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Rethinking reference: Towards a holistic approach to linguistic reference

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Thesis/Dissertation Acceptance**

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Rethinking Reference: Towards a Holistic Account of Linguistic Reference

For the degree of Master of Arts

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Approved by Major Professor(s): Victor Raskin

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RETHINKING REFERENCE:
TOWARDS A HOLISTIC APPROACH TO LINGUISTIC REFERENCE

A Thesis

Submitted to the Faculty

of

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by

Libby C. Chernouski

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For my husband, Matt, whose love, support, and untiringly feigned interest in this project made all the difference.

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ABSTRACT

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In this thesis, a review of linguistic reference identifies four entities (*speaker*, *hearer*, *term*, and *object*) and their interrelations as falling under the umbrella of reference. This review brings to light certain underdeveloped areas of research into linguistic reference, and the second chapter addresses these gaps by distinguishing between the experiences of speaker and hearer as regards linguistic reference, differentiating between the different cognitive processes required by each interlocutor, asking how the speaker establishes reference pre-utterance, and draws on various pragmatic, philosophic, and semantic approaches and theories to see how they could begin to approach for this important issue. A holistic rethinking of reference reveals that it is both cognitive and communicative, but also importantly engaged in users' embodied experience. This thesis concludes by discussing the relationship between philosophy and linguistics and pushes for an interdisciplinary study of linguistic reference requiring attention in philosophy, semantics, and cognitive studies.

1. INTRODUCTION

It would not be surprising if, upon reaching the final page of this thesis, one were to conclude that it is neither linguistic nor productive, proving no methodology nor detailed explanation of any widely recognized linguistic phenomenon. The absence of overt linguistic ornaments, such as syntactic diagrams, semantic formalizations, or a single transcription using the International Phonetic Alphabet might further reinforce the reader's growing doubt, while a quick skim of the references section raises similar suspicions, as there appears to be at least two philosophers credited for every one linguist. But, most likely, a true skeptic would be stopped by the title and, more specifically, by the word *reference*, which is featured so prominently that it is stated twice. It is not even necessary to read this thesis to make an educated guess about the philosophic nature of the enterprise undertaken herein.

Despite its philosophic tendencies and topic, this is a linguistic inquiry focused on a widely acknowledged, practiced, and under-examined phenomenon. Linguistic reference is the mystery of how one can use a term, a name, or just about any definite expression to refer to particular, actual objects in the real world. *Reference* is the name that has been applied to a number of different conceptualizations of this phenomenon, and it has been overlooked by linguists not in any egregious way, but simply because of its tendency to involve matters with which linguists are not always concerned, such as the physical world and one's non-linguistic cognitive processes, not to mention the mass of philosophic literature written on the topic, which often ignores natural language entirely. With these hurdles, it is hardly surprising that linguists have brushed aside the matter of how words relate to the objects they denote, contenting themselves instead with accounts of syntactic constraints on antecedents and domains of discourse (difficult enough issues in and of themselves).

But surely, any linguistic phenomenon is as good an object of study as another, and a case might even be made for linguistic reference being one of the most important for any serious inquiry into language. After all, we study language by its manifestations, the utterances and uses of language observable day to day, and what people *do* with language is refer — to things, to people, to real objects in the physical world. Users of language do this in order to engage with one another and with the world, and it is by virtue of successfully referring that we are often able to do anything at all.

The trouble that linguists face when wanting to study this incredibly important subject, in addition to the lack of linguistic literature on the subject, is the confusion that surrounds reference. In absence of a definition for linguistic reference that goes beyond the obvious reminder that words are used to refer to things, one is left to sort through a tremendous amount of research on the subject that is not only outside of linguistics, but which is not always forthcoming in divulging the aims and assumptions driving the approach. The first order of business, then, is to review the literature written on linguistic reference, touching on the dominant conceptualizations of reference in philosophy, pragmatics, and the blurry overlap between the two in order to arrive at a larger picture of what reference *is*.

Instead of focusing on a particular type or category of linguistic reference, I attempt a holistic view of this phenomenon that identifies the entities involved, the relations these entities have towards one another, aspects of reference that have been overlooked, the various starting points from which we might investigate reference linguistically, and the importance of studying reference interdisciplinarily. Surprisingly, perhaps, I try to take the unfashionable “one phenomenon at a time” (Nirenburg & Raskin, 2004, p. 57) approach. By presenting a holistic overview of linguistic reference and its nature, I hope to bring together some divergent literature on the subject while also demonstrating its importance in studies of linguistic communication and meaning. In the end, the linguistic nature of this investigation can be found in my attempt to describe both the *what* and the *how* of a linguistic phenomenon, focusing

on how linguistic reference functions and is experienced by real speakers in the real world.

The first chapter of this thesis focuses on reviewing previous conceptualizations of reference in an attempt to clarify our object of study. Four entities and their various relations are discovered, and the second chapter focuses on a particular subset of these relations, the *speaker/term/object* relation in an effort to rethink some of the things we think we know about reference, building up our understanding of the phenomenon section by section. In that chapter, a distinction is made between speaker and hearer reference that helps to illuminate some of the areas where understanding of linguistic reference is lacking and calls upon a few starting options for semantic investigation into the issue, including a variation of descriptivism, prototype theory, and embodied and extended theories of cognition. Examples of reference are provided in the second chapter, which looks closely at hypothetical exchanges between interlocutors, illustrates the differences between speaker and hearer reference while also reinforcing the conceptualization of reference as communicative, cognitive, and very much embedded in our physical interactions with the world. In the third and final chapter, I briefly review the relationship between philosophy and linguistics, providing some historical context to our discussion and hoping to instigate some interdisciplinary cooperation. In this chapter, also, I make a case for reference as important for semantic study, arguing that linguistic and semantic theory ought to include considerations of reference.

2. REVIEWING REFERENCE

In this chapter, I focus on the various relationships that have been represented by the term *reference* in philosophic and linguistic scholarship, reviewing the different approaches to reference that have been prominent conceptualizations of each relation. This review shows that the study of reference has been undertaken for many different purposes and through many different theoretical and critical lenses, that greatly influence the definitions of reference that are presented in both areas of scholarship. In conclusion, I clarify the primary points of difference in linguistic and philosophic literature on reference and identify the primary referential relationship that will be the focus of this thesis.

The relationships between language, speakers, and objects have long been subjects of inquiry. Understanding some of these relationships has been the goal of previous investigations of reference, largely. The definitions of *reference* have been many and — in some cases — contradictory. The oldest player on the field, philosophy, has yet to compose an agreed-upon, comprehensive theory as to the relationship between words and the external objects of the world, but philosophers of language have provided approaches to the subject that warrant discussion. Semanticists have also contributed to the discussion of reference, primarily in the way of formal semantics, but it remains a philosophically-dominated conversation. As Putnam put it, “if any problem has emerged as *the* problem for analytic philosophy in the twentieth century, it is the problem of how words ‘hook onto’ the world” (Putnam, 1984, p. 20). This conversation has not been a clear one. As Richard Geiger (2011) points out in work on the lexical semantics of *refer*, the notion of reference has been ill-defined, even among its most verbose commentators. From the following review, it becomes clear that this confusion is a direct result of the tendency of philosophers, linguistics, and other scholars of language to take vastly different theoretical and methodological ap-

proaches to reference as a result of imagining certain of the relationships covered by the nebulous concept to be more vital than others. Unfortunately, rather than clarifying their position, some have failed to announce their preference towards and study of a particular relation over another as explicitly as one might like. To avoid performing the same mistake here, the first order of business is to identify those relationships that 1) have been studied in the name of reference, and 2) are able to (and should be) at least acknowledged in any serious investigation of reference.

Traditionally, which may be taken to mean as discussed within the philosophy of language, “reference is a relation between people and things, and also between words or concepts and things, and perhaps involves all three things at once” (Sainsbury, 2008, p. 393). In most cases, then, a definition of reference tends to involve a two-part relationship between objects and words used to denote them, and it is the task of scholars of language to understand and define this relationship. Working off of Sainsbury’s review, we might represent the possible relations to be investigated as a triangle (see Fig. 2.1)

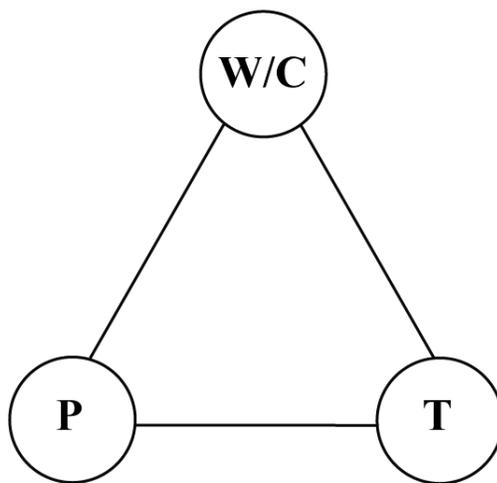


Fig. 2.1. Sainsbury’s Generalization of Referential Relationships
P = People T = things W/C = words/concepts

However, to lump concepts and words into one category is regrettable for our purposes of being extremely precise about the relationships investigated, and so this figure will need to be revised. Moreover, it is unclear whether and how concepts should come into discussions of reference without further investigating some domain-specific assumptions regarding the study of reference, which vary significantly discipline to discipline. The issue of how concepts in particular are related to words will be largely ignored in this thesis, (although see section 3.2.3 dealing with prototypes). So, rather than collecting the relationships to be discussed based on previous scholarship, a fresh reflection on the nature of reference and the entities involved may lead us in a profitable direction concerning how to best conceptualize the issue.

Finally, a preliminary distinction must be made. In discussions of reference, a recurring question has been when we have ‘true’ reference, and when we are merely mentioning something or someone in an effort not to identify or refer, but to talk *about* it.¹ Although this review will cover scholars who take different approaches on this issue, this author starts with the assumption that talking *about* an object in the real world is not the same as *referring* as conceptualized in this thesis as a linguistic and cognitive act. For now, it can be assumed that we are discussing ‘true’ reference, wherein the speaker intends to draw the hearer’s attention to a particular object and through which the hearer will have to cognitively identify this object. Although this is a severe assumption with which to enter the conversation on reference, it is one that will hopefully become clearer.

2.1 Term and Object

In order to discuss the relations that have been represented by the term *reference*, we must first identify the entities between which these relations are thought to hold. The notion that words play a role in referring has been vital to discussions of reference that have occurred in the areas of philosophy of language and linguistics. Therefore,

¹As does Leonard Linsky in *Referring* (1967) and Alexius Meinong in "Theory of Objects" (1960), as read by Linsky in that publication.

our first entity shall be a word (or phrase), or, as I will refer to the linguistic entity of reference throughout, a *term*. This may stand for any of the so-called referential terms or expressions: pronouns, definite descriptions, names, and, depending on your semantic theory, general nouns. The second aspect of reference that has been with us since the earliest investigations into the subject is the notion that words represent *things*, and so the *object* will be our second entity. Already, we have a relation that may be investigated (see Fig. 2.2).

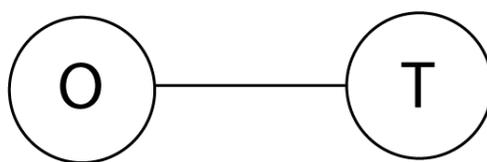


Fig. 2.2. Primary Referential Relation O = object T = term

From the time of Aristotle until the rise of pragmatic linguistics, *reference* was primarily conceptualized as this relationship, and those who attempted to investigate it clearly saw the *term/object* relationship as needing attention if not always explanation. This conceptualization was and still is prominent in most philosophical works, primarily within the analytic tradition, in which reference has been described and studied as the relationship that terms have to objects. In such scholarship, the term is seen to be denoting, or referring, to real world entities (Bach, 2008). Assuming an acontextual position, many philosophers before the 1960s can be seen to provide accounts of this relation of reference that attempted to bypass (in their accounts, if not in practice) any speaker involvement. For many philosophers of language, the emphasis the discipline and its origins in logic placed on formalization guided their concerns with reference. The need for clarifying and interpreting the relationship that terms have to objects found in the impetus of logicians and formal semanticists to represent natural language propositions formally in order to determine their truth-value.

Propositions, of course, being about particular objects, against which the world could then be compared. Given this depiction of reference as the relationship(s) between objects and terms, many ways in which these relationships can be investigated within formal systems of symbolization have been devised.

The notion of the *object*, however, has been an area lacking in clarity, and debates have formed over whether or not terms are related to either real-world entities or conceptual objects — or both. Philosophers and linguists have differed greatly on the kind of objects dealt with under a theory of reference, and often must navigate areas of epistemology beyond the scope of this thesis. Ultimately, a complete theory of reference would have a place for all kinds of objects, including abstract and fictional referents. For now, however, it is simplest to take Putnam’s (1984) formulation of the problem as that of “how words ‘hook onto’ the world” and restrict ourselves to reference concerning physical objects, for reasons that should become clearer in the second chapter. This is not because the acts of referring to physical objects or conceptual, abstract, or fictional objects are inherently different, but because this thesis focuses on referring as a cognitive act, which also claims that physical referents are an important part of that process. As mentioned previously, an assumption that referring is different from mentioning or speaking ‘about’ something or someone is being made here, and physical objects are things which we can very clearly identify as being referred to in discourse, on account of our ability to interact with these objects in particular ways in response to an utterance.

Key to understanding the referential behavior of terms has been the notion of singularity (or uniqueness) of the object to which a term refers, meaning that a referential term is understood to pick out only one, particular object (or potentially group of objects) in any given utterance. Following this train of thought, an expression is said to refer or to have reference when it selects a unique object or entity – the referent – either physical or conceptual, depending on who you ask (Bach, 2008, and Sainsbury, 2008). Proper names and pronouns are expressions that are thought to be

most certainly referential. For example, in the following utterance, the proper name *Jessie* could be said to refer to an individual who is, in fact, Jessie.

(1) Jessie came to the party.

It is clear that, when used in everyday conversation, proper names are understood by speakers as referring to particular individuals, despite the fact that many people have the same names. This is because proper names, like definite descriptions, are notably singular expressions, meaning they are understood by speakers as denoting only one, particular object at a time. Although names are the iconic example of referring expressions (or, expressions used to refer), all referential terms are supposed to contain an element of singularity. While polysemy is a fact of natural language, it is understood in any exchange between speakers that one is intending to refer to a *particular* object or person. Despite the fact that words have multiple meanings and applications, it is the case that a speaker intends to refer to a particular thing with any referential term, thus the notion of singularity in reference. So, although we may occasionally be vague in our use of a referential term, or there may be multiple ways of interpreting a term's reference (see Chapter 2 for more details on interpreting reference), there is the intention and mutual understanding that a term is being used singularly. In other words, it might be said that there is one answer to the question, *to what is this term referring?* in any given discursal context. If one had a list of possible meanings or referents that the speaker *might* have intended, they would be looking for the 'right' one. Singularity, then, does not describe a one-to-one correlation between terms and objects, but rather describes the way that such terms are used to refer to particular objects or individuals (or groups of either). Therefore, singularity has been and still is a key component in discussions of reference and in investigating the way that reference functions.

The philosophical literature has taken the *term/object* relation as primary, discussing reference in terms of referring expressions, or terms that refer. Linguistic accounts have done so similarly. Truly, conceptualizing reference as primarily a rela-

tionship between an *object* and a *term* that denotes or is used to refer to an object is foundational to studies of reference in all fields, and as such will be maintained here.

Before continuing our review of the development of thought on reference, it is advisable to reflect on the phenomenon as conceptualized so far. The two entities already identified are *term* and *object*. But clearly, there is more work to be done. This relationship cannot be investigated alone without some serious assumptions and ad-hoc gap-filling. In determining what the referent, or object, of a term is, we must assume a speaker, a language user who is putting forward a proposition or for whom a term seems to hold a certain relationship to an object. Conceptualizing the *term/object* relationship as one outside of and independent of the speaker is naive and, for our own linguistic interests, does not tell us how reference *works*, i.e. how it is accomplished or used. The various investigations into this relationship — with the obvious exception being Aristotle’s theory of signification, wherein he maintains an more or less inherent relation between a term and object² — show that conceptualizing this relationship only and independently of the users of language is not only misleading, but inaccurate.

2.2 Speaker, Term, and Object

The entity that must be added to our account of reference, then, is a user of language. By looking beyond the term and object toward the speaker, we are approaching Sainsbury’s (2008) generalization about reference as involving relationships between people, concepts, words, and things — in roughly any order or configuration.

In the philosophical literature, debates around how to determine the referent of a term as used in any given proposition. Generally speaking, there have been two philosophical camps that have dominated the discussion of reference in philosophy: descriptivism and referentialism. Both camps have differing ideas about how terms and objects are connected, and both assume, on some level, a third entity — the

²See Carson (2003) for a review of Aristotle’s philosophy of language and reference.

speaker — empowering this user of language to differing degrees. These two camps take sides when it comes to accounting for the descriptive content of a term and its role in determining reference.

2.2.1 Referentialism

The first camp is the closer to classic conceptualizations of reference as a relation between terms and the objects they denote, but we will quickly see how this approach raises questions that redirect our attention to some of the other possible relationships.

Sometimes called the non-descriptivist or referentialist camp, this first position denies that any descriptive content or sense (coined by Frege (1892)) of a word mediates the relationship between a lexical item and a referent, or rather, a term and an object. Approaches that fall within this camp are Millianism and causal theories of reference (Kripke 1972; 1977). Kallestrup provides this concise depiction of referentialism: “according to referentialism, referring terms are directly referential” (2012, p. 53). This definition illustrates the fog that so often surrounds definitions of reference, but it also emphasizes the importance of referents in determining meaning. The meaning of a term, for referentialists, is thus wrapped up only in its referent, and so “to understand Aristotle is to know of Aristotle that the name Aristotle refers to him” (Kallestrup, 2012, p. 36).

In this approach, meaning and referent are the same. The pros of this theory in terms of this discussion are not negligible. In this approach, “competently understanding the term need not involve any knowledge of that description” (Kallestrup, 2012, p.37) that one could give Aristotle or any other object. Because terms refer directly to their referents, it follows that understanding consists in interlocutors ‘picking out’ the correct referents, regardless of their descriptive knowledge.

Although referentialism is a fair starting point for discussing how people communicate, it gets a bad rap, particularly in comparison with descriptivism. One reason for this is because of the following referentialist principle as stated by Kallestrup

(2012): “If the sentence ‘S believes that a is F’ is true and $a = b$, then the sentence ‘S believes that b is F’ is also true.” Since sentences are understood by many formal semanticists and philosophers of language as propositions that can have either true or false values, determining the truth-value of statements such as these becomes an important endeavor. The principle above predicts that the following two sentences in (2) borrowed from Kallestrup (2012) have identical truth values.

- (2) a. Anna believes that water is wholesome.
 b. Anna believes that H_2O is wholesome.

According to a referentialist analysis, *water* and H_2O have the same referents, and therefore the propositions in (2a) and (2b) should be identical. The common criticism here is, of course, that Anna may not believe that H_2O is wholesome if she does not know what H_2O is. So, regardless of the co-referential nature of water and H_2O for most users of language, (2a) can be true while (2b) can be false.

But this criticism is really an epistemic disagreement that makes clear the contextual nature of language. If we say that (2a) and (2b) have the same propositional truth value, all this means is that we are judging the truth value of these propositions based on our third-party knowledge of these terms, namely that they are co-referential. If we are judging these sentences as possibly having opposite truth values because Anna does not know that these terms are co-referential, we are privileging her knowledge. So the criticism, while bringing to light an important distinction between an individual speaker’s knowledge and third-party agreement, does not undermine referentialism; the situation brought to light in (2) merely requires us to select a particular epistemological viewpoint. In doing so, it also illustrates the impossibility of escaping users’ engagement in reference. In order to judge a truth-value, we must select a viewpoint of *either* an individual speaker *or* a community of speakers. Moreover, constricting meaning to a term’s referent relies on an identification of the referent that can only be accomplished by an individual or group.

The *water/H₂O* criticism or puzzle³ within referentialist approaches to propositional content has been criticized by more use-oriented scholars of language, philosophers among them. Quine (1960) notably examined his fellow philosophers' approach to both meaning as reference and analysis of propositions, claiming that "an expression's meaning (if we are to admit such things as meanings) is not to be confused with the object, if any, that the expression designates" (p. 184), while also claiming that philosophers should be cognizant of the differences between a sentence and a proposition, the later having everything to do with the attitudes of a speaker. He maintained that "allowing each such proposition itself to remain steadfastly true or false without respect to persons" was to confuse aspects of natural language that should be acknowledged in any truth-value analysis (p. 176). Quine was not the only one to bring speakers to the forefront of discussions about reference, distressing over in the notion abstract, decontextualized propositions. Those who were, as Quine, brought up in the analytic tradition began to acknowledge the necessity of context in any type of referential analysis, though others had no problem conceiving of a speaker-less proposition.

Referentialism has been most popular and functional as a conceptualization of nominal reference, specifically, as one is often hard-pressed to think of any descriptive content that a name might possess. But this did not keep opponents of referentialism from trying to prove otherwise.

2.2.2 Descriptivism

Those who held that names and other referring expressions make their reference through descriptive content more (Strawson, 1960) or less (Frege, 1892) knowingly introduced speakers to the equation, recognizing that reference, as a relationship between terms and objects, also involves speakers, who use the descriptive content of

³This puzzle is not that different from Putnam's (1973) Twin Earth thought experiment, which he uses to demonstrate the importance of accounting not just for speakers, but for the external world to which they refer.

lexical items to pick out the referent. As the classic example of such a position, the name *Aristotle* in (3) refers to the person who was Aristotle only via some descriptive content – such as that suggested in the predicate of (3) – of the name that matches the properties held by the referent, Aristotle himself.

(3) Aristotle wrote Rhetoric.

How exactly we agree upon which properties of a referent are necessary in order to successfully refer is an area of contention among descriptivists. Though working in different times, philosophers Bertrand Russell and John Searle are two descriptivists who presented very different views on how the properties of a referent contribute to reference as well as on the nature of these properties themselves, reflecting different notions of the kind of descriptive content that is relevant for reference. Russell has advocated for one, vital property of a referent as being necessary and sufficient for a name like *Aristotle* to refer to the man Aristotle (1905). In order for this approach to work, the physical referent must hold a property that is ascribed to it. The question then arises: by whom or what is the term ascribed to an object? This is not a question that is answered as thoroughly as the linguist might like, but one might say that the speaker ascribes the property to the referent in using the term, keeping in mind a particular property that uniquely identifies the object. However, Russell does not dwell on the relationship between a speaker and the term, as it is tangential to his argument, and so does not offer a detailed account for how one is able to call upon or engage this property in using a referring term. Instead, he maintains that definite descriptions are the equivalent of names, from which he reasons that names must stand in for these definite noun phrases that describe, singularly, the referent of the name. This leads Russell to conclude that the meaning of the name is a statement consisting of this vital property. This property, moreover, is really in the form of a predicate, as Russell analyzed the definite descriptions represented by names as quantified propositions.

On the other side, Searle (1958) has declared that no single property is sufficient, and so has proposed that there are clusters of properties associated with a name

that help interlocutors achieve reference and which aid the hearer in identifying the speaker's intended referent, such as the man Aristotle. For Searle, it is the speaker who knows some of these properties and uses the name to refer to them. Meanwhile, Kripke (1972) proposed that there are some properties of the object that a name picks out that are contingent facts, while others are necessary for reference, leading to his causal analysis of proper names.

P.F. Strawson (1960) also advocates a more contextual interpretation of utterances containing referential expressions, seeing reference as an act, rather than a relation that can be navigated through Russell's descriptivist approach. For Strawson, linguistic knowledge is, in a sense, knowing how a term could be used to talk about different objects, and emphasizes the act of referring as a "signal" rather than an assertion (p. 128). Although neither Strawson's or Searle's analyses convincingly manage to account for how properties and terms are related, they do reinforce the speaker's role in linguistic reference, as without him, we have no knowledge of properties and senses through which to refer. With Searle and Strawson, specifically, we start to see a shift toward the pragmatic, detailed in the next section.

Whatever particular position a descriptivist holds towards properties, the fact that there are senses or meanings is integral to how speakers use the descriptive content to locate the unique referents that match the description. Moreover, reference to the properties of a referent puts a particular emphasis on the *object* in relation to both the speaker and term. In other words, if we use properties to navigate reference, consideration for how properties are determined, perceived, or attributed becomes increasingly relevant. See section 3.2.3 for further discussion.

2.3 Speaker, Hearer, Term, and Object

2.3.1 Linguistics and Pragmatics

Within studies of linguistic meaning, reference has played a part more largely in philosophy than in linguistics proper, and yet, semanticists and pragmaticists in

particular have begun to tackle this phenomenon in the last half-century or so. In most pragmatic accounts of reference, linguistic reference is conceptualized contextually, accounting for the purpose of speakers in communicating with an interlocutor. Most accounts, then, take the intention of the speaker to point out or refer to a particular object as a starting point, bringing our list of entities to four: *speaker*, *hearer*, *term*, *object*. In using a particular term, the speaker would likely have some particular, unique referent ‘in mind.’ Often referred to explicitly as *speaker’s reference*, this conceptualization of reference has led to definitions of referring as first and foremost an act, rather than a relation. In pragmatics – and as is believed by some philosophers of language, among them Searle and Strawson – it is not the words that do the referring, but rather the speaker, who intends to bring to their interlocutor’s attention the referent they may have in mind.

The move from reference as relation to reference as act occurred for various reasons among philosophers, but for Linsky (1963), believing that users of language – not expressions – refer was partly because of what he saw as a failing of descriptivist accounts to explain the problem of ambiguous reference, as no description is unique enough and no objects have “idiosyncratic attributes” (p. 74). He and other philosophers who preference the act over the relation often cite speaker’s intention to pick out a singular object as crucial. Although at times, Linsky (1963) seems to conflate, in his attempt to illuminate, the differences between referring as a relation and reference as an act. The topic of inquiry in philosophical studies that followed analytic relation-focused conceptualizations of reference, then, is “at bottom pragmatic, a matter of inference rather than stipulation” (Green, 1993, p. 14). And so, reference as an act entered discussions of reference and has been embraced most strongly in pragmatics.

Reference, then, is an act of bringing to the interlocutor’s attention particular object(s). Nunberg’s way of putting it is perhaps most apt: “a given term may be used [by the speaker] to refer to any number of things” (1979, p. 144). Not only does this definition follow the basic practice of pragmatics as a study of language in use, of

looking at what speakers do with language, but it highlights the necessity of viewing reference through communicative intention, as without a speaker and hearer, we have no way to say what reference is taking place in a given utterance.

As a communicative act, then, speaker's reference has been dealt with increasingly in the field of pragmatics and is still a controversial topic in philosophic and semantic circles. For pragmaticists, the answer to what the 'correct' referent of a particular term, which so plagued the formal theorists, is fairly simple: the correct referent is the one to which the speaker intended to refer. A reference is judged as successful when an addressee has correctly identified the referent that the speaker had in mind. So, "understanding a speaker's intention in saying what she said the way she said it amounts to inferring the speaker's plan" (Green, 1996, p. 13) and is communicatively cooperative. Because inferring reference involves reciprocal beliefs and mutual knowledge, "in modern pragmatic theory ... the capacity to infer speaker meanings on the basis of the evidence provided is taken to be reliant on the more general theory of mind capacity" (Falkum, 2015, p. 95). In order to infer reference, addressees must judge their interlocutor to be rational and cooperative in the Gricean sense, while also having some shared knowledge and experience.

Given the communicative function of language and the field's emphasis on users of language, it is unsurprising that pragmatics and those who take a more usage-based approach to language consider speaker's intention to be *a*, if not *the*, crucial element in reference. Despite the speaker's importance in such accounts, it turns out that much work done in pragmatics regarding reference tends to focus on the hearer's inference of the speaker's intended use of a term to refer to an object, focusing on the processes of reasoning and inference that must take place and the knowledge or beliefs a hearer must have about their interlocutor (see section 3.2.1 for further discussion).

So-called *speaker's reference* is often contrasted with semantic reference⁴, which is sometimes referred to as *linguistic* or *semantic reference* and deals primarily with determining reference from the semantic content of the utterance or term alone. Un-

⁴Even if it means to investigate the relationship between the two types, as Donnellan (1978) does.

surprisingly, the investigation of reference in semantics has often been restricted to formalization that attempts to account for the various functions of binding and scope, focusing on the relationships between variables that should explain reference as a logical possibility, not unlike the philosophical accounts of reference. These approaches, like their early philosophic predecessors, tend to downplay or even exclude the role of speaker's intention in determining reference. The problem inherent in this approach is that it overlooks a few difficulties, as pragmaticists are quick to note, but the most obvious should be that it focuses on one relation, the *object/term* relationship, and attempts to determine the referential relationship without accounting for the interlocutors' roles, but almost certainly appealing to their own intuitions as users of language. Of course, this isn't a fault in the theory itself, as most branches of linguistics are dedicated to studying language as a system, rather than its usage. However, when it comes to reference, we need to start with a complete picture that includes all entities involved before determining how to study and understand reference as a linguistic phenomenon.

While semantic and usage approaches may often seem to deal with the hearer's ability to identify the same referent as another speaker, many of these theories do not apply to how the first speaker establishes reference. It would be odd to say, for instance, that when a speaker utters the sentence *I want the red sweater* that the speaker must sort through the overlap between a set of all things that are red and a set of all things which are sweaters. But neither does semantic feature analysis (broadly generalized) fully account for the reference a speaker establishes, since pronouns, which are impoverished in terms of semantic features and descriptive content, are used to refer (see section 3.1.2). The significance of understanding how a speaker establishes reference between a real-world or conceptual referent and a lexical term should not go unnoticed, although it hasn't been fully explored in contemporary semantic theories. Therefore, there is much linguistic and arguably semantic study that still needs to be done. To do this, however, we will have to look a little more closely at the relationships involved, a project undertaken in Chapter 2.

Seeing reference as an act opened many doors of investigation for those interested in the phenomenon, investigating two entities of primary concern in the field more generally: *speaker* and *hearer*. But in adding two more entities, the relations to be identified and investigated become increasingly complex. Revising Fig. 2.3 to our new terminology, we now have four entities that — between philosophy and linguistic studies — have multiple possible relations to one another, both linearly and through each another.

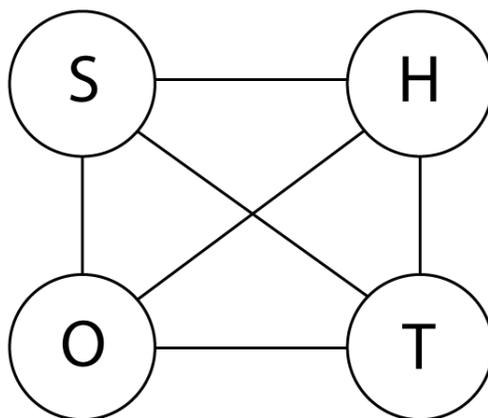


Fig. 2.3. Possible Relationships to be Investigated
 S = speaker H = hearer O = object T = term

2.4 Conclusion: Relationships Identified

This review of reference has firstly identified the various relationships that can be studied under its banner while also serving as a reminder that conceptualizations of reference are clearly based on disciplinary focus, preferences, and goals of the scholars who have tackled this phenomenon. In investigating reference, scholars have been defining it, prioritizing some of the possible relations and seeing as unimportant or tangential those relations with which they do not engage. However, it is not often that the focus on a particular relation is made explicit, and even when clarified, these different conceptualizations seem to leave little room for interdisciplinary schol-

arship on the issue that could work towards a holistic theory of reference that can describe, model, or predict these relationships as they converge and support one another. Moreover, when relations are not clearly identified as the subject of a particular investigation or field, we run the risk of misunderstanding the scholarship done by our friends in other disciplines, of overlooking aspects of reference that may be important for each of us in our own research, and of being unaware of the relationships that can and should be investigated.

At the end of this review, we have a starting point for further investigation. We have a depiction of reference that involves at least four entities, and we can visualize the various relations that have been or could be investigated under the somewhat vague umbrella of reference as Fig. 2.3.

3. RETHINKING REFERENCE

In this chapter, claims about the nature of reference are presented that draw on scholarship from philosophy of language, semantics, and pragmatics to form conclusions about the questions that must be asked about reference and the answers that we might postulate thus far. This chapter is the core investigation into reference and 1) identifies a failure to investigate speaker reference as a semantic process, 2) investigates the importance of explaining speaker's pre-utterance act of establishing reference, 3) claims reference is a communicative and cognitive act, of which linguistic reference is but a part, and 4) proposes a working definition of reference that takes into consideration the rethinking accomplished in this chapter.

3.1 As Act and Relation

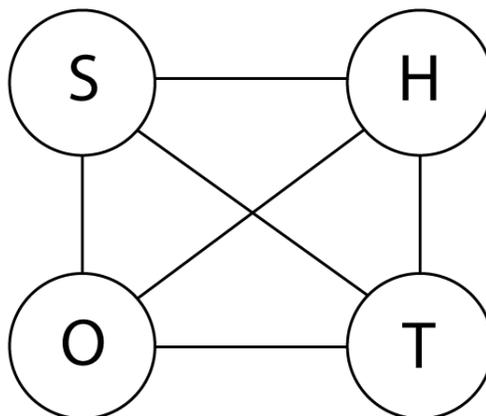
When it comes to the different entities involved in conceptualizations of reference (*speaker, hearer, object, term*), it may help to think of the various relationships that these entities may hold with each other. What ties together the many different definitions provided in Chapter 1 is the recurring conceptualization in much of the literature of reference as a *relation*. However, when it comes to thinking about language in use, we may prefer to think of a referential *act*, and most pragmatic accounts seem to construe reference as primarily an act. There is nothing in the discussions of reference as conceived so far that preclude reference from being studied as both an action and a relation; it is merely a matter of priorities and assumptions. In fact, the presence of bodies of literature on both aspects and conceptualizations of reference may be taken at face-value as suggesting that there should be, in fact, a way to discuss both of these equally valid aspects of linguistic reference. If we are to conceptualize reference holistically, then, we must account for how reference can be both an *act*

and *relation*. Both of these conceptualizations are useful and necessary and can be explained with a closer analysis of speaker and hearer reference and the relationships between the entities involved.

Regardless of which approaches identified in the review are taken to reference – as primarily an act or primarily a relation – both sides have to be considered, if only to be refuted, and decisions need to be made about where to focus scholastic energy. Construing reference as an act rather than a relation brings into focus several aspects of the context of communication that may not need to be addressed in approaches to reference that treat reference as primarily an abstract, *term/object* relationship. It is those aspects of reference that arise from a treatment of reference as primarily a pragmatic, communicative act that I address in the following chapter, which will not only suggest new paths of inquiry, but will, in the end, offer a revised understanding of the *term/object/speaker* relationships. Figure 3.1 displays the entities from the review of approaches to reference.

Fig. 3.1. Possible Relationships to be Investigated

S = speaker H = hearer O = object T = term

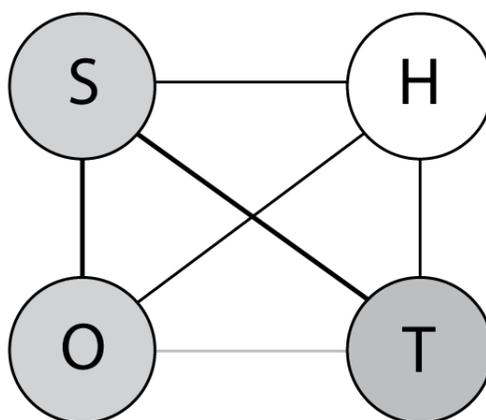


In rethinking reference, we must first address a failure in the literature to tackle each of these relations independently. Instead, scholars often risk conflation or confusion, failing to explicitly identify the relationship that they, as a philosopher, prag-

maticist, or semanticist, are primarily interested in investigating, let alone its relationship to other aspects of reference. While this may often be due to an author's audience and the disciplinary paradigms guiding their research, this neglect is particularly unhelpful when it comes to conceptualizing reference holistically. Further, it has certainly contributed to something of a gap in the research. This gap, shown in Fig. 3.2 below, is one that involves three of our four entities: *speaker*, *object*, and *term*.

Fig. 3.2. Relations Underinvestigated in Previous Studies

S = speaker H = hearer O = object T = term



It is not that these entities themselves have been overlooked, but that a particular relationship between them has been neglected. While speakers have been repeatedly involved in pragmatic accounts of reference, they have shown up in discussions which focus more on the hearer's interpretation of the speaker's reference than on how the speaker themselves navigate the *term/object* relationship. To begin to tease the relationship identified in Fig. 3.2 apart, we must first do what much of the literature on reference has failed to do: distinguish between a speaker-centric and hearer-centric account of reference.

3.1.1 Distinguishing Between Speaker and Hearer Reference

Pragmatic accounts of reference, in particular, fail to consistently distinguish between reference as it is experienced by the speaker and as it is experienced by the hearer when it comes to conceptualizing reference. Pursuing reference as an act undertaken intentionally means that advocates of speaker's reference should be able to develop explanations for why speakers choose the words they do to refer to the objects they do. We do see this in Nunberg (1979), as well as more recently in Green (1993) and Gundel et al (1993) to a degree, but what is usually discussed is the way that speakers tailor their use of referring expressions to the needs of their audience by holding beliefs about the shared common knowledge between speaker and hearer, or how hearers come to 'correctly' identify the referent (see section 3.2.1). What most pragmatic approaches to speaker's reference fail to fully explain is where – or whether – we distinguish between speaker's reference and hearer's reference.

In the philosophic literature, much of the discussion regarding speaker's reference is an attempt to determine what the referent of a given expression in a particular utterance is in order to determine the truth value of the proposition. This similar focus on interpreting reference, too, is problematic because it means that the discussion of speaker's reference has largely been either an appeal to a definitive answer of what is being referred to (as in analytic and therefore formal reference theories) or a pragmatic account of how speakers help hearers arrive at the speaker's referent. In other words, neither has terribly much to say about the *speaker's* relationship with a term they use to identify a referent — except by appealing to the hearer. Just because we are discussing the importance of the speaker's referent does not mean that we have been addressing what speaker's reference might actually be and how it is established. To do so will help clarify some of the otherwise muddled discussions.

The following image of reference arises from our review of reference as both an act and relation, as well as the rethinking of reference we have undertaken thus far in

the chapter. Consider Fig. 3.3, below, in which a distinction between speaker's and hearer's reference has been made.

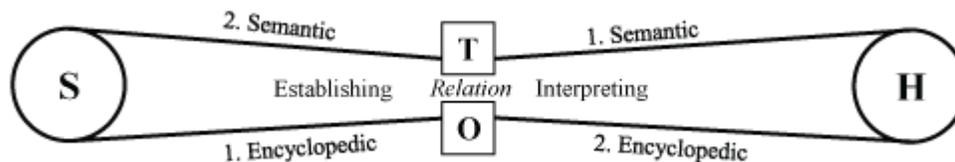


Fig. 3.3. Distinguishing between Speaker and Hearer reference
 S = Speaker H = Hearer O = object T = term

Figure 3.3 is a representation of the relationships between several of the entities that we have focused on thus far. In particular, however, we have a figure here that purports to describe the relationships between these entities in a way that does what previous studies have not always done clearly: detail the different relationships and experiences that speakers and hearers have at any given moment in discourse when a referential term is employed, albeit in a way that idealizes the process, resulting in some simplifications. The insight of this visualization is twofold: 1) reference can be seen to be an *act* for *both* the speaker and the hearer (albeit two incredibly different acts), and 2) there is a *relation* that follows from these two acts. Here, already, we have reference conceptualized as both an *act* and *relation*. There is more, however, represented here, by nature of the figure's claim to represent what *actually occurs* during linguistic communication.

In Fig. 3.3, the speaker (S) has two associations represented by lines between (S) and both (T) and (O). As the lines indicate, (S) has — and must have, in this hypothetical instance of linguistic reference — a relationship with both the term (T) used to refer and with the object (O) that the speaker wants to refer to (or intends to identify). But the two relationships the speaker has here can also be thought of as representing two different types of associations. On the one hand, we have a line that we could call semantic, since it has to do with (S)'s knowledge of their language, of the

terms used to refer (whatever might be entailed therein). The other line illustrates the association a speaker has with an object, or rather, their ontological or encyclopedic knowledge of the referent itself.

What we have with the hearer (H) is similar. The hearer (H), as a user of language, has similar associations to those the (S) has: they have semantic knowledge of the term (T), and they (presumably) have some ontological or encyclopedic knowledge of (O), however impoverished at the moment of communication. The processes of putting together (O) with (T) is one of a primarily pragmatic nature, as discussed in the previous section, wherein, as thoroughly discussed in the literature on speaker's reference, (H) is able to discern or identify the (O) of the (S) with the assistance of the (T) used by the speaker.

(S) and (H) have two very different relationships to the (T), the referring expression. Notably, it seems as though the speaker has to *establish* reference as a relation pre-utterance, and their association with (O) occurs prior to their association with (T), as the speaker knows the object to which they want to refer before deciding on a term to use. The only possible relation (H) can have to this particular substantiation of (T) is post-utterance, after they've heard the speaker, when they are then able to *interpret* the speaker's intended referent. Thus, it is (H)'s knowledge of (T), the referring expression itself — along with pragmatic reasoning — which enables (H) to pick out the (O) the speaker is referring to.

It is important to note here the simplifying nature of the figure. Although the associations that (S) and (H) have with the (T) and (O) are labeled identically, this should not be taken to imply that (S) and (H) have identical semantic and encyclopedic knowledge, nor are their associations are in any way necessarily similar. They are merely the resources each individual draws on when establishing and interpreting reference, and although some similarity will be required for successful reference (in other words, (S) and (H) cannot have completely different semantic understanding of (T), or (H) will most likely fail to identify (S)'s reference), each interlocutor's knowledge and associations will be different.

The cognitive and linguistic processes of the speaker and hearer involved in any instance of linguistic reference, then, are very different. However, it is also clear that both interlocutors are involved in an act of communication, linguistic and cognitive, involved in relating (T) to (O). The nearness of (T) and (O) in this illustrations are meant to indicate their *performed* relation, in other words, the mutual recognition by (S) and (H) of the connection between the (T) and the (O). Note that in this illustration, (T) and (O) relate to both (S) and (H), but do so differently. Here, mutual recognition is not a necessary condition for the referential act, *per se*, and it would still be a performative action if (S) were to establish that relation between (T) and (O), but a ‘misfire’ if (H) were to identify a different (O). So, while (S) and (H) may both have previous encounters with and knowledge (both encyclopedic and semantic) of (T) and (O), the connection between them is forged in the act of communication. This relation, however, is very real for the interlocutors and is a necessary condition for successfully communication based on mutual understanding. This is not to say that there are not so-called referring expressions, such as names, which members of a linguistic community take to be static in their reference, nor to say that all terms can be used (successfully) to refer to any object. It is simply to point out that reference, as an act, is one of establishing a relation between (T) and (O).

This relation of (T) and (O) as it is performed in an act of linguistic communication is the one I’ve chosen to call *reference*, as it most closely resembles traditional conceptualizations involving a relation between an object and a term used to refer to it. Thus, we can keep the conceptualization of reference as primarily a relation. The important difference, however, is that we can only have this relation through either (S) or (H).

The role that (S) and (H) play in reference as a relation becomes obvious upon further reflection on reference as an act and the figure above, which claims that the relations or associations that (S) and (H) hold to the (T) and (O) occur at different times (pre- or post-utterance) and in different orders (encyclopedic and then

semantic association, or vice versa). We must also keep in mind the various accounts of reference we have already reviewed, primarily those pragmatic accounts that focus on speaker's reference.

Considering speaker's reference requires us to think of the intention on the part of (S) to use (T) to refer to (O). As (S) is the first player in this game of reference, they have the primary job of *establishing* reference, choosing the term with which to refer to the object. (S), then, establishes *reference* — the relation — with their utterance. What we also know from pragmatic investigations of reference is that it is the hearer's job to then infer the *object*, or referent. What we should say, then, is that (H) *interprets* not the object first, but the *relation* of reference that (S) has established between (T) and (O) in order to identify the object. Though they may be acquainted with the object, they will not identify it as the speaker's referent pre-utterance. It is this relation that (H) interprets. Therefore, (H) negotiates (S)'s reference by perceiving the relationship between (O) and (T) that (S) has already made salient through (S)'s utterance. Because of (H)'s semantic knowledge and their encyclopedic or ontological knowledge or acquaintance with the referent, (H) is able to perceive the relation that (S) has performed through their act of establishing reference. For (H), the intended audience, it is not their own intention which relates (T) to (O), but rather, their perception of (S)'s intention, which is ultimately the perception of a relation forged between (O) and (T) by (S). So, although both acts performed by (S) and (H) are pragmatic in part, they also both involve a great deal of semantic or linguistic knowledge of terms and their use.

Reference, then, is as much an *act* as it is a *relation*, but as a communicative phenomenon, it is vital to understand this act in the context both speaker and hearer. But the different aspects of the speaker and hearer's actions and the order in which they process the relationships between *term* and *object* require further research and theorizing.

Speaker's reference, as an act of establishing, presents an interesting challenge; a theory of reference must account for how (S) selects the term in relation to the object

to which (S) wishes to refer. As is illustrated in the figures by the numbering of the semantic and encyclopedic relations, (S) will first be acquainted with the object (O), and consequently use their semantic (and pragmatic) knowledge to select an appropriate term post-referent identification. (H), on the other hand, must proceed inversely, first exposed to the term, which requires (H) to use semantic knowledge, and then to the (O) through a process of inference that includes semantic knowledge.

This temporal sequence of events or processes is, of course, a natural fact of language in use.¹ Chomsky has said that approaches that suppose “that the speaker selects the general properties of sentence structure before selecting lexical items (before deciding what he is going to talk about) ... [seem] not only without justification but entirely counter to whatever vague intuitions one may have about the processes that underlie production” (Chomsky, 2006, p. 139). We need, therefore, to account for the fact that the speaker first decides what to say. And while the process of interpretation on the part of the hearer has been discussed extensively in the literature, relatively little attention has been given to the speaker’s act of establishing reference. Figure 3.4 has been revised to depict the order of the sequenced act that is reference for the speaker (though no causal relation is intended, *per se*).

The distinctions made above may seem trivial, and the image used to represent these relations is certainly rough, but it illustrates an area of some confusion in the literature and one way we might better differentiate between reference as act and relation, as well as the referential experiences of both speaker and hearer.² The exact terminology and depiction provided are not meant to replace previous terms or illustrations, but it is one way of handling this vital distinction that makes distinguishing

¹Eriksson (2009) suggests that a reference takes place in a communicative “sequence” of interactions between interlocutors, involving both ostensive and linguistic acts of reference.

²Edouard Morot-Sir offers an account of reference as neither a relation nor an act, but rather as an experience in *The Imagination of Reference* (1995), and Jessica Pepp, also, provides an picture of reference that likens language to a form of perception in her dissertation, “Locating Semantic Reference” (2012). Pepp’s account of linguistic reference focuses on language as a way to perceive and thus experience the referent. Clearly, an experience of reference, in addition to seeing it as an act or relation, is involved here with an attempt to differentiate between the different experience interlocutors have in any given exchange.

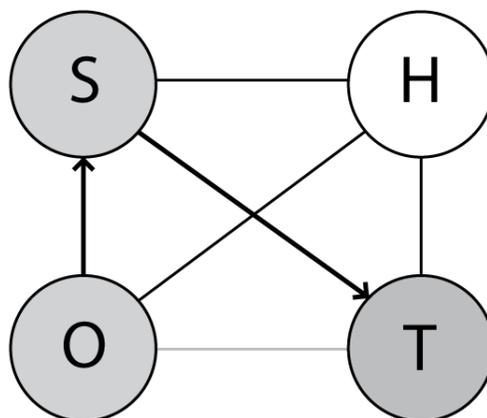


Fig. 3.4. Speaker, Object, Term Temporal Relation
 S = speaker H = hearer O = object T = term

between speaker and hearer reference a little more tangible. Although this account necessarily examines reference as, at heart, communicative, we can maintain some of the original distinction between reference as *act* and reference as a (performed) *relation* by working from the perspective of either speaker or hearer, as discussed above. Moreover, this illustration illuminates a serious need to examine how reference is established for a speaker pre-utterance.

But here we need to pause in order to make a vital distinction. What we called *reference* was the established or interpreted relation of an *object* to a *term*. Therefore, *reference* (so conceived) and *identifying* a referent are not the same thing: reference is the established and subsequently interpreted relationship between a term and an object, while identification is the cognitive act of locating the referent *in the real world*. Both are important in determining how communication is accomplished, and it is doubtful that these two aspects — referencing and identifying — can be separated, for together they provide an account of what is happening when we use terms to refer.

3.1.2 An Example with Pronouns

To illustrate the conceptualization of linguistic reference provided in the previous section, a more concrete example should be provided. For the sake of simplicity and to avoid more in-depth discussion of the nature of senses and meaning at this point, the examples provided will use pronouns as referential terms. Through this example, we will be able to see 1) the difference between speaker and hearer reference, and 2) the need to investigate how reference is established pre-utterance, as described in the preceding section. It will also importantly demonstrate the necessity of incorporating extra-linguistic experiences into our discussion of reference.

Pronouns have been an object of study for linguists for some time partially because of their ability to “pick out the same kinds of objects as full lexical nominals” while at the same time “lack[ing] descriptive content” (Wiese and Simon, 2002, p. 2). Pronouns are important to the discussion of reference for precisely this reason. In English, pronouns are understood to be definite, though exactly what it means to be definite is also an area of some contention (Abbott, 2010). But, generally, pronouns are thought to be definite because they seem to refer to a particular object the way that definite noun phrases do. For example, in (4), *it* is understood to refer to the same object as *the book*, but *it* does not seem to carry any particularly descriptive content, unlike *book*, which could be described in many different ways, usually via its properties or features.

(4) I bought the book because I loved *it* so much.

In English, pronouns can carry features for number, gender, animacy (*he* versus *it*), and case. Different “typological-descriptive” approaches have been taken to best represent and ontologize these features (Goddard, 1995), but we will keep it simple. The personal pronoun *he*, for instance, carries the features: singular, male, and nominative. It is through these features that pronouns are said to do some of their “pick[ing] out” of particular referents in the world (Wiese and Simon, 2002, p.3). For example, in (5a), there are two individuals, but we understand that *he* refers to

Mark because of the particular gender feature, male, that *he* carries. While in (5b), changing the personal pronoun *he* to *she* changes the understood referent to Sally.

- (5) a. Sally told Mark he would have to go to the store again.
 b. Sally told Mark she would have to go to the store again.

The personal pronoun in English carries at least some descriptive content — which can help an interlocutor establish or interpret reference — by way of its grammatical features. But by themselves, pronouns don't seem to contain much in terms of meaning. This does not mean, however, that they cannot be used to refer. Using pronouns to refer is a slightly different approach from claiming that pronouns merely 'refer back' to their linguistic antecedents, which is the approach taken by many linguists (Weise and Simon, 2002). The argument that pronouns are merely proxies for their antecedents, containing “copies” of their linguistic antecedent's descriptive and syntactic content has also been presented (Heusinger, 2002, p.111). Popular during American Structuralism, this view has since been criticized heavily (Heusinger, 2002, p.112). But if we accept that pronouns can be used to refer directly to an object, instead of being a mere copy of the antecedent itself, we would expect this to be reflected in the data. Take, for example, the discourse in (6), borrowed from Van Rooy (2001).

- (6) a. John: A man jumped off the bridge.
 b. Mary: He didn't jump, he was pushed.

Van Rooy (2001) merely says that “the pronoun [he] appears to be used referentially” in (6b), “referring to the speaker's referent of John's use of the indefinite” (p. 624). To a native speaker, who doubtless supplies the discourse with a context, it is obvious that Mary's use of *he* in (6b) is referring to the same individual as John is referring to in (6a). But, what is more interesting is that Mary is presenting new information to John in her predicate. If pronouns were copies of their antecedents, their descriptive information should be the same, but John describes a man who jumped off a bridge, which directly contradicts the information Mary gives about him in (6b), when she asserts that he did not in fact jump, but was pushed. By cor-

recting John's information, Mary is recognizing the same referent, but she clearly has different descriptive information regarding her referent. This is only possible if the pronoun *he* is perceived as directly corresponding to a real-world object, or referent (the same individual John is discussing), not by proxy or through some descriptive content, unless we limit that descriptive content to the grammatical properties of the pronoun which align with the referent: third person, male, and singular.

This should bring to mind descriptivism, the approach to reference reviewed in section 2.2.2 that claimed that reference is negotiated or mediated by users of a language through senses or descriptive content of a term and the referent's corresponding properties. Of course, we can use Van Rooy's sample sentence in (6) to illustrate the flaws in this approach. Clearly, John in (6a) was had incorrect descriptive content regarding his referent, the man who John thought jumped off of the bridge. And yet, Mary, in (6b) recognizes John's referent, referring to that same object with the pronoun *he*, although the properties of her referent are slightly different. So, we once again show that the pronoun *he* cannot be a mere copy, while also seeing the flaw of descriptivism: the reference in (6a) was not only understood by Mary, but this same object was referenced by Mary. So, despite the reference being 'false,' according to descriptivism, it was successful in terms of 'picking out' the object for Mary.

Communicatively, this instance of reference is complete, making descriptivism's push for some degree of matching between a real-world referent and the descriptive content of the term used seem at best an incomplete account of communication. But requiring an object to match the descriptive content of the referring term's sense or meaning can be shown to be incomplete for an analysis of pronouns even further.

For example, imagine A and B are having a conversation, and speaker A points to another individual, Mark, who is not in the conversation, saying *He is a great father*. Here, speaker A is clearly referring to a unique individual via a pronoun, which itself has no descriptive content other than its grammatical features. Nonetheless, the referent (Mark) is clearly communicated to speaker B, who correctly understands the referent of speaker A's pronoun to be Mark. But all that speaker B knows of this

referent – aside from the new information provided by speaker A – is perceptual. Speaker B can respond to speaker A by saying, *Oh, I don't know him*, using the pronoun *him* to identify the same referent (Mark) as speaker A, even though speaker B knows next to nothing about the object that is being referred to. This example illustrates two things. First, that lack of descriptive content does not prevent a speaker from using a pronoun to pick out an object. Second, that the actual object being referred to via a pronoun is an important part of what makes pronouns function communicatively for speakers.

While discussion regarding linguistic antecedents may be relevant for syntactic rules, it is clear from the above examples that pronouns themselves can be used as directly referential terms, and do not, as syntactic analyses seem to suggest, merely connect back to their linguistic antecedent when it comes to establishing reference. All this means is that we must look outside of the syntax of a sentence and previous linguistic discourse in order to understand how pronouns are used referentially.

Let's look again at Van Rooy's sentences in (6). We have established that John and Mary are discussing the same object. This is simple enough for us to see, as a third party. Imagine, though, the complexity of the communicative event occurring. Mary, as a hearer and second speaker, must not only recognize John's object, but she must do so despite his false information. Then, she establishes reference using the pronoun *he* to stand for the same object, and it is presumed (because we understand her object as being the same as that of John's) that John understands that Mary is referring to the same object with her use of the personal pronoun *he*. Therefore it makes sense to say that communicative understanding consists in interlocutors picking out the correct objects, regardless of their descriptive knowledge of a term *or* object. Going back to (6), in which John and Mary discuss the man on the bridge, it is clear that they both identify the same object, although their knowledge of the object itself differs. So, descriptivism seems to lack some explanatory power when it comes to analyzing pronouns used to refer, since "all such understanding takes is knowledge of whom or what the term refers to" (Kallestrup, 2012, p. 37). To discover how Mary

is able to both ‘pick out’ the correct referent despite having false information, we will have to step outside of descriptivism and examine the notion of *salience*.

Klaus von Heusinger, in “Reference and Representation of Pronouns,” tackles the complexity of interpreting communicative acts involving pronoun reference, claiming that “pronouns are interpreted as referring to the most salient element given so far” (2002, p. 109). Heusinger’s proposal of a “salience hierarchy” can help explain how an interlocutor is able to correctly identify a speaker’s referent and how reference is fundamentally communicative.

The most salient element in a given context can be either extra-linguistic or linguistic, meaning that an interlocutor may infer the intended referent via either a clue from the discursual context, such as a gesture or location, or they may infer the referent from a recent mention in the linguistic discourse. Heusinger differentiates between anaphoric and deictic pronouns, saying that the prior refer to the most salient linguistic antecedent, and the latter refer to the most salient extra-linguistic context, and he concludes that pronouns “show different referential behavior” (2002, p. 132). However, as discussed above, reference as a relation is establishing and interpreting the relation between *term* and *object*. This relation is always mediated by speakers, but there is no reason to think a term must navigate its reference through previous linguistic mention. Instead, the distinction between linguistic and extra-linguistic context (or anaphoric and deictic pronouns) is significant only in terms of salience, not in how reference happens. A particular referent may be made more salient through either the linguistic or extra-linguistic context, aiding the hearer in identifying the correct referent via either the linguistic antecedent or a physical action by the speaker.

To illustrate the role of salience in interpreting the reference relation between a term and an object, let’s look at (7). In (7), Mary is talking about John in her first clause, and her dependent clauses uses the personal pronoun *he*.

(7) Mary: I wanted to go to the dance with John, but he said no.

There are several different ways in which the hearer can locate the most salient object of the term the speaker uses to refer, the pronoun *he*. As mentioned earlier, the grammatical features of the pronoun help to distinguish the object to some extent, because *he* requires a singular, male referent. In terms of the linguistic context, *he* in (7) could be understood to refer to the individual who is John. But, the extra-linguistic context could change the referent and so, of course, the meaning of the sentence. Mary may be talking to her friend and, as she utters the dependent clause, pointing to her father. In this case, the interlocutor would understand the referent to be Mary's father, who also matches the grammatical features of the personal pronoun. Whether the referent of the pronoun is understood to be Mary's father or John is dependent on which referent is most salient, and referents can be made salient through either a linguistic antecedent or extra-linguistic context. So, although linguistic antecedents are not significant for the manner in which a pronoun refers, they do play a role in the identification of referents by influencing salience. Of course, one may also employ other referential cues, such as intonation or pitch to create emphasis on a particular referential expression, such as *he*. These will aid the hearer in identifying the object, as cues such as these can make a particular referent more salient. In such a situation, however, the hearer will already need to have some referent(s) in mind and interpret the marked intonation or stress, for example, as creating a meaningful contrast between two or more referents or as re-emphasizing the referent already in play, both of which are surely dependent on context to a degree.

So far we have discussed the relationship between a term and its object via English pronouns, showing the importance of both linguistic and extra-linguistic salience in the hearer's process of interpreting this relationship. But it has not yet been discussed how it is that speakers link terms with their objects. Academic energy has been well spent discussing the hearers interpretation of a pronoun and identification of a referent, but we must also examine how a term can be and is used by a speaker to refer to a particular object in the first place. Moreover, we are not able to account for the extra-linguistic discursal context other than by salience, which is lacking in

specificity regarding the nature of extra-linguistic experience and its relation to both interlocutors and the language they use.

The next two sections will tackle these issues.

3.2 Establishing Linguistic Reference Pre-Utterance

As the previous section illustrated, there is still much to be investigated regarding reference as both an act and relation. One of the primary concerns that arose was how to deal with the speaker's process of selecting a term by which to refer to an object, with which they are already associated pre-utterance. The possible accounts for establishing linguistic reference pre-utterance are explored below in relatively general way, reviewing what we might make use of in pragmatic, philosophic, and semantic accounts, if only because "awareness of ones options is a good start toward creating better theories" (Raskin, 1985, p. 50). Although the approaches in this section are suggested starting points, they are not rigorously applied, and so each subsection presents a very general idea about how one might proceed to investigate reference, based on previous research, which leads to some simplification and idealization of both the theories and their suggested applications to reference.

3.2.1 Pragmatically

Pragmaticists view reference as an act, and the relationship between *term* and *object* is always mediated by the interlocutor's beliefs and knowledge about both things and people. In order to successfully communicate, the hearer must be able to infer the speaker's intended referent based on their knowledge and beliefs. Nunberg says that an assumption of rationality and cooperation between interlocutors "assumes that they must identify everything in such a way as to maximize the possibility of successful reference" (1979, p. 167). In other words, there is a lot of reasoning about people going on behind the scenes when we communicate. Despite the fact that we

are able to accomplish this successfully and with little cognitive effort on a regular basis, research has shown that it is actually quite a complex process of collaboration.

Regardless if we are examining reference from the speaker's or the hearer's point of view, reference "involves the cooperative exploitation of supposed mutual knowledge" (Green, 1996, p. 47), whether that knowledge be linguistic or otherwise, and presumably both. Whether in producing an utterance that is meant to bring a particular referent to the addressee's attention or in interpreting the referent to which an addressee believes the speaker to be referring, "speaker and hearer rely on assumptions about each other's goals and beliefs to reconstruct intended referents," including not only beliefs about the world, but about one another.

On the speaker's end, considerations must be made about how the addressee will interpret the referring term, about whether or not they will interpret the speaker's intended referent correctly. In order to ensure that what the speaker is saying is what the hearer will understand, the speaker must take many different facts about the addressee into consideration. Clark, Schreuder, and Buttrick (1983) call this consideration the principle of "optimal design," which "relies crucially on the notion of common ground" (p. 246). When a speaker is determining how to best refer the addressee to a particular object or person, the speaker is designing their utterance in a way that capitalizes on their shared knowledge. In such a conceptualization of the act of reference, then, the term(s) used to refer "function only as clues" (Green, 1993, p. 14). Because reference is communicative and therefore Gricean at heart, interlocutors both assume that the utterance is making use of the knowledge that they share of the terms used, their knowledge about the world, their knowledge about the other interlocutor, and their familiarity with the referent.

The common ground that interlocutors need to take into account is fairly diverse, and Clark, Schreuder, and Buttrick (1983) identify salience as a key point, demonstrating in an empirical study that salience comes in several forms. Salience can be perceptual, in that a particular referent may be easily identifiable perceptually, when they are both in direct contact, somehow, with the object or person. Or, it may be

in terms of previous conversation, what has transpired between the interlocutors up until this point. Moreover, interlocutors “must weigh every part of common ground that might be pertinent” (Clark et al., 1983, p. 257). Between interlocutors, then, common ground is crucial.

From the pragmatic research reviewed above, we can conclude that part of choosing a particular term or expression is embedded deeply in our common ground with a hearer, and that the speaker reasons through a multitude of factors to determine what will have the greatest chance of communicating successful reference. However, what none of these accounts have yet described is how a speaker uses their linguistic knowledge, their knowledge of the meaning of terms, and their experience with an object to determine what the possible options are. As pragmaticists will be quick to point out, the meaning of a term will shift from community to community, and surely speakers will be taking this into account, but we still have to answer the question: How does a speaker’s knowledge of terms and their interaction with an object relate to their choosing a particular term to use?

An explanation of these relationships is firstly semantic, and a complete answer to this question should allow us to understand and predict how a speaker uses their semantic knowledge to select the appropriate term to use to refer to an object in a given situation — a decision made pre-utterance.

3.2.2 Revisiting Descriptivism

To explain how a speaker selects a form, we can revisit descriptivism as a possibility to explain the relation that a speaker capitalizes on when selecting a referential term, the relation between the term and object. Descriptivist accounts, as reviewed in the previous chapter, generally claim that reference is negotiated through the sense of a term and the object’s properties. Reference is thus separate from, but related to, a term’s descriptive content. Descriptivism posits that “descriptive content is what determines reference: a particular object is the referent of a referring term if

and only if that object satisfies all the associated descriptions” (Kallestrup, 2012, p. 13). Kallestrup, who both presents and examines descriptivism and referentialism, gives the example of Aristotle, explaining that, according to descriptivism, “what determines whether someone is the referent of ‘Aristotle’ is whether he was the famous philosopher of antiquity, taught Alexander the Great, authored *Nicomachean Ethics*, etc.,” emphasizing the ‘match’ between the term’s descriptive content and the real-world referent. As we saw in our pronoun example, however, it is not always descriptive content that is doing the ‘picking out’ for us (section 3.1.2), at least when pronouns are concerned, although some of the ‘content’ of pronouns — their grammatical features — are still involved in determining the salience of a particular object.

Appropriating this for our case, we can consider the possibility that there are some properties of a referent that are better captured by one term than another. This doesn’t explain our semantic knowledge of a term and what descriptive content or properties *are* when it comes to their being connected with a term, but it might begin to describe the relation that a speaker has with both object and term. Moreover, a revisiting of descriptivism suggests that it may be the properties of an object which influence the term used to refer to that object, working in conjunction with semantic knowledge regarding the different senses associated with a term.

It seems clear that we need to reassess the role of referent properties and our knowledge of them in determining both the referring expression used by a speaker and the interpretation of the referring expression on the part of the hearer. An object’s properties are going to play a role in establishing and interpreting reference in any given discourse. There is no indication that these properties have to be primarily physical, but may pertain to any aspect of an ontology. The key is to recognize that properties will play an important role in mediating a speaker’s relationship with both the object and the term used.

In accounting for how a speaker arrives at a referential term to use to refer to a particular object, then, we may need to account for the object itself and how the

speaker interacts with it. A descriptivist account, though not a semantic theory of meaning *per se*, has a long tradition in philosophical literature on reference and ultimately suggests that we need to look at the meaning or sense of a term in order to use it referentially. As the object is the first entity entering into a speaker's experience and must be known prior to any intent to refer to that object, its relationship to the term is significant. We cannot, however, forget to include the speaker in the equation, or we risk starting back at square one with a *term/object* relationship devoid of any users of a language. Descriptivism, then, while not offering answers, does suggest areas of further investigation.

3.2.3 Prototype Theory

The pragmatic elements involved in selecting a salient term that have been reviewed focus on the extra-linguistic knowledge a speaker has regarding their audience (3.2.1). Clearly, there is more going on, as speakers must have linguistic knowledge of these terms and their various meanings in order to choose the one that is most appropriate for a particular discourse. Therefore, the root of a question that asks how speakers establish reference pre-utterance, or how they decide what term to employ in referring to any object, is semantic. The descriptivist account attempts to incorporate the senses or descriptive content of a term in accounting for how a speaker establishes reference pre-utterance, but opens up the question of how these properties are related to terms and objects through the users of a language (3.2.2). Building on our claim that the properties of an object and the role of these properties in a speaker's act of establishing reference are significant to understanding the aspect of reference being investigated — namely the *speaker/term/object* relation — we might consider semantic theories that have attempted to take the world into account when discussing meaning. A general understanding of prototype theory might be a good place to start.

Understanding the properties of an object and how reference is negotiated thereby may be even more important when it is not a name, but a general expression that is used to refer; *the book*³ in a sentence like, *Bring me the book on the coffee table*, does not in itself suggest that this particular book has any uniquely identifying properties — though of course, it must, as a singular object — or at least the term itself does not seem to capitalize on them. How, then, a speaker assess the properties of an object in order to decide to use a general term referentially must be explained.

In discussion of prototypes in Cognitive Linguistics, some sense of a term is understood to be more central than others, while some extensions and polysemous uses of the term are licensed. In Taylor's (2006) overview of prototype semantics, he notes that, as yet, there is still much debate regarding what a prototype is, how it is formed, and how it is employed. As such, a rather general consideration of its application for reference will be explored here. Prototype semantics tries to answer questions about how we categorize the objects we encounter, recognizing that no definition for a given term can ever fully account for the way that it is applied, and no set of criteria for a category fully predicts the one language users will ascribe to an object (Taylor, 2006). Originating in psychology, prototype theory purports that objects are assigned categories based on their properties, with certain concepts or exemplar serving as the prototype for a given category, the one against which all others are measured (Taylor, 2006).

Although the precise nature of these prototypes and the ways in which they are acquired are still debated, it seems obvious that such an analysis of speakers' interaction with objects in relation to semantic knowledge might be profitable for inquiry into reference. Using the physical properties of a referent, when available, a speaker can determine pre-utterance which referring expression to use based on its measurement against a prototype (in addition to other, more pragmatic concerns regarding our interlocutor — see section 3.2.1). This could add an interesting entity to our conceptualization of reference.

³Avoiding, for now, a discussion of the role of determiners in indicating reference.

But a prototype is not really the same thing as the meaning of a term; it merely explains how we are able to talk about a term as meaning something. However, prototypes as exemplars of cognitive categories for objects clearly rely on some amount of linguistic influence. As Nietzsche (1873) says in his underrated “On Truth and Lying in an Extra-moral Sense,” in which he discusses the categorical and simplifying nature of language, our application of a particular term to a particular object lies in our ability to forget the innumerable differences between objects. But, according to the arbitrariness we’ve built so much of linguistic inquiry around, it does seem that terms are still not intrinsically connected to the objects for which we would use a particular term.

So, we need an explanation for how speakers connect a prototype with a term. A likely contender is that our prototypes may be built by each subsequent use of a term. As long as a new or novel usage of a term is not too far from our prototype — by which I mean that as long as the object to which a term is applied does not differ too significantly from our prototype of that object — we accept it as a fair usage of the term, and this must be a significant contributor to our linguistic knowledge.

Prototype semantics, then, suggests that one way to account for speaker’s reference pre-utterance is to consider how the speaker uses the discernible properties of an object to best match this object with a prototype, which will have a term assigned to it through usage conventions. Although this discussion may not seem to add much to either prototype semantics nor to offer a very fruitful account of reference itself, it is one way in which we might begin to address pre-utterance reference, identified in the discussion above as a significant area in need of clarification.

3.3 As Communicative and Cognitive

In the previous sections in this chapter, it was determined that reference could be conceptualized as both an act and a relation, requiring the speaker and the hearer to establish and interpret the relation of a term to an object. Furthermore, it was deter-

mined that whatever account we work with — philosophic, pragmatic, or semantic — will require us to take into account the world and the properties of an object itself if we are to understand some key relationships and acts on the part of the speaker. The acts of establishing and interpreting are clearly both cognitive, while the purpose of employing reference is itself communicative. In this section, the communicative and cognitive aspects of reference will be discussed, keeping in mind the discussions in the preceding sections, and will result in a more complete conceptualization of reference as always communicative, as an act of extended cognition relying on language user’s bodied experiences, and as therefore ‘bigger’ than simply linguistic reference.

3.3.1 Extended and Embodied Cognition

Cognition has been a primary concern of language study since the so-called Chomskyan revolution, though interest in the relationship between language and the mind has been with us much longer. Whether accounting for linguistic competence, or as evidence of Whorfian linguistic relativity, cognition’s relationship with language has posed an inviting challenge. Many of the philosophers and semanticists who have tackled the issue of reference have placed varying degrees of importance upon reference as a relationship of term to object and as a contextual act, and all have begun their inquiry assuming that the relationship of language to speakers is more-or-less apparent. The avenue these writers have not always fully explored, however, is how language is itself related to the extra-linguistic, real-world environment, relying, perhaps, on theories of reference to answer word/world relationships via intense investigation into particular terms and objects.

Taking a broader look at not only reference, but at language, it is apparent that we need to better understand the function and processing of language for speakers who are *embodied*, whose everyday reality cannot be separated into a Cartesian duality of internal and external, whose experiences and existence are liminal, involving an intimately multimodal experience. Chomsky has said that “extralinguistic beliefs

concerning the speaker and the situation play a fundamental role in determining how speech is produced, identified, and understood” (2006, p.102). However, most theories of reference begin by presuming a divide between the internal, conceptual, mental, intentional, linguistic — on the one hand — and the external, physical, real-world, object on the other. Linguistic science has, for decades, focused on language as a matter of inner, cognitive competence. In doing so, linguists seem to have struggled to incorporate the entirety of the human linguistic experience into their theories — semantic, pragmatic, and otherwise — of reference. This is not always for lack of trying, but may rather be a result of the daunting task of accounting for a speaker’s knowledge of the external world within a linguistic theory (Raskin, 1985).

Although dealing with external and internal processes and objects, reference has not been examined by many within a truly cognitive approach. The continued dichotomy of internal/external has, perhaps, prevented further study into this area. What that status of confusion over reference tells us, then, is that we haven’t yet gotten it right, and this might be not a symptom of failure in the intricacies of our logical algorithms and contextual analyses, but a consequence of our implicit assumption of the division between linguistic competence as encompassing knowledge of a (still structuralist) linguistic system and performance, application, or communication.

The relatively recent development of Cognitive Linguistics (CL), however, challenges this distinction, having as one of its foundations the principle that language is not an autonomous cognitive faculty operating separately from other aspects of cognition (Croft and Cruse, 2004), and that cognition itself involves external reality as much as mental activity (Robinson and Ellis, 2008) (Atkinson, 2010). CL is a usage-based approach to language that focuses on meaning as the pivotal factor in linguistic production and knowledge (Croft and Cruse, 2004). Cognitive Linguistics, then, may be a fair starting point for addressing reference, as it purports to do away with the strict divide between cognition and extra-linguistic experience. That this Cartesian divide between internal and external is not as clear cut as (largely Chomskyan) linguistics would have us believe is advanced most forcefully through theories

of *extended* and *embodied* cognition. Extended cognition, or extended mind, to use Clark and Chalmers' term, refuses to relegate cognition to the internal, positing instead that cognition is a physical process as well as a mental one, highlighting the dependence on "environmental supports" that people seem to use, often humanly designed aids to cognitive processing (Clark and Chalmers, p. 28). Embodied accounts of cognition are similar in that they claim as central the fact that people are in physical bodies. The claim, then, is that human cognition is partly a result of humans' embodied experience with their environment, to loosely paraphrase Leonard Talmy's account (2006, p. 544). Our cognitive schemas are a result not only of our physical embodiment, but also of our interaction with the environment, though researchers differ in how much stock they put in one or the other (Talmy, 2006).

Much of the work done in CL has focused on linguistic meaning and its relationship to cognition and embodiment (Evans and Green, 2006), including metaphor and polysemy. Cognitive Semantics (CS), a branch of CL dealing specifically with questions of meaning, has taken embodiment to be vital to understanding language and cognition (Evans and Green, 2006). Reference entails cognition with(in) the environment, incorporating physical referents – be they people or objects (and perhaps their properties as discussed in the previous section) – both embodiment and extended mind theories are relevant to our present discussion.

Clark and Chalmers, in their exposition of extended cognition, claim that instances of cognition extended beyond the mind to the external world are common, and that their symbiosis can best be described as instances of a "coupled system" (2010, p. 29). In a coupled system, an individual experiences active externalism, wherein "the human organism is linked with an external entity in a two-way interaction," and, if one of the two is removed, "behavior competence will drop" (p. 29). An instance of active externalism can be identified, then, as a time when the external environment is vital in the ongoing cognitive processes. From the previous discussion of reference, it seems plausible to suggest that much of reference entails extended cognition, relying on the environment to help in one of two ways: 1) as providing the speaker with

the object to which they want to refer, in other words, providing the speaker with some sensory experience that the speaker assess with his semantic knowledge to best identify the term to use for the object, and 2) to aid the hearer in identifying the speaker's referent, whether through physical embodiment of the referent or through providing extra-linguistic cues to assist in determining reference.

The very fact that speakers experience life in fundamentally similar ways,⁴ spatially and perceptually (by virtue of our embodiment), is part of what allows reference to succeed. In this way, speakers can make assumptions about both the common ground they share with their hearer and the salience of objects, based on fundamentally similar, embodied experiences. Though this in itself should not be surprising, it does reinforce the suggestion in the previous section that external experiences must be accounted for.

But where does language come in? Clark and Chalmers see language as a tool of extended cognition, the “central means by which cognitive processes are extended into the world” (2010, p. 32). Nowhere is this more obvious than in discussions of reference, when an interlocutor discerns a speaker's referent based on the linguistic utterances. These utterances project the speaker's own cognitive identification into the environment for the hearer to use in processing, ultimately arriving at the same referent. Using Bertolet's (1987) language, as was done in the example with pronouns, we can regard reference as identifying and see that reference is a communicative act of indicating or focusing and identifying an object, which are surely both cognitive activities.

Additionally, examining reference as a cognitive activity may help to explain how speakers chose between equally satisfactory referential expressions when trying to refer with an interlocutor. Gundel, Hedberg, and Zacharski (1993) proposed the Givenness Hierarchy, which suggests that speakers select their referential expression based on the assumed common ground or familiarity with the referent between a

⁴Allowing, for the sake of discussion, abstract, idealized (and so certainly nonexistent) speakers, ignoring the vast variety in human perceptual experiences — an issue that any specific and useful application of this approach to reference will have to tackle in detail.

speaker and hearer. The hierarchy itself is claimed by its creators to predict the referential expression a speaker chooses, and it in part relies on the speaker's beliefs about the hearer and partly upon, as others have also claimed, a reasoned analysis of the context. What analyzing reference as a cognitive process provides us is an additional – if not alternative – explanation for some of these choices. Certainly, as the authors claim, the expressions with the least semantic content, demonstratives, are going to be most useful when there is an immediately accessible referent already in play. However, if we think of cognition as inherently efficient and as cognitive processes as competing for finite resources, we can also explain why, when faced with a number of perfectly good referential expressions, the more efficient option will be selected after considerations of the hearers relationship to the referent are examined. This claim needs more empirical inquiry to identify what sort of expressions are more 'efficient,' or more easily processed.

While the study of mind in relation to language has been explored through many different disciplines, even through analyses of the relationship of the environment on cognition, there seems to be no previous attempts to apply concerns of embodiment and extended cognition explicitly to reference. However, these seem like two promising theories through which reference may be better studied and understood.

3.3.2 Larger Than Language

In conceptualizing reference as a communicative act, we have already — though perhaps unknowingly — determined that we need a framework that begins beyond the linguistic. As we've been conceptualizes reference, an account of non-linguistic reference would not foil our attempts at describing linguistic reference this far, and it may help us to further examine the relations to be investigated in any holistic account of reference, particularly when it comes to distinguishing between reference and identifying a referent.

Although it is not always examined in either philosophy of language, pragmatics, or semantics proper, extra-linguistic or *ostensive* reference is that which happens without language, but still functions communicatively between persons, or even persons and animals (Pepp, 2012). This consideration requires us to consider reference as a subject of research that will combine not only studies of language, but studies of kinetic communication as well.

What unifies the two types of reference — linguistic and ostensive — is the intent on the part of a speaker to bring to a particular object to the hearer’s attention or focus. An approach to reference that takes an interest in intent and in successfully communicating or “focusing” (Bertolet, 1987) an object for an interlocutor must develop, at some point, a theory of reference that goes beyond the linguistic. The act of bringing to the attention of an interlocutor a particular object is not restricted to linguistic means alone, but can be brought about through a number of physical gestures (Nunberg, 1979; Bertolet, 1987; Eriksson, 2009), including pointing, to take the most available instance of extra-linguistic reference. Nunberg (1979) also suggests the need for a complete or ostensive theory of reference, though quite briefly, in “The Non-Uniqueness of Semantic Solutions,” when he says that “a general account of deferred reference” is required to appropriately investigate polysemy, and that such an account “will be concerned exclusively with speakers and things, and will have nothing to say about words at all” (p. 154). Pointing, gesturing, or otherwise indicating a particular object are clearly communicative acts aimed at drawing the attention of our interlocutor to particulars, or objects.⁵ Clearly, in order to better understand linguistic reference, a general theory of reference is required.

The need to incorporate extra-linguistic aspects of communication is not only true of reference, but of studies of meaning, generally, which of necessity must concern the world outside of the lexical items. Raskin says that: “it is obvious that, in order

⁵Before we think this will eradicate one of our entities to be considered in reference, however, we will need to deal with the nature of gesture, which, though not always symbolic, is still one way reference is enacted. Our question will then become whether an account of ostensive reference can be conceptualized as anything but an act — as where would we find the referential relation?

to grasp the meaning of a word, once must move outside the sphere of language proper” (1983, p. 6). He also claims, however, that “it is crucial not to confuse the linguistic phenomenon of meaning, of meaningful semantic relations, with the facts of extralinguistic reality, with which linguistics is not, must not, and could not be concerned” (1983, p. 6). In the case of reference, we might have to make an exception to this last claim if we are to approach the subject holistically before searching for more particular answers. But we must keep this distinction in mind: knowledge held by the speaker about the world cannot be confused with the semantic knowledge speakers have about terms and their meanings. How we handle the extra-linguistic is a delicate matter of where one’s interests lie, but eventually, a theory of both linguistic and ostensive reference must accommodate the extra-linguistic and, as such, may not be (and often is not) considered to be part of the domain of semantics proper. As Raskin reminds us elsewhere, one of the “important problem[s]” in development of semantic theories concerns “the boundary between the knowledge of language and the knowledge of the world, or in other terms, between linguistic knowledge and encyclopedic knowledge” (1985 p. 8). Although a holistic depiction of reference will necessarily include both types of knowledge mentioned here — as was particularly demonstrated with our pronoun example — this is not to say that semantic theory in particular has no role to play.

Taking an approach to reference that sees reference as a matter of determining a *term/object* relationship, rather than as an action, for instance, would not require considerations of ostensive reference. However, for an account of reference that sees the *term/object* relation as the result of actions taken by interlocutors, such an account should doubtless consider the implications of the extra-linguistic in relation to possible explanations for linguistic reference, particularly when it comes to negotiating the boundaries and assumptions inherent in any model or theory. What is more, it has been shown when studying the referential behavior of pronouns at least, we will need to rely extensively on the extra-linguistic experiences of the interlocutors to explain reference with those terms.

3.4 Conclusion: A Working Definition

After reviewing and rethinking reference, then, what emerges is a conceptualization of reference that is much more complex than a simple relationship between a term and its object. We have said that reference is primarily *communicative* and *cognitive*, that reference can be (and must be) thought of both as a *relation* and an *act*, and that determining how a speaker establishes reference *pre-utterance* is an area in need of more development and understanding of a speaker's semantic knowledge. We've identified the *extra-linguistic* environment as a key player in reference, whether through ostensive reference or because it contains the *object* to which a speaker intends to refer and which might play a role in establishing reference, and because we've stated that it is by virtue of the *embodied* nature of human experience that reference is successfully communicated. The term *reference*, itself, we've decided to retain for the *established* and *interpreted* relation between a *term* and *object*, which we've differentiated from the cognitive process of *identifying* an object as the intended referent.

As a reminder, this author began with an assumption regarding the nature of reference: that talking *about* an object in the real world is not the same as *referring* as a linguistic and cognitive act. After this rethinking of reference, it should be clearer now why this distinction was made. Reference as firstly a cognitive act that extends beyond language, though clearly communicative, cannot claim to be present inherently when one is talking *about* a thing, generally. Ostensive reference involves the here-and-now, the object, and generally is done in order to illicit some recognition, identification, or interaction with the object on the part of the hearer. The key to a holistic conceptualization of reference presented here is that this relation is one that is performed *in order to engage the interlocutor with the object directly*. This is not to say that the discussion above does not concern how individuals talk *about* objects, but merely limits the scope of the claims being made. The question then becomes

— when do we refer and when do we talk *about* a thing? This is a topic for another time and will involve further investigation into the nature of language and discourse.

While this study has been undertaken in the name of linguistics, the many aspects of reference identified in the previous chapter foregrounds an interdisciplinary approach, drawing on the strengths and goals of semantic theory, philosophy, and cognitive studies, for starters. While the goals of these disciplines differ tremendously, understanding reference as a linguistic — and extra-linguistic — phenomenon requires us to be more explicit about the assumptions inherent in our theories and methods, to be open about the relationships and entities we are investigating, and acknowledging our differences in this investigation.

4. LOCATING REFERENCE

Now that we've explored reference holistically, we can consider its place in the many fields that have been — or should be — concerned with this phenomenon. In the following concluding chapter, I discuss the relationship between the fields of linguistics and philosophy and advocate for an interdisciplinary approach to studying reference holistically, placing particular emphasis on the need for semantics to address this phenomenon.

4.1 Linguistics and Philosophy

Philosophers of language have been tackling reference longer than linguistics has been a science, but their goals are not always aligned with those of the linguist. And yet, the boundaries between linguistic and philosophic inquiry are not clear cut when it comes to previous accounts of reference. Some of the most influential scholars of reference have been philosophers by trade, including Russell, Searle, and Strawson, for starters, whose works influenced the development of semantic and pragmatic theories. Their conceptualizations of reference have greatly informed — or rather, pioneered — linguistic accounts of the topic. Although linguists themselves may not always be aware of past relations between the two fields of inquiry, it is clear that philosophy has influenced the primary aims of linguistics. As Harder puts it, the development of linguistic theory has “been marked by revolutions from above” (2012, p. 1243), reacting to the philosophic developments of scientific paradigms. However, there are a couple of ways that linguistics and philosophy differ greatly in their treatment of language and their goals for linguistic study. Appreciating these differences is a step towards better understanding between the disciplines and, hopefully, further collaboration, particularly in the area of linguistic reference.

As Harder describes it, paraphrasing Austin's (1970) formulation of philosophy: "philosophy ... constitut[es] the overarching arena for discussion about the nature of the world and our knowledge about it" (Harder, 2012, p. 1241). This paints a picture of philosophy as an ambitious and important field. Because of this meta approach to any form of inquiry, philosophy tends to dominate discussions of any subject — be it physics, cognitive science, or linguistics — until a specialized field emerges to tackle that particular subject (Harder, 2012). The field that then commandeers the area is one which is "generally recognized as adequate for a particular area of inquiry," causing an philosophical discussion to "graduate" to a "systematic investigation" (2012, p. 1241). This statement places philosophy of language and linguistics in an awkward position, as it suggests that linguistics will or has replaced philosophy of language. For linguists, at least, this seems to be the understanding, as very little attention is given to philosophical discussions of language in linguistics, generally. Neither, however, is it clear that philosophers have embraced linguistic methodology or theories for their own study.

As a science, however, linguistics naturally has different goals from philosophy. While philosophy engages in extensive exploration of underdeveloped topics and concerns itself with the fundamentals of knowledge, "the most naturally accepted goal of science is the description of naturally occurring phenomena" (Nirenburg & Raskin, 2004, p. 36). Description, here, implying much more than philosophical discussion. Rather, sciences develop models and theories that can be tested and are productive. The naturally occurring phenomena that interest linguists vary significantly, but there are of course trends within the field. Linguistics has been dominated by a paradigm of structuralism (often credited to Ferdinand de Saussure) ever since its birth as a scientific discipline. Dedicated to uncovering the systems that underpin language, linguistic science has held many assumptions about the nature of language that are still being tested and debated, but are none-the-less present in our methods and theories. Linguists seem, especially, to be banking on the logical patterning of the language system as a whole, hidden beneath and between the utterances that users of language

so nonchalantly produce, hoping to uncover and describe these rule-governed systems with predictive accuracy. Approaching human language as a system to be studied and decoded, so to speak, has led to many breakthroughs in our understanding of language and the human mind. With Chomsky's work in 1960s, it became clear that a shift was taking place that was not of little consequence to linguists and all those invested in uncovering the secrets of human communication. Focusing more upon the users of a language, Chomsky revolutionized the study with his insistence that we approach linguistic systems through the eyes of its users, using their judgments to determine what is grammatical in a language in order to better discern the parameters of linguistic competence (Nirenburg & Raskin, 2004). Since this paradigm shift, much of the work accomplished in linguistics takes place within assumptions that underlie a Chomskyan approach. Cognition has been a primary concern of language study since competence was differentiated from performance by Chomsky, and it is this inner linguistic competence of the native speaker that most linguists aspire to describe and model.

Cognitive Linguistics (CL), however, challenges this distinction, having as one of its foundations the principle that language is not an autonomous cognitive faculty operating separately from other aspects of cognition (Croft & Cruse, 2004). Harder says that Cognitive Linguistics represents a radical break with the earlier twentieth-century trend of shaping linguistics in ways that reflect philosophical view of what counts as scientific description (Harder, 2012, p. 1247). With the beginning of Cognitive Linguistics in the 1970s, linguists have been able to work in a framework that embraces both sides of the language user's experience. To get at reference, we need to stray from the more comfortable embrace of language as inner competence and focus equally on the extra-linguistic aspects of language in use. As Cognitive Linguistics is one of the approaches to language study that has done this most completely, it offers a good place to begin, as discussed in (see section 3.3.1).

That many linguists can operate within one paradigm or another — such as the two (diametrically opposed) mentioned here — without being aware of the assump-

tions entailed therein, or perhaps they are aware but not engaged, is a testament to the lack of philosophical thought in the field. Not only does philosophy offer a fertile ground for exploring phenomena for which scientific accounts have not yet been adequately offered, but it has the potential to play the role of the watchmen for the sciences. Philosophy is not “merely another ‘first-order’ discipline inquiring into some aspect of our environment,” as Lyas puts it, but “the subject in which these first-order disciplines are *themselves* made objects of study.” (1971, p. 12). It should go without saying that such review can only be helpful for the discipline in question. One of its most helpful contributions could be to linguistic theory, identifying and discussing the paradigms that dominate the science. Ideally, we should all be philosophers of our own objects of study, to a greater or lesser degree. After all, how can we investigate a phenomenon without beliefs about the nature of the world, about our tools for investigating it, and about what counts as knowledge of any phenomenon? We can’t, and a recognition of our epistemological foundations behind each field of inquiry would surely be a step towards developing more complete and adequate theories for any particular phenomenon. Nirenburgh and Raskin (2004), in discussing the state of a philosophy of linguistics, ask whether it should be “a centralized effort for the discipline,” or rather be the responsibility of “every scientist do the appropriate philosophy-of-science work personally as he or she proceeds” (p. 91). While a centralized effort is still forthcoming, the benefit of a philosophical discussion of the discipline and tenets of linguistics should be undertaken by the individual linguist, as we do ourselves a disservice in avoiding the task. If we, as linguistics, conduct our research with the most scrupulous of methods and our soundest theories, but are not aware of how the nature of reality and our own epidemiological limitations (or biases), we run the risk of leaving out or misinterpreting our own data and the significance of our own research.

Philosophy could not only come to our aid, here, but itself might benefit from paying more attention to linguistic research. Harder suggests that “just as the findings of modern physics changed the way philosophers thought about knowledge, so

the findings of Cognitive Linguistics can be expected to change the way philosophers think about the mind.” (Harder, 2012, p. 1262). As the topics of language, mind, meaning, and cognition continue to be of interest to both fields, and as we are both still developing theories and accounts of the phenomena, it is clear that the two disciplines would benefit from collaboration. Philosophical investigations may still play a valuable role in linguistics, whether as a watchman for linguistic theory or through cooperative investigations into those matters which concern both disciplines, while our advances in linguistic sciences can and should be influential in philosophical studies of language, if we only keep the conversation open. Lyas claimed in 1971, semantic theories “open up new possibilities of mutually helpful discussion between philosophers and linguistic scientists” (p. 35), but this advice seems to have been largely forgotten. This review of reference shows that we are still far from understanding this phenomenon and that a collaborative approach to reference would be beneficial for both philosophers and linguists.

4.2 A Case for Reference in Semantics

Reference, as conceived in any of the major relationships and configurations in the previous chapter, receives little attention from the sub-fields of linguistics proper — that is, linguistics since Chomsky and in that same vein — and has almost completely delegated the *term/object* relationship to philosophers. But this relationship should be – must be – given full attention in at least one sub-field of linguistics, namely semantics.

Semantics is vital for studies of reference firstly, among other reasons, because the relationship between term and object cannot be evaluated independently of a speaker, and where there is a speaker, there is linguistic knowledge. Semantics, as the field that studies meaning in natural language, which probes the speaker’s knowledge of word and utterance meanings, surely has a role here. So, while our interest may be in the relation between term and object, it necessitates the speaker’s involvement, and

who better to approach the knowledge speakers have of terms and their picking out of objects than semanticists? If “the primary goal of any semantic theory is to model the semantic competence of the native speaker in its relevant manifestations” (Raskin, 1985, p. 1), then reference surely falls under that umbrella, particularly when it comes to establishing reference pre-utterance using a speaker’s semantic knowledge, but also post-utterance, in a hearer’s interpretation of a given term as referential. A comprehensive theory of meaning should be able to provide answers both to how interlocutors achieve co-reference and to how they assign meaning to a particular term. Although it may seem like the prior is the concern of pragmatics and the latter of semantics, it is clear that both are relevant to meaningful communication which, after all, is *a* if not *the* big question when it comes to human language. As Harder says, “without a genuine, socially anchored semantics inside linguistic theory, linguistics would miss the whole point of human language” (Harder, 1991, p. 139). In order to move forward, linguists need to address the concept of reference and the embodied experience of speakers, as described here. These are the constants when it comes to how a speaker establishes linguistic reference and how object and term are identified and understood by the hearer.

There has been some discussion among semanticists and philosophers about the distinction between meaning and reference. While some maintain that there is a strict divide between the two, others purport that reference and meaning are identical in semantic studies, since what we mean in an utterance is the sum of its parts, and those parts are often said to be made up of either its referents or the senses of the terms. Raskin (1983) describes questions about the relation between a name its referent, “the thing it stands for,” as being subsumed under the question, “what is the relation between the word and its meaning?” (p. 8). Although this question does not conceptualize reference as presented in this thesis, it seems clear that concerns of reference can also be considered within studies of meaning, as the relation to be investigated concerns speakers’ knowledge of words and their meanings. From the preceding chapter, in particular, it is clear that semantics, the study of meaning in

natural language, should have a lot to say about linguistic reference. Whether through prototype analysis or alternative and more complete accounts of establishing reference pre-utterance, the study of meaning has simply been refocused in this account, not unseated.

In keeping with the Chomskyan divide between linguistic competence and performance, semanticists may consider issues of reference outside of their domain, since it seems to deal with issues of performance, despite the discussions provided here. If this is the case, it is unlikely that anything I can say or will change their minds. Another way of putting the issue of competence versus performance, however, is presented by Harder in his discussion of semantic theory:

Linguistic meaning is necessarily potential meaning — because the meaning of a word is abstract in relation to any potential use of it. As pointed out by Saussure, the whole notion of ‘language’ depends on thinking in terms of something that is not reducible to individual events. And potential meaning must be inside peoples heads; otherwise they could not carry knowledge of the meanings of words around with them. The external world, however, comes in every time an actual utterance is understood. Actual meanings, which are the results of processes of interpretation, always involve the real-world context in which the communication occurs.

(Harder, 1991, p. 132)

When it comes to studying language in use, linguistic performance — which is really the only way we have to study linguistic competence — we must be willing to consider the speaker’s knowledge of and interaction with the world. Reference is therefore a perfect area of investigation that brings together both aspects of language and could provide a promising area for further semantic investigation.

4.3 Conclusion: Towards an Interdisciplinary Investigation

There is no reason for linguists, philosophers, and cognitive scientists (whose primary role in reference would be in understanding the cognitive processes involving perception of and interaction with objects) to study reference independently of each other. The previous sections have already begun to show the value of approaching reference interdisciplinarily.

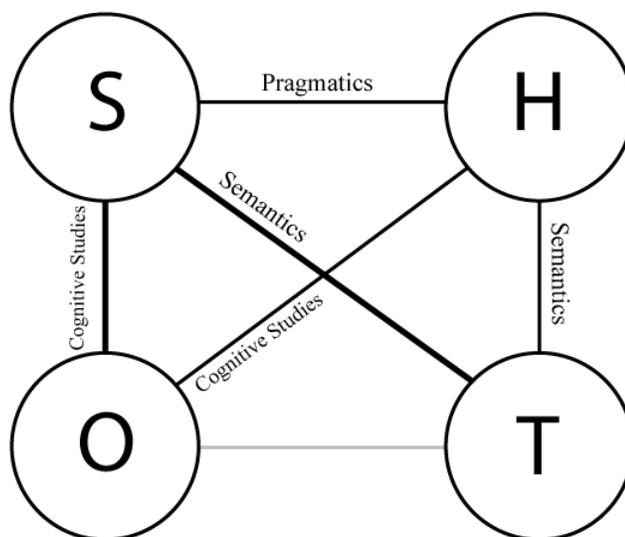
To understand cognition (and therefore language) as belonging both to the physical and the mental may seem like a misdirected concern for formal linguistics, given the field's preoccupation with language as primarily internal. To be sure, the linguistic tenet that language is synchronously arbitrary has likely been a major influence on the reluctance on the part of linguists to study kinetics, environment, and perception. Treating language as a matter of cognitive processing, fields like computer science, technology, and psychology have dominated the interdisciplinary studies of language. While the study of mind in relation to language has been explored through these interdisciplinary fields — even through analyses of the relationship of the environment on cognition — there seems to be no attempt to apply concerns of embodiment and extended cognition explicitly to reference.

The conceptualization of reference provided in this thesis may also raise eyebrows in philosophy, as it does not leave room for the same formalized inquiry into the propositions of utterances as has been the hallmark of philosophers of language since Russell. But, as Caton put it at a time when linguistics and philosophy were vying over issues of language, “one might say that ordinary language is the basis of all language” (1963, p.xi), which speaks for the relevance of natural language studies in philosophy for those interested in artificial languages such as first-order logic. And, it is likely that as linguistic accounts of reference are more fully developed along the lines of embodiment and extended cognition, scholars in philosophy interested in mind may find linguistic discussions helpful for their own work.

Given the conceptualization of reference presented in the preceding chapters, it is clear that linguistic theory alone cannot account for reference, though it has a major role to play. A study of all the relations exhibited in Fig. 4.1 should potentially involve experts in not only semantics, but in pragmatics, cognitive studies, and philosophy, along with any other field concerned with any of the ways that the relationships may be construed.

Fig. 4.1. Relations and Their Respective Fields

S = speaker H = hearer O = object T = term



5. CONCLUSION

Investigating the many relationships that can be conceptualized and investigated within reference studies led to a holistic picture of reference that identified at least for entities and the relations between them: *speaker*, *hearer*, *term*, and *object*. Further, it was determined that reference is best studied as a communicative, cognitive process in which the relation between a term and object is both *established* and *interpreted*, bringing users of language to the forefront of any account of reference. A gap in the research concerning speaker's reference was identified and determined to need special attention, particularly from semantics, and several theoretical starting points were suggested, including: descriptivism, prototype theory, and theories of embodied and extended cognition. The nature of language users' extra-linguistic experiences were highlighted, emphasizing users as embodied individuals interacting with the environment in order to express or determine reference. This approach removed much of the distinction between internal and external cognition that is inherent in much linguistic study and suggested that we need a theory of ostensive reference in any holistic account. Finally, the relationship between philosophy, linguistics, and cognitive studies was reviewed, and a case for their cooperative investigation into reference was made. Future researchers should identify the relations with which they are most concerned, should take as a starting point the nature of reference as cognitive and communicative, grounded in our perceptual experiences, and should consider interdisciplinary investigation as the route to best understanding and describing this phenomenon.

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