St. John's Law Review

Volume 85
Issue 1 *Volume 85, Winter 2011, Number 1*

Article 3

October 2011

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Recommended Citation
Osenga, Kristen (2011) "Cooperative Patent Prosecution: Viewing Patents Through a Pragmatic Lens," *St. John's Law Review*: Vol. 85: Iss. 1, Article 3.
Available at: http://scholarship.law.stjohns.edu/lawreview/vol85/iss1/3

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COOPERATIVE PATENT PROSECUTION: VIEWING PATENTS THROUGH A PRAGMATICS LENS

KRISTEN OSENGA[†]

INTRODUCTION

Conversation is easy. We converse with other people daily. Some of the communications are oral, occurring face-to-face or over the telephone. Other conversations occur over a chain of e-mails or in real time, using instant messaging or chat room technology. Sometimes the content of conversation is important and informative. Conversations can propel business deals, peace negotiations, or medical decisions. But other times the content is not important at all; it may be mundane or even banal. Small talk about the weather, the stock market, or local sports teams is less about content and more about the social relationships it helps develop and maintain. Regardless of its purpose and regardless of its style, we use language to converse all the time without much ado.

Patent law, by contrast, is hard. The task of claim construction—interpreting the words that patents use to delineate the boundaries of the patentees' exclusive rights[1]—is

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[1] *See* Zenith Labs., Inc. v. Bristol-Myers Squibb Co., 19 F.3d 1418, 1424 (Fed. Cir. 1994) ("It is the claim that sets the metes and bounds of the invention entitled to the protection of the patent system."); Craig Allen Nard, *A Theory of Claim Interpretation*, 14 HARV. J.L. & TECH. 1, 3 (2000).

one of the most important aspects of patent law but also one of the most difficult. Judges have called claim construction "a special occupation,"[2] "a mongrel practice,"[3] even "impossible,"[4] and for good reason. Interpretation of the terms used in a patent remains basically a crap-shoot, with the United States Court of Appeals for the Federal Circuit reversing trial court claim construction determinations in 33% to 50% of patent cases.[5] It is little wonder that claim construction has drawn much criticism from scholars.[6] Claim construction may well be the most difficult and misunderstood aspect of patent law.

So why is there so much ado about claim construction? Some say that claim construction is hard because the information conveyed by the words is of great consequence. But this alone cannot explain why claim construction is the subject of so much discussion; there is an awful lot of important information conveyed in everyday conversation as well, but without all of the

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[2] Markman v. Westview Instruments, Inc., 517 U.S. 370, 388 (1996) ("Patent construction in particular 'is a special occupation, requiring, like all others, special training and practice.' " (quoting Parker v. Hulme, 18 F. Cas. 1138, 1140 (C.C.E.D. Pa. 1849))).

[3] *Id.* at 378.

[4] Thurber Corp. v. Fairchild Motor Corp., 269 F.2d 841, 850 (5th Cir. 1959) ("There is no question but what the claims are complex and drafted with language and in a style that makes them difficult if not impossible for laymen—and indeed, for most lawyers and judges—to understand.").

[5] The Federal Circuit is the appellate court with primary responsibility for patent cases. Various empirical studies have calculated that Federal Circuit reversal rates based on claim construction errors are between 30% and 50%. *See, e.g.*, Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1476 & n.4 (Fed. Cir. 1998) (en banc) (Rader, J., dissenting) (noting that reversal rates were "hovering near 50%" for cases decided in 1995 through 1997); Kimberly A. Moore, *Are District Court Judges Equipped To Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 2, 4 (2001) (finding a reversal rate of 33% over the time period 1996 to 2000); Christian A. Chu, Note, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 BERKELEY TECH. L.J. 1075, 1092, 1098 (2001) (finding a reversal rate of 47.3% over the time period January 1, 1998 to April 30, 2000).

[6] The number of articles written that criticize claim construction is legion. For just a few examples, see John M. Golden, *Construing Patent Claims According to Their "Interpretive Community": A Call for an Attorney-Plus-Artisan Perspective*, 21 HARV. J.L. & TECH. 321, 327 (2008); Timothy R. Holbrook, *Substantive Versus Process-Based Formalism in Claim Construction*, 9 LEWIS & CLARK L. REV. 123, 125–26 (2005); Jeffrey A. Lefstin, *The Measure of the Doubt: Dissent, Indeterminacy, and Interpretation at the Federal Circuit*, 58 HASTINGS L.J. 1025, 1030 (2007); Kelly Casey Mullally, *Patent Hermeneutics: Form and Substance in Claim Construction*, 59 FLA. L. REV. 333, 343 (2007); David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 227 (2008).

trouble that accompanies claim construction. Another explanation is that patent claims include scientific jargon that is nearly impossible to understand. But the reality is that, more often than not, parties litigate over simple words being used just as they would be in everyday conversation. Words like "a," "or," "to," "on," "about," "including," and "through" have been the subject of claim construction disputes.[7] For the most part, patents are like everyday conversation, relying on language to convey information from one party to another and serving as an exchange of information between an inventor, the Patent Office, and the public.

Despite the significance of language and communication in patent law, and law generally, legal scholars have shown surprisingly little interest in linguistics—the study of language and how we understand it—and even less interest in pragmatics—the study of how context enriches content.[8] This is odd, given the importance of interpretation and construction in all areas of the law.[9] The few scholars that have adopted a linguistics-based framework to examine legal communication have focused on statutory language and its relation to everyday conversation.[10] But despite the volumes of scholarly analysis devoted to claim construction thus far, no one has considered the

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[7] *See* Dan L. Burk & Mark A. Lemley, *Quantum Patent Mechanics*, 9 LEWIS & CLARK L. REV. 29, 53 (2005); *see also* Golden, *supra* note 6, at 338–39; David Krinsky, *The Supreme Court, Stare Decisis, and the Role of Appellate Deference in Patent Claim Construction Appeals*, 66 MD. L. REV. 194, 205 (2006) ("[D]isputed claim terms, even for technical patents, are often not terms of art, but rather are ordinary English words given their everyday meanings.").

[8] *See* Elizabeth Fajans & Mary R. Falk, *Linguistics and the Composition of Legal Documents: Border Crossings*, 22 LEGAL STUD. F. 697, 697 (1998).

[9] For the sake of completeness, there is a difference between interpretation and construction in law. Particularly, interpretation is determining the linguistic meaning or semantics of a legal text, while construction is translating the interpretation into a set of legal rules. These distinctions do have some relevance, but in patent law, as well as in this piece, we find the two terms used interchangeably.

[10] *See* Andrei Marmor, *The Pragmatics of Legal Language*, 21 RATIO JURIS 423 (2008); Geoffrey P. Miller, *Pragmatics and the Maxims of Interpretation,* 1990 WIS. L. REV. 1179, 1182–83; M.B.W. Sinclair, *Law and Language: The Role of Pragmatics in Statutory Interpretation*, 46 U. PITT. L. REV. 373, 374 (1985).

implications of linguistics theory in intellectual property law.[11] It is time to examine patent claim construction through a conversational linguistics lens.

In particular, by viewing patents as conversations, we can take advantage of the rich body of work that has been developed in linguistics to understand more clearly the source of indeterminacy in patent claim construction. Various doctrines of claim construction make perfect sense when viewed through the conversation lens. And a linguistics-based approach shows us that, contrary to mainstream patent literature, the existing process for claim construction is actually pretty good. In fact, given linguistic limitations, claim construction is about as good as it is going to get.

But if it is true that both everyday conversation and patent conversation are similar exchanges of information, why is claim construction difficult where understanding everyday conversation is not? There is one stark difference between these two types of conversation: Everyday conversation is easy because it is the result of a cooperative enterprise, while patent conversation is purposefully and pragmatically non-cooperative. It is not until we consider the exchange of patent information as a conversation and apply a conversational linguistics approach to claim construction that we realize the value of this insight: Claim construction can only be improved if we can raise the level of cooperation in the conversations that result in the grant of a patent. To inject cooperation into the patent prosecution process, we need to provide incentives to both the inventor and the Patent Office to act cooperatively. We also need to change patent prosecution and claim construction rules to create and benefit from a more cooperative atmosphere. Finally, we need to take advantage of this new air of cooperation by institutionalizing the

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[11] One intellectual property scholar, Joseph Scott Miller, has acknowledged the conversational linguistic aspects of the patent document. Miller does not contemplate the differences between a patent and ordinary conversation, however; rather, he relies on the basic conversation implicature to bolster the need for ordinary meaning in the claim construction process. *See* Joseph Scott Miller, *Enhancing Patent Disclosure for Faithful Claim Construction*, 9 LEWIS & CLARK L. REV. 177, 189 (2005). Other scholars, such as John R. Thomas, have made the observation that the patent acquisition process looks like a conversation but have not explored a conversational linguistic approach. *See* John R. Thomas, *On Preparatory Texts and Proprietary Technologies: The Place of Prosecution Histories in Patent Claim Interpretation*, 47 UCLA L. REV. 183, 184 (1999) (calling the patent prosecution process a "dialogue").

shared background knowledge of the parties to the conversation, present by proxy as a person having ordinary skill in the art. By making these changes, we can take advantage of conversational linguistic insights to improve the outcome of the existing claim construction processes.

This Article constructs a linguistics-based framework to consider claim construction and demonstrates that the often-told story that claim construction is broken is, in fact, wrong. Rather, it is the underlying conversations that comprise the patent acquisition process that are to blame. In Part I of this Article, I use linguistics to describe the characteristics of everyday conversation, as well as how it is interpreted. In Part II, I explain what patent conversations look like and how they are similar to and different from everyday conversation. In Part III, I apply the theories of interpreting everyday conversation to patent conversation. Breaking from tradition, I assert that claim construction is not broken; much claim construction methodology aligns with how we interpret everyday conversation. Claim construction is as good as it can be, given linguistic limitations. The problem is the patent conversation itself, specifically the communications that occur between the inventor and the Patent Office that give rise to an issued patent. I close, in Part IV, by explaining how cooperation can—and should—be injected into the patent conversation and how a cooperative patent conversation leads to improved claim construction.

I. EVERYDAY CONVERSATION

Linguistics scholars have long realized that cooperation is the key to communication.[12] It is this cooperation that is lacking in patent conversations. To understand how increasing the level of cooperation in patent conversations can lead to better claim construction determinations, we first need to examine the characteristics of everyday conversation and discuss how cooperation adds context to content in interpreting everyday speech. Only then can we apply what we know about everyday conversation to patent conversation.

[12] *See* Jens Allwood, *Cooperation, Competition, Conflict and Communication* 1 (Gothenburg Papers in Theoretical Linguistics, 2007), *available at* http://www.hprints.org/docs/00/46/04/98/PDF/gupea_2077_21865_1.pdf.

A. Characteristics of Everyday Conversation

At its most basic level, conversation is an exchange between a speaker, or sender, of information and a hearer, or receiver, of information.[13] Conversation relies on language, and there is an assumption that both the speaker and the hearer are fluent in the language of the exchange. Although not typically considered a "conversation," everyday writing shares the feature of being an exchange of information that relies on language and can be viewed as a conversation.[14] In everyday conversation, the parties may take alternating roles in communicating or acting as the speaker; this is known as bilateral conversation.[15] When the conversation is bilateral, the hearer can clarify any lack of understanding by simply asking the speaker. The hearer, however, need not become a speaker for communication to occur. When only one party is conveying information, this is known as unilateral conversation.[16] With this type of communication, the speaker's clarity becomes more important because there is no opportunity to seek clarification. Regardless of whether the conversation is unilateral or bilateral, the underlying theme of everyday conversation is an assumption that the speaker intends to convey some type of information to the hearer, who will understand that information is being conveyed.[17]

To facilitate the exchange of content, the speaker implicitly promises to convey information to the hearer that is not already known and that is relevant, or at least closely enough related, to what the hearer already knows so that the hearer can make a

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[13] *See* Henry E. Smith, *The Language of Property: Form, Context, and Audience*, 55 STAN. L. REV. 1105, 1133 (2003).

[14] *See* Fajans & Falk, *supra* note 8, at 718–19. Writing is also subject to the same concerns discussed below:

> Because writing is a communicative act, a writer must assess the audience's knowledge and inferencing capacities and supply what the audience needs to decode or discern the text's purpose and meaning. This suggests that no text is sufficient unto itself; all texts rely on a reader's extra-textual knowledge, knowledge that helps the reader process the text.

Id. at 718.

[15] *See* BLACK'S LAW DICTIONARY 184 (9th ed. 2009) (defining "bilateral" as "[a]ffecting or obligating both parties").

[16] *See id.* at 1671 (defining "unilateral" as "[o]ne sided; relating to only one of two or more persons or things").

[17] DAN SPERBER & DIERDRE WILSON, COMMUNICATION & COGNITION 116 (2d ed. 1995). Whether or not he actually understands the information conveyed depends on many factors, including the skill of the speaker in conveying it.

connection.[18] Of course, this is not strictly true. As mentioned above, conversation is sometimes not informative or is informative but irrelevant; these types of conversation are useful to create or maintain social relationships.[19] However, the hearer generally expects that the speaker will be "informative, truthful, relevant, clear, unambiguous, brief, and orderly."[20] This mutual pairing of guarantee and expectation allows for efficient conversation, ideally free of ambiguity and missing pieces.[21] It also means that it should be apparent to the parties when the information intended to be conveyed differs from the speech's semantic content, in other words, the plain meaning of the words of the utterance.[22] Everyday conversation is thus cooperative because the speaker and the hearer share an expectation that full and accurate information is being conveyed.

These cooperative ideals further shape other characteristics of everyday conversation. Conversations can occur between any two or more parties. To succeed in the goal of conveying information, the speaker's style may vary based on the composition of the audience. In every conversation, members of the audience can be classified into four categories: addressees, auditors, overhearers, and eavesdroppers.[23] An addressee is intended to hear the speaker's utterance.[24] An auditor is known by the speaker to be listening and the auditor's presence is ratified, or accepted, by the speaker; he is not, however, the target of the speaker's utterance.[25] An overhearer is known to be listening, but the overhearer's presence is not ratified.[26] Finally,

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[18] *See* Paul E. McGreal, *Slighting Context: On the Illogic of Ordinary Speech in Statutory Interpretation*, 52 U. KAN. L. REV. 325, 346 (2004) (quoting STEVEN PINKER, THE LANGUAGE INSTINCT: HOW THE MIND CREATES LANGUAGE 228 (1994)).

[19] *See* JAMES R. HURFORD, BRENDAN HEASLEY, MICHAEL B. SMITH, SEMANTICS: A COURSEBOOK 4–5 (2d ed. 2008).

[20] *See* McGreal, *supra* note 18 (quoting PINKER, *supra* note 18).

[21] *See id.* at 345 ("Cooperation is not simply a matter of style, making conversation more concise; it makes communication more efficient by increasing a speaker's speed and clarity. Speed affects a conversation's cost because, as economists know, time is money.").

[22] *See* Marmor, *supra* note 10, at 428 ("A speaker would normally succeed in conveying assertive content that differs from what he says, when it would be obvious to the hearer, in the particular context of the conversation, that it just cannot be the case that the speaker asserts exactly what he says.").

[23] *See* Smith, *supra* note 13, at 1134.

[24] *See id.*

[25] *See id.*

[26] *See id.*

the speaker is unaware of the listening by an eavesdropper.[27] Based on the composition of the audience and the content of information, a speaker may wish to convey information so that it is made available to all hearers. In other cases, the speaker, knowing the audience, may adjust the content to target only the addressee. For example, if a speaker is trying to convey that ice cream may be available after dinner to an adult addressee in the presence of a child auditor—or perhaps overhearer, as children go—the speaker may be purposefully more abstruse and indirect in conveying the information so as not to excite the child who has not yet finished his entrée.

Aside from the idea of different categories of hearers, other aspects about the composition of the audience help the speaker choose how to convey information. For example, a speaker may use an alternate tone or even different word choices when talking to adult addressees versus child addressees. To an adult, the speaker may simply say "This place is a mess!" whereas to a child, the speaker may need to succinctly spell out that the child needs to tidy the room, and soon.

Conversations occur in any number of places and at any number of times. These factors can also affect the characteristics of a conversation. The content may differ based on whether the conversation is formal or informal. Formal situations generally call for more reliance on content and less reliance on context by using more nouns and fewer pronouns, leaving less to the hearer's interpretation and imagination.[28] Formal situations also are more likely to extend beyond the two-party, familiar conversation and to include additional parties, such as overhearers and eavesdroppers.[29] Because the speaker may be less informed about the audience composition, the amount of content required to convey the information may increase to compensate for a lack of certainty about the background knowledge shared with the audience.[30] Finally, formal

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[27] *See id.*

[28] *See id.* at 1135. As an aside, some languages, like Spanish, have entirely separate verb conjugation forms for formal circumstances versus informal. For example, consider the conjugation of "hablar" or "to speak"; the phrase "you speak" is rendered "tú hablas" in the familiar and "usted habla" in more formal conversation.

[29] *See id.* at 1113.

[30] *See id.* at 1136 ("[S]peakers are more explicit in more anonymous, communicative settings."). This need for extra explicit speech comes at a cost to the

conversations are more likely than informal conversations to be unilateral, again imposing a need for additional content in the absence of the ability to seek clarification.[31] As will be described below,[32] conversations in patent law share many of the characteristics of formal conversation.[33]

B. How We Interpret Everyday Conversation

Part of the appeal of using everyday conversation as a framework for examining claim construction in patent law is its simplicity. We generally understand these conversations without thinking much about them. In fact, we communicate with words without explicitly defining the words or adhering to rigid rules as to their usage—yet, communication occurs and the hearer understands.[34] As noted above, the content conveyed by conversation is enhanced by context; together, content and context create the meaning.[35]

Although participants to everyday conversation may not give much thought to the process of communication, there is a field of study—linguistics—that is concerned with all aspects of language, ranging from how sounds are formed, to what words mean, to how words are grouped together to convey ideas.[36] The branch of linguistics that most informs our understanding of everyday conversation is pragmatics.[37] Pragmatics includes the study of how "utterances"[38] become communication and, in

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speaker, who is required to choose his words more carefully and cannot rely on any extra-speech signals. *See id.* at 1136–37.

[31] *See id.* at 1149.

[32] *See infra* Part II.

[33] Patent conversation tends to be written, whereas everyday conversation can be either oral or written. However, the study of linguistics is appropriate in both cases because at bottom we are dealing with a question of language. As linguist Leonard Bloomfield remarked, "writing is not language, but merely a way of recording language by means of visible marks." LEONARD BLOOMFIELD, LANGUAGE 21 (1933). Thus, the application of linguistic concepts to patent conversation is as apt as applying linguistics to everyday conversation.

[34] *See* McGreal, *supra* note 18, at 334.

[35] *See supra* Part I.A.

[36] *See, e.g.*, Kristen Osenga, *Linguistics and Patent Claim Construction*, 38 RUTGERS L.J. 61, 84–85 (2006).

[37] *See* Kepa Korta & John Perry, *Pragmatics*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY, http://plato.stanford.edu/entries/pragmatics (Nov. 28, 2006).

[38] *See* HURFORD, HEASLEY & SMITH, *supra* note 19, at 16–17 (defining an "utterance" as a stretch of talk preceded and followed by silence, compared to a "sentence" or string of words put together following the rules of grammar).

particular, how context surrounding an utterance provides additional content. Specifically, pragmatics differentiates "what words mean, what the speaker literally says when using them, and what the speaker means or intends to communicate by using those words, which often goes considerably beyond what is said."[39]

1. Understanding Content

Content in conversation comes from the words used and how they are put together. Word meanings can be expressed in two ways, by referent or by sense.[40] The referent of a particular expression is the thing or person to which it refers; you say the word "dog" and point to a terrier sitting on the floor next to you.[41] The sense of a particular expression, in contrast, is an abstraction, not a physical thing that can be pointed to.[42] Dictionaries are full of words or expressions that have the same sense.[43] This means that the word "dog" in the dictionary does not refer to a particular terrier nor to any other breed of dog sitting on the floor next to you; it simply points in the direction of other words that mean the same thing, such as "canine." While dictionaries help to understand the meanings of words, they cannot be used in the first instance—for example, an English dictionary cannot be used to help a non-native speaker learn his first English word—because expressions are defined via other

[39] Korta & Perry, *supra* note 37. However, the field of near-sided pragmatics does have relevance in patent interpretation. *See* GEORGIA M. GREEN, PRAGMATICS AND NATURAL LANGUAGE UNDERSTANDING 1 (2d ed. 1996) ("Pragmatics is the study of the mechanisms that [allow us to] use the term *communicate* interchangeably with *speak* or *write*, never noticing that the term *communication* presupposes achievement of the intended effect of verbal action upon the addressee, while *speaking* and *writing* do not. . . . Communication is, rather, the successful interpretation by an addressee of a speaker's intent in performing a linguistic act."); Paul F. Kirgis, *Meaning, Intention, and the Hearsay Rule*, 43 WM. & MARY L. REV. 275, 297 (2001) ("Communication is an act, and it is an act motivated by an intention to produce certain beliefs in an audience . . . . Meaning is thus a function of [the utterer's] intention and the belief in [the audience] that [the utterer] seeks to produce.").

[40] *See* HURFORD, HEASLEY & SMITH, *supra* note 19, at 26; Kevin Emerson Collins, *The Reach of Literal Claim Scope into After-Arising Technology: On Thing Construction and the Meaning of Meaning*, 41 CONN. L. REV. 493, 541 (2008).

[41] *See* HURFORD, HEASLEY & SMITH, *supra* note 19, at 31.

[42] *See id.*

[43] *See id.* at 32.

expressions of the same sense or abstraction.[44] Telling a non-native speaker that a "dog" is a "canine" is not helpful.[45] When interpreting the content of everyday conversation, it is safe to assume that competent speakers and hearers of the language know what is meant, at least generally.[46] Once a hearer has a critical mass of understanding about the stable meaning of words in a language, the hearer can quickly grasp different conversational and social uses of the same words.[47]

It is tempting to think that content alone is all that is required for communication. Admittedly there is a certain appeal to taking words at face value or following the "plain text" movement of interpretation, if you will. The adage "[s]ay what you mean and mean what you say" has appeared in various forms and fora, ranging from a dialog in *Alice's Adventures in Wonderland*[48] to quotations from Dr. Seuss[49] and General George S. Patton,[50] not to mention as an exhortation from parents and teachers over the years. If we could simply rely on the content conveyed in the utterance itself, the interpretive process would be greatly streamlined. Unfortunately, the benefits of an economical interpretive methodology, such as plain text, are outweighed by the additional content that can be derived from context. In short, context is required.

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[44] *See id.*

[45] This is true unless, of course, the non-native speaker is fluent in Latin.

[46] *See* HURFORD, HEASLEY & SMITH, *supra* note 19, at 7.

[47] *See id.* at 6.

[48] LEWIS CARROLL, ALICE'S ADVENTURES IN WONDERLAND 62 (Delacorte Press/Seymour Lawrence 1977) (1865).

> "Then you should say what you mean," the March Hare went on.
>
> "I do," Alice hastily replied; "at least—at least I mean what I say—that's the same thing, you know."
>
> "Not the same thing a bit!" said the Hatter. "Why, you might just as well say that 'I see what I eat' is the same thing as 'I eat what I see'!"

Id.

[49] Although the quote "Say what you mean and mean what you say, because those who mind don't matter and those who matter don't mind," appears in multiple places on the Internet attributed to Dr. Seuss, it is possible that the quote is actually a conflation of two quotes by Dr. Seuss—"I meant what I said and I said what I meant" from *Horton Hatches an Egg* and "Be who you are and say what you feel, because those who mind don't matter and those who matter don't mind," attributed generally to Dr. Seuss. *See Dr. Seuss Quotes*, THE QUOTATIONS PAGE, http://www.quotationspage.com/quotes/Dr._Seuss/ (last visited Mar. 12, 2011).

[50] *See Quotations by General George S. Patton*, http://www.generalpatton.com/quotes.html (last visited Mar. 12, 2011) ("Say what you mean and mean what you say.").

2. Understanding Context

In everyday conversation, the content, or information communicated, is based not only on the words used, but also on context. Consider an example: A wounded woman asks an emergency room physician if she is going to die.[51] The doctor responds simply, "you are not going to die."[52] Despite the doctor's response, there is no reason to question our ideas about mortality. Although the plain meaning of the utterance would suggest otherwise, the content conveyed by the conversation is not that the patient is immortal but rather that she will not die from her current wounds.[53] This is an instance where context provides additional, and perhaps more important, data to the words actually used. The context of the situation, plus the speaker's and hearer's shared knowledge that no one lives forever, enhance the content of the utterance and provide a richer, more accurate meaning for the information conveyed.

Context also enriches ordinary conversation where the same responsive utterance may be intended to mean various things in different situations.[54] For example, if a man is asked if he has two children and he responds "yes," the understanding is that he has exactly two children, no more and no less.[55] Yet, if a man is asked if he has two beers in his refrigerator and he responds "yes," the likely information intended to be conveyed is that he has *at least* two beers and perhaps more.[56] The extra content conveyed by context in these examples is more subtle, yet it

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[51] *See* Marmor, *supra* note 10, at 426.

[52] *See id.* Marmor also provides a similar example of a bartender who tells a teenager that he "must be 21 years old to drink." *Id.* The speaker and the hearer understand that you need to be 21 or older to drink, not precisely 21. *See id.* The context of the dialogue, that speaker and hearer are in a bar, adds the detail that it is likely alcohol and not apple juice that can only be drank by persons 21 or older. *See id.*

[53] *See id.*

[54] These examples, and others highlighting how conversational context enhances meaning, are found in Scott Soames, *Interpreting Legal Texts: What Is, and What is Not, Special About the Law*, *in* 1 PHILOSOPHICAL ESSAYS 403, 411 (2009).

[55] *See id.*

[56] *See id.* (" 'Exactly,' 'at least' . . . —these are additions to what is asserted, generated by special features of the context of utterance, over and above [the words themselves]. In all these cases, what is communicated isn't the semantic content of the sentence uttered, but something richer, to which meaning and obvious background assumptions have both contributed.").

shows that context and shared understanding can only be ignored at the risk of not fully understanding the meaning of the utterance.

Although context can be derived from a variety of sources, one place that context can be found is in the "conversation" itself, or the dialog that occurs between the speaker and the hearer. Looking carefully at a conversation, we learn "an important truth about ordinary speech": Speakers in everyday conversation leave much unsaid, depending on context to carry the intended meaning.[57] Despite the amount of unspoken content, everyday conversation goes on, relatively, without a hitch. This is because speakers rely on information that can be implied or derived from the circumstances surrounding the conversation—who is participating, when the conversation occurs, where the conversation occurs, and so on—as well as information present in the speaker's and hearer's shared background.[58] These implications allow for a much more detailed understanding of the content being conveyed.

Linguist and philosopher H. Paul Grice examined conversation-based context, focusing in part on the meaning intended by the speaker, the linguistic meaning of the utterance itself, and the interrelations between these two meanings.[59] In particular, he analyzed conversation, observing that everyday exchanges are typically about a topic known to the participants, about which they have shared general knowledge to which the conversation adds, and which refines the shared general

[57] McGreal, *supra* note 18, at 325–26.

[58] *See id.* at 325. Because speakers and hearers have expectations about the content of everyday conversation, the fact that much is left unsaid does not cause problems, as discussed below. *See id.* at 346 ("These expectations help to winnow out the inappropriate readings of an ambiguous sentence, to piece together fractured utterances, to excuse slips of the tongue, to guess the referents of pronouns and descriptions, and to fill in the missing steps of an argument." (quoting PINKER, *supra* note 18, at 228–29)).

[59] *See* Richard E. Grandy & Richard Warner, *Paul Grice*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY, http://plato.stanford.edu/entries/grice/ (Edward N. Zalta ed., last updated Mar. 23, 2009).

knowledge.[60] Grice termed the enhanced meaning provided by the context of the exchange "conversational implicature."[61]

Conversational implicature makes it possible to derive additional information above and beyond the content of the utterances.[62] Consider an example: Man *X* is standing near his car on the side of a road. It is evident that the car has run out of gas. He asks for help from woman *Y*, a local person who passes by. *Y* says to *X*, "There is a gas station in the next town."[63] While *Y* has not actually said she knows that the station is open, is the closest station, and has gas to sell, it can be implied from the conversation that this is information that *Y* intended to convey.[64] This makes sense to us as regular participants in everyday conversation, but how does conversational implicature work?

Grice begins his explanation of conversational implicature with the initial premise that everyday conversation is a cooperative enterprise.[65] In its idealized form, the speaker abides by the following principle: "Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged."[66] Others have recast this theme to reflect more clearly that conversation is intended to convey information from speaker to hearer: "[A]gents will not speak obscurely in attempting to communicate."[67] Cooperation is required for efficient, not to mention successful, conversation.[68]

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[60] *See* Sinclair, *supra* note 10, at 384–85; *see also* Paul Grice, *Logic and Conversation*, *in* STUDIES IN THE WAY OF WORDS 22, 29 (1991) (referring to ideal cooperative conversations as those in which the participants "have some common immediate aim," the participants' contributions should be "dovetailed, mutually dependent," and the "transaction should continue in appropriate style").

[61] Wayne Davis, *Implicature*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY, http://plato.stanford.edu/entries/implicature (last updated Sept. 22, 2010).

[62] Paul Grice, *Presupposition and Conversational Implicature*, *in* RADICAL PRAGMATICS 183, 184–85 (Peter Cole ed., 1981).

[63] Grice provides this example in more continental terms, such as "petrol" and "garage," but the gist of the exchange remains the same. *See* Grice, *supra* note 60, at 32.

[64] *See id.*

[65] *See id.* at 26.

[66] *Id.*

[67] *See* Miller, *supra* note 11, at 189–90 n.62 (citing GEORGIA M. GREEN, PRAGMATICS AND NATURAL LANGUAGE UNDERSTANDING 91 (2d ed. 1996)).

[68] McGreal, *supra* note 18, at 343.

> The efficiency . . . depends on the participants' sharing a lot of background knowledge about the events and about the psychology of human behavior.

From the general principle of cooperation, Grice develops conversational implicature by devising four categories of maxims related to everyday conversation: quantity, quality, relation, and manner.[69] Under the maxim of quantity, a speaker's contributions should be as informative as required for the current purposes of the conversation but should not provide too much, or extraneous, information.[70] The maxim of quality discourages the speaker from making statements that the speaker believes to be false or for which he lacks adequate evidence or knowledge.[71] The maxim of relation simply requires that the speaker strive to be relevant.[72] Finally, the maxim of manner is related to form, rather than substance; the speaker should avoid obscure expressions, ambiguity, verbosity, and disorder.[73]

Speakers are, of course, not bound by these maxims; in fact, the guidelines may even conflict at times.[74] But, in the complete absence of these ideals, conversation would fail.[75] If instead we can assume that the speaker is acting in accord with the general principle of cooperation and the maxims that flow from it, we can also make inferences that extend beyond the semantic content imparted by the words alone.[76] There is content above and

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> They must use this knowledge to cross-reference the names, pronouns, and descriptions with a single cast of characters, and to fill in the logical steps that connect each sentence with the next. If background assumptions are not shared—for example, if one's conversational partner is from a very different culture, or is schizophrenic, or is a machine—then the best parsing [of grammar] in the world will fail to deliver the full meaning of a sentence.

Id. (quoting PINKER, *supra* note 18, at 227) (internal quotation marks omitted).

[69] *See* Grice, *supra* note 60, at 26.

[70] *See id.* at 26–27.

[71] *See id.* at 27.

[72] *See id.*

[73] *See id.* The maxim of manner is, not surprisingly, the most often violated. *See* Sinclair, *supra* note 10, at 380.

[74] *See* Sinclair, *supra* note 10, at 382. This is a unique feature of pragmatics. In contrast, consider syntax (grammar rules) or semantics (word definitions). If a speaker violates rules of syntax or semantics, the speaker will fail to communicate anything. Absent English syntax, the speaker is not speaking English. *See id.* at 383. Further, while the rules of pragmatics, or Grice's maxims, should be violated in certain contexts—for example, in the event of cross-examination in a courtroom, the maxim of quantity is often a deliberate casualty—the rules of syntax and semantics cannot be. *See id.* at 383–85.

[75] *See id.* at 382.

[76] *See id.* at 380–81.

beyond the utterance that can be derived from the fact that the speaker used these particular words and used them at this point in the conversation.[77]

Grice provides a number of illustrations where conversational implicature provides additional information. Consider two people talking about a mutual friend who has recently gotten a job in a bank. One person asks the other how the friend likes his new job, and the other person replies, "Oh quite well, I think; he likes his colleagues, and he hasn't been to prison yet."[78] This may seem like an unusual remark, but it illuminates far more information than what is conveyed by the utterance.[79] It appears that the second person is communicating to the first that their mutual friend is potentially dishonest.[80] The first person may be aware of this peculiar quality in the friend; if not, he is entitled to ask the second person exactly what is meant.[81] If the friend were known by both people to be an honest person, then the second person's remark would have violated the maxim of relevance or perhaps quality.[82] But if we assume that the speech follows the maxims, we arrive at the implicature that the second person's remark refers to the mutual friend's dishonesty.[83]

Consider again the example of the man *X* who has run out of gas and the passerby *Y* who states, "There is a gas station in the next town."[84] If *Y* is observing the maxims of conversation, it then follows that *Y* intends to convey that the station is indeed open, is the nearest station, and will sell gas.[85] If *Y* does not intend to convey this, her utterance violates the maxims of relevance and quality.

Consider a final, and more nuanced, example: Two persons, *A* and *B*, are planning a trip to France, where *A* hopes to visit a third person, *C*.[86] If *A* asks *B*, "Where does *C* live," and *B* replies, "Somewhere in the South of France," then we—and *A*—can

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[77] *See id.* at 381.
[78] Grice, *supra* note 60, at 24.
[79] *See id.*
[80] *See id.*
[81] *See id.*
[82] *See id.*
[83] *See id.*
[84] *See id.* at 32.
[85] *See id.*
[86] *Id.*

deduce that *B* may not know exactly where *C* lives.[87] If *B* knew more precisely where *C* lived, *B* would be required by the maxim of quantity to indicate as much.[88] If *B* did not know but had simply guessed where *C* lived, *B* would have violated the maxim of quality.[89] Thus, the conversational implicature, assuming *B* is following the maxims, is that *B* does not know precisely where *C* lives.[90]

In each of these examples, the information exchanged in the actual utterances is incomplete. Yet because of conversational implicature, we are able to comprehend the meaning as intended by the speaker. There are times in patent law where the information exchanged may be similarly lacking. Patent conversations, by contrast, are not cooperative; therefore we are generally unable to apply conversational implicature in the same way to achieve a comprehensive understanding. This insight will be helpful in later examining patent conversation.

In addition to conversational implicature as described above, there are other examples of information left unsaid in everyday conversation. For example, what was once a conversational implicature has been used so frequently that the utterance has become an idiomatic expression, where the utterance takes on a common meaning that exists even absent the cooperative nature of the conversation.[91] One instance of this is the commonly used phrase, "Do you have the time?"[92] Unless the respondent is being sarcastic, the answer to this question is not "yes" but rather, the current time. And yet, the content of the question as uttered can be faithfully answered in the affirmative. The longstanding use of this question, however, has made it so that the phrase has a meaning independent of context and shared background knowledge.

In a nutshell, context is absolutely necessary to ensure appropriate interpretation. Reliance on abstract, semantic, or out-of-context meanings of the words of an utterance will undoubtedly lead to frequent erroneous interpretations.[93]

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[87] *See id.* at 32–33.
[88] *See id.*
[89] *See id.*
[90] *See id.*
[91] *See* Marmor, *supra* note 10, at 433.
[92] *Id.*
[93] *See* Kirgis, *supra* note 39, at 292–93 ("[L]inguistic meaning's promise of simplified, objective interpretations is illusory.").

Ambiguity and vagueness complicate interpretation, particularly because words often have more than one definition; in fact, even the rare word that only has one meaning can acquire additional non-standard meanings based on context.[94] Stability of meaning may also affect interpretation of an utterance; even in the same situational context, definitions of words change by region, by time, and by individual. Finally, the simplicity of the semantic meaning—the interpretation of utterances without looking to context—does not avoid searching for a speaker's intent. Instead, as others have argued, the plain text/utterance inquiry merely relocates the question of intent to some other aspect of the analysis.[95]

On the flipside, interpretation based on context has often been criticized as inefficient at best or result driven at worst. Yet, the alternative is similarly unattractive: Where an utterance is taken without context, the hearer is left to simply "invent" a context to understand what is being said.[96] Whether or not we admit that we are using context, language interpretation necessarily entails its use.[97] We need to consider the context of the utterance; it is not enough to consider simply the semantics or mere words being used.[98]

The key insight for the purposes of this Article is not the development of the conversational implicature. The interesting thing is how the underlying premise of cooperation leads to the implicature that quite naturally shapes our understanding of everyday conversation. We do not consciously apply the maxims. Everyday conversation results in successful communication not because of conscious efforts to be relevant or to only state as

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[94] Consider the term "cookie": For much of time, this word had a single stable meaning, that of a sweet treat. However, the term has taken on a secondary, non-standard meaning in the Internet context as a small piece of data left on a computer by a web browser. *See, e.g.*, Peter Meijes Tiersma, Comment, *The Language of Offer and Acceptance: Speech Acts and the Question of Intent*, 74 CAL. L. REV. 189, 207 (1986) ("Even words which have only one dictionary meaning can develop other meanings through metaphorical extension. At the other extreme, a word such as 'right' has a large variety of dictionary meanings. Context will usually allow the hearer to extrapolate the intended meaning.").

[95] *See* Kirgis, *supra* note 39, at 292.

[96] *See* McGreal, *supra* note 18, at 338.

[97] *See id.*

[98] *See* Marmor, *supra* note 10, at 423 ("It has been long noticed by linguists and philosophers of language, however, that the content of linguistic communication is not always fully determined by the meaning of the words and sentences uttered.").

much information as we know to be true but because of the underlying tenet of cooperation. What if cooperation became an integral part of the patent conversation? Would understanding patent conversation be more like everyday conversation? Remember, everyday conversation is easy.

II. PATENT AS CONVERSATION

Understanding patents is hard. Describing a new invention with old words cannot be easy. Ambiguity and indeterminacy may seem inevitable. But perhaps, if we draw on what we know about everyday conversation, we can gain insight about how to better understand patents. This is not too much of a stretch. Even though everyday conversation is often vocal, while patent conversation is generally non-vocal, both are verbal communications in that they rely on language to exchange information.[99] While it is assumed, as it is in everyday conversation, that the parties to patent conversations speak the same language,[100] these conversations generally impose a higher level of presumed fluency on participants because patents include a mix of technical and legal information, often inseparably intertwined.[101] This presumption of heightened fluency is manifest in the axiom that patent conversations are to be interpreted objectively from the viewpoint of a "person having ordinary skill in the art," or "PHOSITA."[102] Additionally, patent

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[99] The conversations that give rise to the patent itself and the patent document both rely primarily on language. The content of a patent may be supplemented with drawings or diagrams to clarify the written words. *See* 35 U.S.C. § 113 (2006) (requiring drawings whenever necessary to understand the invention).

[100] *See* 37 C.F.R. § 1.52(b), (d) (2011) (requiring patent applications to be in the English language or accompanied by an English translation of the patent application); Joseph Scott Miller & James A. Hilsenteger, *The Proven Key: Roles and Rules for Dictionaries at the Patent Office and the Courts*, 54 AM. U. L. REV. 829, 891 (2005).

[101] *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 389 (1996); *see also* Timothy R. Holbrook, *Possession in Patent Law*, 59 SMU L. REV. 123, 160 (2006) (noting that the Federal Circuit "has shifted the patent from being a technical document to a legal one").

[102] *See* Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc); Arti K. Rai, *Specialized Trial Courts: Concentrating Expertise on Fact*, 17 BERKELEY TECH. L.J. 877, 881 (2002) ("[The] plain language should be interpreted *not* from the perspective of the ordinary speaker of English but, rather, from the vantage point of a 'person having ordinary skill in the art' ('PHOSITA')."). It is not just any "art" that the PHOSITA is skilled in; rather, he must be skilled in the "relevant technological art" of the invention. *See* Golden, *supra* note 6, at 326 (citing *Phillips*, 415 F.3d at 1313–14).

conversations, like everyday conversations, are typically confined to a single topic. Claims in a patent, in fact, are required to be limited to a single invention[103] and in this way may be closer to ideal conversation.

There are at least two exchanges of information in patent law that can be justifiably analogized to everyday conversation. First, in the patent acquisition process, there is a series of communications between the inventor and the Patent Office, known as "prosecution," during which the Patent Office determines whether and to what extent the invention merits granting the inventor a limited monopoly.[104] Second, after the patent and its accompanying monopoly is granted, the patent document itself has the daunting task of conveying information about the scope of the patent holder's territory of exclusion to a diverse audience including competitors, attorneys, judges, venture capitalists, and in some respects the general public.[105]

Construction of terms used in patent claims is implicated in both the conversation between the inventor and the Patent Office during acquisition and the conversation between the patent and the public post-grant. However, there are distinctions that require addressing additional characteristics of each type of patent conversation separately.

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[103] *See, e.g.*, 35 U.S.C. § 121 (2006) (allowing the Patent Office to require multiple applications to be filed if the application includes multiple independent and distinct inventions); Monsanto Chem. Co. v. Coe, 145 F.2d 18, 19 n.1 (D.C. Cir. 1944) ("Two or more independent inventions can not be claimed in one application.").

[104] *See, e.g.*, F. Scott Kieff, *The Case for Registering Patents and the Law and Economics of Present Patent-Obtaining Rules*, 45 B.C. L. REV. 55, 70–71 (2003). The purpose of the claims is to delineate the extent of the patent's scope, which must be determined both prior to the grant of the patent over the invention as well as post-grant to evaluate the patent's validity and infringement of the patent. *See, e.g.*, Christopher A. Cotropia, *Patent Claim Interpretation and Information Costs*, 9 LEWIS & CLARK L. REV. 57, 62–63 (2005) (describing how the scope of the invention is critical to the inventor, the patent attorney, the examiner at the U.S. Patent & Trademark Office, the holder of the issued patent, the competitor, and the courts); Golden, *supra* note 6, at 322.

[105] *See* Nard, *supra* note 1, at 40–41 (stating that patent claims provide a boundary that competitors attempt to design around); *see also* Cotropia, *supra* note 104, at 63 (noting, in addition to competitors, that patents provide important information to potential investors or purchasers of the patented technology); Golden, *supra* note 6, at 322–23.

A. *Conversation Between the Inventor and the Patent Office*

1. Characteristics of the Conversation

The conversation between the inventor and the Patent Office begins when the inventor submits to the Patent Office a patent application, which must conform to a number of statutory requirements.[106] While some of these constraints are formalistic, such as requiring payment and an oath,[107] other conditions are more substantive. In particular, the application must include a written "specification" that describes the invention in sufficient detail to enable a PHOSITA to make and use the invention.[108] The application concludes with a list of written "claims," which define the territory of exclusion by "particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."[109] The subject matter of these claims must meet the statutory requirements of patentability—namely, it must be useful, novel, and non-obvious.[110]

To determine if the patent application fulfills these requirements, a Patent Office examiner must first interpret the claims.[111] For this purpose, the examiner is to give claim terms their broadest reasonable construction in light of the specification.[112] After establishing what the claims mean, the examiner assesses the patentability of the invention by searching for prior art or known information that relates to the claims at

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[106] The patent application discussed in this Article is a non-provisional utility patent application. There are, of course, design and plant patent applications, as well as provisional utility patent applications, but these are not the subject of this Article.

[107] *See* U.S. PAT. & TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE § 601.01 (8th ed., 8th rev. 2010).

[108] *See* 35 U.S.C. § 112 (2006). In addition to the description of the invention and how to make and use it, the specification also includes an abstract and often drawings or diagrams.

[109] *See id.* Claims may be independent or dependent, but each patent application must include at least one independent claim. Dependent claims reference a previous claim and incorporate all the limitations of that claim, plus one or more additional limitations.

[110] The requirements of patentability are specified by 35 U.S.C. § 101 (utility), 35 U.S.C. § 102 (novelty), and 35 U.S.C. § 103 (non-obviousness). The requirements of 35 U.S.C. § 112 (enablement) must also be met for a patent to be allowed.

[111] *See* Mullally, *supra* note 6, at 336.

[112] *See In re* Buszard, 504 F.3d 1364, 1366 (Fed. Cir. 2007); *In re* Zletz, 893 F.2d 319, 321 (Fed. Cir. 1989); *In re* Yamamoto, 740 F.2d 1569, 1571 (Fed. Cir. 1984).

issue.[113] The examiner compares the claims of the application to the prior art and determines which meet the patentability requirements—for example, the examiner determines if the invention is non-obvious in light of the prior art.[114] If there are claims that do not meet the patentability requirements, the examiner sends the inventor a notice of rejection for those claims.[115] The inventor can then overcome the rejection, either by amending the claim to narrow or clarify its scope or by explaining why the rejected claim of his invention is different from what is disclosed in the prior art.[116] The process of examination, rejection, and amendment/argument may include multiple iterations,[117] not unlike the back-and-forth nature of everyday conversation. The result of a successful conversation is an issued patent.[118] The entire conversation, including the application and all communications between the Patent Office and the inventor, is collected in a publicly available file known as the "prosecution history."[119]

The conversation between the inventor and the Patent Office includes a number of "utterances." The originally-filed patent application can be considered a series of utterances—with the claims being of particular significance—followed by the various iterations of prosecution as subsequent utterances. The inventor serves up the initial offer, the examiner counters, the inventor responds, and so forth. At every step, each of the parties is conveying information to the other side with the intent of

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[113] *See* Cotropia, *supra* note 104, at 62.

[114] *See id.*

[115] *See* Mullally, *supra* note 6, at 348.

[116] *See* Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63, 67 (2004).

[117] *See id.* at 66.

[118] Kieff, *supra* note 104. This notion of success is a bit subjective; for example, some may consider an instance where a patent does not issue because the invention does not warrant protection to be a success. However, taking the perspective of the inventor for the purposes of this Article, a successful outcome presumes the grant of patent protection.

[119] Prosecution histories typically include contents such as the originally filed application, Office Actions generated by the Patent Office, inventor responses to Office Actions, examiner search notes, and other data or affidavits submitted by the inventor. *See* Thomas, *supra* note 11. The completeness of the prosecution history as a record of the conversation between the inventor and the Patent Office has been questioned. *See id.* at 186 ("Patent Office generation of these texts remains uneven, often leaving surprising gaps in the sequence of events commencing with a filed application and culminating in a granted patent.").

reaching a compromise about the patent's exclusionary scope. The entire conversation is essentially a negotiation about what exclusionary territory should be granted to the inventor. The exclusionary territory negotiated is based exclusively on the claims, but the interpretation of the claims, either at the Patent Office during the acquisition process or in later patent infringement proceedings, relies on the understanding of the other utterances, such as the specification portion of the original application and the give-and-take of prosecution. Thus, all of the utterances play a role in interpreting the claims.

2. Comparison to Everyday Conversation

The patent application conversation has much in common with everyday conversation. In addition to relying on language and relating to a single topic,[120] the patent conversation between the inventor and the Patent Office shares another similarity with everyday conversation—both generally have bilateral aspects.[121] Much of the communication during patent acquisition occurs in writing, but there is a back-and-forth dialog between the parties that allows for clarification of information. In fact, there is even opportunity for verbal face-to-face, or at least telephonic, communication if necessary.[122] A summary of the substance of this discussion is then added to the prosecution history and becomes part of the patent conversation.[123]

Despite the similarities, there are differences that may create difficulties in making the analogy between everyday conversation and patent conversation. Some of these differences are superficial. For example, because much of the conversation between the inventor and the Patent Office is carried out via written correspondence, the speaker cannot rely on extra-lingual clues, such as gestures or facial expressions, to provide context.[124]

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[120] The fact that the patent conversation is written, while everyday conversation is most often oral, does not defeat the analogy. Writing is simply a representation of the same language used in oral conversation. *See supra* note 33. Further, the inclusion of technical and legal language in the patent conversation does not render the analogy inapt because everyday conversation may also contain technical terms and difficult concepts.

[121] Everyday conversation, of course, need not be bilateral. *See supra* Part I.A.

[122] *See* 37 C.F.R. § 1.133(b) (2011) (setting requirements for meeting with an examiner); Lemley & Moore, *supra* note 116.

[123] *See* 37 C.F.R. § 1.133(b).

[124] *See* Sinclair, *supra* note 10, at 385 (making a similar point for legal speech, such as statutes).

Further, patent conversations tend to avoid indexicals, or content that depends on temporal or other objective context of the conversation.[125] For example, deadlines are stated as dates certain—for example, January 1, 2009—rather than "next week" or "by the end of the year" to avoid ambiguity. Patent conversation may also include a list of definitions for certain terms used, something that is rarely done, and rarely required, for everyday conversation.[126] These superficial differences do not weaken the analogy for two reasons. First, in various circumstances in everyday conversation, similar modifications are made. As noted above, when speaking to children, for example, more direct language is used and less is left unsaid. Second, for the purpose of making the analogy between patents and everyday conversation so as to better understand patents, these differences are actually helpful, by creating more certainty and less ambiguity than is generally present in everyday conversation.

There is an additional hurdle in analogizing the patent conversation between the inventor and the Patent Office to everyday conversation, namely, the identities of the parties to the conversation. In everyday conversation, the speaker and the hearer are generally readily identified, with the only question being what type of audience is hearing the conversation: addressee, auditor, overhearer, or eavesdropper. Although the inventor and the Patent Office would seem to be the natural choice of parties to the conversation, communication most often occurs through an intermediary, a patent attorney, who facilitates the conversation.[127] The addition of the patent attorney to the inventor's side of the conversation raises a question about the extent of the parties' shared background

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[125] *See id.* at 381–82. One area of pragmatics is concerned with how the facts of the conversation are relevant to meaning. Indexicals fall under the purview and include terms such as "I," "now," "today," and "here." Interpretation of these terms relies on objective data about the conversation itself. In the case of "I," it depends on who is speaking; in the case of "now" or "today," it depends on the time or date of the utterance; and finally, in the case of "here," it depends on where the utterance is made. *See id.*; *see also* Marmor, *supra* note 10, at 425.

[126] In part, this is because patentees are allowed to use words as they see fit, so long as they denote when they are using the words for other than the ordinary and customary meanings. *See* Abbott Labs. v. Sandoz, Inc., 566 F.3d 1282, 1288 (Fed. Cir. 2009) ("[I]nventors may act as their own lexicographers and give a specialized definition of claim terms.").

[127] *See* Knogo Corp. v. United States, 213 U.S.P.Q. 936, 940 (Ct. Cl. 1980).

knowledge; although the patent attorney may look like a simple conduit, the reality is that the patent attorney's role is not so transparent.[128] The patent attorney is not truly a party to the conversation because his intent is simply to assist with the conveyance of information; however, he is more than simply a mouthpiece because he may distill technical information from the inventor, interpret information received from the Patent Office, and even add legal and technical information and arguments to the conversation while communicating, on the inventor's behalf, with the Patent Office.[129] This hurdle does not render the analogy between patent conversation and everyday conversation moot; rather, it simply requires us to reflect these differences when developing conversational maxims.

Similarly, other realities of patent prosecution bring up questions of collective action, a concern influencing both the parties' shared background knowledge and the speaker's intent. On the inventor side, although the identity of the inventor generally remains constant throughout the conversation, the patent attorney working on the inventor's behalf may vary. In part, this may be due to the lengthy nature of patent prosecution; one attorney may help the inventor draft the original patent application, but another attorney may assist with the give-and-take of prosecution that occurs anywhere from six months to several years later.[130] The changing of the attorney responsible for prosecution may be due to attorney attrition, dynamics of law firm practice, or simply because the original attorney is busy

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[128] Although courts initially, and wrongly, believed that patent attorneys were acting as mere conduits between the inventor and the Patent Office, *see, e.g.*, Jack Winter, Inc. v. Koratron Co., 50 F.R.D. 225, 228 (N.D. Cal. 1970), this view has generally shifted. Instead, the "conduit" role of the patent attorney has been called an "inaccurate, and uninformed characterization of the patent attorney's role in the preparation and prosecution of a patent application." *Knogo Corp.*, 213 U.S.P.Q. at 940.

[129] For these reasons, at least one scholar has proposed that claims be construed not from the point of view of the PHOSITA but rather from the perspective of a patent attorney. *See* Golden, *supra* note 6.

[130] Lengthy patent pendency is a well-known problem at the Patent Office. In fiscal year 2007, the average time from filing to first office action—the first communication from the Patent Office to the inventor in the prosecution process—was 25.3 months. *See* U.S. PATENT AND TRADEMARK OFFICE, PERFORMANCE AND ACCOUNTABILITY REPORT FISCAL YEAR 2007 tbl.4, *available at* http://www.uspto.gov/web/offices/com/annual/2007/50304_table4.html. The average total pendency, from filing to either allowance or final rejection, was 31.9 months. *See id.*

with another project when a response to a communication from the Patent Office is due. In the same manner, the lengthy nature of prosecution, coupled with significant examiner attrition rates, also raises the possibility that different patent examiners may be involved at various stages during the conversation.[131] These personnel changes on both sides make it difficult to ascertain the parties' shared background knowledge because as the parties change, so do their backgrounds. The revolving door of parties also makes it difficult to consider the intent of the speakers, because it is difficult to ascribe identical intent to different parties.[132] Yet, the parallels between everyday conversation and patent conversation exist regardless of this difference; the differences can be addressed by modifying the conversational implicature applied.

The most substantial difference, however, between everyday conversation and this patent conversation is that the conversation between the inventor and the Patent Office is fully strategic. Each party has different incentives driving its participation in the conversation,[133] rendering the communication non-cooperative. Everyday conversation

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[131] The Patent Office has a troubling examiner attrition rate, particularly in the pool of examiners that have direct responsibility for communicating with inventors. *See* U.S. GOVERNMENT ACCOUNTABILITY OFFICE, U.S. PATENT AND TRADEMARK OFFICE: HIRING EFFORTS ARE NOT SUFFICIENT TO REDUCE THE PATENT APPLICATION BACKLOG 1 (2007), *available at* http://www.gao.gov/new.items/d071102.pdf ("From 2002 through 2006, one patent examiner left USPTO for nearly every two the agency hired. This represents a significant loss to the agency because 70 percent of those who left had been at the agency for less than 5 years and new patent examiners are primarily responsible for the actions that remove applications from the backlog.").

[132] This problem may be exacerbated because later amendments and arguments made by subsequent attorneys will more likely be responsive to Office actions or be based on previous amendments and arguments without regard to the specification. The specification, which originally served as a vehicle for containing at least some of the shared background information between the parties to the conversation, becomes less primary as prosecution goes on.

[133] This is also true for statutory conversation. *See* Philip P. Frickey, *Faithful Interpretation*, 73 WASH. U. L.Q. 1085, 1086 (1995) ("[T]he law is attempting to accomplish two rather contradictory things. It is attempting, first, to communicate duties to the citizenry in general, and to officials in particular, a use of language perhaps substantially captured in the linguist's focus on conventional understandings. Simultaneously, the law seeks to channel the discretion of enforcement officers and judges to maximize justice in widely divergent circumstances. Accordingly, the law superimposes on ordinary meaning all manner of canons of interpretation, maxims, and exceptions (*e.g.*, purpose trumps plain meaning; avoid absurd results).").

presupposes that the speaker is "mak[ing] a relevant contribution to the conversation, given the stage in which the conversation is, and the prior background knowledge of the relevant parties."[134] Unlike everyday conversation, where cooperation is presumed because the speaker wants to convey information clearly and the hearer wants to receive information, patent conversation is different. Neither the inventor nor the Patent Office is aiming to create certainty of understanding between the parties,[135] a goal at the heart of cooperative communication.

The goal of the inventor is naturally to obtain as much exclusive territory as possible.[136] One way to achieve this goal is to submit overly broad claims to the Patent Office.[137] Although the patent prosecution system was designed to be interactive, allowing an inventor to narrow the scope of the patent's claims in response to rejections issued by the examiner,[138] the reality is that patent examiners may not have the time or motivation to cabin in the scope of the claims perfectly.[139] Further, instead of expressly explaining what the claim language means, the applicant most often discusses his invention in terms of the prior art by describing the other inventions that exist and then

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[134] *See* Marmor, *supra* note 10, at 429.

[135] *See* Michael Risch, *The Failure of Public Notice in Patent Prosecution*, 21 HARV. J.L. & TECH. 179, 180–81 (2007).

[136] Other scholars have recognized the strategic nature of the inventor's behavior in this conversation. *See* R. Polk Wagner, *Reconsidering Estoppel: Patent Administration and the Failure of* Festo, 151 U. PA. L. REV. 159, 215–16 (2002)

> [T]he patentee has both the motive and the opportunity to behave strategically. Such behavior can take many forms. It might involve declining to conduct a thorough prior art search, thus transferring this cost to the public as well as increasing the possibility that the [Patent Office] will 'miss something' and allow the unwarranted scope. Perhaps a patentee will draw inappropriately broad claims, hoping that the prosecution process will only minimally (if at all) pare the claims back, thus yielding additional scope. Perhaps a patentee will vaguely describe her invention in the claims or (sic) in order to introduce uncertainty about the scope of her patent.

Id.

[137] To be fair, there are other reasons why an inventor may submit broad or imprecise claims; he, or his patent attorney, may not write well, may not have resources to permit a more carefully drafted application, or simply may not know the scope of the prior art. *See id.* at 199–200.

[138] *See, e.g.*, *In re* Morris, 127 F.3d 1048, 1054 (Fed. Cir. 1997); *In re* Zletz, 893 F.2d 319, 322 (Fed. Cir. 1989) (noting that patent prosecution is intended to remove uncertainties of claim scope).

[139] *See supra* notes 130–31 and accompanying text.

explaining, often in boilerplate, that the prior art does not teach or disclose his invention. While strategic conduct to obtain a broad expanse of exclusionary territory drives this behavior in part, it is also a function of the patent acquisition process, as the applicant often makes these statements in response to the examiner's rejections based on prior art.[140]

Another means to achieve broad exclusionary territory is to submit imprecise claims to the Patent Office and to be only as specific as necessary to get the patent application allowed.[141] Any vagueness that remains in the issued patent will permit the patent holder to argue for a broader scope in any subsequent infringement suit.[142] The strategic nature of the inventor's side of the conversation does create some difficulty in making the everyday conversation analogy, but is not fatal because the maxims used for everyday conversation can be modified to reflect this difference, as discussed below. Indeed, as we will see, it is this difference that reveals what linguistics really has to offer patent law.

On the other side of the conversation, the goal of examiners at the Patent Office is to issue valid patents.[143] But this does not mean that the examiner is seeking to create certainty of understanding either. If the claims appear valid on their face,

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[140] *See, e.g.*, Christopher A. Harkins, *Choosing Between the Advice of Counsel Defense to Willful Patent Infringement or the Effective Assistance of Trial Counsel: A Bridge or the Troubled Waters*, 5 NW. J. TECH. & INTELL. PROP. 208, 215 (2007) (noting that an applicant who distinguishes his invention over the prior art is necessarily indicating what the claims do not cover, rather than what they do).

[141] *See* Wagner, *supra* note 136, at 188.

[142] *See id.* at 188, 215–16; *see also* Gretchen Ann Bender, *Uncertainty and Unpredictability in Patent Litigation: The Time Is Ripe for a Consistent Claim Construction Methodology*, 8 J. INTELL. PROP. L. 175, 210–11 (2001).

[143] *See, e.g.*, David Hricik, *Aerial Boundaries: The Duty of Candor as a Limitation on the Duty of Patent Practitioners To Advocate for Maximum Patent Coverage*, 44 S. TEX. L. REV. 205, 222 (2002) ("It is widely agreed that quality is a significant goal of patent prosecution. Government, industry, academia and the patent bar alike have long insisted that the USPTO approve only those patent applications that describe and claim a patentable advance. Quality patents are, in short, valid patents.").

However, at the individual patent examiner level, it is doubtful whether the goal is even issuing valid patents. Rather, examiners receive "counts" for certain activities, such as allowing patent applications or finally rejecting patent applications. *See* U.S. GOVERNMENT ACCOUNTABILITY OFFICE, *supra* note 131, at 7. An examiner has a production goal of a certain number of "counts" he is expected to earn. *See id.* Thus, an individual examiner's goal may have very little to do with issuing valid patents and nothing to do with creating certainty of claim scope.

the examiners have no motivation to seek clarification of terms used in the patent application.[144] The examiner, as a surrogate for the PHOSITA, may believe he shares an understanding of the terms and thus does not seek clarification.[145] Even when the examiner rejects a claim, he generally does not participate in the conversation by suggesting an amendment or proposing a solution for crafting a patentable claim.[146] Moreover, because examiners are rarely, if ever, required to testify in patent infringement proceedings, their interpretation of the claim terms is not subject to scrutiny, further decreasing incentives.[147]

Because communication between the inventor and the Patent Office is driven by these separate goals, this patent conversation is not cooperative. Yet, unlike other non-cooperative conversations,[148] the non-cooperative nature of this patent conversation does not incent the speaker to include greater information in the utterance itself; rather, to achieve the broadest exclusionary territory, it is often in the inventor's best interest to omit information. And the examiner is under no obligation to seek the omitted information, so long as he can perform his task with the information at hand. While fear of sub-optimal communication may cause a rational speaker in everyday communication to leave little for contextual

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[144] *See* Risch, *supra* note 135.

[145] *See id.* at 200–01.

[146] *See id.* at 195 ("The examiner does not usually suggest or require modified language as part of a rejection. Instead, the applicant must determine what corrective action should be taken, if any, in order for the patent to issue, and this may not yield precise claims.").

[147] *See id.* at 180–81.

[148] In other non-cooperative conversations, such as legal statutes, the speaker is more likely to include a greater amount of information in the utterance itself and less likely to leave much for contextual interpretation out of concern that the hearer will arrive at a contradictory interpretation or will find unintended loopholes. *See* McGreal, *supra* note 18, at 347 ("When a receiver of a message is not cooperative but adversarial, all of this missing information [i.e., the context] must be stated explicitly, which is why we have the tortuous language of legal contracts with their 'party of the first part' and 'all rights under said copyright and all renewals thereof subject to the terms of this Agreement.' " (quoting PINKER, *supra* note 18, at 228–29)); *id.* at 326 ("[O]rdinary speech depends heavily on shared context. And that is precisely why ordinary conversation is *not* part of the legal drafter's tool kit. . . . The more [a lawyer] leaves to context—the unspoken assumptions supplied by the reader—the more the drafter risks later manipulation of her work product. Specifically, she risks that the reader will apply a *different* context. . . . This leads the legal drafter to write into text information that an ordinary speaker would leave to context.").

interpretation, the inventor speaker often relies on the information asymmetry caused by sub-optimal communication to generate sufficient ambiguity for him to claim a greater scope of exclusion during enforcement proceedings.[149] Still, the analogy to everyday conversation is valid, albeit with some modifications.

Everyday conversation and the patent conversation between the inventor and the Patent Office share many similarities, and the differences between them, while necessitating some adjustment, do not render the applicability of conversational implicature inappropriate. In fact, some of the differences between everyday conversation and patent conversation actually yield a more certain understanding in patents. In any case, there is enough traction that the devices we use when understanding everyday conversation can be applied to claim construction. And further, it becomes clear that the non-cooperative nature of this conversation may underlie many of the perceived problems with claim construction. This insight is the greatest benefit of looking at patent law through a pragmatics lens.

With that we turn to the conversation between the patent and the public, which shares many similarities with everyday conversation, as well as many of the same differences as the conversation between the inventor and the Patent Office.

B. Conversations Between the Patent and the Public

1. Characteristics of this Conversation

Conversations between the patent and the public can take many different forms, although the communication is always unilateral. Whatever structure the conversation takes, the ideal end result should always be "successful communication, by the patentee to the world, of the scope of the patentee's right to

[149] *See* Miller, *supra* note 11, at 184–85 ("Patentees, who are responsible for the text in their claims, can choose words of greater or lesser generality to define their inventions. . . . After all, if claim text does not help confine claim scope, claims are not worth the trouble it takes to write them. On the other hand, if a patent's power to exclude reached no further than its claim's literal terms, patent protection would unfairly 'place the inventor at the mercy of verbalism' and thus, too weak to attract investments in innovation, would fail of its essential purpose.").

exclude."[150] Thus, the information conveyed by the patent document during these conversations is quite important—it delimits the exclusionary territory of the patent holder.[151]

The most visible manifestation of this conversation is in the infringement litigation scenario. A court will look to the patent to determine the patent holder's territory of exclusion and interpret the meaning of patent claim terms to clarify the boundaries of this territory for a particular purpose.[152] If an accused infringer's product or process falls within those boundaries, then the infringer is liable for infringement and may be enjoined from using the invention and/or required to pay damages.[153] When interpreting the patent, the court is to give claim terms the "ordinary and customary meaning" that would be given to them by a PHOSITA.[154] In doing so, the court should look to the words of the claim itself, as well as to the patent specification and the prosecution history, for context.[155] If the meaning of the claim term is unascertainable after reviewing these sources, the court may consider extrinsic evidence, such as expert testimony, dictionaries, and treatises.[156]

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[150] *See id.* at 189 n.62.

[151] In this Section, the right-holding party is identified as the patent holder or patentee, rather than the inventor, as denoted in the previous Section. This is a subtle point; patent applications in the United States must be filed in the name of the inventors. However, most patents are assigned by the inventors to a corporation or other organization. It is the assignee, or patent holder, that has the ability to enforce the patent rights.

[152] *See* Cotropia, *supra* note 104, at 74–76.

[153] *See* Amelia Smith Rinehart, *Contracting Patents: A Modern Patent Exhaustion Doctrine*, 23 HARV. J.L. & TECH. 483, 503–04 (2010).

[154] Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996); *see also* Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1477 (Fed. Cir. 1998) ("It is the person of ordinary skill in the field of invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention—the inventor's lexicography—must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology.").

[155] Phillips v. AWH Corp., 415 F.3d 1303, 1318–19 (Fed. Cir. 2005) (en banc) (noting that intrinsic evidence—the claims, specification, and prosecution history of the patent—are more reliable than extrinsic sources and should be turned to first in claim construction). *But see* Thomas, *supra* note 11, at 193 (arguing that prosecution histories are generally disjointed and incomplete and should not be considered intrinsic evidence for the purposes of claim construction).

[156] *See Phillips*, 415 F.3d at 1317 (noting that extrinsic evidence—expert testimony, dictionaries, and treatises—are helpful but "less significant than the

But the patent also conveys information outside of the courtroom. The means by which it does so are less clear, but competitors look to a patent to determine what territory to avoid, potential purchasers of a patent look to the patent to determine what territory is protected to determine its value, and potential investors look to a patent to determine whether the protected territory is likely to yield good returns.[157] Patents also signal other characteristics unrelated to the exclusionary scope of the patent, such as the technological savvy of the patent holder or the general "coolness" of the product embodied by the patent.[158] In all of these cases, construction of the claim terms may be less precise and less deliberate, but the import of the information conveyed by the patent claims is still great.

There are a few ways to consider a patent as conversation with the public. One way would be to consider the entire patent document as an utterance. An alternative way would be to consider each claim as a separate utterance, not unlike each provision of a statute that is interpreted on its own but in relation to the surrounding provisions. Because each claim represents a particular exclusionary territory to be delineated, this Article will adopt the claim-as-utterance view of the patent

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intrinsic record in determining 'the legally operative meaning of claim language' " (quoting C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed. Cir. 2004))). In no case may the extrinsic evidence "be used to vary or contradict the claim language." *Vitronics Corp.*, 90 F.3d at 1584.

[157] Cotropia, *supra* note 104.

[158] Consumers are not actual parties to the conversation, in that they do not typically read the patent document. Rather, they are influenced by the presence of the conversation—that a patent exists means that the patented product has certain qualities. While this is not necessarily true, there is evidence that consumers hold this belief. In this way, the consumer and others may be viewed as perhaps an overhearer to the conversation. *See* Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L.J. 667, 732 (2004) (noting that patents are used "to bolster one's image among consumers as an industry leader," as well as to serve as collateral for loans, publicize information about research and development to competitors and investors, and to track productivity of employees).

Patents may perform a less than laudable signaling function, normatively approving as a social benefit something that is otherwise objectionable. *See* Shubha Ghosh, *Race-Specific Patents, Commercialization, and Intellectual Property Policy*, 56 BUFF. L. REV. 409, 449 (2008) (arguing that awarding patents including racial categorization sanctions racial stereotypes); Timothy R. Holbrook, *The Expressive Impact of Patents*, 84 WASH. U. L. REV. 573, 581 (2006) (arguing that granting patents on genes related to characteristics such as sexual orientation, deafness, or dwarfism communicates a governmental approval that these characteristics are pathological and should be remedied).

as conversation. However, simply adopting the claim-as-utterance view does not render the specification or other claims irrelevant; rather, just like in everyday conversation, the content of each utterance is influenced by what else is spoken during the same conversation.

2. Comparison to Everyday Conversation

Just like with the conversation between the inventor and the Patent Office, the conversation between the patent and the public shares many similarities with everyday conversation. This conversation relies on language to convey information and is concerned with a single topic or invention, but unlike everyday conversation, it is unilateral; the public does not have the opportunity to reply to the patent or seek clarification during the conversation. Unlike everyday conversation, the conversation between the patent and the public has no oral voice; any communication is performed exclusively via the written document. And because this patent conversation is unilateral and limited to the written word, there are generally fewer indexicals, such as "next week," and other objective contextual components. Similarly, because the conversation is unilateral and written, as well as being quite formal, it is often more complete than everyday conversation, with more information being expressly stated by the speaker and less left to interpretation by the hearer.

Just like in everyday conversation, there is a level of fluency contemplated in patent conversations. The speakers and hearers are presumed to be competent speakers of the language—not just the English language that the patent is written in but also the jargon of the underlying technical field. This competency is captured by the requirement that patents be interpreted from the perspective of the PHOSITA, even where the interpreting party is someone with no technical background.[159] To aid in this endeavor, the person construing the claim is permitted to look to referents—physical representations—or senses—abstract representations or dictionary definitions.[160]

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[159] *See* Peter Lee, *Patent Law and the Two Cultures*, 120 YALE L.J. 2, 32 (2010).

[160] *See* John Cordani, Note, *Patent at Your Own Risk: Linguistic Fences and* Abott Laboratories v. Sandoz, Inc., 95 CORNELL L. REV. 1221, 1246–47 (2010).

Just like the conversation between the inventor and the Patent Office, there are differences between this conversation and everyday conversation. Because of the realities of patent prosecution, there is a limit to the amount of information that the speaker is willing and able to provide. Thus, the conversation between the patent and the public is again not just non-cooperative; it is fully strategic. As mentioned above, the inventor will attempt to craft a patent that is deliberately ambiguous, so as to allow the patent holder to shape the scope of his exclusionary territory based on the activities of his competitors.[161] Although this uncertainty has been blamed for the failings of the patent system,[162] the ambiguity plays an important role precisely because of the nature of language itself. It is very difficult to describe an invention, particularly one which must be new and non-obvious, in words; the fact that language allows for some wiggle room makes the difficulty of crafting claims a bit less painful.

In addition to the imperfections of language, the discrepancy of information based on strategy has other manifestations. First, the patent document, the speaker in this conversation, is itself the product of a related non-cooperative underlying conversation between the inventor and the Patent Office.[163] It is impossible to overstate the importance of this point. The very conversation that gives rise to the patent is fraught with strategic behavior, as both the inventor and the Patent Office approach the conversation with differing goals. The resulting patent cannot possibly be cooperative, complicating any interpretation of the terms used. Claim construction, as it currently exists, may well represent the best that can be done, given linguistic limitations.

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[161] *See, e.g.*, Joseph Farrell & Robert P. Merges, *Incentives To Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 BERKELEY TECH. L.J. 943, 966 (2004) ("Lawyers being lawyers, applicants' counsel will take advantage of wiggle room in the conceptual space between a prior art reference and the claims of a patent.").

[162] *See, e.g.*, Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889, 928 (2001) ("[U]ncertainty in the boundaries of the patent holder's property right. . . . will divert resources from innovative efforts (research and development) to enforcement (transaction or litigation costs), decreasing the value of the property right and thereby decreasing its efficacy as a means for promoting innovation."); *see also* JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 235, 239 (2008).

[163] *See supra* Part II.A.2.

Second, the patent document may be intended to say different things to different constituents in the audience, not unlike the distinctions discussed above with respect to addressees, auditors, overhearers, and eavesdroppers.[164] For example, while the inventor may be carving out his exclusionary territory for competitors, putting them in the position of addressees, he may be indirectly signaling technical competence to investors and product sophistication to consumers, where the consumers may be considered auditors.[165] Based on the public nature of patents, even if the inventor is not speaking directly to the public, they are represented as overhearers or eavesdroppers.[166] Because the speaker, or patent in this case, is intending to convey different information to each of these audiences, the utterance must be carefully and strategically crafted by the inventor and his patent attorney.

Third, patents typically contain at least some technical jargon as well as patent-specific lingo that may not be readily understood by different audiences.[167] Further, the fact that the same words and utterances used in the same patent may be given different meanings depending on the parties to the dialog may be troubling.[168] But these phenomena can just as easily occur in everyday conversation. A quick scan of the news headlines includes legal terms, such as "subpoena," "filibuster," and "conspiracy," and scientific terms, such as "antiretroviral,"

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[164] *See supra* Part I.A.

[165] *See, e.g.*, Paul J. Heald, *A Transaction Costs Theory of Patent Law*, 66 OHIO ST. L.J. 473, 503–04 (2005); Clarisa Long, *Patent Signals*, 69 U. CHI. L. REV. 625, 637 (2002).

[166] Of course, given the disclosure function of patents, it would be naïve for an inventor to be unaware of the public's role as an eavesdropper to this patent conversation. The inventor, however, may not be aware of the expressive impact of the patent, which may be analogized to how an eavesdropper may view the patent. *See* Smith, *supra* note 13.

[167] *See* McGreal, *supra* note 18, at 335 ("Linguistic communities also exist within groups that share a common language. For example, lawyers and other professionals use some words in distinct ways. These words are the group's jargon. It is high praise to say that the member of a profession can explain her work to non-members without using jargon. To avoid jargon, the speaker must choose words with a shared usage among different linguistic communities (e.g., lawyers and non-lawyers).").

[168] *See, e.g.*, Risch, *supra* note 135, at 204 (arguing that the Patent Office should adopt the PHOSITA rule of claim construction used during litigation); *see also In re* Trans Tex. Holdings Corp., 498 F.3d 1290, 1295, 1301 (Fed. Cir. 2007) (holding that the Patent Office is not bound by a district court's claim construction because the rules of claim interpretation are different in each venue).

"nanotechnology," and "network neutrality," which may be easily understood by the legal literati or technorati but may mean something entirely else to the population at large.

Regardless of the reason, the information asymmetries do not render the analogy between everyday conversation and this patent conversation inapt for two reasons: (1) some of the same issues arise in everyday conversation, and (2) the non-cooperative nature does not void the utility of this approach; rather, it provides an insight into linguistic limitations and suggests that the underlying conversation may be more important for improving claim construction than the interpretive process itself. Although some modifications may be necessary, the analogy between everyday conversation and each of the patent conversations can be justifiably made.[169] All require language to convey information and that the parties to the conversation speak the same language. In some areas where the patent conversations differ from everyday conversation, the difference may actually cause the patent conversations to include more information than otherwise, such as in the avoidance of indexicals and other context-dependent content.[170] In other areas, particularly the aspect of non-cooperation, the patent conversations do not directly track everyday conversation; perhaps making patent conversations more cooperative is just what is needed.

Although the correlation between patents and everyday conversation is not perfect, making the analogy between everyday conversation and patent conversations provides a useful framework for providing insight and instruction into how we can better understand the process of construing terms used in patent claims. Not only are many of the terms that the courts construe in patent cases actually everyday words used in an

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[169] It may be argued that patent conversation is unlike everyday conversation, because if we understand ninety to ninety-five percent of everyday conversation, we will be fine. In patent conversation, however, it is that remaining five to ten percent that is at the center of claim construction disputes. But there are certainly circumstances in everyday conversation where a precise understanding of the information conveyed is important, even for banal exchanges such as the where and when of a date or what a spouse should pick up from the store on the way home.

[170] As I argue throughout this Article, the current state of patent prosecution invites less, not more, disclosure. When, however, it comes to concrete notions, such as dates, patent disclosure may actually be more complete than everyday conversation because, unlike everyday conversation, there is no opportunity to clarify these concrete notions in patent conversation.

ordinary, conversational way,[171] but the conversation framework also has utility even for technical words. Further, appreciation of the conversational aspects of patent law explicates the true nature of the problem underlying claim construction—non-cooperation—and points towards an actual solution: the injection of cooperation into patent conversations.

III. APPLYING CONVERSATION IDEAS TO PATENT CLAIMS

In making the analogy between patents and everyday conversation, the first question is how do we understand the language used in patent claim terms? Just like in everyday conversation, the search for meaning in patent claim terms begins with the content or utterance itself, construing the words used. Unfortunately, in the existing claim construction process, this is not just the starting point but also the end point. While a glint of context may arise in the definition of a single particular word, the context provided by the overall conversation has eluded analysis until now. This Section first discusses the current claim construction process: interpretation of the content, or utterances, of patent claims. This Section then makes the case for examining claim construction through a pragmatics lens. This Section provides the background for the final Part that contends that claim construction is as good as it can be, given linguistic limitations and that the only avenue for improvement is to make the conversation between the inventor and the Patent Office more cooperative. But first, how are claims currently interpreted?

A. *Understanding Content*

The patent claims define the scope of exclusion, and so claim construction must begin with the words of the claim.[172] The language chosen by the inventor is key, because "[t]he conventions of word meaning and syntax enable us to express . . . meanings with great accuracy and subtlety and the skilled man will ordinarily assume that the patentee has chosen his language accordingly."[173] The task of claim construction is to

[171] *See supra* note 7 and accompanying text.

[172] Renishaw PLC v. Marposs Societa' Per Azioni, 158 F.3d 1243, 1248 (Fed. Cir. 1998).

[173] Kirin-Amgen, Inc. v. Hoechst Marion Roussel, Ltd., [2004] UKHL para. 34.

give the words chosen by the inventor their "ordinary and customary meanings" as would be given to them by a PHOSITA.[174] In the standard claim construction process, at least during patent infringement proceedings,[175] courts look to the words of the claim and then to intrinsic evidence—namely, the surrounding claims, the specification, the drawings, and the prosecution history, if in evidence—and then, if necessary, to extrinsic evidence, such as treatises, dictionaries, and testimony by experts.[176] Unfortunately, this is where the existing claim construction methodology ends. What is missing is context—the most important place to look for additional information to aid interpretation. Not only is context missing from the claim construction process—except for its limited use in taking the perspective of the PHOSITA[177]—but very little has been written about its application to this task.

B. Understanding Context

Although the words of the patent claim are of primary importance, claim construction never occurs in a vacuum—the "ordinary and customary meaning" must come from somewhere. Just as statutory interpretation has given rise to textualists and holistics, patent claim construction has also developed into two camps.[178] Textualists tend to look beyond the intrinsic evidence only in extreme cases,[179] while holistics prefer to view all the

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[174] The words of a claim are generally given their ordinary and "customary meaning" as understood by a person of "ordinary skill" in the art when read in the context of the specification and prosecution history. *See* Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

[175] This is not how claims are interpreted during the conversation between the inventor and the Patent Office. There, claim terms are given their broadest reasonable interpretation. *See* Risch, *supra* note 135; *supra* note 112 and accompanying text.

[176] *See, e.g.*, *Phillips*, 415 F.3d at 1303.

[177] The prosecution history could also be considered context. The prosecution history, however, reflects the conversation between the inventor and the Patent Office. It is not technically context because it is the conversation itself.

[178] *See* Holbrook, *supra* note 6, at 146; Nard, *supra* note 1, at 4–6; R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding?: An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1112 (2004). Wagner and Petherbridge actually identify three camps of judges on the Federal Circuit—proceduralists, holistics, and swing judges. *See id.* But the proceduralists and holistics generally line up with the textualists and holistics identified above.

[179] *See* Wagner & Petherbridge, *supra* note 178, at 1131.

relevant evidence.[180] Just like statutory interpretation, however, these two positions are not so different—at some point, both are looking for the interpretation of the PHOSITA.

Although the holistics and textualists purport to look to context in some circumstances, it is quite limited—generally only dictionaries, treatises, and expert testimony are considered, and even then only to obtain the perspective of the PHOSITA. But context that leads to an enhanced understanding can also come from other sources, such as from the conversational aspects of the information exchange. This Section describes how the notions of conversational implicature can work in the claim construction process.

Although there are incongruities between everyday conversation and patent conversation, the conversation between the inventor and the Patent Office certainly has the potential to convey contextual information beyond the utterances, or words that are used. Immediate application of Grice's maxims[181] may be unsuitable because of the highly non-cooperative nature of this patent conversation, but with modification, the maxims prove quite useful.

The maxim of manner, as a consideration of form rather than substance, encourages the speaker to avoid ambiguity, obscurity, verbosity, and disorder.[182] This maxim is readily applied to the patent conversation between the inventor and the Patent Office, in no small part because the form of the conversation is highly regulated by Patent Office rules, ostensibly to avoid ambiguity and disorder. These rules impose at least an air of order and clarity on the patent conversation. Consider, for example, the Patent Office's rules regarding antecedent basis.[183] These rules seek to minimize ambiguity by compelling a degree of formality when referring to elements in a claim.[184] Thus, the first time an element is referred to, it should be preceded by "a," as in "a lever."[185] Subsequent references to the same lever are preceded by "the" or "said."[186] However, if two or more different levers have been introduced, then reference to

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[180] *See* Holbrook, *supra* note 6, at 150.
[181] *See supra* text accompanying notes 69–73.
[182] *See* Grice, *supra* note 60, at 27.
[183] *See* U.S. PAT. & TRADEMARK OFFICE, *supra* note 107, § 2173.05(e).
[184] *See id.*
[185] *See id.*
[186] *See id.*

"the" or "said" lever would be inappropriate and a different referent, such as "the aluminum lever," would be required.[187] Although everyday conversation may not be subject to this explicit of a rule, following guidelines such as this lead to enhanced clarity in that situation as well.

While the formalistic Patent Office rules, such as those covering antecedent basis, are helpful to avoid ambiguity in claims, another maxim may also be useful given the strategic nature of this conversation and the fact that the examiner has no incentive to seek clarification: "Use words the literal meaning of which gets closest to what you actually mean."[188] This maxim manifests itself as seeking the "ordinary and customary meaning" during claim construction in the conversation between the patent and the public, discussed below.[189] Within the parameters of the "broadest reasonable interpretation" standard that is currently used in the conversation between the inventor and the Patent Office, the "ordinary and customary" meaning is still relevant under the guise of reasonableness.[190] In any case, inventors are also exhorted to use the most appropriate word or to provide their own definition by "act[ing] as [their] own lexicographer."[191] This maxim, combined with the Patent Office rules, ideally results in a patent that is clear, orderly, and unambiguous.

The maxim of relevance, or simply "[b]e relevant,"[192] is important in the patent conversation between the inventor and the Patent Office as well, although it is not so easily applied. The main problem is that it is not clear what exactly is, or should be, relevant in this patent conversation. To the extent that relevance means that utterances are to be related to the invention at issue, this goal is regulated by Patent Office rules, which require that claims in patent applications be limited to a

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[187] *See id.*

[188] *See* Sinclair, *supra* note 10, at 392.

[189] *See infra* Part IV.A.

[190] Risch, *supra* note 135, at 180.

[191] Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1370 (Fed. Cir. 2005) ("When a patentee acts as his own lexicographer in redefining the meaning of particular claim terms away from their ordinary meaning, he must clearly express that intent in the written description.").

[192] *See* Grice, *supra* note 60, at 27.

single invention.[193] However, even if the patent application covers a single invention, relevance is a difficult concept because of the realities of patent prosecution practice. Despite the benefits the inventor may derive from incomplete information allowing for fluid claim interpretations, the inventor also has an incentive to throw everything but the kitchen sink into his specification. This is because the inventor is allowed to amend and add claims during prosecution of the patent application, so long as the amendments introduce no "new matter" into the application—that is, support for any added or amended claim must be present in the originally filed patent application.[194] Although the claims must be supported by the specification, there may be content in the specification that is not relevant to the interpretation of the claims.[195] Additionally, there may be information in the specification related to claims that were finally rejected by the Patent Office during examination.[196]

While some utterances in the specification may seem irrelevant to this patent conversation, if we limit our view to the claims alone, the concept of relevance is more pertinent. Because claims cost money to prosecute,[197] it can be assumed that the

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[193] *See* 37 C.F.R. § 1.142 (2011) ("If two or more independent and distinct inventions are claimed in a single application, the examiner . . . will require the applicant . . . to elect an invention to which the claims will be restricted. . . . Claims to the invention or inventions not elected, if not canceled, are nevertheless withdrawn from further consideration by the examiner . . . .").

[194] *See* 35 U.S.C. § 132(a) (2006); Janice M. Mueller, *Patent Misuse Through the Capture of Industry Standards*, 17 BERKELEY TECH. L.J. 623, 637–38 (2002).

[195] Although the inventor hedges against adding new matter by including seemingly extraneous information in the specification, this additional information may work to his disadvantage. In particular, embodiments that are disclosed in the specification, but are not claimed, are considered to be in the public domain. *See* Johnson & Johnston Assocs. v. R.E. Serv. Co., 285 F.3d 1046, 1054 (2002) (en banc) ("[W]hen a patent drafter discloses but declines to claim subject matter . . . this action dedicates that unclaimed subject matter to the public."). Further, the inventor must take care in drafting the specification because subject matter may be surrendered if the specification is viewed as disclaiming a particular embodiment. *See* Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1345–46 (Fed. Cir. 2001); Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc., 212 F.3d 1377, 1382–83 (Fed. Cir. 2000).

[196] *See generally* Mullally, *supra* note 6, at 343.

[197] *See, e.g.*, Kimberly A. Moore, *Worthless Patents*, 20 BERKELEY TECH L.J. 1521, 1531 (2005) ("Patents with more claims are more expensive to file and prosecute.").

inventor thought each of the claims in the patent application was relevant, or in other words, different in some way from the other claims in the application.

The remaining maxims of quantity and quality may provide the greatest insight into claim construction but must be modified before they apply to the patent conversation between the inventor and the Patent Office. In the context of everyday conversation, the maxim of quantity states that the speaker should include enough information as necessary but not too much information or extraneous data.[198] For application in the patent context, perhaps the maxim of quantity should be restated as follows: "Make each claim cover all of the claim scope you intend it to, and only the claim scope you intend it to, and no more." With this maxim, we can presume that each claim has a point, that silence is deliberate, and that the patentee is not intending to seek anything more than the claim states. The problem with this maxim is, of course, the unfortunate necessity of the patent prosecution system. When drafting the claim, the inventor is hedging his bets about what prior art the examiner may find, what his competitors are doing now and will be doing in the future, and what minor modifications can be made to his invention that he has not yet envisioned. The inventor tries to draft the claims to cover as much territory as he can in order to capture his competitors and any minor modifications, but he is also trying to avoid overlap with the prior art. Another difficulty is that language itself, content, is subject to various interpretations, so even if the inventor crafts his claims carefully to cover only what he intends, the conveyed information as interpreted by the Patent Office, and later the public, may be different from what the inventor intended.[199] These difficulties do not render the adapted maxim inapt but instead highlight how the conversation between the inventor and the Patent Office would be improved with cooperation.

The maxim of quality also must be altered to apply to this patent conversation. In everyday conversation, this maxim discourages the speaker from making statements he knows to be

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[198] *See* Grice, *supra* note 60, at 26.

[199] This phenomenon can also occur in everyday conversation, where the meanings of words may vary temporally or in regional usage.

false or for which he lacks evidence of truth.[200] In the patent conversation, this maxim can be boiled down to the following: The inventor should ensure that "each claim covers only what you know to be true." However, this maxim is openly violated in the cases of prophetic examples and genus/species claiming, both of which are permitted in current practice. In the case of prophetic examples, the inventor is permitted to report not just the results of experiments he actually performed in the course of invention, and thus knows to be true, but also "simulated or predicted test results."[201] In the case of genus/species claims, courts have held that although a generic description of the genus is insufficient to support a claim to the genus, a substantial number of representative species may be sufficient to obtain rights to the entire genus.[202] That is, like in the case of prophetic examples, the inventor is purposely and purposefully claiming more than he actually knows to be true.[203]

While ideally we would require the inventor to only claim what he knows to be true, the realities of patent prosecution practice make this an unattractive option. Patents are generally granted to the first person to file an application on the invention, and so there is a race to the Patent Office.[204] To be the first

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[200] *See* Grice, *supra* note 60, at 27. To be fair, there are times in everyday conversation where the speaker makes statements for which he lacks evidence of truth, for example when making a prediction—"I think the Cubs will win the World Series this year!"—or voicing an opinion—"Walter Payton was the best football player ever." However, in these circumstances, it is generally clear that the speaker is asserting for which he may not have complete evidence.

[201] *See* U.S. PAT. & TRADEMARK OFFICE, *supra* note 107, § 608.01; Holbrook, *supra* note 101, at 158 (noting that prophetic examples are "forms of the invention that the patentee did not actually invent but which would be within the scope of [the] disclosure"). This may cause a chilling effect on future invention where others might be attempting to create the prophetically claimed invention even where the inventor could not. *See id.*; *see also* Sean B. Seymore, *Heightened Enablement in the Unpredictable Arts*, 56 UCLA L. REV. 127, 144–45 (2008).

[202] *See* Regents of the Univ. of Cal. v. Eli Lilly & Co., 119 F.3d 1559, 1569 (Fed. Cir. 1997); Christopher M. Holman, *Is* Lilly *Written Description a Paper Tiger?: A Comprehensive Assessment of the Impact of* Eli Lilly *and its Progeny in the Courts and PTO*, 17 ALB. L.J. SCI. & TECH. 1, 15 (2007); Seymore, *supra* note 201, at 145–46.

[203] This statement is not meant to ascribe bad intent to the inventor; generally, in the case of prophetic examples and genus/species claiming, the inventor is not purposefully misleading the Patent Office. Rather, he believes and hopes his statements to be true; he just does not know for sure.

[204] *See* Margo A. Bagley, *The Need for Speed (and Grace): Issues in a First-Inventor-To-File World*, 23 BERKELEY TECH L.J. 1035, 1036 (2008). The United States patent system is still a "first to invent" system, meaning that a person who

through the Patent Office door, the inventor must often file his application before he has completed every experiment he desires or before he maps out every species of a particular genus. Thus, by abiding by the suggested maxim of quality, an inventor may be leaving a portion of his invention "on the table" so to speak. Again, rather than demonstrating that the conversation analogy should not be used, this information instead points to the need to increase the level of cooperation in the conversation between the inventor and the Patent Office. Interpretation of the patent can thus be more consistent with how we understand everyday conversation.

This conversation between the inventor and the Patent Office then forms the basis of the second type of conversation in patent law: the conversation between the resulting patent and the public. The strategic nature of the first conversation, as highlighted above, gives rise to related difficulties in the second conversation, where we now turn.

1. Conversation Between Patent and Public

Just as with the conversation between the inventor and the Patent Office, the strategic aspects of the patent conversation between the patent and the public mean that Grice's conversational maxims[205] do not apply directly to interpretation of the patent claims. Additionally, the utterances—that is, the claims of the patent—are circumscribed by the initial conversation between the inventor and the Patent Office. Once the patent has issued, the speaker—that is, the patent—has no leeway to make adjustments or additions to the conversation.[206] The importance of this point cannot be overstated. Based on the linguistic limitations on claim construction and the fact that the patent is fixed at the time of its issuance, the natural, and quite possibly only, place to fix the interpretive process is in the first conversation, between the inventor and the Patent Office.

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can prove earlier invention may be granted a patent over a person who is the first to file. *Id.* However, other nations do not follow this system, instead granting the patent to the "first to file." *Id.* In the United States, there are still reasons why the inventor may race to the Patent Office, including the fact that he may also be filing internationally, he may be disclosing the invention publicly, or he may be seeking investors to commercialize his invention. *Id.* at 1037–38. In any case, early filing of patent applications is the norm. *Id.* at 1036.

[205] *See supra* note 69–73 and accompanying text.

[206] *See* 35 U.S.C. §§ 251–52 (2006); *see also* Wagner, *supra* note 136, at 215–16.

Because the patent cannot be changed after it issues, the critical side of the conversation between the patent and the public lies with the hearer. Thus, this Section seeks to illuminate the hearer's perspective of conversational context and illustrates that many of the guidelines for patent claim construction are consistent with how we understand everyday conversation. In doing so, it becomes clear that claim construction is as good as it can get, given linguistic limitations; room for improvement must be found elsewhere. But first, how does conversational implicature affect the understanding of the conversation between the patent and the public?

The maxim of manner, namely that the speech should not be ambiguous or disorderly,[207] is not directly applicable to the hearer side of the conversation; this maxim relates to the form of the utterance, which is crafted entirely by the first conversation between the inventor and the Patent Office. However, a helpful corollary may be that the hearer should assume that the speaker is not being obscure, ambiguous, or verbose. That is, the hearer should comprehend the speaker's utterance as conveying its "ordinary and customary meaning."[208] Interestingly, this is precisely the tack we take in interpreting patent claims now. Of course, based on the strategy involved in the initial conversation, this is not necessarily easy to do, but if we strive to make the patent conversation between the inventor and the Patent Office more cooperative, then this end should work itself out.

The maxims of relation[209] and quantity[210] align when viewing the hearer side of the patent conversation. The hearer should believe that the speaker is conveying relevant information and as much, but not more, information as necessary for the content to be understood. This goes beyond the idea of relevance in the first conversation, which is strictly enforced by the Patent Office rules restricting patents to a single invention. Rather, the hearer must understand that what he is being told has a purpose; there is nothing extraneous. This fits nicely with the already-present claim construction rule that the claims are to be interpreted based on the specification. Again, this is something that is already part of the claim construction methodology.

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[207] *See supra* note 74 and accompanying text.
[208] *See* Miller, *supra* note 11, at 203–04.
[209] *See supra* note 72 and accompanying text.
[210] *See supra* note 70 and accompanying text.

The maxim of quality[211] is useful in interpreting the conversation between the patent and the public, but it proves a bit difficult to work with from the hearer's side. In essence, the hearer should believe what the speaker is saying. A more layered presumption of truth already exists about the utterances of a patent; an issued patent is presumed to be valid.[212] Typically, however, we view this validity as relating to the requirements for patentability. But if the requirements of patentability are met, it can be extrapolated that the utterance itself is true. Further, if we strive to make the conversation between the inventor and the Patent Office more cooperative, the credibility of patent utterances should improve. Detailed in the following Section are the relationship between current claim construction methodology and the maxims derived above, as well as how we can improve claim construction by injecting a greater level of cooperation into the conversations.

IV. ADDING COOPERATION TO THE PATENT CONVERSATIONS

Claim construction is not broken. This is something that we, at some level, already know but that has been largely ignored by the patent academy. The claim construction methodology currently used is quite sound when considered, as it should be, through a conversational linguistic lens. Claim construction is inherently restricted by linguistic limitations. But the true insight that we gain by considering claim construction through this lens is that the means to "fixing" claim construction requires a change in the conversation between the inventor and the Patent Office. Proposals aimed at healing what is perceived as the latest ills are missing the point; improvement can only come through increasing the level of cooperation in the conversation between the inventor and the Patent Office.

A. *Claim Construction Methodology Is Not Broken*

Although current claim construction procedures are routinely condemned by scholars, practitioners, and even district court judges, the criticisms are misplaced. But present claim construction methodology, as it occurs during the conversation between the inventor and the Patent Office, as well as between

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[211] *See supra* note 71 and accompanying text.
[212] 35 U.S.C. § 282 (2006).

the patent and the public, accords with how we understand everyday conversation. To be sure, claim construction is troubled—but we are doing the best we can, given the inherent limitations of linguistic expression.[213] This comment may seem controversial, or even heretical. But if we were to wipe the slate clean and start over, knowing only what we know about everyday conversation, how exactly would we shape claim construction? We would give words their ordinary and customary meanings. The ordinary and customary meaning would be based on the shared knowledge of the parties to the conversation. This is simply what we do in everyday conversation.

Oddly enough, this is precisely what we do now when interpreting patent claims. The standard rule for claim construction is to give words their ordinary and customary meanings, consistent with the specification.[214] The specification represents one aspect of the shared background knowledge—shared because it is expressly provided to give context to the conversation. Further, the claim construction inquiry takes into account an additional level of shared background knowledge by

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[213] With respect to the most disturbing aspect of claim construction, namely the significant amount of uncertainty that exists in part based on the extraordinary percentage of reversals of claim construction rulings on appeal, the answer might be as simple as something we know from everyday conversation. *See* Schwartz, *supra* note 6, at 248–49 (finding that 29.7% of appeals from 1996 to 2007 resulted in reversal, vacatur, or remand due to an erroneous claim construction); Thomas Chen, Note, *Patent Claim Construction: An Appeal for* Chevron *Deference*, 94 VA. L. REV. 1165, 1177 (2008) (noting reversal rates around thirty to thirty-five percent). Oftentimes there is more than one right definition. *See, e.g.*, Burk & Lemley, *supra* note 7, at 56 (noting the "inherent indeterminacy of patent claims"); Chen, *supra* (stating that "claim construction is an inherently indeterminate process with no single correct answer but rather multiple reasonable interpretations"). There is also empirical support for this point. *See* Schwartz, *supra* note 6, at 258–60 (concluding that claim construction is inherently indeterminate based on an empirical study that shows judges' claim construction reversal rates do not improve with the number of claim construction cases they issue that are appealed).

[214] *See, e.g.*, Phillips v. AWH Corp., 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) ("[T]he words of a claim 'are generally given their ordinary and customary meaning.' " (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996))).

considering the perspective of the PHOSITA in interpretation.[215] The process we follow for claim construction is solidly based on linguistic principles for understanding everyday conversation.

But that is not all. A number of the claim construction canons that exist also find traction in contextual linguistics and conversational implicature discussed above. As with other areas of law, these canons are not formalistic and are simply guidelines.[216] And the canons have been given short shrift in patent law generally.[217] However, these canons do provide valuable evidence of how the maxims are already in play in claim construction and demonstrate again that existing claim construction is not that bad. Take, for example, the canon that states that there is a preference for interpreting a claim to maintain its validity if possible.[218] This canon reflects the maxim of quality; the patent is presumed to be valid and the utterance is presumed to be true. To instead choose a construction that renders the patent invalid would make the utterance false.

Another canon states that an interpretation that excludes the preferred embodiment of the invention is rarely, if ever, correct.[219] This reflects the maxims of quality and quantity. As to quality, the hearer presumes the utterance to be true; if the

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[215] *See* Miller & Hilsenteger, *supra* note 100, at 883 (noting that the ordinary meaning is the definition that would be given to the term by the PHOSITA). However, the meaning given to a term by a PHOSITA can change over time, either because the level of skill of the PHOSITA changes in a given field or because the words come to have different meanings. *See* Mark A. Lemley, *The Changing Meaning of Patent Claim Terms*, 104 MICH. L. REV. 101, 102 (2005). Additionally, there is some skepticism about whether the courts truly consider the perspective of the PHOSITA in claim construction. *See id.* at 113 (noting that courts consider the PHOSITA "[i]n theory"). *See generally* Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155 (2002) (arguing that the PHOSITA standard is misapplied, as well as difficult to apply).

[216] *See* Holbrook, *supra* note 6, at 144 (noting that cannons aid courts in ameliorating the inherent tension between goals of predictability and fairness in claim construction cases).

[217] *See* Mark A. Lemley, *The Limits of Claim Differentiation*, 22 BERKELEY TECH. L.J. 1389, 1391 (2007) ("[C]ourts and commentators have paid less attention to the canons of claim construction.").

[218] *See* Karsten Mfg. Corp. v. Cleveland Golf Co., 242 F.3d 1376, 1384 (Fed. Cir. 2001) ("Claims amenable to more than one construction should, when it is reasonably possible to do so, be construed to preserve their validity." (citing Modine Mfg. Co. v. U.S. Int'l Trade Comm'n, 75 F.3d 1545, 1557, 37 U.S.P.Q.2d (BNA) 1609, 1617 (Fed. Cir. 1996); Carman Indus. Inc. v. Wahl, 724 F.2d 932, 937 n.5 (Fed. Cir. 1983)).

[219] *See Vitronics*, 90 F.3d at 1583.

specification indicates a preferred embodiment, but the claims do not include that preferred embodiment, then the credibility of the utterance is put at issue. As to quantity, if the preferred embodiment is not part of the claims, then the speaker has included extraneous information.

Yet another canon states that if a claim supports both a broad and a narrow interpretation, the narrow construction should prevail.[220] Not only does the narrower interpretation better serve the notice function of patent law,[221] this canon can be imposed to incent a more cooperative conversation between the inventor and the Patent Office, as discussed below. Further, with respect to the conversation between the patent and the public, the narrower construction is a better choice than a broader construction because the narrow one is more likely to fall within the overlap of the shared background knowledge of the parties. The preference for the narrower construction also reflects the maxims of quantity and relevance. If the speaker is conveying only so much information as necessary to understand the utterance, then the narrow construction makes more sense. To support the broader construction, it is likely more information would be necessary.

As a final example, consider the canon of claim differentiation, which states that "no two claims in the same patent should be interpreted to have the same scope."[222] This canon reflects the maxim of manner—speech should not be verbose, ambiguous, or repetitive.[223] Other canons incorporate the same notion, such as the canon that a term used repeatedly should be given the same definition throughout.[224] To give the same word in the same patent a different meaning for various instances of the word would be ambiguous.

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[220] *See, e.g.*, Athletic Alternatives, Inc. v. Prince Mfg., Inc., 73 F.3d 1573, 1581 (Fed. Cir. 1996) ("Where there is an equal choice between a broader and a narrower meaning of a claim, and there is an enabling disclosure that indicates that the applicant is at least entitled to a claim having the narrower meaning, we consider the notice function of the claim to be best served by adopting the narrower meaning.").

[221] *See* Risch, *supra* note 135, at 214–15. Of course, a narrower definition is not always a more definite meaning. *See Athletic Alternatives*, 73 F.3d at 1583 (Nies, J., concurring) ("Narrowness can not be equated with definiteness.").

[222] Lemley, *supra* note 217, at 1389.

[223] *See supra* note 73 and accompanying text.

[224] *See* United Sav. Ass'n of Tex. v. Timbers of Inwood Forest Assocs., 484 U.S. 365, 371 (1988).

When we look at current claim construction methodology through a linguistics lens, the process does not seem nearly as broken as commentators would have us believe. What we need to do instead is reframe how we think about patent conversations and realize that we can learn a lot from how we comprehend everyday conversation. When we do this, it becomes clear that much of the current claim construction methodology is not only soundly based in linguistics—the study of how we comprehend language—but also limited by linguistics in an unavoidable way. It is this basic idea, not any "magic formula or catechism,"[225] that should shape our claim construction discussions going forward.

B. Cooperative Prosecution To Improve Claim Construction

There remains, however, the fact that claim construction is indeterminate, with appellate reversals seemingly being resolved by coin flip. Rather than taking aim at claim construction by imposing more layers of analysis or proposing greater deference, we should return to the linguistics framework, and in particular conversational linguistics, to determine if there are areas where everyday conversation and patent conversation can be more aligned. The area of greatest difference between everyday conversation and patent conversation—the presence, or absence, of cooperation—is also the area where changes are mostly likely to reap tangible results.

What would cooperative patent prosecution look like? Ideally, very much like everyday conversation. The inventor would begin the conversation with the intent to communicate relevant information to the Patent Office with sufficient specificity to be clearly understood, given the parties' shared backgrounds. The Patent Office would be interested in receiving the information and would participate by seeking clarification for any ambiguous or vague statements made by the inventor. The back-and-forth discussion between the inventor and the Patent Office would have the unitary goal of reaching a particular understanding for both parties. The resulting patent that issues after the initial conversation would be the product of a cooperative enterprise. A patent should reflect the clarifications that were made during the conversation between the inventor and the Patent Office, as well as convey their shared background

[225] Phillips v. AWH Corp., 415 F.3d 1303, 1324 (Fed. Cir. 2005) (en banc).

to the public, who, acting as overhearers or eavesdroppers, may not have the benefit of sharing the same background on their own. Between explicitly providing some shared background and crafting the patent document from a conversation intended to create clarity, the resulting patent document should be much more easily construed using our current claim construction methodology.

The only question that remains is how to make patent prosecution more cooperative. There are at least three primary means to inject a level of cooperation into the conversation between the inventor and the Patent Office. First, both the inventor and the Patent Office must be given incentives to avoid strategic behavior in favor of cooperation. These incentives can take the form of advantages gained by behaving cooperatively, carrots, or disadvantages for failing to act cooperatively, sticks. Both can be used to make patent prosecution a collaborative effort. Second, the entire process of patent acquisition and enforcement needs to be imbued with an air of cooperation, created by removing or altering rules that would impede collaborative behavior. Third, although not specifically related to injecting cooperation, the shared background knowledge of the inventor and the Patent Office in the initial conversation needs to be made part of the second conversation between the patent and the public, specifically, by institutionalizing the idea of the PHOSITA. Through these proposals, we can arrive at more cooperative patent prosecution, ultimately yielding better claim construction results.

1. Provide Incentives for Cooperative Prosecution

Creating cooperative patent prosecution must begin with the initial conversation between the inventor and the Patent Office. The general principle of cooperative conversation requires the speaker to speak clearly with the intent of communicating information to the hearer. Ideally, the hearer understands the communication based on the words uttered in light of the parties' shared background knowledge or else seeks clarification. The reality of the patent prosecution process, however, in fact discourages cooperation. The inventor behaves strategically to hopefully obtain a greater scope of exclusion; the Patent Office

maintains, at best, a laissez faire approach to the conversation. Both sides are fully entrenched in their positions, and so it will take incentives to motivate a change to cooperative behavior.

a. Incentives for the Inventor

Currently, the inventor is not speaking clearly with the intent of communicating information to the Patent Office. Rather, the opposite is true. More often than not, the inventor submits ambiguous or vague claims with hopes that later interpretation of the claims will provide broader coverage or at least a little wiggle room. We must do more to encourage the inventor to draft clear claims. Already, the inventor is exhorted to use claim terms as they would be readily interpreted by one of skill in the art.[226] We expect that the inventor is choosing and using words in their ordinary and customary way, unless he tells us otherwise.[227] But our exhortations fall on deaf ears and our expectations are thwarted because the inventor feels the need to game the system.

We can alleviate the inventor's belief that he must submit vague and ambiguous claims by instilling the patent acquisition and enforcement processes with an air of cooperation, as described below. But we can also force the inventor's hand by making these claims less advantageous. The inventor has the benefit and the burden of drafting his claims.[228] So far, the benefit aspect has been allowed to outweigh the burden. To encourage the inventor to alter his behavior and draft clearer

[226] *See* Risch, *supra* note 135, at 180. Risch argues that one way to do this is to change the interpretation standard of the Patent Office from "broadest reasonable interpretation" to "ordinary and customary meaning," as is used in patent enforcement. This Article does not take that position. *See id.* at 180, 184–85.

[227] *See* Miller, *supra* note 11 ("A strong ordinary meaning default rule grounds patent drafting in this set of cooperative, interlocking assumptions by writer and reader, and thus rejects an errant patentee's efforts to prevail against the public by using ordinary-seeming words in secretly self-serving ways. This default rule also provides another example, in legal interpretation, of Grice's maxims of cooperative conversation.").

[228] *See id.* at 186–87 ("In this milieu, with its normative tilt toward free competition, the patentee bears the burden of claiming an invention in terms the interested public can readily understand. Only a readily understood claim marks off territory sufficiently to put it under the patentee's sole control, and not all claim construction errors are created equal.").

claims, claims should be given their broadest reasonable interpretation during prosecution and the narrowest specified interpretation during enforcement.

Giving the claims their broadest reasonable interpretation during patent prosecution encourages more cooperation between the inventor and the Patent Office because the parties will have to engage in an iterative process to narrow the scope of the claims to an appropriate breadth. The back-and-forth between the inventor and the Patent Office is much like a conversation already. Although there have been numerous proposals to narrow the default interpretation of patent claims at the Patent Office,[229] this would actually decrease, not increase, the amount of conversation, and thus collaboration, between the inventor and the Patent Office. Encouraging a longer dialogue during patent prosecution yields greater opportunities to clarify various points, while a shorter dialogue cuts off clarification. Consider a discussion between two parties going out to dinner. When asked where she would like to go, the first party responds, "I like most foods." She may say this because she truly does not care, but she may also be engaging in strategic behavior, perhaps to appear polite, to impress the other party, or to somehow use her vagueness to shape the conversation later, possibly thinking "you picked where we went to dinner, so I should get to pick the movie." The second party then participates in the conversation by giving the first party's suggestion its broadest reasonable interpretation and proposes a restaurant or a type of food. The ball is then returned to the first party to accept the suggestion or offer a different idea. The conversation continues back and forth until an agreement is reached. If instead the second party construed the first party's answer more narrowly, they may not engage in this more complete discussion, resulting in a less developed answer.

On the other hand, when enforcing the issued patent during litigation, the patent claims should be given their narrowest possible reading. Although this is a canon of claim construction, it, like all canons, is not necessarily followed. However, rather than serving as a canon, this exhortation should be made a

[229] *See, e.g.*, Risch, *supra* note 135, at 180.

rule.[230] The purpose of this is two-fold. First, it encourages the inventor to engage fully in the discussion with the Patent Office to obtain exclusionary scope that is clearly defined by the resulting patent. Because any ambiguity will be a disadvantage to the patentee, in that he will not obtain the wiggle room that he has been granted in the past, he will be incentivized to work with the Patent Office in tailoring down the initially drafted claim to a more precisely worded and clearly focused claim. Second, it forces the patent to work as a cooperative speaker. Remember, in cooperative conversation, the speaker intends to clearly communicate information to the hearer. If the patent is construed more narrowly, it is likely that it will more clearly communicate the patent's effective scope, as well as the scope that reflects the discussion between the inventor and the Patent Office.[231]

It is possible that, rather than encouraging the inventor to engage in cooperative conversation during patent prosecution, the strategy is simply shifted to another aspect of the acquisition process. Even if some strategic behavior remains on the part of the inventor, the fact that his words will be held against him should limit the amount of game playing and encourage him to draft better claims at the outset, as well as participate more fully in a cooperative bilateral conversation with the Patent Office.

b. Incentives for the Patent Office

Of course, the lack of cooperative effort rests not only on the part of the inventor. As mentioned before, a patent examiner's primary duty is to ascertain whether the patent claims are valid;[232] so long as the claims are valid based on his initial

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[230] *See* Miller, *supra* note 11, at 187 ("The patentee's freedom of linguistic choice imposes, of course, a corresponding responsibility on the court system—namely to enforce the patentee's word choices for the benefit of the public.").

[231] Another option may be to put greater teeth into the requirement under 35 U.S.C. § 112 (2006), paragraph 2, that claims be definite. I think, however, that this standard is more nebulous and less workable than imposing a strict rule that claim terms should be construed against the inventor. Courts have long experience construing contract terms against the drafter. *Contra proferentem* is a rule of construction that states "that interpretation will be preferred which is less favorable to the one by whom the contract was drafted." Edwin W. Patterson, *The Interpretation and Construction of Contracts*, 64 COLUM. L. REV. 833, 854 (1964).

[232] Risch, *supra* note 135 ("Patent examiners have an incentive to issue valid patents; since the question for examiners is whether the claims are valid, they have no incentive to clarify vague patents if the claims otherwise appear valid.").

understanding of the claim terms, the examiner is unlikely to seek clarity as to what the inventor means by the terms.[233] For the conversation between the inventor and the Patent Office to be more cooperative, we must demand more of the patent examiner. In particular, as a hearer and participant in the conversation, the examiner must seek clarification whenever the inventor's statements are not precise. It is not enough that the examiner believe that he understands the claim terms based on the background he shares with the inventor. Rather, he must insist that the terms be precisely worded or that the shared background be unequivocally stated. This will occur in part with the cooperative conversation that will flow from the claim terms being given their broadest reasonable interpretation during prosecution. The back-and-forth required to narrow the claim scope will allow the Patent Office to seek clarification of claim terms. However, the examiner often rests on the background knowledge that is shared with the inventor and does not feel the need to seek clarification.[234] Because of this, the background knowledge must become explicit by institutionalizing the PHOSITA, as proposed below.

To effectuate any change on behalf of the patent examiner, it will be necessary to change the performance measures for patent examiners, who are generally graded based on quantity, not quality.[235] Examiners should be given the necessary time to engage in a detailed conversation with the inventor, as well as be rewarded for these conversations as fulfilling their duties. As the current director of the Patent Office is beginning to make changes in the examiner assessment process,[236] making an alteration that would recognize the value of the communication is conceivable. In any case, the communication between the inventor and the Patent Office must look more like bilateral

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[233] *See id.*

[234] *See id.* at 201.

[235] *See* Cecil D. Quillen, Jr. & Ogden H. Webster, *Continuing Patent Applications and Performance of the U.S. Patent and Trademark Office—One More Time*, 18 FED. CIR. B.J. 379, 388 n.32 (2009). This is not the first paper to advocate for examiners to have more time to do a better job.

[236] *See Recently Announced Changes to USPTO's Examiner Count System Go into Effect*, AG-IP-NEWS (Feb. 21, 2010, 7:52 GMT), http://www.ag-ip-news.com/GetArticle.asp?Art_ID=8052&lang=en. Some of the changes involve rewarding examiners for quality work and allowing examiners more time to do their jobs. *See id.*

everyday conversation, where the hearer seeks clarification as necessary to understand the information conveyed by the speaker.

2. Create an Atmosphere of Cooperation

The importance of this conversation between the inventor and the Patent Office, both for patent acquisition and as the basis for the second patent conversation between the patent and the public, requires an emphasis on a more candid conversation, such that inventors are encouraged to withhold less information and examiners are motivated to seek greater information where possible, as proposed above. To allow for and foster this more open conversation, a few of modifications need to be made to the patent prosecution system.

a. Remove Prosecution History from Claim Construction Methodology

Current claim construction methodology permits the use of the prosecution history—the record of the conversation between the inventor and the Patent Office—to be used for interpretation during the second conversation between the patent and the public.[237] While this may be useful to convey the shared background knowledge of different parties, such as addressees, overhearers, eavesdroppers, to the conversation, it also creates an incentive for the inventor to say less for fear of estoppel resulting from his statements made during the acquisition process. Decreasing the prosecution history's role in claim interpretation will yield a more cooperative environment for the dialogue between the inventor and the Patent Office.

Certainly, open communication is stunted if the parties to the conversation fear that their statements will be used in a way that later harms them. And while in some respects this is useful, because it forces parties to choose and word their arguments carefully, it creates a very guarded conversation. For both the inventor and the Patent Office to fully participate in a cooperative conversation, they need to view their statements to each other as working towards a common goal of understanding, rather than as a something that will trap them later. To be sure, the inventor feels the negative effects of the estoppel based on

[237] *See* Phillips v. AWH Corp., 415 F.3d 1303, 1317 (Fed. Cir. 2005) (en banc).

patent prosecution far more than the Patent Office, but if we give more attention to examiner quality, the statements the examiner makes during prosecution become much more public. There is, of course, an argument that if both parties' contributions to the patent acquisition conversation are not made public, via the use of prosecution history in claim construction, any strategic behavior of either party is left undisclosed and unseen. Thus, rather than creating an atmosphere of cooperation, this proposal would instead result in a greater ability to remain strategic without scrutiny. However, this proposal, taken in conjunction with the proposal to construe claims against the inventor and the subsequent proposal to relax the new matter prohibition, removes most of the incentives to behave strategically. If the conversation of the inventor and the Patent Office is not later made public as part of the conversation between the patent and the public, both sides to this initial conversation will be more likely to engage in the detailed cooperative dialogue that will yield better patent claims.

But do we not need the details of the prosecution history for claim construction? No, for two reasons. First, even the Federal Circuit realizes that the prosecution history yields inferior information about the meaning of terms in the patent claims.[238] Second, by relaxing the new matter rule and institutionalizing the PHOSITA, as proposed below, the prosecution history becomes nearly irrelevant to claim construction. These changes would ensure that information that is necessary for claim construction will become more prominent and easily accessible and that that information be reflective not of the negotiation process but of the clarified terms that were the heart of the conversation. In turn, we can remove prosecution history from the table during claim construction and allow for a more frank, and thus more cooperative, conversation between the inventor and the Patent Office.

b. Relax the "New Matter" Rule

Coincident with removing prosecution history from claim construction, the prohibition against adding new matter into a

[238] *See id.* ("[B]ecause the prosecution history represents an ongoing negotiation between the [Patent Office] and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.").

patent application should be relaxed. The "new matter" rule forbids an inventor from adding material to the patent application once filed.[239] While the inventor may make amendments to and add claims to the patent application, the specification is frozen at the time of filing. Further, the amendments and new claims that the inventor may make are cabined by the information in the specification as filed. The problem with this rule, interpreted strictly, is that it makes it quite difficult for the inventor to explain himself more fully if the examiner seeks clarification of a term. Basically, any benefit obtained from a full and open discussion between the inventor and the Patent Office is prevented by the "new matter" rule.

The rule should not be completely eliminated because it prevents the inventor from adding completely new material after filing the application, allowing him to comply with the requirement that he possess the invention.[240] But if we relax this prohibition to allow any clarifications to claim scope to be added to the patent document, with respect to both the claims and the specification, the initial conversation between the inventor and the Patent Office that ended with both sides reaching a common understanding as to the meaning of the language of the claims becomes useful. This has two advantages over the prosecution history as it is currently used in claim construction. First, allowing the inventor to add the clarifications directly to the patent document itself allows the patent to speak on its own in the conversation between the patent and the public. All of the conversation is contained in the patent, or the speech; there is no need to resort to outside information. Second, what will be added to the patent document is not a series of negotiations, as is the essence of the prosecution history but rather the final understanding reached. This allows the patent document to reflect the cooperative nature of the underlying conversation between the inventor and the Patent Office. It also allows the patent document to function as a cooperative speaker, intending to convey a clear, unambiguous message to the hearer, or the public. In tandem with the removal of the prosecution history from claim construction methodology, the ability to add

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[239] *See* 35 U.S.C. § 132 (2006).

[240] *See id.* § 112; Holbrook, *supra* note 101, at 127.

clarification to the patent document itself should result in a more cooperative conversation, and ultimately in a better understanding of the terms in the patent claims.

3. Institutionalize the PHOSITA

Finally, although it is tangential to creating cooperation in the conversation between the inventor and the Patent Office, the knowledge of the PHOSITA should be institutionalized. The PHOSITA is a proxy for the shared background knowledge of the parties to the conversation, or the inventor and the Patent Office. Even in that initial conversation, the PHOSITA is only nominally acknowledged; in general, the PHOSITA is only recognized as a reason why information can be left unstated. However, the initial conversation gives rise to the patent, which "speaks" to the public.[241] The background knowledge of the parties to this conversation, particularly on the public side of the equation, is unlikely to overlap in the same way as the background knowledge of the inventor ideally overlaps with the examiner. The public may be judges, investors, consumers, and competitors, each of which may or may not share any background knowledge with the inventor and Patent Office, represented by the patent itself.[242] Because so much conversational context relies on the shared background knowledge between the speaker and the hearer, more must be done to ensure the hearer is on the same level.

One way this could be handled is to require patents to be written to the level of a layperson. However, describing new inventions is hard enough as it is. A better solution would be to make this background knowledge more accessible. There are two potential, and non-exclusive, ways this can be done. First, because the most visible manifestation of the conversation between the patent and the public is in the course of patent litigation, more resources should be made available for a district court judge to seek expert testimony to gain an understanding of the technology underlying the patent. This would give the judge,

[241] It may feel awkward to consider the patent as "speaking," particularly since the patent cannot have any intent to convey information. This is simply shorthand for the patent serving as a vehicle to convey the result of the conversation that occurred between the inventor and the Patent Office.

[242] Even competitors may or may not have the shared background knowledge of the PHOSITA.

at least for a particular case, some of the shared background knowledge that we attribute to a PHOSITA. Although the use of experts for this purpose is already sanctioned,[243] this use should be strongly encouraged and occur in many cases, not just a few. Second, a more robust, but more difficult to implement, solution would be a systematic gathering of shared background information by technology. In some industries, this may already exist; for example, a number of technology working groups of the Institute of Electrical and Electronic Engineers ("IEEE") have developed standards and white pages that define various terms as used in that industry.[244] Other industries, however, may not have such a developed lexicon. In those industries, it would be important to create a knowledge database that would reflect the current understanding of terms used. This database would, of course, need to be updated over time as technology shifts. Presumably, the benefits of this knowledge database would extend beyond its use in patent law.

Finally, there is the problem of those common words—for example, "and," "through," and "a"—that inexplicably form a large chunk of claim terms in dispute. I have advocated before for the creation of a Federal Circuit lexicon for this type of terms.[245] These words do not necessarily reflect a shared background knowledge possessed by the PHOSITA but rather the ordinary person, since these words are typically being used in their ordinary conversational manner. Although in everyday conversation we brush by these words without giving much thought to them, the more precise nature of patent claims may give more reasons to care more about their definitions in this case. The Federal Circuit lexicon, composed of the court's definitions of these everyday words, would be a proxy for the shared background knowledge between the inventor, the Patent Office, and the ordinary person. For example, if the Federal Circuit has said that "about" means "nearly," then institutionalizing that data via the lexicon will allow parties to the conversation to come to the patent conversation with the same background knowledge as the other participants.

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[243] *See Phillips*, 415 F.3d at 1318.

[244] *See, e.g.*, *Publications & Standards*, IEEE, http://www.ieee.org/publications_standards/index.html (last visited Mar. 12, 2011).

[245] *See* Osenga, *supra* note 36, at 89–92.

There may be, of course, other changes to the patent conversations that would advance their cooperative nature and, in doing so, allow for more linguistic notions to be used in the claim construction process. A more candid conversation between the inventor and the Patent Office will yield a more generous disclosure in the patent, which should result in more determinate claim construction, while not requiring an overhaul to the claim construction process itself. Looking at the problem through this new linguistic lens demonstrates where the difficulties truly arise and how we can make real differences.

CONCLUSION

As long as patent rights are verbally delineated, there will be inherent and inescapable ambiguity. This Article demonstrates that, despite what many scholars have argued, the process of claim construction does not need to be fixed. Rather, what needs to be modified is the underlying conversation, an insight that only becomes clear after viewing claim construction through a linguistics lens. Claim construction is simply the process of understanding what is being conveyed by the language of a patent; understanding language is something we do every day. And so, it makes sense to provide a new framework for considering claims—as patent conversations.

By analogizing claim construction to everyday conversation, we can draw on the rich literature of linguistics to help us figure out how to construe the words used in patent claims. When we do so, we see that the process in place is actually quite sound. Various doctrines of claim construction make perfect sense when viewed through the conversational linguistics lens.

What does need to change is not the claim construction process, but rather the circumstances of the conversations that give rise to the patent. Cooperative conversation is much easier to understand; if we can create a greater air of cooperation in the patent acquisition process, then we can rely on conversational linguistics to help understand what is being conveyed. It is not the claim construction process that we need to change; we need to reframe how we look at claim construction—that is, how we understand conversations in patent law—by first considering how these conversations come to be. Patents can be easy.