compositionality

implicature **(in)dependence**

update semantics

entailment pure/impure

at-issue hedging **polarity**

root/parenthetical

presupposition projection

illocutionary force

TODOR KOEV

Parenthetical Meaning

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TODOR KOEV

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General preface

Oxford Studies in Semantics and Pragmatics publishes original research on meaning in natural language within contemporary semantics and pragmatics. Authors present their work in the context of past and present lines of inquiry and in a manner accessible to both to scholars whose core areas of expertise are in linguistic semantics and pragmatics, and to researchers in related and allied fields such as syntax, lexicology, philosophy, and cognitive science. The series emphasizes rigorous theoretical analysis grounded in detailed empirical investigation of particular languages.

This is a companion series to *Oxford Surveys in Semantics and Pragmatics*. The *Surveys* series provides critical overviews of the major approaches to core semantic and pragmatic phenomena, a discussion of their relative value, and an assessment of the degree of consensus that exists about any one of them. The *Studies* series equally seeks to put empirical complexity and theoretical debate into comprehensible perspective, but with a narrower focus and correspondingly greater depth. In both series, authors develop and defend the approach and line of argument which they find most convincing and productive.

This book provides the first fully comprehensive study of parentheticals, a core grammatical construction that has for too long remained largely on the analytical periphery. The descriptive net is cast unusually wide, capturing parentheticals ranging from appositives at one end of the spectrum ("John, who is a friend of mine, arrived"), in which the information conveyed by the parenthetical is independent of the information conveyed by the main clause, to slifts at the other ("John arrived, Ann claimed"), in which the parenthetical modulates the meaning of the matrix clause. Todor Koev provides inclusive, technically detailed, and wide-ranging discussions of the leading accounts of each subtype of parenthetical, emphasizing insights and innovations, and highlighting unanswered questions. He then proposes his own innovative, unifying analysis, based on the idea that parentheticals come with a distinct illocutionary force operator, independent from the force of the sentence in which they are embedded. A final chapter provides a rigorous formal implementation of the new analysis. This book will serve equally well as an inspiring first introduction to the subject and as an essential resource for any scholar working on parenthetical expressions.

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Preface

Parenthetical expressions have barely had a proper life in formal semantics. At the dawn of generative grammar more than half a century ago, they were fairly intensively studied as a window into the processes that take place in the left periphery of the sentence. But then they quickly fell into oblivion. Much more recently, debates on theoretical constructs like "at-issueness", "projection", "commitment", etc. started to feature appositives, but the link to other parenthetical expressions remained mysterious, a matter of descriptive labeling rather than an indication of semantic uniformity. This book argues that this perception is wrong. True, parentheticality is a very rich phenomenon that encompasses a bewildering number of constructions. But these constructions do share a common semantic core. I argue that this is because—one way or another—they all establish a direct link to the discourse context, something that is typically reserved to root clauses. The book studies how this property of parenthetical expressions plays out in terms of their illocutionary effects, scopal interaction, and discourse status.

The book critically evaluates existing proposals but also advocates a unified view. So I have tried hard to make the book as self-contained as possible, thus bridging the gap between an introduction to the topic and an independent piece of research. Chapter 1 serves as an entrance gate to the topic. It states the empirical puzzles and outlines the proposed solutions, to be developed in the rest of the book. This chapter comes with no prerequisites and should be accessible to scholars from all relevant disciplines. After getting through Chapter 1, the reader is invited to choose their own destination inside Chapters 2–4, which form the core of the book. Each of these chapters starts with a brief introduction to the core concepts and then moves on to investigating how parentheticals fit into the picture. The basic ideas presented in these three chapters should be transparent to the wider audience, provided that technicalities are ignored. Chapter 5 is where the rubber hits the road, so it is the most challenging one. After laying out the basics of dynamic semantics, it introduces the formal system, spells out the compositional semantics, and summarizes the solutions to various empirical puzzles proposed in previous chapters. This last chapter is aimed at specialists in semantics and pragmatics with the necessary formal background.

Naturally, I have drawn on some of my previous work. The book has its roots in my dissertation on appositives (Koev 2013), both in terms of main ideas and formal modeling. Section 2.5 reuses parts of Koev (2021), while the first part of Chapter 4 borrows heavily from Koev (2018). In addition, the conclusions reached in Syrett and Koev (2015) are cited in various places in the book (see Sections 1.3.3; 3.1.2; 4.2.2; 4.3.1; 4.4.1).

I have interacted with many colleagues who have shaped my thinking and thus have—directly or indirectly—contributed to this book. This is the place to thank them. I am particularly indebted to Daniel Altshuler, Scott AnderBois, Corien Bary, David Beaver, Cory Bill, Maria Bittner, Adrian Brasoveanu, Veneeta Dayal, Cornelia Ebert, Regine Eckardt, Daniel Gutzmann, Daniel Hole, Julie Hunter, Katja Jasinskaja, Elsi Kaiser, Hans Kamp, Dan Lassiter, Emar Maier, Paul Portner, Craige Roberts, Mandy Simons, Matthew Stone, Peter Sutton, Kristen Syrett, Satoshi Tomioka, Judith Tonhauser, and Ede Zimmermann, among others. Roger Schwarzschild deserves a special place in this list, not just because of his ample feedback on the topic, but also as someone who has given me strategic advice at every stage of my academic career. Finally, I would also like to acknowledge two anonymous reviewers at OUP, as well as the generous advice from the series editors, Chris Barker and Chris Kennedy.

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Introduction

Imagine that your friend utters the sentence in (1a). Why did she decide to package the information she wanted to express in this particular way? Another choice would have been the sentence in (1b), where the appositive relative clause and the Verb Phrase appear in reverse order. So why was the first variant preferred over the second? At least initially, it seems that the two sentences express the same meaning, which can be rendered by the conjunction in (2).

(1)   a. Sophie, who is a classical violinist, performed a piece by Mozart.
      b. Sophie, who performed a piece by Mozart, is a classical violinist.

(2)   Sophie is a classical violinist and she performed a piece by Mozart.

Or picture that your friend utters the sentence in (3a). Why not just use the embedding construction in (3b) instead? After all, both sentences report on the same piece of information. What is the gain in placing the evidential information in a parenthetical construction?

(3)   a. Mayor Walsh will take on traffic issues, Karina told me.
      b. Karina told me that Mayor Walsh will take on traffic issues.

In some abstract sense, this book attempts to answer the question of what is achieved by niching part of the semantic content of an utterance into a parenthetical. The book sets out to answer this question by studying seven types of parenthetical expressions in English: appositive relative clauses, nominal appositives, clausal parentheticals, *as*-parentheticals, utterance adverbs, antecedents of biscuit conditionals, and slifting parentheticals. It investigates their semantic properties by paying close attention to their idiosyncrasies, with an eye on the general mechanisms that underscore their commonalities. It also provides theoretical avenues for studying parenthetical meaning by comparing it with the core meaning dimensions of entailment, presupposition, and implicature, and by emphasizing the role it plays in shaping the semantics–pragmatics divide. Overall, the book seeks to establish parenthetical meaning as a kind of meaning that is somewhat detached from the proposition expressed by the main sentence but interacts with it and the larger discourse in various and mostly pragmatic ways.

This introductory chapter achieves several things. Section 1.1 looks into the tripartite division into entailment, presupposition, and implicature, and situates parenthetical meaning somewhere between the former two dimensions, while

simultaneously taking heed of the way it differs from both. Section 1.2 explores the empirical landscape of parenthetical expressions and fixes the terminology to be used in the rest of the book. Section 1.3 wrestles with the nature of parentheticality itself, exploring the possibility that an expression becomes parenthetical due to its prosodic pattern, syntactic properties, lack of truth-conditional effects, or illocutionary independence. Section 1.4 lists the novel contributions of the book. These include the claim that parentheticals carry their own illocutionary force, the distinction between pure and impure parentheticals, and the empirical puzzles it sets out to solve. Section 1.5 introduces the basic formalism and Section 1.6 is the summary.

1.1 Parentheticality and the layers of meaning

1.1.1 Entailment, presupposition, implicature

In textbooks on formal semantics, it is standard to divide propositional content into **entailment**, **presupposition**, and **implicature** (for an authoritative example, see Chierchia and McConnell-Ginet 2000). A single sentence can carry all three components, as demonstrated below.

(4)   Most students arrived late.
  a. ENTAILMENT: Most students arrived late.
  b. PRESUPPOSITION: There is a unique group of students.
  c. IMPLICATURE: Not all students arrived late.

In practice, what is intuitively felt to be the "meaning" of a sentence is some combination of these three components (and potentially more). In (4), we can take—as a first approximation—the conjunction of the three implications as constituting what an utterance of this sentence communicates. More elaborate theories of meaning investigate the layered way in which these components interact with each other and the context.

 Entailment, presupposition, and implicature are distinguished by a number of properties. We start with entailment, which is the most vanilla-flavored type of meaning, one that is due to the literal meaning of the words that make up the sentence. It decides between truth and falsity, in the sense that a sentence cannot be true if one of its entailments is false. The sentence in (4), for example, carries with it a number of entailments, including "Some students arrived late", "Most students did something", "Some students did something", etc., and all of these need to hold in order for the sentence to be true. The most informative entailment, i.e., the one from which all other entailments follow, is listed in (4a).[1]

 Entailment amounts to what a sentence "says", "asserts", or adds to the context. As Stalnaker (1978) points out, such information should be fresh and should not already

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[1] The entailments of a sentence form a partial order based on their informativity. In the above example, "Some students did something" is less informative than either "Some students arrived late" or "Most students did something", while the latter two entailments are not ordered by informativity.

be contained in the linguistic context. This means that the entailments of an utterance should not follow from the entailments of a previous utterance. As an example, consider the following short discourse, which violates the informativity requirement and leads to infelicity.

(5)   A woman bought an iPhone X with a stolen identity. #She bought a phone.

In addition to conveying new information, entailment constitutes the main point of the utterance or what is **at-issue**. It is the kind of content that attends to the main goals of the conversation and helps provide an answer to the question under discussion (Roberts 2012). Entailment is also the kind of content that is targeted by propositional operators such as negation, modal auxiliaries, or propositional attitude verbs. If content does not obligatorily embed under such operators, it is not entailed.

Presupposition is about what needs to hold in the context of evaluation in order for the sentence to be interpretable, or to be judged as true or false. Thus, (4) would be difficult to make sense of should (4b) be not assumed to hold, i.e., should there be no salient group of students or should there be several such groups. Obviously, the presupposition inherited by this sentence is due to the quantifier phrase *most students*. The same implication would not arise if *no students* was used instead.

The hallmark property of presupposition is **projection** (Langendoen and Savin 1971). Projection means that an implication survives in an unmodified form when the triggering expression is syntactically embedded under a propositional operator that cancels the entailments of its argument. Thus, (4) retains its original presupposition if the sentence is embedded under negation, a possibility modal, an *if*-operator, or a question operator. All of the sentences in (6) presuppose (4b).

(6)   a. Most students didn't arrive late.
       b. It's possible that most students arrived late.
       c. If most students arrived late, then the party was a disaster.
       d. Did most students arrive late?

Another prominent feature of presupposition is its non-central discourse status, as previously discussed in Strawson (1950), Karttunen and Peters (1979), and Simons et al. (2010), among others. In most cases, presupposed inferences do not contribute to what is at-issue in the given discourse, a feature that goes hand in hand with their discourse-old status. This is illustrated in (7), where what would otherwise answer the question under discussion is presented as presupposed and the discourse feels infelicitous. Contrast this with (8), where the answer is entailed and the infelicity melts away.

(7)   Q: Was there a party last night?
       A: #Most students arrived late at the party last night.

(8)   Q: How many students arrived late at the party last night?
       A: Most students did.

Where entailment and presupposition are conventionally triggered, i.e., they are due to the meaning of particular words or constructions, implicature is classically understood to be computable on the basis of entailments plus rational principles of cooperative conversation (Grice 1989).[2] Thus, assuming that the speaker in (4) is being maximally informative, we can conclude that they were not in a position to utter the stronger sentence _All students arrived late_. This latter sentence must then be false (or so the reasoning goes), hence the implicature in (4c).

Since implicatures emerge by reasoning about alternatives and optimization, they are difficult to directly compare with lexically triggered inferences like entailments or presuppositions. This might be the reason why the discourse status and the projection properties of implicatures have not been much investigated. Still, in the former case it seems reasonable to assume that the question under discussion has an effect on implicature computation (van Kuppevelt 1996; Romoli 2015; Koev 2019). Indeed, since implicatures are assumed to be optional and sensitive to the context, we would expect them to only arise if they are relevant to the question under discussion. In the latter case, it may not even make sense to talk about "implicature projection", given that implicatures are not lexically triggered and thus cannot be said to project in the usual sense. Because of all that, implicatures will not prominently feature in our discussions of parenthetical meaning in the rest of this book.

1.1.2 Where does parenthetical meaning fit?

We now come to discuss implications triggered by parenthetical expressions. Two examples are listed below.

(9) a. Edna, a fearless leader, started the descent.
     b. PARENTHETICAL IMPLICATION: Edna is a fearless leader.

(10) a. Mayor Walsh, Karina told me, will take on traffic issues.
     b. PARENTHETICAL IMPLICATION: Karina told me that Mayor
        Walsh will take on traffic issues.

Where do parenthetical implications fit into the tripartite classification of entailment, presupposition, and implicature? The first thing to notice is that parenthetical implications are conventionally triggered and would not come about if the parenthetical expression was removed from the sentence. This observation suggests that parenthetical meaning is more similar to entailment and presupposition than to implicature. Indeed, parenthetical meaning has long been recognized to share properties with both entailment and presupposition, but is also known to differ from both of these in several respects (Böer and Lycan 1976; Sells 1985; Berckmans 1994; Bach 1999; Asher 2000;

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[2] Here, I disregard <u>pragmatic</u> presuppositions, which are not lexically coded but have to do with the general assumptions participants make about the context (Stalnaker 1974). Also disregarded are theories which compute scalar implicatures by means of exhaustivity operators (Chierchia et al. 2012).

Chierchia and McConnell-Ginet 2000; Dever 2001; Potts 2005; Simons 2007; Ander-Bois et al. 2015). On the one hand, parenthetical meaning bears some resemblance to regular entailments (and is unlike presupposition) in that it obligatorily introduces fresh information. This is illustrated in (11), where the parenthetical information is contextually given and the discourse sounds needlessly repetitive.

(11)   Edna is a fearless leader in all of her endeavors. #So Edna, a fearless leader, started the descent.

On the other hand, parenthetical meaning is much more similar to presupposition (rather than entailment) when it comes to its scopal properties and discourse status. Yet it also exhibits properties that set it apart from both entailment and presupposition.

Let us start with the scopal properties. It is well known that (a subset of) parenthetical expressions trigger implications that survive syntactic embedding under non-veridical propositional operators (Thompson 1971; Böer and Lycan 1976; Chierchia and McConnell-Ginet 2000; Asher 2000; Green 2000; Dever 2001; Potts 2005; Schlenker 2013; Koev 2014; Venhuizen et al. 2014; AnderBois et al. 2015; Martin 2016). This is illustrated in (12), where all of the embedded counterparts inherit the parenthetical implication of the original sentence in (9), i.e., that Edna is a fearless leader.

(12)   a. Edna, a fearless leader, didn't start the descent.
       b. It's possible that Edna, a fearless leader, started the descent.
       c. If Edna, a fearless leader, started the descent, then we have nothing to worry about.
       d. Did Edna, a fearless leader, start the descent?

This is the same kind of projection test that we used in (6) for presupposition, so we can call parenthetical implications with this property "projective". However, we would be well advised to use projection as a merely descriptive term. As we will discover in Chapter 3, parenthetical projection has a different profile and is more robust than presupposition projection. So the mechanisms that underlie these two instances of projection should differ as well.

Projection applies to only one group of parentheticals. Another group of parentheticals shows a rather distinct scopal behavior. Rather than triggering an inference that survives syntactic embedding, these parentheticals systematically resist embedding in the first place. An example of this pattern is shown in (13). If interpretable at all, the parenthetical expression here takes scope over the entire structure, not just over the embedded clause. A reflex of that is the intuition that the parenthetical is not interpreted under the possibility modal.

(13)   ?It's possible that Mayor Walsh, Karina told me, will take on traffic issues.

This is a very different kind of scopal behavior than that of presupposition. It suggests that certain parentheticals need to occur in root clauses and modify entire utterances.

We can summarize the two scopal patterns for parentheticals (projection vs. unembed-dability) by saying that parenthetical implications are "scopeless", or that they cannot take scope under propositional operators.

Parenthetical meaning shares with presupposition one more property that has to do with their discourse status. Both parenthetical meaning and presupposition are (usually) not at-issue relative to the question under discussion (Simons et al. 2010; Syrett and Koev 2015; Hunter and Asher 2016; Beaver et al. 2017). Thus, while (9a) communicates that Edna is a fearless leader and that she started the descent, the former piece of information cannot naturally answer the question under discussion, as in (14). In a similar vein, the parenthetical implication in (10b) has a looser link to the question under discussion than do the regular entailments, as in (15).[3]

(14)   Q: Is Edna a fearless leader?
       A: #Edna, a fearless leader, started the descent.

(15).   Q: Who told you that Mayor Walsh will take on traffic issues?
        A: #Mayor Walsh will, Karina told me, take on traffic issues.

In general, by marking semantic content as parenthetical the speaker strongly suggests that this content is not relevant to the current discourse topic.

Beyond scope and information status, I mention one more property that is parochial to a subgroup of parentheticals. Unlike entailment and presupposition, parenthetical meaning can have an impact on various components of the illocutionary force asso-ciated with the main sentence. Looking back at (10a), this sentence incurs a weaker commitment to the core proposition than would a plain assertion of *Mayor Walsh will take on traffic issues*. At the same time, (10a) is not fully equivalent to the parentheti-cal implication in (10b), if non-truth-conditional meaning is taken into consideration. While (10b) expresses a single (if complex) proposition, (10a) preserves the original illocutionary force of the core sentence and ends up conveying two different commu-nicative acts (Davis et al. 2007; Koev 2021). Parentheticals with this property serve as linguistic tools for modifying aspects of the utterance meaning rather than just contributing additional content. Although such parentheticals may add descriptive content, they also have illocutionary effects.

We have arrived at the picture of the place of parenthetical meaning within the entailment–presupposition divide as shown in Table 1.1. Given their in-between sta-tus, trying to fit parentheticals into the familiar boxes of meaning may not be the best strategy. Neither is it a good idea to subsume their meaning under fashionable labels like "conventional implicatures", "projective entailments", "not-at-issue content", etc. The reason is that such labels are both too broad and too narrow, and thus do not make the right cut. On the one hand, these labels crisscross the implications triggered

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[3] As we will discover in Chapter 4, the actual pattern is more involved. What is actually wrong with (14) and (15) is not that the parentheticals answer the question under discussion but that the root clause does not answer that question, although it has to. But for now, these examples are enough to make the general point.

by a wide range of expressions, some of them far away from parentheticals. Thus, Potts (2005) borrows the term "conventional implicature" from Grice (1989) but redefines it to apply to implications triggered by parentheticals, expressive adjectives, honorifics, etc. Beyond that, conventional implicature-like analyses have been proposed for evidentials (e.g., McCready 2010), quotational indefinites (e.g., Koev 2017), and more. The class of triggering expressions then becomes too broad to leave any hope of a unified analysis. On the other hand, parentheticals are too diverse semantically, and such labels cover only a subset of them. Specifically, Potts' conventional implicatures single out parentheticals of the projective kind and ignore those that preferably appear in root clauses.

Table 1.1. Comparing parenthetical meaning with entailment and presupposition

	entailment	presupposition	parenthetical meaning
conventionally triggered	✓	✓	✓
(typically) discourse-new	✓	✗	✓
(obligatorily) at-issue	✓	✗	✗
(obligatory) scopal interaction	✓	✗	✗
(potential) illocutionary effects	✗	✗	✓

The diversity of parenthetical expressions raises the question of whether it makes sense to study them as a single phenomenon at all. True, the term "parenthetical" may be a useful descriptive tool, but does it carve out a uniform semantic category? This book aims to show that this is indeed the case. I will try to demonstrate that—idiosyncrasies aside—there is nothing too mysterious about parentheticals. Such expressions instantiate what may be called "illocutionarily independent meaning", i.e., meaning that is encapsulated in a separate force operator and that assumes a relative autonomy relative to the remaining part of the sentence.

1.2 The empirical landscape

Every scientific endeavor requires a careful selection of the data. The nature of parenthetical meaning too can be fruitfully studied on the basis of a representative and smartly selected sample of parenthetical expressions. We would be well advised to assemble an appropriate list and fix labels before embarking on the actual analysis. This is what I will do in this section.

The most widely studied kind of parentheticals is appositives (Jackendoff 1977: ch.7; Sells 1985; McCawley 1988: ch.13; Demirdache 1991; Del Gobbo 2003; Potts 2005; among many others). The two types of appositives that will prominently feature in this book are **appositive relative clauses**, as in (16), and **nominal appositives**, as in (17). All parentheticals in this section are typographically set off by underlining.

(16)   Lance, <u>who was about to retire</u>, admitted to doping.