

Advancements in Understanding the Syntax-Discourse/Syntax-Pragmatics Interface

—Review of Shigeru Miyagawa (2022): *Syntax in the Treetops*

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Abstract

“*Syntax in the Treetop*” represents the latest groundbreaking work by MIT linguist Miyagawa, offering profound insights into syntactic structures at the top of the syntactic tree. It addresses critical issues in understanding the interface between syntax and discourse/pragmatics, particularly in the emerging field of syntacticization of discourse information. This paper provides an overview of the key concepts presented in the book, elucidating Professor Miyagawa’s innovative ideas on expanding syntax into the domain of discourse. Our review highlights several significant contributions made by the author, including advancements in the theory of left periphery in syntactic cartography, the crucial role of syntax in speech acts and conveying meaning, and the essential distinction between human language and animal communication systems.

Keywords

Syntax in the Treetop, Syntax-Discourse/Syntax-Pragmatics Interface

1. Introduction

In recent decades, linguistic research has increasingly focused on exploring the syntax of the left periphery of a clause and its intricate interaction with discourse, speaker intention, and real-world context. This emphasis has been particularly heightened following Rizzi (1997)’s influential work on the fine structure of the complementizer phrase (CP). Despite the increasing focus on this area, several key questions remain unanswered. Are the characteristics of the left

periphery universally consistent across languages? What formal mechanisms govern word order in this domain, and how do the projections within or beyond the sentence influence the observed phenomena within the clause? Moreover, how can we effectively model the intricate interplay among syntax, pragmatics, and semantics? Certain syntax-discourse/syntax-pragmatics issues continue to captivate the interest of linguists. These include investigating the interplay between the syntactic structure of sentences and the contextual factors influencing speakers' production and comprehension. Additionally, scholars seek to elucidate how the interplay among syntax, semantics, and pragmatics can be comprehensively explained using formal syntax (see Miyagawa, 2012, 2017; Sigurðsson, 2004, 2011, 2015, 2019; Speas and Tenny, 2003; Wiltschko, 2014, 2017; Portner, Pak, and Zanuttini, 2019).

MIT linguist Shigeru Miyagawa's groundbreaking research, as exemplified in his latest work *Syntax in the Treetops*, offers invaluable insights into these pressing issues and endeavors to address enduring questions in the field of syntax. Miyagawa's contributions are particularly significant in addressing challenges within the study of syntax-discourse/syntax-pragmatics interfaces, notably concerning the emerging field of the syntacticization of discourse (Haegeman & Hill, 2014), which has currently garnered attention from syntactic cartographers.

2. Key Themes Explored in *Syntax in the Treetop*

Syntax in the Treetop primarily delves into the structure on the top of the syntactic tree. The author argues that by establishing a connection between the core syntax and discourse participants, syntax can be expanded and extended into the domain of discourse. This enables the direct expression of the syntactic-discourse/syntactic-pragmatic interface within sentences. To support this claim, Miyagawa draws upon extensive evidence from languages around the world, including Basque, Japanese, Italian, Magahi, Niuean, Romanian, Spanish, as well as from the language of autistic children. He finds that the top of syntactic trees represents discourse/pragmatic information, with layers above the complementizer phrase (CP) such as the Speaker-addressee Phrase (SAP) and the Commitment Phrase (CommitP) being associated with the speech acts of conversation participants and discourse. The author delves into the fundamental role of syntax in bridging contextual elements and the semantics of an utterance. This exploration operates under the premise that syntax "provides the basic framework that makes the performance of a speech act and the conveyance of meaning possible" (x).

The book comprises xviii + 234 pages, divided into six chapters. This section provides an overview of each chapter's key themes.

Chapter One introduces the theoretical background. The author explicitly states that his theory stems from the early research of two scholars. One is Ross (1970), who proposed the analysis of "performative analysis". Ross attempted to

express Austin's (1962) speech act in syntax by analyzing declarative sentences as linguistic structures containing implicit performative verbs and implicit speakers and addressees. The author critically adopts the notion of implicit speakers and addressees within the layers of syntactic structure, but argues against the existence of implicit performative verbs, finding discrepancies with many linguistic facts, and issues with evidence for implicit speakers and addressees. He argues that sentences can perform speech acts not because of the existence of implicit performative verbs but because of the existence of implicit speakers and addressees. By reviewing relevant literature from the past 30 years, the author finds ample evidence of representations of speakers and addressees in sentences in languages such as Basque, Romanian, Italian, English, as well as some African and Native American languages. Another foundational study comes from Emonds (1970) in "*Root and structure-preserving transformations*". By examining the characteristics of input and output structures in syntactic transformations, Emonds found that both the input structures before transformation and the output structures after transformation are structures that phrase structure rules can independently generate, with the output structures after transformation being applicable to other syntactic transformation rules. Thus, he used the term "structural preserving" to describe the characteristics of such syntactic transformations. However, not all syntactic transformations exhibit the feature of "structural preserving". Some transformations involve input structures that conform to phrase structure rules but output structures that do not. Once this non-structurally preserved transformation occurs, the derivation of the entire sentence structure is completed. Emonds found that these non-structurally preserved transformations occur in root sentences. Based on non-structurally preserved syntactic transformations and the syntactic environments in which operations such as fronting of negative elements and topicalization occur, he defined three types of root sentences. They are the highest sentence on the syntactic tree; sentences directly dominated by the highest sentence; and sentences in indirect discourse. The author believes that Emonds's (1970) definition of root sentences is conceptually correct but not based on the evidence he proposed; rather, it is based on the distributional characteristics of speaker-addressee phrases. Although Ross (1970) and Emonds (1970) approach the issues from different perspectives, they both focus on issues within main clauses related to the characteristics of structures at the top of syntactic trees. The author proposes that the environments defined by Emonds (1970) as root sentences are the distributional environments of the syntactic structures at the top of syntactic trees. Next, based on a critique of Krifka's (2014) theoretical model (Figure 1), the author proposes his theoretical model (Figure 2) to represent the syntactic structures at the top of syntactic trees. He suggests that there exist SAP (Speaker-addressee Phrase) and CommitP (Commitment Phrase) layers at the top of syntactic trees, with the CP (Complementizer Phrase) layer expressing propositions located below the CommitP layer.

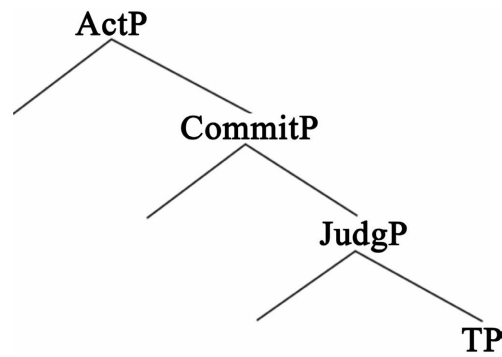


Figure 1. Krifka's structural model.

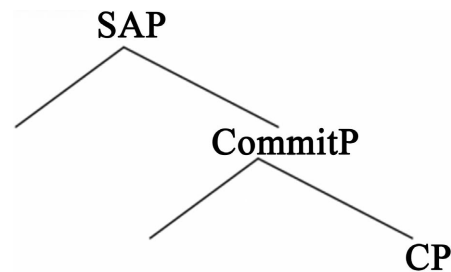


Figure 2. Miyagawa's structural model.

Chapter Two mainly discusses the syntactic structure of the SAP layer. Through extensive linguistic evidence, the author argues that the SAP layer in syntactic structure represents the facts of speakers and addressees, elucidating the view that the SAP layer expresses illocutionary force. By studying the relationship between honorific markers in Japanese and the SAP layer, the author proposes and argues that honorific markers in Japanese are actually a form of ϕ -feature agreement. The initial syntactic position of honorific markers in Japanese is very low, within the tense functional head, and even below the negation functional head. Through successive movement steps from the functional heads to the specifier position of the SAP layer, honorific markers can mark the entire discourse in formal discourse domains, expressing the speaker's polite tone towards the addressee. Furthermore, from a cross-linguistic comparative perspective, the author compares Japanese with Basque, Magahi, Korean, Thai, and Tamil, further demonstrating the existence of the SAP layer at the syntactic level, greatly expanding upon earlier research.

Chapter Three primarily explores the syntactic structure of the CommitP layer. The author convincingly argues that the Japanese sentence-final particles “ne” and “yo” correspond to the addressee and CommitP in the SAP, respectively. The former indicates the speaker's confirmation of the truthfulness of the proposition to the addressee, while the latter strengthens the speaker's commitment to the truthfulness of the proposition. He finds that the distribution of sentence-final particles aligns with Emonds's (1970) definition of root sentences because these particles are directed towards the speaker or the addressee, thus necessitating representation in the SAP. He also investigates the usage of sen-

tence-final particles in high-functioning autistic children, finding an asymmetry in the use of “ne” and “yo” in Japanese-speaking children with autism. Regardless of training, they do not produce the particle “ne” to confirm the truthfulness of propositions to the addressee, but they quickly acquire and accurately use “yo”. This asymmetry suggests that high-functioning autistic children have difficulty interacting with the addressee, leading to a lack of addressee representation in the SAP at the top of their language’s syntactic structure. However, the particle “yo”, which enhances the speaker’s commitment to the truthfulness of the proposition, is unrelated to representation in the SAP but is associated solely with CommitP. Therefore, they can learn to use such particles. Additionally, the author examines Romance languages, finding similar sentence-initial or sentence-final particles, often followed by second-person inflectional forms, which are also related to addressee projection in the SAP.

Chapter Four primarily discusses the non-necessity and syntactic position of the Judgement Phrase (JudgP) at the top of syntactic trees. Krifka (2019a, 2019b, 2020) suggests a three-tiered structure above the CP layer, comprising the ActP, CommitP, and JudgP layers. Through discussions on topicalization in German, Japanese, English, and Spanish, the author finds no need to include JudgP above the CP layer in the structure solely because of topicalization issues, as JudgP relates to propositions, which are associated with CP. He maintains that, in line with Rizzi’s (1997) spirit, JudgP should be considered an extension of CP, thereby upholding the viewpoint proposed in the preceding two chapters: discourse consists of two components, one related to speech acts (the Expressive Component), and the other related to propositional expression (the Propositional Component), with no other intervening components. The components related to speech acts are SAP and CommitP, while those related to propositions are CP.

Chapter Five explores the interaction between the Expressive Component and the Propositional Component through the study of interrogative sentences. In this chapter, the author aims to address two questions: 1) How is the Expressive Component represented in interrogative sentences? 2) What specific commitments are speakers asked to make? Regarding the first question, he combines insights from Geurts (2019) and Krifka (2019a, 2019b), proposing the existence of two commitment phrases in interrogative sentences: one related to the speaker, called the Speaker Commitment, and another related to the addressee, called the Addressee Commitment. He finds evidence for their existence in the Newari language, which belongs to the Tibeto-Burman language family. Regarding the second question, he extensively examines interrogative sentences and their responses. Typically, in interrogative sentences, the interrogator expects the respondent to commit to exhaustive true propositions. Thus, when asked, “What are you bringing to the picnic?” the respondent would list everything they plan to bring to the picnic. Consequently, the respondent’s commitment entails an exhaustive set of propositions. In Japanese, the author finds this exhaustiveness encoded in sentence-final particles that mark questions. Therefore, the interro-

gator naturally assumes that the respondent will commit to an exhaustive set of propositions when answering the question.

Chapter Six serves as the concluding section, restating the focus, objectives, questions, and findings of the study, and briefly discussing their interrelationships. Finally, the author underscores the unique properties of human language compared to other animal communication systems: human language communication reflects the speaker's commitment to the addressee.

3. Review

In the field of generative linguistics, since the proposal of the Syntax-Pragmatics/Syntax-Discourse Interface, it has been a focal point for numerous linguists' research endeavors (Catasso, 2023). The author's study holds significant importance in addressing certain issues within this domain. Overall, this book exhibits several noteworthy features.

3.1. Advancing the Theory of Left Periphery in Syntactic Cartography

The theory of Left Periphery stands as a significant innovation within syntactic theory, as it allows for the representation of discourse, pragmatics, and other non-syntactic factors through syntactic means, thereby directly incorporating the interface between discourse/pragmatics and syntax into sentence structure (Shi, 2020). The author's research aligns closely with the syntactic cartography theories proposed by Rizzi (1997) and Cinque & Rizzi (2010), among others. However, there are differences in the author's approach. Firstly, unlike Rizzi (1997), he does not split the CP layer into distinct functional projections but proposes the existence of different functional projections above the CP layer. Secondly, the functional projections above the CP layer in the author's theory differ from those in syntactic cartography. The author suggests that above the CP layer, there exist SAP and CommitP structures, which are related to the expression of speech acts. In this syntactic structure, SAP is positioned at the top of the syntactic tree, representing illocutionary force, while CommitP is situated in an intermediate layer that connects the speaker-addressee representation expressed in SAP with the propositions expressed in the CP, conveying a commitment made by the speaker to the addressee. According to the author, commitment involves a triadic relationship, encompassing the speaker, the addressee, and the proposition content, wherein the speaker commits to the addressee regarding the proposition. This commitment is manifested in declarative sentences as the speaker's commitment to the truthfulness of the proposition. Thus, from the perspective of the syntactic tree structure proposed by the author, this theory inherits and develops the theory of Left Periphery in syntactic cartography.

3.2. Emphasizing the Vital Role of Syntax in Speech Acts and Meaning Expression

Speech acts pertain to the level of discourse. Typically, there is a clear division of

labor between syntax and pragmatics, with issues related to speech acts being studied within the field of pragmatics. Syntax research primarily focuses on sentence structure and its relationship with truth conditions, without directly addressing discourse in communication. However, the author argues that linguistic evidence from various languages worldwide and from the language of autistic children suggests that syntax can indeed represent discourse information and plays a role in actual language use, linking contextual features with discourse meaning. Therefore, the author proposes the hypothesis in the preface that “syntax provides the basic framework that makes the performance of a speech act and the conveyance of meaning possible”. He believes that the realization of any speech act involves the speaker and the addressee, along with their attitudes and intentions, all of which are represented in syntax, especially at the top of the sentence structure tree. The book reveals the presence of these relevant elements in the projections at the top of the sentence structure tree, while also elucidating their operational mechanisms and their relationship with syntactic phenomena. He posits that at the top of the syntactic tree, namely above the CP layer, there exist SAP and CommitP structures. Additionally, these three layers of phrases serve different functions within the entire sentence. SAP in syntax represents the speaker and addressee executing speech acts, expressing the relationship between the speaker and the addressee; CommitP links the speech act expressed in discourse with the meaning of the discourse itself, representing the commitment made by the speaker to the addressee through the speech act. Together, these two layers constitute the expressive component of discourse. Therefore, the author divides the entire syntactic structure into two parts: the expressive component relevant to speech act expression and the propositional component relevant to expressing sentence truth values, highlighting the important role of syntax in bridging the expression of speech acts with propositional meaning.

3.3. Highlighting the Fundamental Distinction between Human Language and Animal Communication Systems

There exists a significant disparity between human language and animal communication, as there is no direct link between the speech acts expressed in human language and the meaning of the discourse itself. Therefore, various linguistic forms can be used to express the same speech act. How then do listeners derive the speaker’s intended speech act from the meaning of the discourse itself? Previous research suggests that speech acts can be expressed through specific syntactic structures. For instance, in the sentence “Pass me the salt!”, the imperative form indicates an instructive speech act. However, we can also express the intention of needing someone to pass the salt using other sentence structures, such as the interrogative form “Can you pass me the salt?”, which clearly does not convey an imperative speech act. Yet, within the context, listeners can accurately discern the speaker’s intention. The author argues that there exists an intermediary between the execution of speech acts and the expression of meaning, which connects these two aspects of discourse, and that interme-

diary is syntax. Syntax provides a framework for the execution of speech acts and the expression of meaning. In the syntacticization of discourse information, the roles of the speaker and the addressee, as well as the speaker's commitment to the addressee, are all reflected in the syntactic structure, positioned above the structures that express the actual discourse. The SAP projection, representing the speaker-addressee relationship, embodies the interaction between the speaker and the addressee. What transcends mere communication systems is the CommitP, representing the speaker's commitment to the addressee, which links communicative acts with the expression of infinite thoughts in propositional form. Indeed, as Chomsky (2010) has pointed out, the unique ability of human language lies in expressing propositional thoughts. However, it is the CommitP that enables countless forms of complex thoughts to be externalized through a limited set of linguistic actions, thereby showcasing the unique linguistic capabilities of humans. Without the connection provided by CommitP, there would be no essential distinction between human language and animal communication systems.

In general, Miyagawa's monograph provides a clear and insightful analysis of the syntax-discourse interface from a generative perspective. The book's structure, particularly the sequencing of chapters, is meticulously designed to guide the reader through the author's well-developed arguments. These arguments are systematically embedded within existing literature on the relationship between grammar, meaning, and context. The author's decision to summarize the proposed structure of the left periphery is particularly helpful, especially for readers who might not go through the entire book. Given these merits, this monograph not only constitutes a brilliant contribution to research but also serves as a valuable resource for teaching syntax.

4. Conclusion

Miyagawa's contributions significantly advance the study of syntax-discourse/syntax-pragmatics interfaces, particularly within the field of syntacticization of discourse. Through innovative theoretical frameworks and comprehensive linguistic analysis across diverse languages, Miyagawa's research enriches our comprehension of how syntax interacts with discourse and pragmatics, illuminating fundamental distinctions between human language and animal communication systems. The exploration of syntax-discourse interfaces holds promise for deepening our understanding of language and communication, providing valuable insights into the distinctive capacities of human language and the underlying mechanisms of linguistic expression. Thus, the journey of inquiry into syntax and its interface with discourse and pragmatics remains fueled by the pioneering efforts of scholars like Shigeru Miyagawa and the enduring curiosity of linguists worldwide. Certainly, there are also some shortcomings in this book. Firstly, the reliability of some of the linguistic data presented therein awaits further verification. Secondly, the extent to which the structures at the top of the syntactic tree are universal in human language still requires more evidence from both diach-

ronic and synchronic perspectives.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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