other than John. It is possibly due to this obviative sense of *anyone else* that cancellation of the implicature in (75) is impossible.

Canceling the NGCI in this example, does not result in a contradiction. In fact, in the course of one's conversation, using such a strategy to cancel an ensuing implicature is done almost everyday of our lives. What, however, is the reason for some comparative structures to give rise to one type of NIs, and others to other types? The answer to this lies in the interpretation of logical scales for one type only (where the *any* expression represents the endpoint entity) and not for the other type, as we will see presently.

Let us now go back to the two classes of comparatives. S-comparatives are considered NPI licensing environments; they allow *at all* to adjoin. NP-comparatives are not NPI licensing environments; they disallow *at all* but accept adverbs like *almost* and *nearly*. Consider once again the examples given (cf. Hoeksema 1983) under each category.

S-comparative:

(78) Het feest duurde langer dan *ook maar iemand* verwacht had.

'The party lasted longer than *anybody at all* had expected'.

(79) Wim was minder vervelend, dan *ook maar iemand* voor hem was.

'Wim was less obnoxious than *anyone at all* before him had been'

In (78) there is no logical scale against which the length of one party can be compared with the length of another. But there is a readily available NGCI: "no one expected the party to last so long". (79) compares the repugnance of Wim with other people before him. In this sense, there is a logical scale of comparison

present. However, Wim does not represent an endpoint entity on the scale of obnoxious people. On the other hand, all the sentences in the NP-comparative type, give rise to a scalar reading where the entity represented by the *any* expression ranks the highest in relation to the rest of the set.

NP-comparative:

(80) *Wim is gevaarlijker dan *ook maar iemand.*

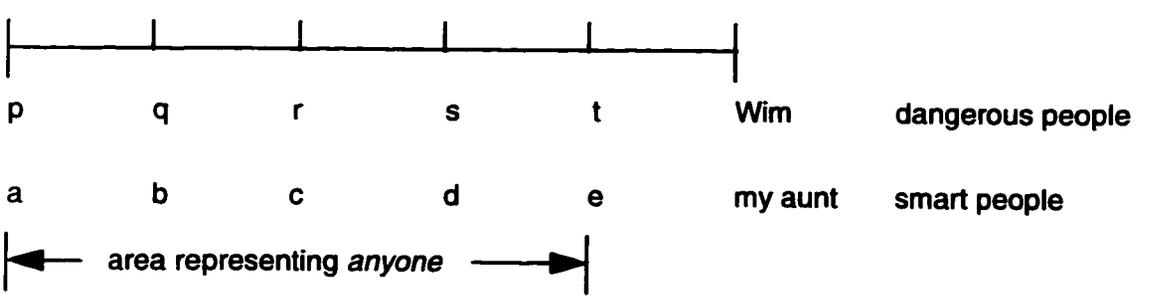
'Wim is more dangerous than *anybody whosoever*'.

(81) *Mijn tante is slimmer dan *ook maar een speurder.*

'My aunt is smarter than *any detective whosoever*'

For (80), take into consideration a set x, of dangerous people; Wim ranks the highest in terms of the danger he poses. In (81), take a set x, consisting of smart people (viz., detectives); 'my aunt' ranks the highest in that set. Both these entities represent scalar endpoints. Figure 3.5 presents a visual scale in order to consider these sentences.

FIGURE 3.5 Scalar Representation of *any* in Comparatives



As observed for (75), we notice that no appropriate NGCI is available for each of these cases, probably only a non-cancelable NI. When an entity that is being compared, ranks as the highest scalar endpoint element, it naturally derives the interpretation of a superlative, even though the syntactic construction is that of a comparative. For instance, the comparative construction "Wim is taller than anyone else" is equivalent to the superlative sentence "Wim is the tallest of all", etc. An *any* expression appearing in such implicit superlatives, is therefore, bound to be interpreted as the free-choice item, i.e., "Wim is taller than *no-matter-who* it is that one takes into consideration".

Let us now turn to some data from Serbo-Croatian[25].

(82) Jovan je tracao brze nego bilo-ko drugi.

John AUX ran faster than anyone else

John ran faster than *anyone* else.

(83) Sastanak je trajao duze nego-što je (*bilo-ko) iko ocekivao.

Meeting AUX lasted longer than AUX anyone expected

The meeting lasted longer than *anyone* expected.

As observed from (82) and (83), the FC item *bilo-ko* seems more acceptable in scalar comparatives (82) than it is in non-scalar comparatives (83). This is a clear

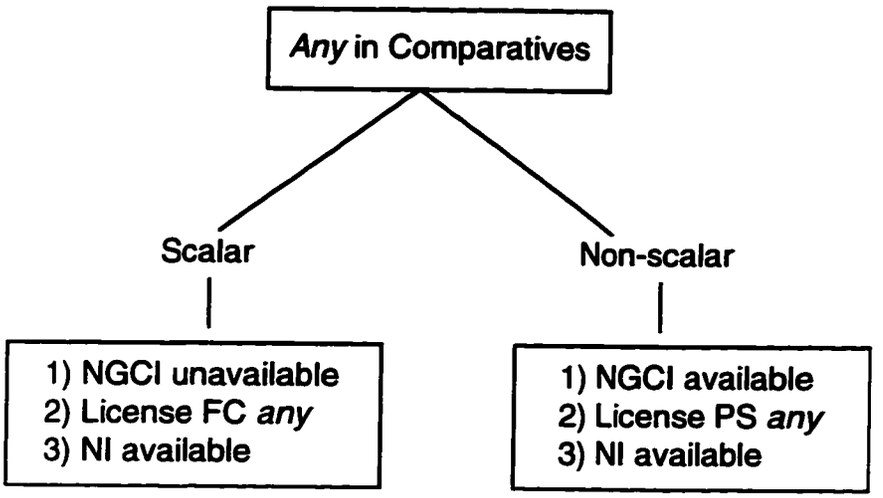
[25] I thank Danijela Stojanovic for the examples.

indication that scalar comparatives are different from non-scalar comparatives; while the former licenses FC *any*, the latter licenses PS *any*.

From this discussion, we gather that whenever an *any* expression in a comparative construction represents a scalar endpoint entity, the representation of this item will be that of a FC element and not that of a polarity expression. In this context, the presence of a legitimate NGCI is very important, since we know that both types of comparatives allow an NI but only one type, i.e., the non-scalar type allows an NGCI.

To sum up, there does exist two types of comparative constructions –**scalar** and **non-scalar**. Non-scalar types allow an NGCI, scalar types do not. Hence, the former type is a true polarity environment while the latter type licenses only FC *any*. Since comparatives can always be shown to display an NI, it was wrongly assumed that it was one of the licensing environments for polarity and only polarity *any*. This discussion on *any* in comparatives shows us that Linebarger's Negative Implicature account is inadequate in making this important distinction between the two types of comparative constructions.

FIGURE 3.6 Two Types of the Comparative Construction



As a final remark, it must also be pointed out that since the *any* expression in the two types of comparatives are two distinct entities, the feature of emphatic stress in each case serves only to emphasize this role. Emphatic stress of *any* in scalar comparatives highlights the free-choice quality of the expression; while stressed *any* in non-scalar comparatives highlights negativity of the NGCI.

3.3 An Analysis

The above study of the *any*-expression in both negative contexts and in other so-called licensing environments leads us to one conclusion, if we may call it that – that the domain of possible licensers for polarity *any* is closely inter-twined with the domain of licensers for free-choice *any*. In a language like English, the field of study, at first, seems extremely complicated because of the homophony of

these two distinct expressions. However, on a closer look, we do notice that FC *any* and PS *any* are governed by independent semantic principles, even though they sometimes appear in the same environment.

In an attempt to define and eventually, make precise the notion of a negative context, two important semantic devices are used conjunctively. First of all, negativity is not taken in the literal sense of the 'presence of overt or non-overt negation' as it has often been. In our account, negativity is a conceptual quality that is better described as something that is *non-positive*. The current cognitive notion of describing the concept of non-positive, is extremely useful since it now provides us with a clear idea of the unifying factor (or the 'common denominator') of all licensing contexts, that at a superficial glance, seem so disjoint. Hence, the concept of non-positive encompasses the following contexts: i) Negative ii) Yes/No questions iii) Conditionals iv) Adversative Predicates and v) non-scalar Comparatives. In other words, non-positive sentences (besides overt negative sentences) are those whose truth-value is indeterminate as in the case of ii) and iii) or those sentences which give rise to an NGCI as in iv) and v). The problems of *any* in a language such as English, which displays homophony of this lexical item seems, at first, overwhelming. But on closer inspection, the unifying aspects of polarity contexts become clear and we are able to find a plausible licenser for the occurrence of PS *any* in these, apparently divergent, contexts.

Besides providing an explanation of polarity licensing contexts, in the course of the preceding sections, one thing stands out clearly: the fact that FC *any* can also appear in non-positive contexts, either by virtue of contrastive stress alone or contrastive stress compounded by metalinguistic negation; both of which produces the FC variant of the *any*-expression. What such an observation indicates is that, under certain circumstances, the occurrence of PS *any* and FC *any* may overlap, and this overlap is the result of fairly normal 'non-syntactic' phenomena such as contrastive stress and metalinguistic negation which bring about such heterogeneity of the expression. It was also noticed that FC *any* in these overlapping contexts is distinguished by the *no-matter-which* reading it imparts. However, more on this subject will be provided in the following chapter. In the following table, an overview of the various licensing contexts for the *any* expression is provided and the licensing contexts themselves are arranged in a manner that will reflect the approximate hierarchy of negative contexts, starting with overt negation. (Please turn over)

TABLE 3.2 PS *any* / FC *any* Alternation in Some 'Polarity Licensing' Contexts

LICENSING CONTEXTS	*Any* [- Stress]	*Any* [+ Stress]	PS *Any*	FC *Any*
Overt Negation	Negative	Emphasis on negation	✓	
		Metalinguistic negation		✓
Adversative Predicates	Negative	Emphasis on negation	✓	
		Metalinguistic aspect		✓
Questions	Genuine question	Rhetorical question	✓	
		Metalinguistic aspect		✓
Conditionals	Induces NGCI		✓	
	Conjecture		✓	
		Emphasis on FC quality		✓
Comparatives*	Non-scalar (induces NGCI)		✓	
	Scalar (no NGCI)			✓

* There are two types of Comparatives. Emphasis [+stress] on *any* amounts to highlighting either the FC or the PS quality, depending on the type of comparative sentence.

In contexts with overt negation and in adversative predicates, the *any* expression without stress always has the "PS *any*" interpretation. Emphatic stress on *any*, in some cases, accentuates the negative quality but in some other cases, stress associated with the metalinguistic quality of negation brings out the FC quality of the *any*-expression. Therefore, even though these two contexts traditionally fall under the purview of non-positive sentences, they do allow FC *any*.

Going down along the table, we notice that the context of Yes/No Questions seems to be the mid-way point between the various licensing contexts. *Any* in the

environment of Questions, either as genuine questions or rhetorical questions normally give rise to a polarity sensitive reading, because in both cases the role of non-positive interpretation is robust. However, when the metalinguistic aspect is introduced following the stressed counterpart of *any*, a FC reading is derived.

In Conditional sentences, neutral stress produces a non-positive quality; either it induces a relevant NGCI or it remains as just a *conjecture*. In both instances, the conditional is taken to represent 'non-positiveness', a trait which is responsible for the *any*-expression to be interpreted as PS *any*. However, emphatic stress on *any* produces an entirely different result. Here, the *any* expression is interpreted as the free-choice variant (FC *any*). Once again, the metalinguistic reading of *any* in conditionals can be teased out and this reading licenses FC *any*. Thus, an *any* expression in Conditionals can vary between a PS and a FC reading depending on whether or not it is stressed.

Comparatives stand out as a class by themselves in that this context can further be divided into scalar and non-scalar types. Non-scalar comparatives are valid PS licensing context; they give rise to an NGCI and therefore allow PS any, but scalar comparatives are not considered PS licensing context; they do not allow for an appropriate NGCI, from which it follows that they do not allow PS *any* (they, however, allow FC *any*). Meanwhile, emphatically stressed *any* in a scalar comparative serves only to accentuate the FC reading; while an emphatically stressed *any* in a non-scalar comparative accentuates the PS reading.

The goal of this study, thus far, has been to identify a uniform licensing pattern for negative polarity *any* in various contexts. It was also observed that all of the polarity licensing contexts also licenses FC *any*. This aspect is of great interest because, until now, this particular phenomenon has been given almost no attention. In English, the FC reading of *any* in polarity 'licensing contexts' can be teased out by emphatic stress on the expression. In languages such as Serbo-Croatian, deriving a FC reading is not at all difficult since this language has independent lexical items for PS and FC *any*, unlike English. The homophony problem is partly resolved in English by the use of contrastive stress.

In general then, the interpretation of a sentence with *any* is highly dependent on what our purposes are in a given context and as such should be conceived as "graded" and contextually variable with purpose. As observed by Hornstein (1984; p.54), various aspects of "meaning" are parceled out between features of the logical syntax in which such expressions appear, and/or between "pragmatically determined, graded, and continuous interpretation procedures". According to Barwise and Perry's (1980) theory of interpretation strategies for natural language there are three levels: Level 1, is the level of *Linguistic Meaning*, Level 2, is the level of *Interpretation* and Level 3, that of *Evaluation*. The last level is also referred to as 'value loading'. According to them, value loading / evaluation is quite highly context-sensitive depending on the syntactic structure of the sentence, the relative accessibility of possible interpretations, stress, pointing

gestures, and a host of other far more obscure and subtle pragmatic factors. Keeping in mind Barwise & Perry's theory of interpretation for natural languages, it is assumed here that the strategies for certain *any* sentences depends on this third level of 'evaluation', because the precise nature of *any* is definable only when the feature of stress and the aspect of metalinguistic negation (which are viewed as pertaining to a domain outside formal syntax) are taken into consideration.

To sum up, in all of the licensing contexts we get PS-FC variation because of the interpretation strategy which is essentially a cognitive / conceptual process of meaning evaluation. Hence, what Barwise & Perry refer to as value-loading / evaluation is not necessarily metaphysical spiel that ought to be relegated to semiotic or pragmatic procedures, but rather a very important psycholinguistic process of deriving linguistic meaning by some form of implicit syntactic parsing that distinguishes PS *any* from FC *any* available from superficially identical contexts. Previous analyses of NPI licensing based their definition of a negative context on the syntactic notion of negation and as it happened, when a suitable licensing element was unavailable (for contexts such as yes/no questions, conditionals and even, comparatives), the issue remained unresolved. These analyses even ignored the fact that the distribution of FC and PS *any* could overlap, and therefore in their oversight, tried to explain all occurrences of *any* in "licensing contexts" as the negative polarity expression. Even semantic notions such as *monotone decreasing* (downward entailment) which were applied to

contexts considered to be NPI environments were not sufficiently adequate to rule out occurrences of FC elements in such DE environments. Apart from contexts with metalinguistic negation and environments displaying the stressed form of *any*, FC *any* can occur in certain other contexts as well. Traditionally, these contexts were the ones taken into account as true licensers of FC *any*. In the following chapter, I will deal with the broader topic of free-choice *any*.

CHAPTER 4

FREE-CHOICE *ANY*

4.1 Introduction

Even though there was occasional but conspicuous mention of free-choice (FC) *any* in the previous chapter, it happened because it is impossible to talk about the *any* expression in only one of its uses particularly when there is ample evidence to show that most polarity contexts license FC *any* as well.

This chapter aims to present, in a more systematic way, the motivation behind considering FC *any* as a separate entity and to also provide an insight into formulating diagnostics that can be used to distinguish FC *any* from PS *any*. Since FC *any* may have a distribution that overlaps with PS *any*, an independent means of identifying FC *any* is required. This is one of the major considerations in this chapter since there has been some confusion regarding what instances of *any* are truly free-choice and what are not[1]. However, this dilemma has partly been resolved in languages that have separate lexical items identifying the two types of *any*. Another advantage of establishing a standard notion of identifying the two

[1] Carlson (1981) too states that the distribution of FC *any* may not simply be those non-affective environments which sanction the presence of *any*.

classes of *any* is that the task of providing an explanation for the licensing problems posed by *any* (the PS variety in particular) is made simpler.

4.2 FC *any* as Generic NPs

Since we can no longer safely claim that all instances of *any* appearing in 'non-affective' or downward entailing environments is FC *any*, one must find an independent way of identifying FC items, especially for those that exist in 'polarity' contexts. It appears that FC *any* is a descriptive name given to an *any*-expression which conveys what Vendler (1967) designates as "indetermination" mixed with "generality". In order to explain these aspects, Vendler uses the following example:

(1) Take any apple.

This offer suggests to the hearer that s/he take an apple of his/her fancy, hence conveying *generality*. The speaker also grants "the unrestricted liberty of individual choice". Besides, FC *any* also has the property of conveying statements that could be used as a "blank warranty for making conditional predictions". Take (2) for instance:

(2) Any doctor will tell you that Stopsneeze helps.

This sentence conveys the meaning that "pick any random doctor and he will tell you that Stopsneeze helps". However, this sentence will not be rendered false if

there is a doctor with whom you consulted, who thinks otherwise[2]. An important point about FC *any* in the above context is that the idea of complete verification is not possible. FC *any* propositions and generic sentences are alike considering that counterexamples (provided within parentheses) do not falsify either proposition:

(3) (Most) Beavers build dams (however, I know one called Benny that doesn't).

(4) (Almost) Any beaver builds dams (however, I know one called Benny that doesn't).

The meaning conveyed by both propositions (the bare plural in (3) and the FC proposition in (4)) is one in which the NP can be modified by a universal or quasi-universal quantifier ***most / almost***, that is, "Most beavers build dams", and "almost any beaver builds dams" respectively. Supported by the felicitous use of the quasi-universal quantifier is the fact that such sentences can tolerate exceptions unlike pure universal sentences like the ones below, where exceptions result in a contradiction.

(5) *All* beavers build dams (*but I know one called Tom that doesn't).

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[2] Vendler (1967) argues that a sentence like (I) below does not have the same truth conditions as (ii), in that the assertion of (i) should constitute something like a bet that any doctor one picks out will tell you that smoking is unhealthy, without committing the speaker to the truth of (ii).

(i) Any doctor will tell you that smoking is unhealthy.

(ii) Every doctor will tell you that smoking is unhealthy.

The prediction in this case is a conditional one. "If you ask any doctor, he will tell you..." That *any* in (i) is a FC variant is a corollary to the claim made in the last chapter that a Conditional (believed to be a PS context) containing *any* may be interpreted as the FC item, under emphatic stress.

(6) *Every* beaver builds dams (*but I know one called Tom that doesn't.)

Carlson (1977) too has claimed that "in many cases (the) 'universal' admits of exceptions, and appears to have the force of *most*" as observed in examples (3-4). The felicitous use of the quasi-universal quantifier is possible only with certain instances of FC *any* but not with PS *any*. A sample of instances are provided:

(4')a. *Almost* any beaver builds dams. (FC *any*)

b. I can do *almost* anything. (FC *any*)

c. Monkeys eat *almost* any fruit. (FC *any*)

d. #I didn't see *almost* anything. (PS *any*)

e. #If I see *almost* anyone, I'll be happy. (PS *any*)

f. #Did you see *almost* anyone? (PS *any*)

g. #I will be surprised if *almost* anyone comes. (PS *any*)

I will, therefore, apply this as one of the simplest but most reliable diagnostics of FC *any*. However, not all instances of FC *any* admit *most / almost* modification.

Apart from the quasi-universal reading derived from FC *any*, which justifies the use of *almost* as a modifier, there is also reason to believe that the use of ***just*** to modify an *any* expression indicates the presence of the generic reading[3].

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[3] Carlson (1981; p.22)) avoids using modification by *just* from the battery of tests for FC *any*. He claims that "*just* does not distribute in a pattern consistent with the other tests; in particular, it appears felicitous before...instances of polarity sensitive *any*". In this connection, Carlson provides the following as instances of PS *any*:

(i) Did just anyone come to Victoria's party?

(ii) Bob didn't see just anyone...he saw...Stan Papi.

Following Horn (1972), I will use *just* as an indicator of the generic reading. In addition, Laka (1990, p.170) uses *just* modification as a criterion to distinguish between licensed NPIs and free-choice items and claims that this attachment forces a free-choice interpretation of the constituent headed by *any*. Consider the following examples:

(7) Anybody can do that.

(8) *Anybody can't do that.

(9) Just anybody can't walk into the President's office.

The generic use of *any* in (7) cannot be used in a sentence such as (8) with overt negation to indicate a NEG-Q reading. However, by simply adding *just*, one may 'cure' an ungrammatical (8) to the perfectly grammatical (9). The addition of *just* in (9) brings out the FC reading of the sentence and conveys the meaning that any indeterminate x cannot walk into the President's office. From the above examples it seems logical to associate the meaning of FC *any* with genericity; and to assume that genericity is confirmed either by the felicitous use of *almost* (3-4) or *just* (9).

Let us now consider a few more examples to further elucidate the important role of the *just* modifier[4].

(10)a. I won't let <u>just</u> *anyone* walk into my house.

In fact, these are instances of FC *any* in polarity sensitive contexts and has been discussed in the last chapter. The FC quality of *any* in the above examples is perhaps more obvious with the use of emphatic stress on the expression.

[4] In chapter 5 I will discuss in detail the not-so-subtle difference between the uses of *just* and *just about* in relation to the various uses of *any* in both polarity and free-choice environments.

b. I won't let ANYONE walk into my house; only John can come in.

(11)a. I won't let *anyone* into my house.

b. Not even one person can come into my house.

The meaning conveyed by (10) is that the choice of who will enter the speaker's house is at the speaker's discretion. That is, any odd x cannot enter the house, but it is possible that someone may be permitted to. On the other hand, (11) without *just* modification conveys the meaning that absolutely no one will be allowed to come in. Clearly, the difference in meaning between (10) and (11) is highlighted by the use of *just*. The use of *just* is appropriate with the FC reading of the *any* expression, but (11), without *just* signifies a PS reading of *any*. Further, (10a) can be paraphrased as (10b) with metalinguistic negation. This contrast, brought out by the use of *just* is further support for using it as a diagnostic tool for FC *any*.

Apart from the two positive tests used to identify FC *any*, ((i) *almost*-modification and (ii) *just*-modification), I will mention two out of the many tests that Carlson uses as a diagnostic tool. (The (b) instances are mine.)

(iii) FC *any* may occur prior to numerals; PS *any* may not.

(12)a. Any *three* men can move this stone.

b. #If ANY *three* men can move this stone, I will be happy.

c. If ANY man can move this stone, I will be happy.

(13)a. *Did any *three* men move this stone?

b. ?Did ANY *three* men move this stone, or was it A, B and C?

c. Did ANY man move this stone, or was it Hefty?

(iv) FC *any* licenses the presence of an "amount relative"; PS *any* does not.

(14)a. Any man *there is* can move this stone.

b. #If ANY man *there is* can move this stone, I will be happy.

c. If ANY man can move this stone, I will be happy.

(15)a. *Did any man *there is* move this stone?

b. #Did ANY man *there is* move this stone, or was it Goliath?

c. Did ANY man move this stone, or was it Goliath?

It is clear from the preceding examples that Carlson's diagnostics are not valid since they wrongly predict that FC *any* in the (b) can take an *amount relative* or that FC *any* can precede *numerals*. Note in particular that removing the offending amount relative or the numeral as illustrated in the (c) instances makes the (b) sentences licit thereby proving that these diagnostics are, for the most part, inaccurate.

It is nevertheless equally important to understand that the generic reading of *any* is not necessarily linked only to the use of *almost* and *just*. The generic reading is often recognizable even without such modification, generally associated only with contrastive stress on an *any* expression in polarity environments, as seen in the last chapter. The presence of metalinguistic negation, and the use of contrastive stress to derive the same, provides the necessary equipment to derive this reading. However, even though Vendler recognized "generality" (generic

reading) as one of the hallmarks of FC *any*, it has often been overlooked by more recent studies of FC *any*. One of the reasons why such an intrinsic quality of a FC expression has been neglected is because of the general direction of focus this issue has taken: FC *any* was always assumed to present a wide-scope universal reading and as a consequence, any test used to detect a universal reading was used to extrapolate the presence of a FC item. This assumption proved to be incorrect since cases of *any* under metalinguistic negation clearly have a FC reading, but do not necessarily represent the universal quantifier.

To sum up, based primarily on the first two tests FC *any* suggests a generic interpretation of the proposition in which it is licensed. This issue is of great consequence and hence, one must dispense with the notion that FC *any* uniformly represents only the universal quantifier. In this connection, it must therefore be understood that although modification by *almost* and *nearly* (Carlson 1977) is appropriate for FC *any* with a universal reading, it is not in certain other cases where modification by *just* seems more appropriate. In the following section, I will consider contexts which favour the generic reading of *any* in order to define and delimit the characteristics of the FC item. It will be seen that a generic reading is not automatically associated with the universal quantifier like it normally was assumed to be (refer to (4)).

(Please turn over)

4.3 Licensing Contexts for FC *any*

It is generally believed that FC *any* occurs in sentences with **modals** (*can*, *may* and *will*, but not with *must*)[5].

(16) Anyone *can* ride a bicycle.

(17) Anyone *may* borrow books from the library.

(18) This trick *will* fool anyone.

(19) *Anyone *must* ride a bicycle.

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[5] While (19) is ill-formed, the facts concerning FC *any* and *must* are not as simple as what it is made out to be in the following examples in the text. For instance, it makes one wonder why sentences such as (i) below are well-formed:

(i) In this country anyone over 18 *must* carry a valid ID at all times.

One can, of course, claim that "anyone over 18" is some kind of reduced relative and thereby stipulate that FC *any* in reduced relatives are acceptable under *must* but not simple FC *any* expressions. But this stipulation is still inadequate since instances such as (ii) are possible:

(ii) Those under 18 can stay. Anyone else *must* leave.

On closer inspection, it becomes clear that removing the underlined elements (viz. *over 18* and *else*) from (i) and (ii) leaves the sentences bad. This indicates that the grammaticality of these sentences is tied to these lexical elements. However, how do we capture a generalization to account for this phenomenon?

To do this let us first of all consider the different uses of deontic *must*: *Must* can be used to express "concepts having to do with obligations and permissions" (Allwood, Anderson & Dahl 1989) and to issue a command as expressed in the following examples:

(iii) I must have a drink or I'll faint.

(iv) The general must allow the POWs to leave.

(v) You must leave now!

It appears that deontic *must* of the type that expresses a *command* cannot license FC *any*, while the other varieties can. Moreover, as Carlson (1981) points out FC *any* is not allowed in contexts that commit the speaker to the existence of x. This rules out (19) which is the 'command' subtype of deontic *must*, which commits the speaker to the existence of x, such that x must ride a bicycle. But (i) and (ii) above, on the other hand, do not commit the speaker to the existence of an x and as a consequence, FC *any* is licensed. Note additionally that epistemic *must* too licenses FC *any*.

(vi) Anyone who drinks and drives must be a fool. (Epistemic)

The deontic suppletive form "would have to" also seems to license FC *any* just fine.

(vii) Under this proposal, any student *would have to* be able to solve this problem in order to receive a Ph.D.

This result is expected considering that the deontic suppletive *would have to* expresses obligation and not a command.

I thank Marc Authier for pointing out examples (i), (ii) and (vii) which contrast with (19), which in fact directed my attention to considering different types of deontic *must*.

Any in positive sentences containing modals is normally interpreted as the FC item. But the *any* expression in negative sentences containing modals can be interpreted as the FC item only when it is emphatically stressed, or when it is preceded by the *just* modifier.

(20) Anyone can fly a kite.

(21) *Anyone can't fly a plane.

(22) (Just) ANYONE can't fly a plane, you have to be a pilot.

Hence, *any* can occur in negative modal sentences only when the proposition expresses metalinguistic negation brought about by contrastive stress. This shows that contrastive stress emphasizes the FC quality of an *any* proposition containing modals, even though the presence of negation often blurs the correct interpretation of such sentences.

FC *any* may appear in sentences with **simple present tense** (referred to as generic tense[6,7]) but not in sentences with simple past tense or even ones with the progressive or the perfective aspect.

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[6] It has also been observed for Japanese (Harada 1992) that "it might be the case that generic tense makes it possible for the NPIs to acquire the meaning corresponding [to] free choice *any* expressions". It is important to mention that Japanese, like many other languages, has distinct lexical items representing FC and PS uses of *any*; for instance, *dokoe-mo* (PS *anywhere*) and *dokoe-demo* (FC *anywhere*). However, PS *any*, such as *dokoe-mo*, in the scope generic tense is more acceptable than it is in the scope of past tense, because it is likely that PS *any* acquires a FC reading only in the presence of Present/generic tense but not with any other tense. In other words, *dokoe-mo* acquires a meaning corresponding to *dokoe-demo*.

(i) John-wa taxi-de-sika dokoe-mo ika-nai.
John-TOP taxi-by anywhere go-NEG
John doesn't go anywhere if not by taxi.
(= John takes a taxi to go anywhere.)

(ii) ?? John-wa taxi-de-sika dokoe-mo ika-na-katta.
John didn't go anywhere if not by taxi.

(23) Anyone in the government *knows* what wage freezes are all about.

(24) *Anyone in the government *knew* what wage freezes are all about.

(25) *Any child is eating candies.

(26) *Any child has eaten candies.

FC *any* may appear in **imperatives** (directives),

(27) Pick any apple.

and **restrictive relative clauses**[8].

(28) Anybody who can afford to is buying a computer these days.

(29) ?Anybody is buying a computer these days.

Besides the preceding list of FC *any* contexts, as discussed in the previous chapter, the role played by **contrastive stress** in the licensing of FC *any*, is an important

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[7] Generic tense only seems to license *any* which is outside its scope at S-structure; in other words, *any* obligatorily seems to take wide scope with respect to generic tense, (see (i) versus (ii)). This gives the impression that wide-scope *any* represents FC *any*. However, observe (iii). Here FC *any* is licensed within the scope of generic tense. Hence, the fact that (ii) is not licit but (iii) is, has nothing to do with the *any* expression lying within or outside the scope of generic tense. Rather, the answer to the contrast has to do with the presence of the definite NP ("the politician") in one case and not in the other. Since FC *any* is not allowed in contexts that commit one to the existence of objects or individuals, (ii) is ruled out but (iii) is not.

(i) *Anyone* in the government knows what wage freezes are all about.
(ii) * The politician knows *anything*.
(iii) Politicians say/will say (almost) anything.

[8] The resemblance between a conditional (with unstressed *any*) and a restrictive relative clause is interesting. Consider the following:

(1) (Almost) Anyone who had the right answer won.
(2) If (at all / *almost / *just) anyone knew the answer, s/he won.

(1) and (2) are compatible as a description of the same state of affairs but each, in its general properties of a restrictive relative clause and a conditional clause, conversationally conveys different meanings. *Any* in (1) is the FC expression but *any* in (2) resembles the PS item (notice the appropriate modifications within parentheses). The motivation for this is simple: restrictive relative clauses are often presupposed to be true but conditional clauses never are. It is this non-positive quality of conditionals that license PS *any* in (2). It is argued that the absence of a fixed truth value for a proposition determines the acceptability of a PS item in that context.

one; so much so that an *any* expression in, ostensibly, licensing contexts, may be interpreted as denoting the FC expression. Hence, contrastive stress can also be viewed as a possible licenser for FC *any*, a view that has until now received inadequate attention.

The above mentioned environments appear to be the "licensing contexts" for FC *any*, even though it is a challenge to find a "trigger" for the presence of this item. A particularly interesting situation, as observed in the previous chapter, is the fact that FC *any* has a distribution that overlaps with PS *any*. That is, all polarity (affective) contexts also allow FC *any*. The reason why this observation is interesting is because this issue has either been sidelined or has remained obscure, while still holding important answers to how semantics can be regarded as an integral facet of human cognition. The reality that FC *any* has a distribution that overlaps PS *any* is a significant problem for a syntactic treatment because of certain fundamental weaknesses which arise out of assuming that negation is unambiguous, and maintaining that features such as stress and intonation are outside the domain of theoretical syntax, etc. Observe the following set of examples which illustrate instances of FC *any* in typical polarity licensing contexts.

(30) I didn't see (just) ANYONE...I saw the President himself. (Negation)

(31) If you hear (just) ANYONE making noise, let me know. (Conditional)

If you meet (just) ANYONE and not Tom, you lose the bet.

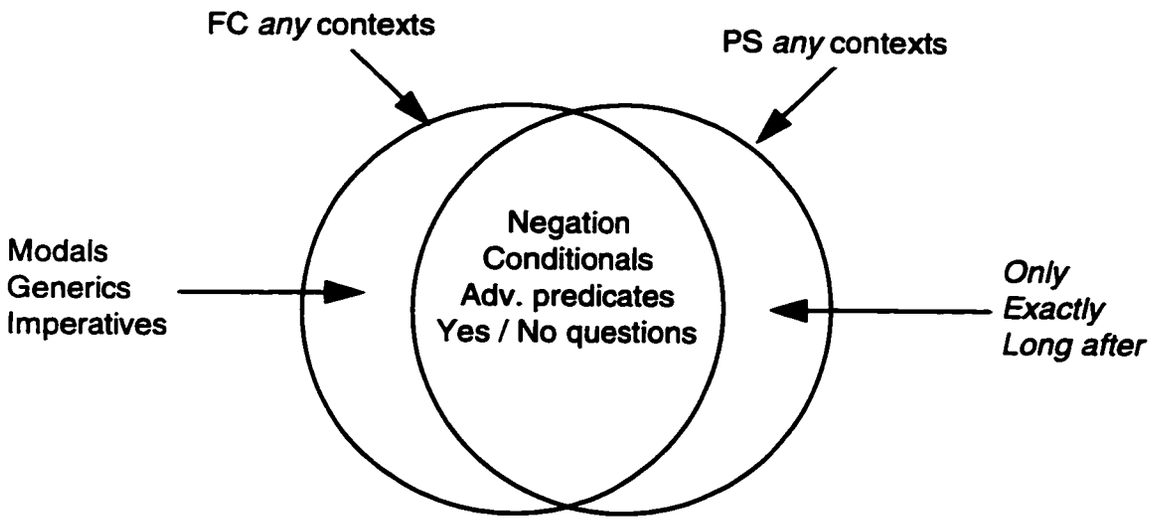
(32) Did you see (just) ANYONE, or was it the Queen? (Yes/No Question)

(33) I was annoyed that (just) ANYONE would dare do that. (Adversative)

(34) John is taller than (almost/just about) ANYONE else in this world. (Comparative)

To illustrate this notion of overlapping distribution, observe the following figure.

Figure 4.1: A Representation of the PS and FC *any* Relationship



As the following figure indicates, there remains a few contexts that are exclusively FC contexts and a few others that are true representatives of a PS context. The trigger for PS *any* has been given in terms of a cognitively derived quality (of *non-*

positive) of certain sentence types and it also rests on the appearance of a felicitous NGCI. In the following section I will take up the important task of identifying possible trigger(s) for FC *any*.

4.4 Triggers for FC *any*

The wide distribution of FC *any*, coupled with the lack of similarity between all the different 'licensing contexts' has called our attention to the question of a "trigger" for FC *any*. Ladusaw (1979; p. 105) claims that "FC *any* does not seem to be triggered". This does not mean that FC *any* is licit in any possible environment. According to Ladusaw, what seems to be crucial for the acceptability of a sentence containing FC *any* is that it must receive a *generic, non-event* reading. It is true that sentences (35)-(38) either suggest a generic or an event-reading which, according to Ladusaw, explains the unacceptability of FC *any*. However, this qualification by itself may not be adequate in order to explain the ungrammaticality of the following sentences:

(35) *Anyone must explain the problem.

(36) *Anyone painted the fence red.

(37) *Anyone is clever.

(38) *Anyone is in the bathroom.

Take (35), for instance. Let us assign a generic reading (in the sense of 'any arbitrary x') to *anyone*. This will give us "pick *any* x from a set y and s/he must explain the problem". We notice that a generic reading under the deontic interpretation of the modal is possible but the sentence is still ungrammatical.

In contrast to Ladusaw's claim, Carlson (1981; p.21) proposes that FC *any* is not allowed in contexts that commit one "to the existence of objects satisfying the description found in the NP with *any* as its quantifier". In other words, this observation suggests that FC items are not licit in situations that commit one to the existence of objects. In (35) and (36) *anyone* is not compatible with the reading which commits the speaker to the *existence* of an individual x who is obliged to explain the problem; and to the existence of an individual y who painted the fence red. An individual-level predicate such as (37), once again, commits the speaker to the existence of someone who is clever; or in the case of (38), to the presence (existence) of someone in the bathroom. FC *any* seems to be illicit in contexts where the speaker makes statements which allude to the necessary existence of an object/ individual.

As a result, we can propose a semantic constraint for FC *any* licensing based on the above notion of (non-)existence. In fact, Scullen (1992; p.68) too suggests that "the problematic notion of 'triggers' for FC items can be reformulated as involving truth-functional operators...which disallow the presence

(of FC *any*) in any context which commits one to the existence of objects". I will refer to this, outlined below, as **Carlson's Constraint**.

(39) A free choice item is licensed in any environment that does not obligatorily commit the speaker to making a statement about the ontological existence of objects/individuals.

In fact, this very constraint is what enables FC *any* to appear in questions and conditionals. The quality described (in chapter 3) as 'non-positive' is one where the truth value is not fixed (i.e., of indeterminate truth value). That is, the assertion of these sentences does not commit the speaker to the existence of objects within their scope. This is explained as, if I utter "Did you see anyone?", it does not necessarily imply that the speaker has seen someone, and I know that he has. It is interesting to note that even though Carlson believed in the above mentioned semantic constraint for FC *any* licensing, he was unable to answer why it was <u>not</u> possible for FC *any* to appear in affective contexts (Carlson; p.21-22) – overlooking the fact that FC *any* <u>can</u> indeed appear in these very contexts.

However, in addition to Carlson's Constraint in (39), I propose that all instances of FC *any* must intrinsically possess the quality of *genericity*. Essentially, this constraint sums up Ladusaw's (1979) observation (as well as remarks suggesting the same by many others) that FC *any* must receive a generic reading. This is outlined in (40) as the **Genericity Constraint**:

(40) The use of *any* in a FC licensing context requires that the expression not be applied to refer to a specific object or individual.

This constraint is important in explaining the following (apparent) counter-examples to Carlson's Constraint of obligatory non-existence.

(41) I didn't see (just) anyone. I saw Moonman.

(42) (Almost) Anyone in this room will/can help you.

The assertion of the above sentences do, in fact, commit the speaker to the existence of some person x. For instance, the assertion of (41) commits the speaker to the existence of x; x being Moonman. The assertion of (42) commits the speaker to the existence of at least one x, such that x can/will help you. Such assertion of existence is not expected of valid FC *any* contexts, as per Carlson's Constraint in (39). Yet the *any* expression is a valid FC item (note diagnostic tests within parentheses).

However, applying the Genericity Constraint provides answers to the apparent paradox. The overt negation of the *any* expression in (41) is used as a metalinguistic means to reject the *generic* interpretation of the *any* proposition (in order to introduce a specific x). This notion is illustrated below:

(41') ~[I saw $x_{generic}$] ... [I saw $x_{specific}$]

Even though the *any* expression in (42) does commit the speaker to the existence of at least one x who will/can help you, it is not used by him/her to refer to any

specific individual, but rather to the notion that any arbitrary x that you pick from this room will do the job. Once gain, refer to (42'):

(42') $\exists x_{generic}$ & can help ($x_{generic}$, you)

In conclusion, it can be inferred that in order to explain fully the facts concerning FC licensing, one must take into consideration, as a unit, both Carlson's Constraint as well as the Genericity Constraint as given in (39) and (40). Ignoring one or the other will result in incomplete solutions to the obscure behaviour of FC items. Moreover, an incomplete answer regarding the characteristic nature of FC *any* is the reason why many questions remained unanswered under previous analyses, and also why no unified solution was offered for the mysterious qualities of this item across languages.

4.5 Other Explanations

4.5.1 Kadmon & Landman (1993)

Having introduced the two constraints, under the present analysis, which account for FC *any* licensing, I will provide a brief account of Kadmon and Landman's (K&L 1993) analysis of the same. The two salient points that K&L make regarding *any* licensing (on both its uses) is that *any* induces (a) widening and (b) strengthening. Widening, associated with *any* has the effect of extending the interpretation of the noun phrase along a contextual domain. For instance, when one says, *I don't have any potatoes*, the speaker implies that s/he does not

have either baked potatoes, potted potatoes, red potatoes, PEI potatoes or baby potatoes (example of widening the interpretation of potatoes). On the other hand, strengthening suggests that the semantic operation associated with *any* must create a stronger statement. That is, the statement on the wide interpretation must entail the statement on the narrow interpretation. Given below is a case where *any* is not licensed, because strengthening, as explained above, is not satisfied.

(43) * I have *any* potatoes.

wide: We have potatoes of SOME kind (cooking or other). $\not\subset$

narrow: We have cooking potatoes.

After an introduction of some of these preliminaries, K&L propose that the only difference between FC *any* and PS *any* is that the former is a generic indefinite NP and the latter is a non-generic indefinite NP. K&L motivate their treatment of FC *any* by pointing out to the striking similarity between FC *any* and regular generic indefinites: (a) Both types allow exceptions and (b) they express modal, 'law-like' generalizations.

They make the commonly made assumption that generic statements involve a generic operator. They too suggest that the basis of the generic operator is a universal quantifier "with a vague restriction". In addition, they point out that generics differ from regular universal quantifiers with respect to tolerating exceptions. The former allow exceptions in a way that the latter do not.

(44) An owl hunts mice vs. Every owl hunts mice.

That, according to K&L, is the reason behind the former not tolerating *almost* modification while the latter can.

(45) *Almost an owl hunts mice vs. Almost every owl hunts mice.

Why then is *any owl*, which is taken as a generic NP, compatible with *almost* but not the generic NP *the owl* ? K&L argue that the widening induced by *any* eliminates some of the vagueness of the generic quantification, and this gives rise to a sense in which *any owl* is precise and universal. The notion of being "precise" (roughly corresponding to reduced tolerance of exceptions) is what allows it to qualify for *almost* modification. In effect, K&L differentiate between generics with a *vague* restriction and generics with a *precise* restriction in order to explain why FC *any* is compatible with *almost*.

The above analysis of FC *any* is stipulative and its scope limited. The limitation of their study lies in the fact that the discussion is exclusively confined to cases of FC *any* in simple generic sentences such as the one below.

(46) Any cat drinks milk.

I believe that a proper analysis of FC *any* must extend to modal cases and to instances of *any* in directives, not to forget its instantiation under the metalinguistic use of negation. Besides, K&L's widening/strengthening account of FC *any* does not explain why it can appear only under the simple present tense but not under any other tense and why it can appear with certain modals but not under *must*, etc. Many such crucial questions are left unanswered by any analysis

that limits its data base to one or at the most, two contexts which, unfortunately, are not representative of the various types available in actual language. This has been one of the constant criticisms of 'ordinary language' semanticists against logical empiricists: that the latter restrict their data to the 'ideal' instances, ignoring potentially 'problematic', but equally important data.

4.5.2 Progovac (1988, 1990, 1994), Scullen (1992)

Progovac (1988), as in later works, observes that FC *any* in Serbo-Croatian (*bilo-ko*) is licensed by modals and generic tense as well as by many polarity contexts such as negative sentences, yes/no questions, if-clauses and by complements of adversative predicates. "In all these contexts except clausemate negation, substituting the polarity item *iko* ('anyone') for *bilo-ko* produces no difference in meaning" (Progovac 1990; p.131). The preferred reading is said to be that of polarity *any* in all contexts except with clausemate negation. The contrastive reading of sentences with *bilo-ko* under clausemate negation seems more obvious than in the other contexts (Progovac claims) which, incidentally, do also display a contrastive reading. Consider the following[9] taken from Progovac (1988; p.372-380):

Clausemate Negation

(47) Goran nije uvredio bilo ko-ga, (vec Predsednik-a).

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[9] These examples also appear under various subsections in Chapter 3. I will, therefore, not provide morpheme translation.

Goran didn't insult just anyone, (but the President).

Superordinate Negation

(48) Goran ne tvrdi da je Mira uvredila bilo ko-ga.

Goran does not claim that Mira insulted just anyone (What he claims instead is that she insulted the President).

Yes/No Questions

(49) Da li je Mira poslušala bilo ko-ga, ili svoju majk-u.

Did Mira listen to just anyone, or was it rather to her mother.

Conditionals

(50) Ako je Mira poslušala bilo ko-ga, a ne svoju majk-u, pokaja ce se.

If Mira listened to just anyone and not to her mother, she will regret it.

Adversative Predicates

(51) Sumnja-m da je Mira poslušala bilo ko-ga. Ona sluša samo svoju majk-u.

I doubt that Mira listened to just anyone. She only takes advice from her mother.

The case of the comparative construction in Serbo-Croatian is very illuminating[10]. In the last chapter, I had said that there are two types of comparative constructions: one that is non-scalar and which gives to rise to a NGCI (PS *any*); and the other

[10] Instances from comparative constructions in Serbo-Croatian has already been discussed in Chapter 3.

that is scalar and which doesn't give rise to a NGCI (FC *any*). The scalar / non-scalar distinction and its relevance to the treatment of the *any* expression is very clear in this language. The scalar comparative, which is said to license FC *any*, licenses FC *bilo-ko*; but the non-scalar comparative does not generally permit *bilo-ko*. This lends support to the claim made in Chapter 3 that scalar comparatives license FC *any*, but non-scalar comparatives license PS *any*.

Comparative

(52) Jovan je trcao brze nego *bilo-ko / iko* drugi.

John is ran faster than anyone else

John ran faster than anyone else.

(53) Sastanak je trajao duze nego-sto je **bilo-ko / iko* ocekivao.

meeting is lasted longer than-COMP is anyone expected

The meeting lasted longer than anyone expected.

The fact that there are two types of comparatives is not new. Both Hoeksema (1983), for Dutch and Progovac (1992, p.344-45; 1994, p.71), for Serbo-Croatian, have observed that there are two classes of comparative constructions. What Hoeksema calls the S-Comparative, Progovac refers to as the clausal comparative; and Hoeksema's NP-Comparative is Progovac's prepositional comparative. Nomenclature aside, what is interesting is that in both Dutch and Serbo-Croatian, only the S- / clausal / non-scalar comparative is considered a polarity context because it licenses NPIs. The NP- / prepositional / scalar comparative does not

license polarity items. In fact, Serbo-Croatian data provides interesting evidence that the NP-/prepositional comparative is indeed a FC context. *Bilo-ko*, the FC item in Serbo-Croatian, may appear only in the above named contexts, but not in the S-/clausal comparative. Moreover, the presence of the PS item *iko* in this context is illicit.

(54)a. Marija je viša od *bilo (t)ko-ga* u razredu.

Mary is taller from FC-anyone-GEN in class

Mary is taller than anyone in her class.

b. *Marija je viša od *i (t)ko-ga* u razredu.

Mary is taller from anyone-GEN in class

Mary is taller than anyone in her class.

For further evidence that the presence of FC *any* in polarity contexts is not limited to Serbo-Croatian alone,[11] consider the following instances from French (Scullen 1992):

Clausemate Negation

(54) Jean n'a pas vu *n'importe qui.*

Jean not has seen neg-matter-who

Jean did not see (just) anyone.

Superordinate Negation

[11] We have already seen in Chapter 3 that the *any* expression in English occurring in polarity environments can be interpreted as FC *any* under metalinguistic negation and with contrastive stress on *any*.

(55) Marie n'a pas dit qu'elle a vu *n'importe qui.*

Marie not has say that she has seen neg-matter-who

Marie didn't say that she saw (just) anyone.

Yes/No Questions

(56) Est-ce que n'importe qui est venu à la fête?

Is it that neg-matter-who is came to the party

Did (just) anyone come to the party?

Conditionals

(57) Si n'importe qui venait, la soirée serait amusante.

If neg-matter-who came the evening be-COND fun

If (just) anyone came the party would be fun.

Adversative Predicates

(58) Je doute que n'importe qui vienne.

I doubt that neg-matter-who comes-SUBJ

I doubt that (just) anyone is coming.

The one difference between French and Serbo-Croatian FC *any* is that none of the occurrences of *n'importe qui* can be freely alternated with PS *any* (*personne*) – like it is possible in Serbo-Croatian. It is difficult at this point to explain why this is so, but I will underscore the main argument here, which is the ability of FC *any* (in English, French and Serbo-Croatian, and possibly many other languages) to appear in PS licensing contexts.

Since contexts such as modals and generics were the only ones commonly referred to as displaying true free-choice qualities – most of which connoted universal quantification – the general belief was that FC *any* was indeed best represented as a universal. This, despite overt appearances of the item, in 'PS licensing environments' in languages such as Serbo-Croatian (*bilo-ko*)[12] and French (*n'importe qui*; Scullen, 1992) which, incidentally, also gives rise to the contrastive / metalinguistic reading. This misconstrual is highlighted when Laka (1990) (correctly, though) observes that the addition of *just*, as in (59b) – an instance of metalinguistic negation – changes the interpretation of the sentence.

(59)a. I didn't see *anyone.*

b. I didn't see just *anyone.* I saw Elvis Presley.

She goes on to indicate that it no longer means "I saw no one", but rather "I saw someone special". However, the astute reader is caught off guard when she suggests that this reversal in meaning indicates that PS *any* is present. If, on the other hand, there is no change in interpretation when *just* is added, FC *any* is assumed to be present. No further justification to this observation is provided; and I consider such suggestions as highly stipulative. I also believe that such measures were called upon in order to retain (59b) as an instance of a PS item. Now consider (60), an Ottawa General Hospital publicity:

[12] It must be noted that the overt appearance of FC *any* in 'licensing contexts' were brought to attention by Progovac (1988) for Serbo-Croatian.

(60)a. When you're about to turn 150 years old, you don't let *ANYONE* sing Happy Birthday. (Céline Dion sings.)

b. When you're about to turn 150 years old, you don't let *(just) ANYONE* sing Happy Birthday. (Céline Dion sings.)

The (a) example does not have the *just* modification, while the (b) example does. Assume for a moment that (60a), (with the right intonation, stress etc.) even without *just*, still represents the metalinguistic variety of negation. Addition of *just* in (60b) does not change that status. According to Laka (1990) and Scullen (1992), *status quo* signifies that what we have in (60b) is the FC *any*. However, if on the contrary we do assume that (60a) represents truth conditional negation[13] (viz. "You don't let even a single x sing.."), the addition of *just* in (60b) reverses that interpretation. In this case, it is predicted that PS *any* is present in (60b). This argument seems untenable in the light of the fact that *any* in the scope of metalinguistic negation always is the FC variety. Moreover, regardless of the reversal, or lack thereof, of the interpretation, what we have in (60b) is definitely the FC interpretation of *any*. It is possible that this fact has escaped notice until now due to the homophony between the FC and PS items in English.

[13] For the moment, let us ignore 'Celine Dion sings' within parentheses.

4.6 Conclusion

In effect, we see that the contrastive reading for FC *any* (*bilo ko*) in Serbo-Croatian and French is available (even though not always as the preferred reading in the former[14]) in all of the typical PS *any* contexts – clausemate negation, superordinate negation and the other 'licensing contexts'. As noticed in Chapter 3, the same effect is derived in English with contrastive stress on the *any* expression. That is, when the *any* expression is emphatically stressed in all the above contexts, the metalinguistic-negation aspect of the sentence is also brought out.

The appearance of FC *any* in English under all of the above licensing contexts is not unexpected or even inconceivable. The fact that this issue has been overlooked is, however, unfortunate. The whole perspective of the study of FC *any* changes completely once we take into consideration its presence in PS contexts as well. This is because even though PS *any* and FC *any* are two different entities, there is probably a common trigger for these two items present in the so-called polarity contexts which has to be taken into account. In other words, motivation for Figure 6 – which indicates that there are aspects of PS *any* licensing

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[14] If the *any*-expression in English were unstressed with an additional feature of not having a rejoinder (simply as "I didn't see anyone"), the preferred reading would be the PS one too. It would, therefore, only be natural to consider emphatic stress to be yet another semantic strategy for teasing out the 'other' reading; while the unmarked variant provides the natural / preferred reading. In fact, (1) below, minus contrastive stress, would amount to the reading "John didn't see anyone but a Martian" / "John didn't see anyone. Well,...he saw a Martian."

(1) John didn't see anyone. He saw a Martian.

In any case, the aspect of metalinguistic negation, brought about by contrastive stress, is lost. This also shows that the preferred reading of a proposition containing *any* in both Serbo-Croatian and English is the PS one.

that are common to FC *any* as well – has to be provided. Besides, the notion that FC *any* always represents the universal quantifier stemmed from the misconception that instances of FC *any* were limited to modals and generic tense, which ordinarily allows *almost* modification. Common reasoning, therefore, equated all instances of FC *any* with the universal quantifier.

Unfortunately, this logic had its pitfalls. Instances of *any* in directives was a conspicuous case in its inability to take *almost* modification. How, then, was it possible to label all instances of FC *any* as representing the universal quantifier? In fact, most analyses of FC *any* do not consider the case of *any* in directives. Carlson (1981; p.15) adds a brief disclaimer to his discussion of FC *any* by saying that "... there are all those cases where a wide-scope universal analysis of *any* does not seem to be of much help. In this regard, I refer back to *Take any apple...* Using a universal for the meaning (of the preceding examples) is most difficult to represent." This, clearly, has been a persistent problem for all analyses of FC *any* that assumes exclusively a wide-scope universal interpretation. I will address this issue in Chapter 5 by assuming a variable analysis of *any*-quantification.

In summary, the contexts which allow FC *any* can be listed as (i) those that do not indicate reference to actual states of affairs (Carlson's Constraint) or (ii) to specific individuals or objects (Genericity Constraint). Vendler (1967; p.81) maintains that "*any* calls for choice but after (the choice) is made it loses its point".

Stated differently, FC *any* is no longer possible because the event has occurred. He uses this criterion to distinguish between instances such as the following:

(61) John might have hired anybody.

(62) * John hired anybody.

However, Vendler's criterion can be subsumed under either (i) or (ii) since past tense makes available definite reference (contradicts Genericity Constraint) and definite reference presupposes existence (contradicts Carlson's Constraint).

As mentioned before, the problem with the analysis of FC *any* in the past has been that it has concentrated more on modal contexts. This problem has been dealt with by recognizing other areas in which FC *any* can occur. However, recognizing this more pervasive behavior of FC *any* came with other different problems. One of which was to identify the common trigger which seemed to license both PS- and FC *any* in certain contexts. These contexts encompass those with the quality of **non-positiveness**; ones which display indeterminate truth-value or ones where the speaker does not have to commit him/herself to the *existence* of objects. The quality that distinguishes PS *any* from FC *any* is that FC *any* lays emphasis on the *no-matter-who/what*, freedom of choice reading associated with it. Whereas, PS *any* possesses the quality of invoking a NGCI without contradicting the statement in which it appears. Figure 4.1 summarizes this distinction:

Table 4.1 Similarities and Differences between FC and PS *any*

PS *any*	**FC *any***

occurs in non positive contexts	occurs in non positive contexts
invokes NGCI	no NGCI available
no free-choice reading	free-choice, no-matter-who / what reading available
PS *any* represents a generic existential quantifier	FC *any* represents the generic universal or the generic existential quantifier

As a prefatory conclusion, we can say that the Serbo-Croatian instance of *bilo-ko* occurring with clausemate negation, can be compared to the English counterpart of the stressed *any*-expression connoting metalinguistic negation, as in (30). While Serbo-Croatian has a lexical variant for teasing out the FC interpretation in polarity contexts, English does it with the help of a phonological tool, namely contrastive stress and possibly a sharply rising intonation. In this regard, it must be noted that when a sentence equivalent to (63) – that is, when ordinary negation, has to be expressed in Serbo-Croatian, one would use PS *niko*.

(63) Milan ne vidi niko.

Milan NEG see anyone

Milan did not see anyone.

Therefore, at this point, it can be assumed that in both languages, the metalinguistic reading always amounts to the free-choice *any*-expression. In one language the metalinguistic reading is achieved by using emphatic stress while in another it is expressed lexically.

CHAPTER 5

A QUANTIFICATIONAL STUDY OF *ANY*

5.1 Introduction

The main thrust of this chapter will be to clarify certain quantificational problems that have arisen in the past. There is some uncertainty about whether PS *any* is universal or existential and also whether FC *any* is uniformly universal or is the case that it is existential in some contexts. The question, therefore, is how we should go about deciding one way or the other. In the present climate of linguistic research when the syntax, and particularly, the semantics of natural languages is studied more keenly, it has become clear that there are all sorts of subtle problems about natural language quantifiers which have no counterpart in quantification theory of formal logic. Formalized quantifiers and their generalizations have been extensively studied by logicians and too often, the logicians' view is directly imported into linguistics under the study of natural language quantifiers. A linguist cannot arbitrarily proclaim the superiority of a theory on the grounds of mathematical rigour alone; s/he must be more concerned with the fundamental requirement of factuality. In other words, the fundamental approach to issues in the theory of meaning must be concerned with how a theory of meaning relates to

a theory of understanding. Since the earliest days, work in generative grammar has focused attention on this crucial link, but this concern was sadly overshadowed by a desire for 'precision- theories' based on mathematical models. In the first instance, Frege and RussellI used formal technique specifically to illuminate the language of science and mathematics, but soon it led to their highlighting semantic and ontological issues. Hornstein (1984; p.117) aptly sums up the problem that such a shift in application leads to: "When the focus of linguistic investigation shifts from scientific and mathematical uses of language to language in general, the interpretations developed with those earlier aims in mind cannot be adopted uncritically". I therefore believe that traditional model-theoretic semantical approaches to meaning do very little to explain the nature of a native speaker's interpretive abilities. Besides, the reason why so many schools of thought still hold that logical formalization of linguistic phenomena is an end in itself is the result of the view that rigorous formalization is prerequisite to any substantial achievement in linguistics.

On the other hand, the behaviour of quantifiers in, say, English has very little to do with the precisely formulated theories of quantifiers propounded by logicians. In fact, very little attention has been paid to the true characteristics of the logical behaviour of quantifiers in natural language[1]. Since, in reality there

[1] Frawley (1992) thinks that two logical quantifiers are not enough to capture all the necessary non-numerical denotations that exist in natural languages. For instance, how do we treat English quantifiers such as *most*, *many*, *several*, *a few*, *much* and *a lot* in terms of logical quantification? None of them is consistent with either existential or universal quantification.

exist only two logical quantifiers but many more that do not strictly qualify as either, in this chapter, I shall restrict my attention to the logical existential and universal quantifiers and their correspondence to counterparts in natural languages. More specifically, I will concentrate on the role of the quantifier *any* in various contexts – in its role as the negative polarity item as well as the free-choice item – and will attempt to provide new insights which might eventually serve to consolidate former results.

5.2 The Issue of Quantification under Former Theories

The question regarding the correct assignment of quantificational force to the *any*-expression has been the central issue of many earlier works that dealt with the expression. Linebarger (1981) proposed that polarity *any* is best represented as the existential quantifier and that "free-choice *any* is most plausibly represented as a universal quantifier." Arguments for this theory, that has mnemonically been called the E-theory, is also seen in Carlson (1979), Fauconnier (1975), Horn (1972) and Ladusaw (1979), among others. Under this theory, *any* is assigned narrow scope with respect to negation and therefore, scope ambiguity between *any* and the predicate operator is not ruled out.

(1) Mary didn't eat anything.

~∃x (Mary eat x)

Fauconnier (1975), who belongs to the 'E-group', noticed some logical characteristics of *any* in the following examples:

(2) *Any* noise bothers my uncle.

(3) My uncle can hear *any* noise.

(4) He did not hear *any* noise.

(5) Did you hear *any* noise?

In examples (2) and (3), FC *any* has the force of universal quantification. But in (4) and (5), *any* may be viewed as logically equivalent to an existential quantifier. However, according to Fauconnier, the existential reading is available only for the *any* which is in the scope of negation or interrogation. In the case of *any* in conditionals, for instance, ambiguity arises as a result of *any* being equivalent to an existential or a universal quantifier. Therefore, a sentence such as (6) is said to have either (i) or (ii) as its preferred reading.

(6) If *any* noise bothers you, let me know.

(i) If there is *some* noise that bothers you, let me know.

(ii) For *every* noise that bothers you, let me know.

Further arguments in favour of the E-theory are provided by Linebarger (1981). Her analysis, based on the ~P[2], P~ and tag-questions contexts, points out that the

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[2] 'P' stands for any predicate of the propositional attitude type such as *believe*, but it also includes predicates such as *likely* or quantifiers such as *many*. Under the E-theory, polarity *any* allows for scope ambiguity between *any* and the predicate P. For example:

John doesn't believe that she knows any felons.

~ ∃x, x a felon, (John believes that (she knows x)) de re reading

~ (John believes that (∃ x, x a felon (she knows x)) de dicto reading

prediction of the proponents of the A-theory that there is no ambiguity between the two types of *any*, is incorrect. The fact that the *de re* and the *de dicto* readings have different truth conditions is well-known and the claim put forth by the E-theory is that for a theory to overlook the possibility of ambiguity amounts to oversimplifying data. Inspite of evidence provided by Linebarger which suggests that polarity *any* deserves to be recognized as an existential quantifier when present in the scope of negation, there is no evidence to suggest that the same arguments could hold for polarity *any* in other 'licensing contexts', such as in conditionals, in the scope of adversative predicates and in comparatives. These areas, incidentally, account for the more difficult ones to explain in terms of their licensing possibilities.

The A-theory (Lasnik 1975; LeGrand 1975; Hintikka 1977), on the other hand, proposes to eliminate the distinction between FC *any* and PS *any* in terms of assignment of quantificational force by suggesting that in both cases *any* is represented as a universal quantifier. This theory suggests that PS *any*, being a universal, is always assigned wide-scope with respect to negation. This predicts that any operator or predicate which is in the scope of negation will consequently be in the scope of *any*.

(7) Mary didn't see anything.

$\forall x \sim$ (Mary see x)

Hintikka (1977) even offers a descriptive definition attributable to the A-theory, formulated as the '*any*-thesis' given below:

> ***Any*-thesis**: The word *any* is acceptable (grammatical) in a given context X - *any* Y -Z if and only if an exchange of *any* for *every* results in a grammatical expression which is not identical in meaning with X -*any* Y - Z.

However, Hintikka (ibid.) issues a caveat regarding this 'thesis' stating that it holds only in a "suitable fragment" of English. Whether or not it holds in larger fragments of the language "does not concern me here" says Hintikka. Nor is he clear about what comprises of a suitable fragment of English[3]. It is immediately clear to any speaker of English that even though the '*any*-thesis' *verbatim* does hold for a set of sentences of the language, a simple replacement of lexical items without any ensuing semantic correspondence is a vacuous effort. The above "thesis" does not provide valid reasons for this exercise. For instance, it does hold for negative sentences, for yes/no questions, and for conditionals; that is, replacement of *any* with *every* does not result in a semantic equivalence. But does this conclusively prove that *any* is a universal quantifier? Alternating *everything*

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[3] Even though it is an established methodological principle that economy is to be sought in linguistic description, and that simplicity should be the overriding concern of any theory, representative data must be presented in order to capture significant generalizations. By representative data, I mean that all possible contexts should be covered by the linguistic generalizations that are garnered from the sample data.

for *anything* in the following sentences does not result in a "grammatical expression...identical in meaning."

(8) Mary didn't eat *anything* ≠ Mary didn't eat *everything*.

(9) Did Mary eat *anything*? ≠ Did Mary eat *everything*?

(10) If Mary eats *anything*, I'll be happy ≠ If Mary eats *everything* I'll be happy.

Even though Hintikka noticed similar patterns for his analysis, he adds that while the *any*-thesis seems to hold for a "small fragment" of English, it remains to be seen how that fragment can be extended without violating the *any*-thesis. An argument such as the one put forward by the '*any*-thesis' is generally unacceptable because of its lack of consistency and its inability to account for the range of data even within one language. Moreover, there is no delineation between *any* in negative contexts and the *any* in modals and in other contexts which may very well lead to altogether different insights. In fact, Hintikka's 'any thesis' is violated when considering *any* in modal contexts. Replacement of *any* with *every* does (as we will see later) result in a grammatical expression corresponding in meaning. If Hintikka's "suitable fragment" excludes instances of the varied occurrence of both PS and FC *any* overlooking some obvious differences between them, any explanation that is provided as a remedy for the inadequacies of previous theories, is itself inadequate.

LeGrand (1975), on the other hand, argues for a theory based on the assumption that derives *any* from *all*, which he claims will be simpler and more general than one which derives *any* from *some*. In effect, he claims that there does not exist a universal and an existential version of *any*, but rather that all *any*s can be treated alike if they are derived from the universal quantifier *all*. However, LeGrand (ibid., p.390), like Fauconnier, seems to agree that "*any* in the scope of NOT or IF may, with semantic adequacy, be derived either from *all* or from *some*." Furthermore, he notices that *any* that is triggered by a modal is only paraphrasable by *all*; no equivalence to *some* exists. The above-mentioned ambiguity of the *any*-expression in certain PS contexts (as in (6)), that seems to have caught the attention of both the E-theorists as well as the A-theorists, is worth taking note of. Consider examples (11)-(13), taken from LeGrand (ibid.). Despite certain disagreements on specifics, one thing stands out prominently: FC *any* in a modal expression (13a) is unanimously interpreted as a universal quantifier.

(11)a. If you see *anything*, scream. =

b. This goes for *everything*: if you see it scream. =

c. If there is *something* that you see, scream.

(12)a. I don't like *anything* here. =

b. This goes for *everything* here: I don't like it. =

c. It's not true that I like *something* here.

(13)a. My goat can eat *anything*. =

b. My goat can eat *everything*. ≠

c. My goat can eat *something*.

The proponents of the E-theory, however, disagree on the point that the two types of *any* exclusively represent the universal quantifier. To sum up this brief overview of the different theories regarding the quantificational aspects of *any*, it can be stated that even within the E-theory, linguists like Fauconnier (1975) recognize that PS *any* can often, in certain contexts, remain ambiguous between the existential and the universal reading. A similar observation was made by LeGrand who, incidentally, belongs to the faction of the A-theorists. Linebarger's analysis proves inadequate considering that she discusses exclusively the issues surrounding the occurrence of PS *any* in overtly negative contexts, and within the scope of certain types of predicates, making no mention about the quantificational force of PS *any* in other (non-negative) licensing environments. Further, her analysis does not offer any suggestion about the nature of FC *any* available within the scope of modals and in imperative sentences (directives).

All these analyses, with their merits combined with the inadequacies, add grist to the mill of the *any* controversy. Often, some of the analyses regarding *any* have focused exclusively on its distribution within a very limited set of environments, creating an 'ideal' environment necessary for a good scientific observation. As a consequence, it has prevented the recognition of certain generalizations about the class of NPIs as a whole. In short, an adequate theory,

covering a wide range of data regarding the characteristics of the two types of *any*s and their respective quantificational force is what is missing from previous analyses which based their assumptions on incomplete empiricism in that, it ignored pertinent data that might have provided valuable insights into some of the more puzzling behaviour of the *any*-expression. Overlooking some of the important aspects surrounding the quantificational force of *any* in contexts outside of negatives amounts to under-representation of available data which, consequently, has an adverse effect on the explanatory power of a proposed theory. The intent in this chapter, therefore, is to build an argument that covers more ground and which includes varying samples of *any*. In order to minimize the risk of building a 'straw man' theory, I will attempt to pursue the case of justifying the existence of two types of quantificationally different *any*s, but one that depends not so much on the polarity or free-choice environments but rather on certain speech act contexts as well as the denotation of the *any* expression in relation to the notion of the *universal* (Σ) set. In effect, the current semantic framework claims that accounting for human linguistic abilities requires a more abstract description of linguistic entities than surface syntax or mathematical semantics provides.

5.3 The Quantificational Debate: A semantic issue

I will assume that a logical view of linguistic description presupposes to a large extent that everything in language is discrete. This notion is quite convenient for analytical purposes, but 'convenience' cannot overlook manifestations of certain properties of language that may not necessarily be discrete. In my discussion pertaining to the ongoing quantificational dispute, I will look at instances of both PS and FC *any* not only from English but other languages to show that the analysis provided may be applicable universally. The main contention here will be that choosing between the PS and FC versions of *any* in a number of cases will remain a matter pertaining to conceptual semantics. I have demonstrated that the presence of a negative element in the licensing of PS *any* is a necessary but not a sufficient condition for its existence. This is so, given the fact that while ordinary (truth-conditional) negation licenses PS *any*, metalinguistic negation licenses FC *any*. This proves that an ostensible PS *any*, which has been defined as one existing only by virtue of being licensed under negation[4], can exist as FC *any* too, even in circumstances defined as a strictly polarity licensing context. The essence of the claim is that natural languages need not be logically perfect, nor are they used in only one way.

[4]Licensing by negation for a PS element has been explained in different ways by different linguists studying the phenomenon. Various explanations have been reviewed, in some detail, in chapter 2.

In the previous two chapters, the main focus was on the attempt to find a common denominator that makes all licensing contexts for PS *any* relate to a single parameter and to determine possible triggers for FC *any*. In so doing, I also briefly touched upon the issue of determining the quantificational force for the two types of *any* saying that the assignment of quantificational force *en masse* was too stipulative. In the present chapter, I will question the veracity of primarily bipartite accounts that treat all FC *any* expressions to be universal and all PS *any* expressions as representing the existential quantifier and will assert that such an analysis may not be the most suitable way of addressing the issue. Not much importance has been given to the study of quantificational value of FC and PS *any* in the more recent studies on polarity and free-choice items since it was implicitly agreed that polarity *any* represents the existential quantifier while free-choice *any* represents the universal quantifier.

In fact, quite contrary to the accepted belief, the assignment of quantificational force seems to depend on a number of semantic and interpretive factors. In order to form a coherent argument that asserts the previous statement, it is first of all necessary to recall that data from languages such as French and Serbo-Croatian seem to point towards the proposal that FC *any* may exist in so-called PS contexts as well. This observation is of great importance because I will eventually show that FC *any* does not inherently come attached with the denotation of a universal quantifier nor does PS *any* with the existential, even though the two

items often appear in the same syntactic context. Quantificational force of these two items is decided entirely by the context in which they occur and also from modification possibilities by certain adverbs and adjectives.

It has been noticed for Serbo-Croatian (Progovac 1994) that the FC item in this language receives a narrow-scope existential interpretation with superordinate negation and a polarity operator in Comp while it is interpreted universally when appearing with modals or negation. This existential / universal quality of the FC *any*-expression is attributed to the distance of the modality operator. If the operator is close, a universal reading is forced but if the operator is further away, then it receives existential interpretation. I will argue along a similar vein that FC *any* is not always universal in every given context. However, the semantic evidence that I provide depends on what the speaker intentions are in terms of a set. By uttering a sentence with an *any* expression, the speaker may refer to the *entire* set in the context of utterance or (s)he may refer to *at least one* member of the set on which a reference is based. The former constitutes a universal interpretation for the *any* expression; while the latter an existential one. These basic assumptions reflect Frawley's (1992) views on the denotation of quantifiers: "Existential and universal quantification denote by their truth conditionality in referring to sets".

5.3.1 Modals and Directives: Traditional licensing contexts for FC *any*

Traditionally speaking, modals and directives (imperatives) were the only contexts that were predicted to license FC *any*. FC *any* is said to occur in 'non-episodic' environments which share at least the following properties: i) they allow exceptions and ii) the sentences containing FC *any* express "modal, law-like generalizations" (Kadmon & Landman 1993).

It is true that the FC item can vary between an existential and a universal interpretation and I will show that this interpretation depends on the cardinality of the set it denotes. In the case of modals, as in a sentence like (14) below, the property of flying kites is attributable to *every* member of a predetermined set (barring exceptions). The frame of reference is contextually fixed for (15) by the elucidation provided within parentheses[5]. That is, one cannot assume that the goat eats cows, dogs or people because of what (15b) literally states. Hence, the *any* expression in the (a) sentences are considered to be scaled-down universal quantifiers. The (c) sentences, by virtue of the quasi-universal modification (viz. *almost*), help in determining the quantificational force of the *any* expression in the above sentences. It is therefore possible to deduce that FC *any* in modals represents the universal quantifier.

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[5] The fact that universal quantification in (15) is over a set relativized to the subject of the predicate containing the quantifier (i.e. the "normally considered edible for a goat" part of the interpretation) is a phenomenon reminiscent of so-called "subjective" adjectives such as *big*, *intelligent*, etc. Such adjectives are highly context-dependent: they are evaluated with respect to a set of comparison classes (Kamp 1975). This context-dependent interpretation of subjective adjectives accounts for the fact that a sentence such as "a big rat is not a big animal" is not a contradiction.

(14)a. *Anyone* can fly a kite. ≡

b. *Everyone* (who attempts to) can fly a kite. ≡

c. Almost anyone can fly a kite.

(15)a. This goat eats *anything*. ≡

b. This goat eats *everything* (normally considered edible for a goat). ≡

c. This goat eats almost anything.

In the case of FC *any* in sentences with generic tense such as (16) for example, the property of drinking milk is attributable also to *every* member of a predetermined set of cats (barring, say, the cat called Kitty which suffers from lactose intolerance).

(16) *Any* cat drinks milk.

We observe that the universal account applies in the case of *any* in restrictive clauses too.

(17)a. *Anyone* with money to spare is investing in stocks. ≡

b. *Everyone* with money to spare is investing in stocks. ≡

c. Almost anyone with money to spare is investing in stocks.

In all of the above, the (a) and (b) sentences are contextually equivalent to each other, but they are not logical counterparts in the strict sense. What seems important here is that in all of the above contexts, the denotation of the expression *any x* represents a *majority* of the members of that set. The notion of a significant

number is of consequence in our assessment of what counts as a universal quantifier. This notion, therefore, also includes quasi-universals that take *almost / nearly* modification, expressions that represent a significant quantity. What is 'significant' is difficult to represent in terms of quantity or even a numerical figure. But significance, according to Frawley, is a function of the exceeding of an expected norm.

(18)a. Thirty people (in the whole world) have read Pearl Buck.

b. #Almost everyone has read Pearl Buck.

(19)a. Thirty people (in a class of 31) have read Pearl Buck.

b. Almost everyone has read Pearl Buck.

Existential quantification is true when it denotes at least a single member of the set and universal quantification is appropriate when it denotes *all* members of the set. However, it is equally important to provide a quantificational value to all the members that lie in between, which may exceed existential denotation but may also fall short of universal quantification. Therefore, Frawley's notion of the *expected norm* is an ideal measure to characterize members of this large set of natural language quantifiers that are neither truly universal nor existential. *Thirty people* in (19a) is a significant number since it exceeds a contextually specified expected norm for the given set, which in turn allows (quasi-) universal quantification (19b). But, *thirty people* in (18a) is not a significant number considering there are several

billion members to the set. Therefore, the sentence cannot qualify for any modification that suggests universal application as in (18b).

The account is much different in the case of imperative sentences such as (20). The proposition expressed by the following directive is satisfied when the addressee picks *at least one* apple from a given set.

(20)a. Pick *any* apple. ≡ Pick *at least one* apple. ≠

b. Pick *every* apple. ≠

c. ?Pick almost any apple.

Based on the equivalence expressed in (20a)[6], the FC *any* expression in a directive can be said to represent the existential quantifier. (20b) does not accurately represent the speaker's intention in uttering (20a). The expression, therefore, cannot denote universality and as a consequence, cannot express quasi-universality either as indicated in (20c).

Hence, FC *any* in the traditional licensing contexts oscillates between the universal and the existential readings thereby indicating that a uniform representation of quantificational force for FC *any* is not valid. In modals,

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[6] Note that the sentences in (20a) may be logically equivalent but they are by no means synonymous. In fact, the speaker of "pick any apple" will be satisfied if you pick exactly one. As pointed out by Marc Authier, the reason why the sentences in (20a) may be logically equivalent but not synonymous is because we are quantifying over choices. So "pick any apple "could be glossed as (a) for every apple in the relevant set, you may pick that apple and (b) you must pick one. Assuming that directives can be treated a deontic "must", and since such modality is expressed in terms of universal quantification over possible worlds, the full meaning of FC *any* in directives might be something like "In every world consistent with my wishes, you pick an apple," and of course, this can be a different apple in each world (on the distributive reading), hence the feeling that we are quantifying universally over choices. At any rate, I will assume that FC *any* in directives is an existential quantifier.

generics, and restrictive relative clauses, FC *any* denotes the universal quantifier, while in the case of imperative sentences containing *any*, the FC expression represents the existential quantifier.

TABLE 5.1 Quantificational Force of FC *any*

Modals	Generics	Restrictive Relative Clauses	Directives
∀	∀	∀	∃

Now let us consider some cross-linguistic data:

Progovac (1990) suggests that that the strictly divided distribution of *any*, as a *FC-universal* on the one hand and a *PS-existential* on the other, is erroneous. Rather, it seems to be the case that FC *any* can occur in PS contexts and can be ambiguous with an existential reading. Similarly, as observed in the foregoing discussion, *any* in 'traditional' FC contexts, can be ambiguous between the universal and the existential readings.

In the case of FC *any* in directives, the speaker of (21b) is satisfied if *at least one/exactly one* apple is picked. In this sense, *any* here represents the existential quantifier and its denotation refers to amounts of exactly one / at least one. This contrast is what is important for the correct representation of quantificational force, and any analysis that passes a sweeping statement

suggesting that all instances of FC *any* corresponds with the universal quantifier is inappropriate and empirically unsound. Further support to this claim observed in the case of FC *any* in modals and directives, can be seen in instances from Serbo-Croatian, Persian, and Japanese. I illustrate (in the following examples) that there exists a contrast between a universal and an existential reading of FC *any* in a modal and in an imperative (directive) respectively.

(21)a. Jovan mo e bilo-šta da uradi.

John can-3p.sg anything that do-subjunc.

John can do anything.

b. uberi bilo-ko(j)-u jabuku

Pick-2psg any-ACC apple-ACC

Pick any apple.

The most important piece of evidence for the existential analysis of FC *any* in directives comes from the fact that in (21b), FC *bilo-ko* is followed by an accusative case marker, that marks it as specific[7]. In other words, it conveys the meaning in which the speaker implies that the hearer may pick an apple of his / her choice; possibly implying to the hearer to pick exactly one apple. But the indefinite interpretation which conveys the reading that "*John can do everything humanly possible*" is derived from (21a).

[7] p.c. Danijela Stojanovic.

In Persian, FC *any* in modals is always represented by the overt universal *har* 'every', while the use of *har* in directives is ungrammatical.

(22)a. John har kari mitavanad bekonad.

John every work can do

John can do anything / any work.

b. (*Har) sib-i bardaar

(Every) apple-INDEF. pick

Pick an/any apple.

Once again, as observed for Serbo-Croatian in 921b), an affix that denotes the indefinite article ("a"/"an") attaches itself to *sib-* ("apple") which indicates that the speaker wishes the hearer to pick an apple and not every apple. This contrast clearly indicates that FC *any* in directives is existential, while it is universal in modals.

In Japanese, we see a similar pattern. In modals, FC *any* can transliterate to the universal quantifier *everyone* but there is no such possibility in imperatives. In addition to this, in the case of imperatives replacement of the FC *any* expression *doredemo* by the existential quantifier *nanika* is possible. This more than adequately implies that FC *any* in (23b) is an existential quantifier.

(23)a. *daredemo* sono hon-wo yomeru

anyone/everyone that book-ACC can read

Anyone/Everyone can read that book.

b. Anata-no sukina uta-wo *doredemo*[8] */nanika* utainasai

you-GEN like song-ACC anything/something sing (imp.)

Sing any song you like.

The pattern that we just observed in the three sample languages allows us to form a hypothesis – that the quantificational force of FC *any* in modals is different from FC *any* in directives. In fact, the distribution of FC *any* in modals, as well as in other 'licensing contexts', may actually be parallel to that of *bilo-ko* in Serbo-Croatian, for example.

5.3.2 Polarity Environments: *Any* as existential or universal?

As noticed in the last chapter, demarcation between PS and FC *any* was not straightforward at first sight. The feature of emphatic stress produced a different result for each of the categories under the 'polarity licensing environments'. In this section, I will briefly revisit the various aspects of *any* with and without stress and will also try to determine the quantificational value in each case. This study will do away with the notion that FC *any* always represents the wide-scope universal quantifier while PS *any* is the expression which consistently receives existential interpretation.

In the case of conditionals with contrastive *any*, the FC expression denotes an existential quantifier.

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[8] Note the use of different lexical items for the two interpretations of FC *any*.

(24)a. If I see ANYONE (no-matter-who) hiding under my bed, I'll scream.

b. $\exists x_{generic} \wedge \exists y$: see (y,x) $\rightarrow$ will scream (y).

If there is *even one x* such that x is..., I'll scream.

c. ? $\forall x_{generic} \wedge \exists y$: see (y,x) $\rightarrow$ will scream (y).

If for *every x* such that x is...., I'll scream.

That is, (24a) conveys the meaning that "if I see *even one person* hiding....I'll scream". However, it does not convey the interpretation given in (24c), i.e., "for every x that I see hiding under my bed, I will scream". We will see that in conditionals, regardless of the feature of emphatic stress, *any* signals an existential interpretation.

(25)a. If John meets (*almost) *anyone* nice, he will invite them over to his place.

b. $\exists x$ (nice (x)) $\wedge$ meet (John, x)$\rightarrow$ invite (John, x)

If there is an x,... then...

c. ? $\forall x$ (nice (x)) $\wedge$ meet (John, x)$\rightarrow$ invite (John, x)

? If for every x,... then ....

The universal reading for PS *any* in (25) which suggests that "John will invite to his place *every* nice person that he meets", is unavailable from the context in which the *conjecture* is uttered. On the other hand, a reading which expresses "in the event that John meets a nice person (x), he will invite x over" is more readily

available. Note also that *almost* modification, available for quasi-universals, is not possible for (25a). To show that the same principle applies for *any* in conditionals under metalinguistic negation, consider the following example:

(26) If you do (*almost / just) ANYTHING that pleases you, and not what the boss tells you to, you'll be fired.

[If you do even a single x, such that x is not what the boss wants...]

This shows that whether the *any* expression in Conditionals expresses a polarity or a free-choice reading, the quantificational force that it acquires is that of an existential.

In Yes/No questions, the quantificational force of the *any* expression remains existential as well. As we already know, in these contexts both the polarity and the free-choice variation is available. A [-stress] *any*-expression gives rise to a genuine question, while a [+stress] *any*-expression gives rise to either a rhetorical question or a question with a metalinguistic quality to it. We will observe that *any* in all three types displays existential qualities.

(27) Did you see (*almost) anyone I know at the party yesterday?

(28) Did you see (*almost) ANYONE or did you see Barney?

(29) Did Grumpy say (*almost) ANYTHING nice to Smiley?

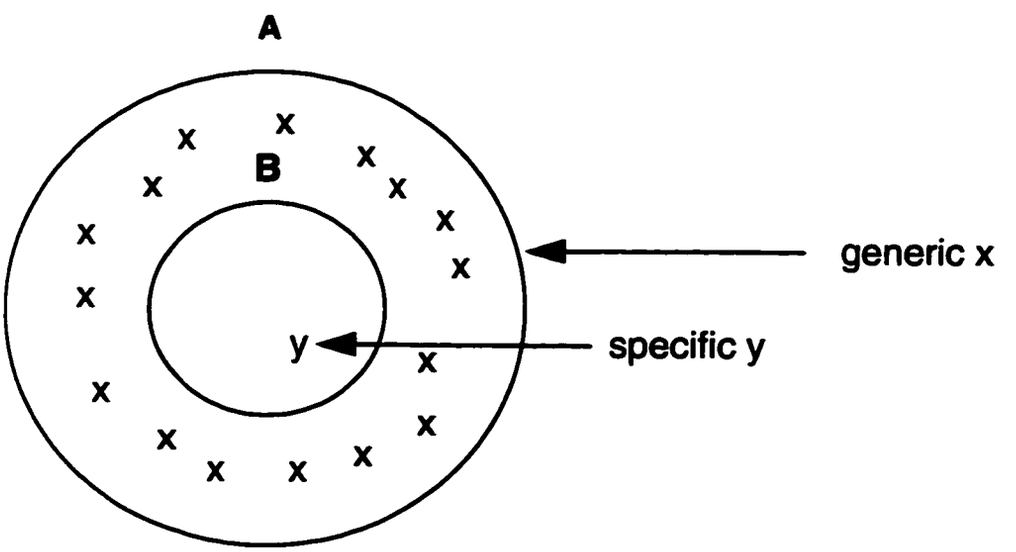
In (27) we have a reading suggesting that the speaker (S) wishes to know if the addressee (A) saw at the party *someone / at least a single person* that S knows. It is possible that S knows several people at the party that A attended but as far as

(27) is concerned, S does not intend to ask A if s/he saw *everyone* that S knows. In (28), S wishes to know if A saw just any generic x from a given set or was it someone more specific, such as Barney. The universal interpretation of *Did you see every x or did you see Barney* is not applicable in this case. The speaker of (29) does not wish to know if *Grumpy said everything nice to Smiley* (in fact this statement makes no sense). On the other hand, (s)he wishes to know if Grumpy said even *a single thing* that is nice to Smiley. Hence, in all of the above yes/no contexts, the existential reading is preferred over the universal.

The following figure clearly shows that the *any* expression (PS or FC) in both conditionals and yes/no questions represents the existential quantifier by virtue of reference to *at least a single* entity. (Please turn over)

Figure 5.1 A Representation of Generic FC *Any*

E.g.: Did you see just any *x* from Set A or did you see *y* from Set B?
If you see just any *x* from Set A and not *y* from Set B, then....



In the case of Adversative Predicates, once again as in the licensing contexts discussed earlier, the quantificational force is existential for the *any* expression both under contrastive and neutral stress. The *any* expression cannot be equated with the universal *every* nor can it take the quasi-universal modification of *almost*. It is a well-documented fact that existential quantification "characterizes forms that denote amounts of *at least one*.." (Frawley 1992; p. 466).

(30)a. John was annoyed that (*almost) *anyone* would call him an idiot.

b. ?John was annoyed that *everyone* would call him an idiot.

c. John was annoyed that there was *even one x*, such that x called him an idiot

(31)a. I doubt if (*almost) *anyone* will come to the meeting tonight.

b. ?I doubt if *everyone* will come to the meeting tonight.

c. I doubt if there is even *a single x* such that x will come to the meeting tonight.

(32)a. I doubt if I want to meet (just) ANYONE and not the President.

b. ?I doubt if I want to meet *everyone* and not the President.

c. I doubt if I want to meet *some* (ordinary) person, and not the President.

Thus far, in all of the above cases of the *any* expression, be it FC or PS, the quantificational force has been consistently existential. The unavailability of the

universal reading is closely related to the unavailability of *almost* modification in all of the above mentioned cases. It is therefore logical to infer that *almost* modification is available only to an *any* expression that represents universal quantification.

Let us now turn to the case of *any* in Comparatives, which is unlike the other contexts discussed above, for a number of reasons. Among comparative sentences, scalars are different from non-scalars; and the polarity or the FC reading of the *any* expression is not dependent on the factor of emphatic stress, as in the above contexts, but on the interpretation of scales. Consider the following examples. The *any* expression in (33) represents the FC item since it is in a scalar relationship; in (34), the *any* expression is a PS item. This is taken as known following previous discussions. However, *any* signals a universal reading when it is a FC item, while it represents more closely the existential reading when it is a PS item.

(33)a. John ran faster than *anyone*/ANYONE else in his team.

b. John ran faster than *everyone* else in his team.

[For every x, John ran faster than x.]

c. ? John ran faster than *at least one other person /someone* else.

? [There was an x such that John ran faster than x.]

(34)a. Dan spoke longer than *anyone*/ANYONE expected him to.

b. ?Dan spoke longer than *everyone* expected him to.

? [For every x, x did not expect Dan to speak for so long.]

c. Not a single person expected Dan to speak that long.

[There wasn't a single x, such that x expected Dan to speak for that long.]

We notice that the possibility of ~∃x / ∀x~ alternation arises for the interpretation of (34) as provided in (34b) and (34c). However, the interpretation with the existential reading is the preferred one, while the one with universal interpretation is not, because it (34b) gives rise to ambiguity. Observe the following paraphrase of the ambiguity:

(34)b. ?Dan spoke longer than *everyone* expected him to.

i. Everyone didn't expect Dan to speak for that long. (∀x ~)

ii. It wasn't the case that everyone expected Dan to speak that long. (~∀x)

The preceding investigation of the various contexts suggests that there is no motivation for grouping all PS environments in one bag and all FC environments in another and then assigning them their quantificational force *en masse*, since it was too stipulative. Among the so-called licensing contexts, FC *any* only in the scalar comparative represents the universal quantifier, everywhere else, it is epitomized by the existential interpretation. It is beyond a doubt, therefore, that it is a good idea to dissociate the assignment of quantificational force from the

category to which the *any* expression belongs. It has been seen that all the ostensible 'PS environments' license FC *any* under certain circumstances and that the occurrence of certain FC items can display existential force as opposed to the standard view that FC *any* is equivalent to the wide-scope universal quantifier.

The above discussion also shows that the interpretation of meaning of an *any* expression is dependent not solely on the type of expression it is, but more so on the cardinality of the set which best represents it. We can, therefore, agree that a linguist should make his description at every stage of analysis, as precise and explicit as possible while ensuring that at some point in its evolution, it receives an appropriate logical expression. Following is a discussion of the quantificational value of *any* in negation.

5.3.3 Two interpretations of *any* in the scope of negation

We have considered so far the quantificational value of the *any* expression in some of the licensing contexts for PS *any* and for FC *any*. Let us now consider what the *any* expression in negative contexts mean. Progovac (1988, p.381) notices that the FC item in Serbo-Croatian, *bilo-ko*, "seems to have a universal interpretation with clausemate modals and negation". This observation goes tangentially against Linebarger's E-theory which claims that *any* in the scope of negation is always interpreted as existential.

It is true that most analyses of FC *any* so far have concentrated almost always on modal contexts which seem compatible with a universal reading. However, this narrow view of the occurrence of FC *any* has somewhat blurred the correct analysis of other FC contexts and this, in turn, has led to a number of misrepresentations of its quantificational force as well. This issue has been dealt with in the previous section.

In the previous chapters, it has been claimed that the case of the *any* expression under negation can often be interpreted as the FC variety, contra popular beliefs; and this is seen for Serbo-Croatian (Progovac (ibid.)) too where *bilo-ko*, which is the free-choice expression for that language, appears in the scope of negation. However, does it mean that the quantificational status of FC *any* in the scope of negation is universal? Consider the possible interpretations for an *any*-expression under negation. Whether there is neutral stress or contrastive stress on an *any* expression, when it is accompanied with a general falling intonation to mark the end of the sentence, the proposition implies that the speaker did not see *even a single x / a soul* at the meeting. The interpretation is that of a PS item as indicated in (35b) below:

(35)a. I didn't see (*almost)[9] *anyone* (at all) at the meeting.

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[9] Universals in positive sentences may be modified; but not universals in negative sentences. *Almost* modification is possible for (1) but not for (2):

(1) She tried (almost) every dress in the store before she bought one.

(2) She didn't try (*almost) every dress in the store before she bought one.

b. ~ ∃x....[There wasn't even *a single x*, such that I saw x.]

c. ? I didn't see *everyone* at the meeting.

The other possible interpretation for this sentence is that of a FC element. This occurs in the event of sentence such as (35) not signifying a natural end-of-sentence intonational contour, but rather is followed by a rejoinder that signifies metalinguistic negation, as in (36):

(36)a. I didn't see (**almost*) ANYONE at the mall; I saw Barney himself!

b. ~ $\exists x_{generic}$ ...[It wasn't a generic x that I saw. I saw Barney himself.]

c. ? I didn't see everyone at the mall; I saw Barney himself!

In both interpretations of *any* in negative sentences, the quantificational force remains the same. Without a doubt, the reading for FC *any* under negation is also existential as indicated by the unacceptability of *almost* modification. This seems like an ominous problem for earlier theories, where it was said that FC *any* signifies a universal reading and can, therefore, be modified by *almost, nearly* etc. (cf. Carlson 1981). This assumption, however, is falsified in light of instances such as (36). It is true, as a consequence, that FC *any* in the scope of metalinguistic negation is also existential in nature.

From the preceding discussion it is clear that PS *any* in all the above-mentioned environments represents the existential quantifier, (much like the proposal under the E-theory). However, the quantificational force of FC *any* in some of the contexts varies between a universal reading in the case of scalar

comparatives and an existential in all the rest. (In contrast to the E-theory, I contend that FC *any* is universal only under very limited contexts). FC *any* in the case of modals and generics stands for the universal quantifier but in the case of directives, it represents the existential quantifier. The following table provides an essence of the discussion.

TABLE 5.2 Quantificational Force of *any* in 'Polarity Licensing Contexts'

CONTEXTS	Negation	Adversative Predicates	Yes/No Questions	Conditionals	Comparatives
FC *Any*	∃	∃	∃	∃	∀
PS *Any*	∃	∃	∃	∃	∃

5.4 Some Residual Problems

The observation that while FC *any* in certain contexts represents the universal quantifier, and in some others represents the existential is not entirely a novel one. For instance, Progovac (1988, p.378-79) has suggested that while the quantificational force of *bilo ko* (FC *any*) is existential in yes-no questions and in conditionals, it is ascribed a universal reading in modals and under *negation*. The above assertion is only partly true, in that, I have only now argued that the *any* expression under truth-conditional or metalinguistic negation is unmistakably existential and that it does not represent a universal quantifier under any

circumstance, even though *any* can oscillate between FC and PS readings. Another point which I consider to be a contentious one is that of Progovac's (1988; p.378) suggestion that FC *any* in adversative predicates represents the universal quantifier as well (see (37) below). (In the current chapter, I have argued for an existential treatment of *any* in adversative predicates.)

(37) I doubt that *anyone* has come.

For every person x, I doubt that x has come.

(38) I doubt that Mira has insulted *anyone*.

For every person x, I doubt that Mira has insulted x.

Progovac's interpretation presumably concludes that the sentence in (37) is true if and only if every person that was supposed to come didn't, and for (38), a reading which reflects *Mira didn't insult everyone.*

I maintain, as in the previous section, that the quantificational representation for instances such as the above is not accurate. The sentences are acceptable more readily on the reading that *not a single person* has come / Mira has not insulted *a single person.* On the other hand, the reading which equates the above sentence to mean that *every person* has not come / Mira did not insult *every person* is more tentative in its acceptability under both the collective and the distributive readings of the universal quantifier.

The fact that *any* in most expressions is <u>not</u> equivalent to *every* is recognized by Vendler (1967) as well as by Hintikka (1977). Vendler states that

complete verification of the claim made using the FC-expression "is repugnant to an *any* proposition". Despite treating certain instances of FC *any* as a universal quantifier, it is true that even within the *possible world* in which the sentence is uttered, not every instance of the variable that *any* binds is taken into consideration. In effect, this rules out the feasibility of equating FC *any* with *every*; and once again the consensus about this claim is unanimous (viz., Vendler, (ibid.); Hintikka, (ibid.); Kadmon & Landman 1993).

Quantificational force for both PS and FC *any* seems to depend a lot on the semantics of the sentence in which it occurs and this aspect has been addressed by suggesting that the meaning of the sentence in which either one occurs has to be interpreted based on set cardinality. In other words, the denotation of the *any* expression in relation to a finite set is what is important in arriving at a valid solution to the quantificational debate. One other remarkable feature that was observed in all the above instances – in adversative predicates, in questions, in conditionals and even in the case of overt negation – was that *almost* modification is impossible for the *any*-expression. This trait can be taken as further proof that the *any*-expression in all these cases is existential, inspite of alternating between the FC and the PS readings.

There is one other potential problem that I would like to address in this section. Even though the last two chapters tried to delineate the two types of *any* based on a number of diagnostics, arriving at a decision regarding the type of *any*

represented in a given sentence is not always that straightforward. Let us consider Horn's (1972) instances where the clause is ambiguous between the 'generic'[10] and the 'existential' readings of *any*.

(39)a. If (*just) *anyone* can do that, we will reward that person heavily.

b. If (just) *anyone* can do that, why should we pay John a huge salary?

What first meets the eye in the above case is that the antecedent of a conditional licenses the *any* expression in both cases in exactly the same position. However, the fact that *just* modification is possible in only one of the cases is a clear indication that the *any* expression in (39a) is a PS item while it is a FC item in (39b). This conclusion is based on one of the tests for deciding between FC and PS *any*, i.e., using *just* as a FC modifier. However, making a positive identification in terms of the type of *any* that is represented does not always answer questions about its quantificational force, as was hitherto assumed. On the other hand, I will contend that even though the *any* expression in (39a) and (39b) are qualitatively different, they represent the same quantifier, that is, the existential.

First of all, the proposition in (39b) impies the positive assertion that there exists someone who can do that[11]. While the proposition in (39a), on the other

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[10] The use of the term 'generic' is that of Horn's who make the popular assumption that there exists an equivalence between a generic and a universal reading, something which I contradict.

[11] I use the term "infer" here to mean pragmatically infer a proposition. I avoid using the term "entailment" because the notion is synonymous with valid inferences where the conclusion is logically entailed by the premises. In the case of (39b) one cannot say for sure that it makes the inference that there exists someone necessarily valid or a sentence thereof necessarily true.

hand, does not make such an assertion. It remains a conjecture whether or not someone "can do that" and the indeterminate truth value of the statement is what marks it as a non-positive environment. Nonetheless, let us examine the denotation of the *any* expression in each case.

(39a) If (*just) *anyone* can do that, we will reward that person heavily.

(i) If there exists *someone / at least one person* who can do that,...

(ii) #If *everyone* can do it, then we will reward that person heavily.

(39b) If (just) *anyone* can do that, why should we pay John a huge salary?

(i) Pick a random x (*at least one* x) and it is true that x can do it. In that case why should we pay John a huge salary?

If there exists a generic x such that x can do it, then why should we pay a huge salary to John? ($\exists x_{generic}$ ...→ ...)

(ii) ?If *everyone* can do that, then why should we pay John....

The existential account provided for (39a) and (39b) seems to indicate that the quantificational force of an *any* expression in modal-like conditionals may differ from that of an *any* expression in a simple modal proposition as in (40) below:

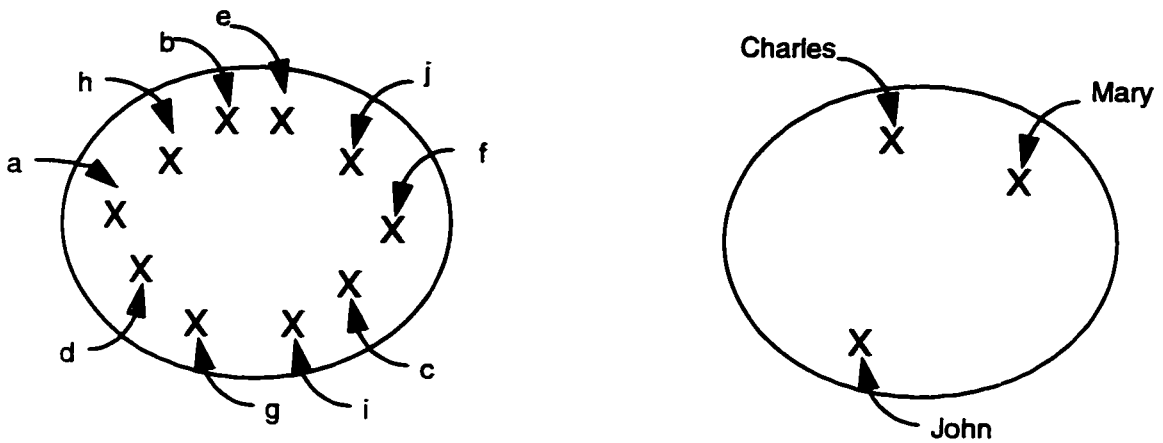
(40) (*Almost*) Anyone can do that.

The sentence in (40) can take *almost* modification, but not (39), without reservation. *Almost* modification in (39b) is tantamount to saying "if *every x* can

do it then why should we pay John a huge salary?" (see (39bii)). This reading is somewhat ambivalent and according to native speakers' intuitions, does not accurately convey the message otherwise indicated by the use of existential quantification (see (39bi). However, the use of universal quantification for (40) is more suitable in expressing the meaning that "for every x that exists, x can do it". Hence, the *any* expression in conditionals, whether it is a FC or a PS element, more suitably represents the existential quantifier, even though the presence of modal elements may raise a few doubts. The denotation of an *any* expression in pure modals and the denotation of the same in modal-conditionals are intuitively different. Consider the following diagrams for an illustration for this fine distinction.

Figure 5.2 A Sample Illustration of a FC *any* Proposition (Modal-Conditional)

If *anyone* can do that, why should we pay John a huge salary?
Set A: Members of this set represent those that charge less for work done.
Set B: Members of this set represent those that charge more for the same work.



A **B**

Let us assume that set A represents a large but finite number of individuals (a, b, c,....i, j) who can do a particular job J for a fixed amount as remuneration. There also exists another set B whose members are able to perform the same job J but whose rate is far higher than that of members of set A. (Consider for instance the analogy between certified plumbers whose rate is much higher than that of a handyman who can do the same job for a nominal rate). In other words, picking out a random member from set A can do a job J just as well as any other member from set B. The deciding factor between A and B is that A is less expensive than B. Given a choice between picking a member from A or from B, a reasonable

guess would be that one would pick a member from the less exclusive, less expensive set A. While the above illustration visually demonstrates a modal-conditional such as (39b) it also shows that an *any* expression represents the existential quantifier by virtue of denoting amounts of at least one. A pure modal sentence containing an *any* expression, on the other hand, essentially demonstrates that every member (a,b, c,...i, j) that you pick from set A can do the job J.

In determining quantificational force I will hypothesize that an *any* expression represents the universal quantifier only if it is modifiable by *almost*. Notice in the following instances how this hypothesis is used to determine the quantificational force of the *any* expression. Examples (41-44) demonstrate that the *any* expression in these cases are representatives of the existential and not the universal quantifier. The main purpose of the (a) and the (b) sentences in each case is to show that *almost* modification is a prerequisite to deciding whether or not *any* in these examples denotes the universal quantifier. The purpose of the (c) examples is to contrast the use of *just about* with *just* (in the (b) examples). The two items seem to have altogether different functions. The sentence in (45b) gives us the first indication that *just about* and *almost* share the same environments while the other examples demonstrate that *just* and *almost* share complementary environments.

(41)a. I didn't see (*almost) *anyone*.

b. I didn't see (just / *almost)) ANYONE. I saw John Smith.

c. I didn't see (*just about / *almost) ANYONE. I saw John Smith.

(42)a. I will be surprised if (*almost) *anyone* were to help me.

b. I will be surprised if (just / *almost) ANYONE and not the king himself knighted Galahad.

c. I will be surprised if (*just about /*almost) ANYONE and not the king himself, knighted Galahad.

(43)a. Did you see (*almost) *anyone?*

b. Would you marry (just / *almost) ANYONE and not a millionaire?

c. Would you marry (?just about / *almost) ANYONE and not a millionaire?

(44)a. If I see (*almost) *anyone* in the hallway, I'll let you know.

b. If you see (just / *almost) ANYONE and not Elvis himself, don't bother calling me.

c. If you see (*just about / *almost) ANYONE and not Elvis himself, don't bother calling me.

(45)a. John's lecture lasted longer than (*just about / *almost) *anyone* (at all) had expected.

b. John ran faster than (*just / just about / almost) *anyone* (*at all) else in his class.

Let us briefly consider the lexical semantics of the pair *just* and *just about*. From the above instances, it is obvious that *just* is equivalent in its use to *simply*, but *just about*

is not. In addition, it also appears that *just about* may be a positive polarity item (PPI). While it is unacceptable in the above negative polarity environments, it is readily acceptable in (45b) which has been described in an earlier chapter as not a true negative polarity environment. The contention that *just about* is a PPI is further elucidated in examples (46) to (49).

Let us also consider typical free-choice contexts in order to assess the behaviour of these various modifiers and their significance. In each of the following examples the NP (*any / any x*) can be said to be 'used generically' and it is common to see analyses in which generic sentences are analyzed as having logical structures in which the NP under consideration has a universal or near-universal quantifier or the 'sort of universal' quantifier *most*. I will show that the case of *any* in imperatives versus *any* in other FC contexts establish that even near-universal and 'sort of universal' propositions have different truth conditions from the class of generics in general (cf. McCawley 1981, p.443). All of the following examples represent the generic use of *any* but not all qualify as universal quantifiers. Notice once again that in the following examples *just about* sounds much better than plain *just*.

(46) Pick (*almost / just about) *any* number.

(47) (almost / just about) *Anyone* can recite a nursery rhyme.

(48) (almost / just about) *Any* cat drinks milk.

(49) (almost / just about) *Any* bat is a mammal.

It is however not clear at the moment why *just about* is compatible in (46) while *almost* is not, since it appears that in all other instances they behave alike.

5.5 Final Thoughts

This chapter has made an attempt to set aside the foregone conclusion of the previous theories, most of which stated that polarity *any* is an existential quantifier while FC *any* is a universal quantifier. Even though the present study maintains that PS *any* best represents an existential, the fact of the matter is that contexts over and beyond overt negation have been taken into account. Similarly, free-choice contexts in this study ranged from traditional 'polarity' licensing contexts to the traditional free-choice contexts of modals and generics. This exercise in diversity was geared towards pursuing a precise quantificational value of the *any* expression which has always been a very contentious issue in the study of polarity sensitivity. It is due to a misconception that many analyses treated all instances of FC *any* as representing a universal; and problems arose when these theories tried to maintain this notion despite the fact that the FC item was not compatible with certain modifiers such as *almost*. In this respect, I cite Carlson (1981; p.20) who tentatively concludes that FC *any* is indeed a universal, and that it must appear equivalent to an existential under certain circumstances. Such a statement, by Carlson's own admission, "end[s] without a proper account of FC any" in a variety

of examples. Such misconceptions, that seem to have a greater implication on the treatment of polarity sensitivity, have been addressed in this chapter.

This chapter, among other things, has argued for the position that quantification always requires a context. When I say "Everybody went to the movies", there is an implicit reference to a domain of quantification. Everybody in a certain group, everybody in the universe, and so on. This domain must be contextually specified either explicitly in the sentence or drawn implicitly from the speaker-hearer common-ground – the latter being the more likely possibility. However, this position is quite controversial because many still claim that the universal interpretation is the only one that is 'literal'. The objection notwithstanding, I have assumed the latter position that the domain for ascribing universal quantificational force to FC *any* in certain contexts is always contextually specified. The FC-PS see-saw does not affect the quantificational force of the *any*-expression occurring in that context because quantificational assignment is dependent *not* on the interpretation of the *any*-expression, but on a logical scale of natural language quantifiers that is often contextually determined.

On the relational theory of quantification, quantifiers denote relations between sets. For instance, *every* denotes a subset relation, and *some* denotes the relation of *non-disjointness* (cf. Heim & Kratzer, 1992) in the set-theoretical sense. A sentence such as "Every tiger is a carnivore" is interpreted as stating that the set of tigers is a subset of the set of carnivores. On the other hand, a sentence such as

"Some tigers are carnivores" is understood as stating that the set of tigers is not disjoint from the set of carnivores. A relation of *non-disjointness* is expressed when the intersection of two sets, namely A and B, does not result in an empty set. Using this intuition, which was the essence of Heim & Kratzer's description of some common English determiners (viz., *every*, *some* and *most*), I will try to adapt it to describe – in set-theoretical relations – the various forms that an *any*-expression can transform into, which is mostly the reason why it is so hard to classify as well as to provide a correct description of its quantificational force. I am, of course, not adopting the relational theory of quantification in this thesis but I simply provide a sample of how the theory works to understand that some of the conceptual notions advocated under the present framework can translate back into formal semantic composition as well.

(50) Assume that:

(i) D is the domain of individuals, (ii) $A \subseteq D$ and $B \subseteq D$, (iii) set A and set B range over individuals, (iv) <A, B> represents an ordered pair (v) |A| means "the cardinality of set A".

a. $\langle A, B\rangle \in R_{any}$ iff $A \cap B = \emptyset$ **T.C. negation**

I didn't see *anyone* = I saw no one.

b. $\langle A, B\rangle \in R_{any}$ iff $|A \cap B| = 1$ **Metalinguistic negation**

I didn't see *ANYONE*, I saw the King = I saw an individual.

c. $\langle A, B\rangle \in R_{any}$ iff $A \cap B \neq \emptyset$ **Licensing contexts**

If you see *anyone*, let me know.

d. $\langle A, B\rangle \in R_{any}$ iff $|A \cap B| \geq 1$ **Directives**

Pick *any* apple.

e. $\langle A, B\rangle \in R_{any}$ iff $|A \cap B \div A| \leq 100\%$[12] **Modals/ Comparatives**

Any cat drinks milk. / John ran faster than *anyone*.

The quantificational equations for *any* provided in (50a) through (50d) reflect the fact that they are all instances of the existential quantifier even though some of the instantiations of *any* may be representative of the FC variety. Most instances of PS *any* can be attributed an existential reading[13], even though not all cases of FC *any* can be said to have a universal interpretation. The most significant example of this being the instance of *any* in directives as well the instances of FC *any* appearing in 'licensing contexts'. Contra popular beliefs (particularly Strawson's (1950)), about "ordinary language" not having an "exact logic", this discussion shows that it is indeed possible to assign predicate calculus

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[12] Heim & Kratzer agree that when it comes to infinite sets, the intuitive understanding of *most* sentences "is at odds with the mathematical definition of cardinality". Similarly, when we induce the same principle for the universal *any*, we encounter the same problems in trying to define the cardinality of a set that is interpreted as "Almost every x, but perhaps not all x". Heim & Kratzer use the example of "Most integers are not divisible by 17" to explain the problem. The sentence is intuitively true even though the mathematical fact remains that there are as many multiples of 17 as there are integers. They, therefore, set aside such problems arising out of dealing with infinite sets and concentrate on instances relating to finite sets.

[13] As explained before, I do not consider the case of the scalar-comparative a PS context, even though the non-scalar type could be, since this was the only variety to produce a suitable NGCI. Recall also that in Serbo-Croatian the scalar comparative licensed the FC expression but not the PS expression.

notation to ordinary language, even though I have not focused on this aspect of semantic representation. Instead, I seek to provide evidence in favour of the views held by Lycan (1984), Fauconnier (1984), Lakoff (1987), Talmy (1983; 1985), Jackendoff (1990) and Karttunen and Peters (1979) which essentially suggest that non-truth-conditional aspects of meaning play an important part in the overall description of meaning.

My point in this exposition is simply to emphasize that linguistic science is not based on a single type of activity but rather on a conglomerate of activities, each of which has its own important role to play in the total enterprise. Under a *conceptual* approach, the study of language appears straightforward rather than mysterious which, however, does not mean that principled accounts that conform to the general principles of economy, explicitness, generality and predictiveness cannot be provided under this approach. In other words, non-truth-conditional aspects of meaning can certainly be accounted for by a model-theoretic account like the one provided under the framework of conceptual semantics. The importance of contextual meaning and its relevance to our current study of polarity items can be accomodated under the CS model that allows for the permeation of those aspects of meaning that are often considered non-truth-conditional and therefore, not necessarily adopted under a semantic framework.

CHAPTER 6

LANGUAGE VARIATION AND IMPLICATIONS ON THE DESCRIPTION OF MEANING

6.1 Introduction

The main impetus of a semantic approach to the problem of polarity licensing lies in its ability to account for cross-linguistic variation in simple yet precise terms. In the course of this chapter, I will address both the similarities as well as the differences in the licensing patterns that exist among languages (instances from Tamil and Dutch) and it seems quite striking that many of the features in the licensing of NPIs seem to warrant a conceptual approach to semantics in order to fully account for many of the aspects that have remained, as it were, out of range of contemporary analyses. Under the "Davidsonian program" (Davidson & Harman[1]; 1972), meaning to propositions in natural languages was assigned by associating sentences with truth-theoretically interpreted formulas of a logical system. Thus, under this view, a "theory of meaning" was more a theory of meanings of the expressions of a particular *target language* than one associated

[1] This program was most explicitly and most vigorously defended by Donald Davidson and Gilbert Harman in their 1972 work. However, it is important to note that Harman himself abandoned this 'program' as early as 1974; and Harman's (1974) paper provides reasons for this apostasy, the details of which is beyond the scope of the present work.

with a natural language such as English. The fact that (the generative nature of) linguistic abilities under the Davidsonian program was circumscribed by a metatheory such as the above, seems to suppress the now-established fact that language use is highly complex, highly versatile and above all, an instinctive phenomenon. In fact, any form of prescriptivism is to be viewed with suspicion and it essentially follows, therefore, that linguistic rules must not allow itself to be guided by such short-sighted approaches that often neglect and do not consider all of the relevant details of language *use*. Grammars / analyses of languages that operate with an archetypal conception of language as a system of general rules tend to ignore irregular phenomena in the quest for generalizations. In contrast, a context-based, conceptual theory assumes responsibility for representing a speaker's grasp of linguistic convention, which include particular as well as general statements about language.

As it has already been spelled out in the earlier chapters, I take the paradigm of language use to be its use in communication and communicative abilities. More specifically, I believe that a theory of meaning, as well as its description, must explain how (English-speaking) X, upon hearing (English-speaking) Y produce an utterance, acquires the belief *that p*. Further, a theory of meaning must not only provide the semantic interpretation of the utterance, but also more importantly, figure in the explanation of why speakers produce the utterances they do in particular circumstances. Indeed, in providing an explanation for the latter part

more than just knowledge of truth-conditional meaning is involved. This aspect of non-truth-conditional meaning is what has interested me all along in the issues discussed in the previous chapters. The notion that any description of meaning, or a study thereof, must be composed of both the truth-conditional as well as the non-truth-conditional aspects of meaning (cf. Reed 1993), comes with associating the study of meaning with an I-language, and consequently, of I-concepts. However, as Lycan (1984; p.9) points out, "the role of a speaker's linguistic knowledge in the respective etiologies of the speaker's [utterances] is a vexed one." In the following discussion, I will try to address certain instances of polarity licensing, from Tamil, that have added to the 'vexation' that Lycan refers to.

6.2 Polarity Licensing in Tamil

This section establishes the distribution of two polarity sensitive items in Tamil – the *any* expression along with the counterpart of the NPI *ever / at all* to show that their distribution in some cases, is influenced by non-truth-conditional aspects of meaning which include certain conventional implicatures associated with the NPIs themselves. I will address the issue concerning PS *any* in Tamil and consider instances from Dutch that are comparable to the Tamil facts.

6.2.1 Polarity Sensitive *any*: wh-*um*/ wh-*aavdi*

There are two types of PS *any* expressions in Tamil analogous to the NI-NPIs (wh-*um*) and the I-NPIs (wh-*aavdi*) in Serbo-Croatian. The only difference between the NI-NPIs and wh-*um* NPIs is that while the former can appear only under clausemate negation, the latter can appear both with clausemate and superordinate negation. In other words, wh-*um* NPIs occur in any environment that is overtly negative, regardless of the distance of the negative element. The wh-*aavdi* NPI, on the other hand, occurs in all the other polarity licensing contexts that are non-overtly negative. This distinction is very clear. However, it will be observed that analogous to the homophony of the *any* expression in English, the wh-*um* expression is used both in PS and FC contexts. First of all, let us observe the distribution of wh-*um* NPIs.

(1) naan *yaar-ai-um* paarka-le

I who-ACC-PRT see-NEG

I didn't see anyone.

(2) avan *yaar-ai-um* paartataaga solla-le

he who-ACC-PRT having seen say-NEG

He didn't say that he saw anyone.

(3) *naan *yaar-ai-um* paar-tt-en

I who-ACC-PRT see-PST-1sg.

*I saw anyone.

(4) *yaarum avan-ai paar-tt-aan

anyone him-ACC see-PST-3p.mas.

Anyone saw him.

(5) *yaar-um* avan-ai paarka-le

Anyone him-ACC see-NEG

(Lit: Anyone didn't see him.) No one saw him.

As seen in the above examples, the *any* expression in Tamil is morphologically complex wherein case relations are overtly indicated when the *any*-expression (Wh-um) represents the direct object. In all of the above contexts, the *any*-expression is licensed only in the environment of overt negation (clausemate or clause-external). In all other licensing contexts it is possible to use only the wh-*aavdi* PS expression.

(6) ni yaar-ai-*aavdi* / (*yaar-ai-um) paartay-a?

you anyone saw-Q

Did you see anyone?

(7) ni yaar-ai-*aavdi* / (*yaar-ai-um) paartey-naa, ennai koopidi

you anyone see-if, me (ACC) call

If you see anyone, call me.

(8) yaar-*aavdi* / (*yaar-um) ippo kooptaa-naa, enakku aacaryamaaga

anyone now call-if, I (DAT) surprise

irukkum

will be

I will be surprised if anyone calls now.

The varying uses of the *any*-expression in Tamil provides a clear distinction between overt negative contexts and non-negative licensing contexts[2]. However, this clarity is somewhat blurred by the fact that the *wh-any* expression in overt negative contexts (*wh-um*) is homophonous with the *any* expression in free-choice contexts, comparable to the situation in English.

As Haspelmath (1993) observes, Wh-NPIs are common crosslinguistically probably historically derived from a type of free relative sentence adjunct. I will hypothesize that this may often be the reason why it is common to find a homophonous *any* expression, that varies between a FC and a PS reading, across languages. Observe the transition of the any expression from (9a) through (9c):

(9)a. Niemand wil met een student spreken, *welke student je ook kiest.*

No one wants with a student talk, which student you PRT choose

'No one wants to talk to a student, whichever student you choose.'

b. Niemand wil met een student spreken, *welke student dan ook.*

No one wants talk with a student, which student PRT

'No one wants to talk with a student, no matter which student.'

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[2] Korean and Japanese NPIs function in identical ways: *amwu-to* (for Korean) and *daremo* (Japanese) appear only in contexts where there is overt negation; in all other contexts *amwu-lato* and *dareka* take its place respectively.

c. Niemand wil spreken met *welke student dan ook.*

No one wants talk with which student PRT

'No one wants to talk with any student.'

Aside from the historical change that Haspelmath alludes to, the above sample also reflects the fact that the Wh-NPI can be used to express the free-choice use as well, as observed in the above Dutch examples from (9a-b). This is true of many languages including Tamil. The implications of this obscure coexistence of FC and PS *any* only goes to indicate that the distinction between these two items is never always clear-cut, no matter which language is taken under consideration. In truth, the above examples clearly point to the fact that it is a tough call, terminologically, whether to refer to the *any* expression in an example such as (9c), FC *any* or PS *any*.

However, under a conceptual view of polarity licensing, we may say that an *any* expression is assigned polarity status as long as the underlying intent of the speaker is to convey NOT P while the hearer acquires the belief that NOT P as well. Consider the following examples to discern the NOT P nature of speaker-meaning:

(10)a. I don't want ANY apple, (no matter which kind of apple it is.)

b. I don't want anything *at all.* (No matter how tempting it may be.)

Even though the free-choice reading is available in sentences such as (10a), the speaker's primary intent is to convey the meaning that s/he does not want an apple

(NOT P). The proposition expressed by the *any* expression in (10b) clearly marks it as a PS item despite the parenthetical free-choice component. It must, therefore, be recognized that an *any* expression in negative contexts can often convey a 'free-choice' subsidiary import – but this does not detract from the invariable fact that the *any* expression in the above instances is the PS item because it primarily conveys NOT P.

Some languages seem to have a syntactic means of marking two varieties of PS *any* in overtly negative contexts, one of which is used to rule out the so-called 'free-choice' component. These two varieties have been expressed as (i) Wh-NPIs and (ii) *even*-NPIs by Rullmann (1995). Among the differences between the two types (cf. Rullmann, for details), one of the most significant is that Wh-NPIs can appear in true FC contexts such as modals and generics, while *even*-NPIs may not. As already seen, the former type in Tamil is expressed by a wh-expression followed by a particle (*yaar-um*). The latter type is expressed by the following sequence: *one N-particle (oru apple-um)*, where N stands for any nominal element. Consider the following examples from Tamil (11) and Dutch (12):

(11)a. naan *enda student-ai-um* paarkale. (*wh*-NPI)

I *which student-ACC-PRT* see-NEG

I didn't see any student. (I didn't see even one student)

b. naan *oru student-ai-um* paarkale. (*even*-NPI)

I *one student-ACC-PRT* see-NEG

I didn't see any student. (I didn't see even one student)

(12)a. Niemand heeft met *welke student dan ook* overleg gepleegd.

No one has with *which student PRT* consulted

b. Niemand heeft met *ook maar een student* overleg gepleegd.

No one has with *even one student* consulted

No one consulted any students.

The apparent synonymy between the two types of PS *any* (*Wh*-NPI and *even*-NPI) is belied by the fact that the Wh-NPI is compatible in FC contexts while the *even*-NPI is not. Once again, examples from Tamil and Dutch are provided:

(13)a. naan *enda-book-ai-um* paDipp-en.

I *which book-ACC-PRT* can read-1p.sg

I can read *any book* (no matter what kind of book it is).

b. *naan *oru book-ai-um* paDipp-en.

I one book -ACC-PRT read-1p.sg.

I can read *any book.*

(14)a. Je mag trowen met *wie dan ook.*

You may marry with *who-PRT*

b. *Je mag trowen met *ook maar iemand.*

You may marry with *even some/anybody*

You may marry *anyone.*

Observe the use of the *wh-um* expression in episodic contexts (15a) and under metalinguistic negation (16).

(15)a. enakku enda kaai-um piDikkum

I (DAT) which vegetable-PRT like

I like any vegetable.

b. *naan enda kaai-um saapadren

I which vegetable-PRT eating

*I am eating any vegetable.

(16) naan **enda** kaai-um saapada maaTen, keerai maTTum saapduven

I which vegetable-PRT eat NEG, spinach only eat

I don't eat just **any** vegetable, I eat only spinach.

This brief excursus on the nature of the *any* expression in Tamil is important to show that just like the homophony of the *any* expression in English, there are several languages that share this feature: Wh-NPIs are used in both PS and FC contexts. Wh-NPIs in overt negative contexts (that express truth-conditional negation) often produce a 'free-choice'/*no-matter-what* reading which, however, does not affect the (primarily) polarity meaning of the *any* expression. However, in order to suppress the free-choice reading, some languages employ the use of another lexical expression (*even*-NPIs) that unambiguously conveys negativity. In essence, what counts as negative for the licensing of PS *any* is the speaker-intent that amounts to NOT P under truth-conditional (as opposed to metalinguistic)

negation. The use of *even*-NPI signals the speaker's intent to represent NOT P as well, but it's essential function is to diminish the 'free-choice' import that may often arise.

(17) naan *oru book-um* paDika-le

I *one book-PRT* read-NEG

I didn't read *a single (any) book*, (# no matter which book).

To sum up, an *any* expression in a language such as Tamil is used in different ways to communicate different meanings. Under truth-conditional negation the *wh-um* expression represents the PS item, but in episodic contexts and under metalinguistic negation, it represents the FC item. The semantic difference between the *wh*-NPI expression and the *even*-NPI is subtle, yet significant. The former is used to express a relationship on a Quality / Kind scale (cf. Fauconnier 1975a,b; Israel 1994, 1995), while the latter is used to express a relationship on a Quantity scale exclusively in negative contexts. A scalar model consists of a set of propositions which a speaker and hearer share as background knowledge.

Within a scalar model[3] then, the propositional schema in (18b) is pragmatically entailed by (18a). A sentence such as (18b), the **context proposition** (cp) (Kay 1990), may itself be overtly present in the discourse or may simply represent a default expectation or norm built into the dimensions of a scalar model.

[3] The notion of a scalar model goes back, in one form or the other, to the work of Fauconnier (1975a, b) and even farther back to Horn (1972). The notion of scalarity has been considerably refined in Kay (1990) and Fillmore, Kay and O'Connor (1988).

Essentially, a scalar model of any given type defines a pattern of entailments: for any proposition p (an *any* proposition) within the model, if we know that p is true, then it naturally follows that any other proposition q that is lower than p on the scale will also be true. An instance of *any* expression in a Quality Scale is provided in the following examples. The sentence in (18) depicts FC *any* while the sentence in (19) represents PS *any*. Assume for (18) that the scale for lawyers range from the most ignorant on the low end to the most clever on the upper end, while for (19) a scale where music ranges from the most soothing to the most jarring.

(18)a. Any (kind of) lawyer can tell you that driving while intoxicated is a felony. =

b. Even **the most ignorant** lawyer can tell you that ...

(19)a. I don't like any (kind of) music.

b. I don't like even **the most soothing** music.

On the other hand, an instance of a Quantity Scale is provided in the example below:

(20)a. Mary didn't drink any beer at the party. =

b. Mary didn't drink even **a single drop/can** of beer at the party.

The sentence in (20a) evokes as its cp the proposition that Mary didn't drink a minimal quantity of beer and asserts that Mary didn't drink some larger amount of say, two cans of beers).

I will not get into details regarding scalar operators, contextual dimensions and the various schemata involved in the assessment of such propositions. My explication here is intended to provide a functional approximation of the notion of scalarity in general and to indicate that there may exist various types of scales that may may serve to account for grammaticality variation. Consider the following instances from Tamil:

(21)a. enakku enda kaai-um piDikkum (=14) Quality / Kind Scale

I like <u>any kind of</u> (any)vegetable.

b. enakku enda kaai-um piDikaadi

I don't like <u>any kind of</u> (any)vegetable.

(22)a. *naan *oru book-ai-um* paDipp-en (=12b) Quantity Scale

* I read <u>even a single</u> book.

b. naan oru book-um paDikka maaTen

I don't read <u>even a single</u> (any) book.

The *any* expression which expresses a relationship on a Quality / Kind scale can be used either as PS or FC *any*[4]. But the *any* expression that expresses a relationship on a Quantity scale is appropriate only in PS contexts.

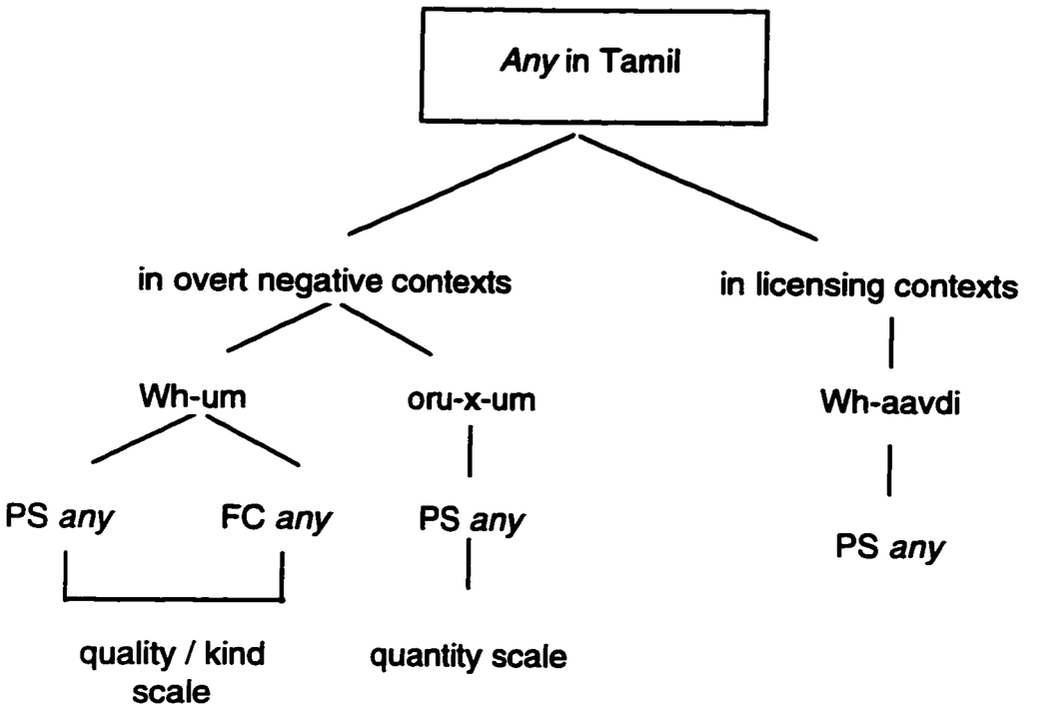
The essence of this discussion is to show that like English, Tamil also has a homophonous *any* expression, the varying uses of which are also similar to English. The distinction between Quality and Quantity scales is used to bring out

[4] Note that in Chapter 4 FC any had been treated as referring to a kind.

the different ways a speaker expresses negative polarity in Tamil. These scales are also useful in predicting that FC *any* is used as an expression of kinds. The figure below gives a succinct picture of the various types of *any* expression and their function in Tamil.

Emphatic stress of the *wh-um any* expression under metalinguistic negation induces a FC reading just like it does in English. In English, contrastive stress of an *any* expression under truth-conditional negation results in the emphasis of NOT P. This function is achieved in Tamil by the use of the *even*-NPI (*oru x-um*). *Any* in other licensing contexts is unproblematic because of the use of a different lexical item (wh-*aavdi*). Observe Figure 6.1 which illustrates the uses of the *any* expression in Tamil.

Figure 6.1 ***Any*** **Expression in Tamil**



The preceding discussion reaffirms the position that truth-conditional negation and metalinguistic negation are functionally different universally and it is important to recognize this feature in any analysis of polarity sensitivity since it makes it easier to delineate the two types of *any* often seen in exactly the same licensing contexts. In addition, the use of contrastive stress to tease out possible readings of an *any* expression is replaced, in other languages, by certain lexical strategies. These are languages that probably have a very productive lexical system. For example, while English uses contrastive ANY to tease out the FC reading in, say, a conditional, Serbo-Croatian uses the lexical item *bilo-ko* under

these circumstances. Drawing up an analogy like this might contribute towards the Lexical Parametrization Hypothesis (cf. Manzini & Wexler, 1987) which states that values of a parameter are associated not with particular grammars but with particular lexical items. A great benefit of this notion will be to reduce all learning of parametric values to the learning of lexical items (cf. Borer, 1984).

6.2.3 Implicature Inducing NPI in Tamil

Aside from the *any* expression that combines the same ambiguities and anomalies as in English, Tamil has another interesting NPI that appears to be the strictest polarity item in terms of the licensing requirement of overt negation. In fact, unlike the English *at all*, the corresponding item in Tamil cannot appear in non-negative licensing contexts such as conditionals and questions. The scalar endpoint *even / at all* is expressed by the suffix (*-ve/-e*) on the verb or noun, whichever the case may be.

(23)a. naan tuunga-ve[5] illai

I sleep-NPI NEG

I didn't sleep at all / a wink.

b. *naan tuunga-ve poren

I sleep-NPI going to

[5] The alternation between *-ve* and *-e* is phonologically conditioned.

*I am going to sleep at all.

(24)a. Madras-ile inda varšam maRai-e peya-le

Madras-LOC this year rain-NPI pour-NEG

It didn't rain at all this year in Madras.

b. *Madras-ile eppodum maRai-e penjadi

Madras-LOC always rain-NPI poured

*It rained always at all in Madras.

The use of this suffix, corresponding to *at all* in English, is impossible in other licensing contexts.

(25) *naan avan-ai paarka-*ve* paarten-naa, sandošamaga irikkum

I him-ACC see-NPI see-if, happy will be

If *at all* I see him, I will be happy.

(26) *nii yaarai-aavdi paarka-*ve* paarte-aa?

you anyone see-NPI see-Q

Did you see anyone *at all*?

The preceding clearly shows that the Tamil equivalent of *at all* cannot appear anywhere but in the vicinity of a negative element. This may also point to the fact that *-ve / -e* is one among such NPIs found across languages that are solely dependent on syntactic negation to license them. Nevertheless, this view about a prototypical instance of a "**negative**" polarity item is challenged by examples such

as the following that leave many questions regarding its legitimate licenser unanswered.

(27)a. naan neti raatri tuunga-ve tuunginen

I last night sleep-NPI slept

*I *slept* (at all) last night.

b. #naan tuunga-ve tuunginen

*I *slept* (at all).

(28)a. Mary sabe-ile paaDa-ve paaDinaaL

Mary stage-LOC sing-NPI sang

*Mary *sang* (at all) on stage.

b. #Mary paDa-ve paaDinaaL

*Mary *sang* (at all).

In these instances, as we can see, there appears no overt negative element that acts as a licenser for the so-called strict NPI. In fact, this NPI seems to exist in clearly positive contexts; while its presence in non-positive contexts such as in conditionals and questions (25-26) – that may warrant a conceptual notion of negativity – is prohibited. In this state of double jeopardy, one is forced to seek out other means of explaining this phenomenon while maintaining that a cognitive approach to semantics will indeed provide answers to such syntactic idiosyncracies.

The astute reader will have already wondered about the contrast between the (a) and the (b) sentences provided above in (27-28), considering that the difference between the two is minimal. The (a) sentences, by virtue of supplying extra information (*neti raatri* 'last night' and *sabe-ile* 'on stage'), provide a backdrop for forming a presupposition, while the (b) sentences are a little more difficult to process without the added information. To elaborate further, in uttering (27a) the speaker alludes to the fact that 'last night' was a special case where the least likely event would be for him to sleep. The NPI suffix acts like the word *even* in English. More accurately then, (27a) reads like this: "I *even* slept last night (though I didn't think I could)". This negative implicature (indicated in parentheses) is what licenses the NPI in an apparently non-negative sentence. One argument against this view might be that the above proposal seems circular: *-ve / -e* gives rise to a negative implicature and that this negative implicature licenses *-ve / -e*. In defence of this likely objection, I propose the following assertibility condition:

(i) Speaker S may not use the suffixal NPI (*-ve/-e*) unless s/he wishes to convey to Hearer H a negative implicature (NI).

(ii) The NI is true, and mutually believed by S and H.

In fact, this constraint explains why (27b) and (28b) sound odd. The speaker of these sentences cannot use the NPI without also intending to convey a negative implicature; but for the speaker to say that "I even slept" or that "Mary even sang"

without establishing any discursive context sounds strange[6]. The focus of the suffixal NPI in positive sentences in Tamil must, therefore, denote something unexpected or unlikely in the ordinary epistemological sense. Hence, (27a) that reads "I even *slept* last night" is coherent when a speaker-hearer common-ground is established that acknowledges the fact that given the nature of affairs of last night, sleeping would have been the most unlikely event, let alone sitting down for a cup of coffee, etc. and similarly, (28a) is coherent because the speaker-hearer common-ground forms the assumption that Mary's singing on stage is the most unlikely event, given that she is normally extremely reticent.

The fact that such presuppositions affect the grammaticality of certain sentences in Tamil provide further evidence that many non-truth-conditional aspects of meaning play an important role in the description of meaning. The traditional view of semantics that certain communication strategies such as emphatic stress, metalinguistic negation, the choice of words such as *even*, etc., and many such linguistic devices are merely emotive, pragmatic, and conversational, isolates linguistic research from psychological research on conceptualization. In fact, these 'communication strategies' have a greater impact

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[6] In English, however, it is perfectly natural to say "I even slept" etc., without having to establish or make reference to any background knowledge. This is so because the word *even* is tied to a certain conventional implicature. In other words, the implicature originates precisely in the choice of the word *even* (cf. Karttunen & Peters (1979); Kay (1990); Lycan (1991)). In Tamil, however, the suffixal NPI does not give rise to a conventional implicature, but rather that the NPI cannot be used in positive contexts unless the speaker wishes to convey NOT P. This is the reason why "I even slept" and "Mary even sang" are acceptable in English while it is not in Tamil.

on the study of meaning since this aspect of meaning eventually impinges upon the syntactic module of grammar. Jackendoff's SC module allows for such a representation by acknowledging the fact that the non-autonomous view of semantics – one that includes both 'semantic' as well as 'pragmatic' information – is what correctly accounts for all the facts of language. Formal systems, therefore, must not separate syntax from meaning and conversely, rigid mathematical systems must not divorce non-truth-conditional aspects that affect grammaticality from the study of meaning. Langacker (1987, p.12) sums up this concern by suggesting that meaning is at the heart of the territory of the study of natural language: "Meaning is what language is all about; the analyst who ignores it to concentrate solely on matters of form severely impoverishes the natural and necessary subject matter of the discipline and ultimately distorts the character of the phenomena described".

Hence we may use this argument, with sufficient justification, to state that in order to correctly describe a phenomenon such as negative polarity, the analyst must judiciously integrate the elements of *meaning* along with the elements of *form*, viewing thereby a conceptual framework of meaning not as a problem, but as part of the solution.

CHAPTER 7

CONCLUSION

7.1 NPI Licensing: Some Unanswered Questions

At this point in the thesis, I will step back a bit to briefly consider the strong and weak points of the current approach to polarity licensing before tackling some of the questions that had not been considered in order to remain close to the main subject of the individual chapters.

I have argued that a conceptual view of semantics – one that takes into account the various non-truth-conditional aspects of meaning as well – is the most ideal stance that will serve to better explain the complex phenomenon of polarity licensing across languages. This view has been adopted primarily from the work of Jackendoff (1990) on conceptual semantics, in which a level of mental representation called *conceptual structure* is seen as the form in which speakers encode their construal of the world. Essentially, this approach to the study of meaning was seen as yet another 'theory of meaning' that rested solely on intuitions and abstractions which had no place in a scientific study of natural language. In effect, any such approach, along the lines of what Lewis (1972) termed "Mentalese", is not considered *real* semantics. Starting out to dismiss the

prejudiced view that conceptual semantics is somehow an eccentric brand of mainstream semantics, has thankfully not been a very difficult task. It has been made particularly easy with the extensive attention it has received in the works of Jackendoff, Langacker, Lycan, Talmy, and many others who laid much of the ground work that has been taken for granted in this work.

One of the major advantages of this approach is the assumption that the nature of meaning in human language is essentially the same; though how it is expressed may vary from language to language. A compatible theory of meaning must deal with the principles internalized by speakers that help them to understand sentences, draw inferences and form judgments regarding the truth of the proposition. Such a theory, that depends on the view of meaning as I-semantics, supports the idea that language mirrors thought. Using this approach in the study of a natural language phenomenon such as polarity sensitivity has its merits. A significant relationship between semantics and grammatical structure is postulated.

On the flip side of a conceptual theory of semantics remains the fact that even though this approach addresses the issue of mental representation/ conceptual structures and its relationship to syntactic structures, there is no model-theoretic I-semantics. This remark arises from the fact that most model-theoretic semantic approaches in the study of a natural language phenomenon is characterized as E-semantics, in that it is based almost entirely on the truth-conditional aspects of meaning alone. It is true that very few linguists (or semanticists) communicate/

express themselves solely in terms of theorems derived from a comprehensive, completely formal axiomatic system. Formalization in linguistics, therefore, cannot be an absolute but a matter of degree. In fact, there certainly has been some work (Bach, 1986; Verkuyl, 1989) in the area of model-theoretic semantics with an I-semantics slant, but for the most part, formal semantics deals with language as a precise and well-articulated mathematical system.

The importance of formal quantificational logic is often perceived as a possible solution to problems often arising out of inference. For instance, the following sentences are ambiguous. This situation arises out of the interaction of negation and the quantifier ~∀ (not all) / ∀~ (all . . . not), which can be easily disambiguated under a formal quantificational analysis of the same.

(1) All of the students didn't attend the lecture.

(2) Every child does not like Barney.

Some of these logical solutions to common problems often pigeon-holed natural language quantifiers into one of two possibilities. Either they were universal or they were existential. This division proved useful in deciphering some of the above mentioned inferential problems such as semantic ambiguity, but a quantifier such as *any*, did not seem to fall rigidly into one or the other type based solely on the logical form of the sentence in which it appears. We noticed in chapter 4 that quantificational force of the *any* expression depends on the context of utterance. For instance, in the context of a directive, FC *any* assumes the quantificational

force of an existential; but the FC *any* expression in a modal context represents the universal. This vacillation in the interpretation of quantificational force comes as a result of applying a conceptual-semantics view of natural language quantifiers. If it is possible to apply unanimously a given predicate to *every x*, x being members of a contextually determined set, then the *any* expression represents the universal quantifier. When a given predicate can be applied to *at least one x*, x being members of a contextually determined set, then the *any* expression represents the existential quantifier. Assigning polarity *any* a predetermined existential reading and free-choice *any* a predetermined universal reading gave rise to a lot problems. It became very difficult to explain some very common issues such as the one mentioned above, i.e., why FC *any* in directives/imperatives received existential reading if one were to assume that FC *any* always received a wide-scope universal interpretation.

The apparent precision associated with mathematical logic often overlooked the fact that examples such as the ones seen in (1) and (2) are easily disambiguated intonationally (Horn 1972, p.94-96; Jackendoff 1972, §8.6). Contrastive stress accompanied with a rising intonation yield a ~A reading, while normal stress and a falling intonation is associated with a A~ reading. A solution within the framework of formal logic, by virtue of its explicitness, was more readily imbibed into the study of natural language semantics. In brief, therefore, an E-semantics approach to natural language study largely assumed that there is no semantics

without formal truth theories or representations of the same. So much so, that one school of thought (Dougherty, 1973) emphasizes the heuristic value of formalization and holds that any attempt at formalization is never premature. I once again stress that the issue is not of formalization *per se*, but the degree of formalization. I eschew ideas that assume that concepts, hypotheses and programmatic speech-act models count for nothing in a linguistic analysis.

This view of semantics, however, has been challenged under the present framework since it is clear that meaning in natural language is not always contingent solely upon the truth-conditional aspects of a proposition. In the following discussion, I will consider a few instances from Linebarger (1987; 1991) that are problematic under her account, which, however, can be explained easily under the present view of meaning.

As noted by Linebarger (1991) herself, there are several examples of negative implicature that do not license NPIs. According to Linebarger, even though the following do give rise to a negative implicature (NI), the strength requirement rules them out as incoherent. I contend that there is no room for a legitimate NI to start with and, consequently, the necessity for applying the strength requirement does not arise.

(3) *Even John has *any* money. (=35)

NI: John is likely not to have *any* money.

(4) *Yes, I have *any* free time to listen to your long boring monologues. [uttered sarcastically] (=36)

NI: I don't have *any* free time to listen to your long boring monologues.

(5) **Anybody* actually came to my birthday party! [surprise] (=37)

NI: I expected that there wouldn't be *anybody* at my birthday party.

(6) *If you were more polite, you would have *any* friends. [counterfactual]

NI: You don't have *any* friends.

(7) *I had *any* chance to win the election until the article was published.

NI: After that article was published, I didn't have *any* chance to win...

(8) *I was lonely until I met *any* of my neighbours. (=40)

NI: I was lonely when I hadn't yet met *any* of my neighbours.

I use the above examples to show that the NI approach is rather unconstrained in its scope. It appears that any proposition with an NPI can be shown to give rise to an NI, which essentially amounts to any proposition of the type NOT P that contains the NPI. Linebarger uses the requirement that the licensing NI 'virtually guarantees the truth' of the original sentence as a way of preventing over-licensing. For instance, this requirement rules out the NI as a licensing NI for (3): (3) implies the given NI but the NI does not virtually guarantee the truth of (3).

Along the same lines as Kadmon & Landman's (1993) argument against Linebarger's conditions on NI, we notice that there exists an NI that could guarantee the truth of (3): *'John has some money although he is the most unlikely not to have any money'*. Linebarger's theory does not disqualify the preceding as a plausible NI; and (3) is predicted to be good. However, taking into account that an NPI is licensed only in a non-positive context, the above sentences are automatically ruled out by virtue of appearing in contexts that are conceptually viewed as positive.

The NPI *any* in (3) appears in the positive proposition 'John has *any* money' which makes it illicit. Hence, the addition of *even* does not change the ungrammatical status of (3) despite the fact that it does, however, give rise to a plausible NI. Once again in (4), we notice that the *any* expression appears in the positive sentence 'I have *any* free time to listen to your long boring monologues' which is ungrammatical. The element of sarcasm that is used to tease out the NI still does not alter the fact PS *any* is illicit because it is unlicensed. In examples (5-8), the polarity *any* expression appears in contexts that are undoubtedly positive. In (6), the *any* expression does not appear in the conditional clause (which according to the current assumptions is non-positive), but rather in a following clause that is positive. On closer scrutiny, it will actually become clear that only the existential / positive polarity item *(some / someone)* is licit in all the above sentences (it actually repairs the sentences), which further supports the view that

PS *any* in these sentences are unlicensed because of lack of a negative / non-positive context.

(3') Even John has *some* money.

NI: John is likely not to have *any* money.

(4') Yes, I have *some* free time for your long, boring monologues!

NI: I don't have *any* free time to listen to your ... monologues.

(5') *Someone* actually came to my birthday party!

NI: I expected that there wouldn't be *anybody* at my birthday party.

(6') If you were more polite, you would have *some* friends.

NI: You don't have *any* friends.

(7') I had *some* chance to win the election until that article was published.

NI: After that article was published, I didn't have *any* chance to win...

(8') I was lonely until I met *some* of my neighbours.

NI: I was lonely when I hadn't yet met *any* of my neighbours.

In addition to the fact that these sentences, by virtue of being positive, do not license NPIs, also shows that the NI provided for (3-8) is more coherent as implicatures for sentences (3'-8'). It is therefore that I stress on the importance of defining the qualities of a licensing context for all NPIs. The semantic notion of non-positive is appropriate for the correct description of the varied licensing

contexts such as conditionals, questions, etc. Linebarger's (1987) NI account tends to overgenerate even though the strength requirement, as one of the three conditions on an NI meant to eliminate the unwanted NIs, is redundant in light of the above examples.

Another aspect that I choose to briefly discuss here, in order to emphasize the role of conceptual semantics, is about NPIs in the matrix of causal sentences. Linebarger (1987) appeals to the feature of the Immediate Scope Constraint (ISC), that bars the presence of logical elements between NOT and the NPI in a logical subformula, to account for instances such as the following:

(9) *He didn't *budge an inch* because he was pushed, did he?

(10) * He didn't *budge an inch* because *anyone* pushed him.

(11) * He didn't *budge an inch* because he was pushed, but because he fell.

All the above sentences, according to Linebarger, are ruled out because of the wide scope reading where the logical element CAUSE intervenes between NOT and the NPI as the following instance shows:

(12) NOT CAUSE (he was pushed, he *budged an inch*).

However, under the current conceptual-semantics view of NPIs, overtly negative sentences containing an NPI such as (9), (10) and (11) above are not licensed because each of the sentences reflect (imply) an overall positive sentence as observed below in (9'-11'):

(9') He *budged an inch*; but it was not because he was pushed.

(10') He *budged an inch*; but it was not because anyone pushed him.

(11') He *budged an inch*; but it was not because anyone pushed him but because he fell.

In all of the above sentences we notice that the NPI *budged an inch* is actually placed in a positive context in the conceptual domain of the speaker and the hearer. That is, when the speaker utters (9), for instance, he conveys (9'); and the NPI in (9') is unlicensed because it appears in a positive context. Hence, what ultimately matters in the licensing of NPIs is the context of utterance and what is communicated by the speaker to the hearer.

Besides these examples of licensing by other conceptual processes, Progovac's (1988) instances of the contrast between the following two examples, which seeks to justify the existence of a null negative operator in Comp position, can also be explained under the current assumptions of conceptual licensing procedures.

(13) Mary forgot that anyone came yesterday.

(14) *Mary forgot anyone.

Now consider the following two instances where *any* in both cases without the Comp position is licensed.

(15) Mary forgets *anything* rude that you might have said to her.

(16) John forgot to buy *anything* for John's birthday.

Looking at the examples in (15) and (16), we notice that there exists a subtle difference between the word 'forget' in the two instances. 'Forget' in (16) is used in the sense of the involuntary act of forgetting and it also refers to a stage-level predicate; but the 'forget' in (15), which represents the voluntary act of forgetting/ ignoring, refers to an individual-level predicate. Building mainly on Carlson's argument that individual-level VPs are derived from the homophonous stage-level VP – via a rule that does nothing syntactically to the VP but has an appropriate semantic effect on it – I will assume that a stage-level predicate does not allow PS *any* within its scope. Almost immediately however, we notice that individual-level predicates too do not allow PS *any* within their scope (cf. also Kratzer (1979; 1981) and Deising (1990)).

(17) *Mary forgets *anyone* (*at all).

But, both stage-level and individual-level predicates allow FC *any* within their scope.

(18) Mary forgets (just/almost) *anything* (*at all) rude that you might have said to her.

(19) Mary forgets (just/almost) *anyone* (*at all) that she has not met in many years.

So we might say that *Mary forgot anyone* is ungrammatical because of a stipulation which states that PS *any* cannot appear within the immediate scope of stage- or individual-level predicates; but FC *any* can, provided the tense is generic.

At the end, we can arrive at the conclusion that the licensing of polarity items across languages depends heavily on various forms of semantic constraints, some definable in terms of formal truth-conditional semantics, some in terms of cognitive semantics and it is clear that it is certainly not possible to limit an explanation to the phenomenon of polarity sensitivity to any one grammatical module alone.

7.2 Closing Remarks

Understanding sentences for their overall meaning is therefore very important, not only from the perspective of communication, but from the present perspective of polarity licensing and hence, grammaticality. We can thus reiterate that NPIs are not allowed under positive contexts – where the notion of 'negative' and 'positive' is understood in conceptual terms. Quite literally, what this means is the processing ability of a competent speaker or a hearer encounters a caveat that tells him/her that NPIs in positive contexts are ungrammatical. Hence, the study of meaning acquires a whole new dimension, namely, that of cognitive depth, when we treat the study of meaning as I-concepts (just as we study language as *I-language* under generative grammar). In essence, meaning is internally coded information and in order to draw this information, one has to reach beyond syntactic structure, because syntax does not necessarily mirror meaning in all instances. Sperber & Wilson (1986) refer to the so-called internally coded

information, that is normally manifest to both the speaker and the hearer, as the *cognitive environment.*

A study of the various uses of the *any* expression has led us into the broader subject area of how speakers of a language actually encode their construal of the world. For instance, on encountering both the FC and the PS varieties of *any* in, say, a conditional it was noticed that the *any* expression could be construed as FC if it was encoded as a stressed form or if it appeared under metalinguistic negation. Speakers of some other languages encode their construal of FC *any* either by metalinguistic negation or by using a lexical item specific for that purpose. Other significant aspects of handling the polarity phenomenon under a cognitive semantics approach has been noted in the concluding sections of individual chapters. In essence, a conceptual account of polarity licensing -- in assuming a unified module of semantics -- stresses on the need to relate both semantics AND pragmatics to a comprehensive study of meaning. This model also serves a very useful purpose in this thesis (refer to Fig.1.1) to demonstrate that the phonological component, which covers areas such as stress, intonation and pitch can affect the meaning component without necessarily feeding into the syntactic component first. An illustration of this process is the case of emphatic stress ona sentence-initial *any*-word. *Any* without stress in (20a) fails to qualify as grammatical, but (20b) does; the syntactic form of this sentence remains unchanged.

(20)a. *Anyone didn't come.

b. (just) **Any**one didn't come...

In an abridged final note then, one of the benefits of assuming a conceptual approach to semantics is that it reduces the need to postulate stipulations, something which a stronger position of formalization assumes as a prerequisite to a substantial achievement in linguistics.

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