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1. Introduction

"A thorough examination of this opinion belongs to a different field of study, one that inevitably, in many ways is more akin to logic and language."\(^1\)

The goal of this study is to answer the question "What is goodness?"\(^2\) It is natural to associate this question with ethics. But goodness is not confined to ethics. Water and wine, a strategy for streamlining maintenance operations, a proof or disproof of the null hypothesis, and a rendering of a candy counter in oil may all be good and in non-ethical ways. Goodness figures prominently in ethics. So the study serves ethics. But it serves other domains as well. And it offers a variety of services.

This study is a contribution to the foundations of value theory. It is also a metaphysical inquiry, for two related reasons. As the examples above indicate, the entity under investigation is extremely general. Goodness occurs in potables, plans, proofs, and paintings, among countless other kinds of things. Second, it is particularly obscure what sort of being the entity is. Besides the description "good," is there a single thing that good drinks, strategies, arguments, and artworks share? Is their goodness related in a more complex way? Is goodness in some cases unrelated to goodness in others? If so, why? And regardless of these relations, in any instance, just what is that goodness?

For these reasons, I will speak of "What is goodness?" as a metaphysical question, a metaphysical question at the foundations of value theory. This question has been central

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2 Throughout this study, I follow the standard philosophical practice of employing quotation marks when mentioning linguistic expressions, more precisely when mentioning linguistic expressions within the main text. (I employ a different convention when mentioning linguistic expressions set off from the main text; see footnote 5.) In linguistics, the standard practice is instead to italicize such expressions. In this study, such employment of italics is confined to quotations from others who follow that practice. Otherwise, I use italics for emphasis and to represent certain logical and linguistic symbols.
to philosophy since Socrates and Plato made it their polestar. The distinctive contribution of this study lies in its methodology. The method of pursuing the metaphysical question will be linguistic. The basic proposal is that achieving the answer depends on clarifying the meaning (sense or denotation)\(^3\) and use of the words "good" and "goodness." Consequently, the study will be pervasively informed by and critically engaged with theories and ideas in contemporary semantics and pragmatics as well as syntax on which both crucially depend.\(^4\)

Many aspects of contemporary linguistics grew out of the philosophical study of language that dominated the first three quarters of the twentieth century. Contemporary philosophers in turn have benefited from the kinds of contemporary linguistic work that I will be recruiting here. A good example is work on deontic modality. Compare the occurrences of "must," one among several modal auxiliary verbs, in the following two sentences:

1. You must treat him more respectfully.
2. The train must be arriving soon.\(^5\)

Assume that in (1) "must" is being used deontically. In (2), the use is epistemic. Reconsider both sentences after replacing "must" with the weaker "might":

1w. You might treat him more respectfully.
2w. The train might be arriving soon.

So the meanings that modal auxiliary constructions are used to convey vary according to at least two parameters: the kind of modality (here, deontic versus epistemic) and the

\(^3\) Throughout this study, I use the terms "meaning," "sense," and "denotation" interchangeably. There are subtle distinctions between these terms in ordinary language. But I ignore them here and employ the terms in a regimented way conforming to their usage in semantic theory.

\(^4\) The sense of "metaphysics" in which I am employing this term here conforms to one of several common senses according to which this term is employed in contemporary philosophy. According to the sense in which I am using the term, concern with the general and fundamental nature of things is at least a significant part of metaphysics. Granted this, note that my primary goal in this work is not to make existential claims, but rather definitional or at least identity claims: "Goodness =\(_{df}\) X" or "Goodness = X." Contrast: "Goodness exists." Beyond this, the reader should feel free to treat my use of "metaphysics" in as robust or as deflationary a way as it suits his or her metasemantics. On matters of metasemantics, I myself am silent here. Securing substantive metasemantic claims belongs to a weighty and different enterprise than the one that I am pursuing. That said, consider finally the following argument: "Goodness" means "M." Assume that meanings are intensions. (The weaker claim, that synonymous terms are cointensional, would serve just as well in this case.) Since cointensional terms are coextensional, if "goodness" and "M" refer to anything, then they refer to the same entity or entities. This much suffices for my purposes.

\(^5\) Throughout the study, I use Arial font for examples of linguistic expressions set off from the main text.
strength of modality (here, "must" versus "might"). This result derives from formal semantic theory originally developed in the seventies by Angelika Kratzer.6

G.E. Moore famously ushered philosophical work on goodness into the twentieth century with the leading questions of his *Principia Ethica*: "What, then, is good? How is good to be defined?"7 Much of that work came to turn on the century's governing metaethical debate: cognitivist versus non-cognitivist interpretations of ethical thought and language. For instance, can the content of the sentence "Pleasure is good" be the content of a belief? Accordingly, does the sentence have truth-value? Must the content of the sentence instead be the content of a non-cognitive state such as an attitude of approbation? And in that case, is the sentence itself not evaluable for truth or falsity?

Philosophers vigorously debated such questions, and some continue to do so. But since the rise of formal semantics in the seventies, there has been little work by philosophers on the meaning of "good" that is well informed by and critically engaged with pertinent linguistic literature. Chapter two of Stephen Finlay's 2014 *Confusion of Tongues* is exceptional in being a recent semantic analysis of "good" by a philosopher.8 Robert Shanklin's 2011 dissertation *On "Good" and Good*, written partly under Finlay's guidance and critically engaged with some of his ideas, is another exception.9 When I began the research that has eventuated in this book, both Finlay's and Shanklin's contributions served as valuable sources of information and inspiration.

Since the sixties, there has been sporadic work in linguistics on the semantics of "good"—in all cases, as part of, if not tangential to broader agendas. In Muffy Siegel's seminal 1976 dissertation *Capturing the Adjective*, "good" is one example of what she argues are doublets, that is, adjectives with two semantic and syntactic profiles. In a section of a lengthy chapter published in 1987,10 Manfred Bierwisch argues that "good" and "bad" are members of a subset of gradable adjectives whose antonymy differs from that of ordinary gradable adjectives insofar as "good" and "bad" are each associated with a distinct gradable property. Another incisive discussion of "good" occurs in Zoltán Szabó's 2001 paper "Adjectives in Context."11 Szabó argues that "good" exemplifies a class of adjectives whose context sensitivity conforms to the principle of compositionality. The adjective "good" is analyzed as an incomplete unary predicate, which contains a variable whose contextually determined values specify ways of being good.

With respect to "goodness," there has been no philosophical work that is well informed by and critically engaged with the pertinent linguistic literature. In fact, I know of no work by linguists or philosophers on "goodness" that is informed by the relevant linguistic literature. "Goodness" is a noun, hence a nominal expression. It is formed from an adjective; so it is an adjectival nominalization. The adjective itself is gradable. For

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8 Oxford University Press.
9 University of Southern California, dissertation in philosophy.
instance, consider the three grades of comparison of traditional grammar: "good," "better," "best." So "goodness" is a gradable adjectival nominalization.

Almost all nominalizations formed with the suffix "-ness" are mass as opposed to count nouns. The standard interpretation of the semantics of mass nouns appeals to an algebraic structure called a "lattice." The seminal source of the lattice theory of mass nouns is Godehard Link's 1983 paper "The Logical Analysis of Plural and Mass Terms." As the title of Link's paper suggests, the denotation of mass nouns is akin to that of plural count nouns. For example, consider the following quantifier phrases:

- a lot of kindness
- a lot of cats
- *a lot of cat.

(Throughout this study, I follow the linguistic convention of affixing an asterisk to the beginning of an expression to indicate that it is syntactically ill formed.) The fact that the singular mass noun "kindness" and the plural count noun "cats" admit the vague quantifier "a lot of," whereas the singular count noun "cat" does not suggests that the denotations of "kindness" and "cats" share something that the denotation of "cat" lacks. This something is a type of lattice structure.

In addition, since "kindness," like "goodness," is a gradable adjectival mass nominalization, a phrase such as "a lot of kindness" is ambiguous between "many instances of kindness" and "a high degree of kindness in a single instance"; for example:

- Janet's action demonstrated a lot of kindness.
- Janet encountered a lot of kindness during her trip to Croatia.

Frederike Moltmann's recent book, *Abstract Objects and the Semantics of Natural Language*, examines the semantics and metaphysical implications of the semantics of adjectival nominalizations, including gradable adjectival nominalizations. Moltmann's work has significantly influenced my thinking on these topics. Central to her account is the view that natural language has a prevailing nominalistic tendency. Accordingly, she argues that nouns of the form "F-ness" such as "tallness," "kindness," and "goodness" are not property denoting terms, according to any robust metaphysical conception of properties. Rather, their denotations consist of tropes and more precisely quantitative tropes.

Tropes are property instances. In other words, tropes are unique features of particulars. Quantitative tropes are unique quantitative features of particulars. For example, consider the phrase:

- Paolo's height.

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14 The mention of "property" here is heuristic. A commitment to tropes does not require a commitment to properties. On the contrary, trope theory tends to be nominalistic.
This phrase denotes a particular quantitative feature of Paolo, precisely the (maximal) degree of his vertical extension. Support for the view that such a phrase denotes a quantitative trope and so a particular quantitative feature derives from the fact that such entities can play causal roles; for example:

Paolo's height disabled him from standing fully upright in the cabin.

Granted this, the meaning of a term such as "height" differs from the meaning of a term such as "tallness." Insofar as nominalizations of the form "F-ness" derive from gradable adjectives, they denote entities consisting of ordered pairs of quantitative tropes. Adapting Kit Fine's notion of qua objects, Moltmann suggests that such entities are qua tropes; precisely, one quantitative trope qua exceeding another quantitative trope. For instance, the phrase:

Paolo's tallness

denotes the quantitative trope of Paolo's height qua exceeding another quantitative trope, in the latter case an abstract quantitative trope consisting of a contextually determined standard of comparison. Likewise:

The goodness of Thiebaud's 1969 Candy Counter.

Finally, the meaning of mass nouns and so "goodness" is further complicated by the fact that they can occur in a syntactic configuration called a "bare noun phrase." That is, they can occur in argument positions, for example, as the subject of a declarative sentence, without a so-called determiner such as the indefinite or definite article; for example:

Goodness is rare.
Goodness is a measure of value.

Contrast the ungrammaticality of an ordinary singular count noun such as "dog" or "house" without a determiner in such a position:

* Dog is barking.
* House has three bedrooms.

Since Gregory Carlson first systematically studied them in his 1977 dissertation Reference to Kinds in English,\(^\text{15}\) it has been recognized that bare noun phrases may be at least four ways ambiguous, admitting universally quantified, generically quantified, existentially quantified, and so-called kind-denoting readings. The principles that explain these readings remain elusive.

In short, there is a sizeable gap in the philosophical literature. On the one hand, there is a deep and longstanding interest in understanding the nature of goodness. On the other, there are rich, highly sophisticated bodies of linguistic literature that bear on that

\(^{15}\) University of Massachusetts Amherst, dissertation in linguistics (reprinted by Garland Press, 1980).
understanding. This gap is curious. Contemporary linguistics and its various subfields, especially syntactic theory and formal semantics, have reached a level of maturity including a level of technicality that impedes access by non-specialists. But technical linguistic contributions have informed other areas of contemporary philosophical research. Work on modality mentioned above is a case in point. Indexical or relativistic interpretations of philosophically important and contested terms such as "true," "know," and even "cause" as well as predicates of personal taste such as "fun" are others. For whatever reason, philosophers have overlooked or underappreciated certain properties of "good" and "goodness," properties that linguists have studied, in many cases intensively.

Because philosophers are my target audience, I have been reluctant to incorporate into my discussion the sorts of formalizations that are conventional in the contemporary linguistic, especially semantic literature. One of the reviewers for the press expressly disapproved doing so. I agree that on balance such formalism would have a discouraging, indeed alienating effect. Some examples should illustrate the point:

3. \[ [A_{\text{nom-} p^*}]_{C,w,l} = \{<t,x> | \exists t'(B(x,t') \& t' \in c(A)(w,i) \& t=f(t',\lambda y[y \geq \text{std}(c(A),c),w,i]) \} \]

4. \[ [A(P)_{AP}] = \lambda x. \exists P [P \in \text{Dist}(\text{Cons}, \cup \lambda P(\text{Avg}(P),[A_A])) \& P(x)] \]

5. \[ [\text{pos}]^C = \lambda C \in D_{(x,t)}, \lambda f \in D_{(x,t)}, \lambda x \in D_x. f(x) \geq \text{norm}_C(f,C) \]

Item (3) is Moltmann's interpretation of the denotation of a gradable adjectival nominalization such as "kindness." Item (4) is Ad Neeleman, Hans van de Koot, and Jenny Doetjes' interpretation of the denotation of a gradable adjectival phrase composed of a gradable adjective in the morphologically basic form and an adjunctive comparison class prepositional phrase, for example "tall for a five-year old." And item (5) is Robert van Rooij and Galit Sassoon's interpretation of the denotation of the covert degree morpheme, called \(\text{pos}\), that is standardly taken to be a part of the semantics of constructions of the form "\(x\) is \(a\)," where \(a\) stands for a gradable adjective in the morphologically basic form, for example "\(x\) is good."

So all three formalizations pertain to core expressions and ideas within the formal semantic literature on gradable adjectives and adjectival nominalizations. Such formalizations are not occasional within this literature; they are the default mode of representing meanings and meaning derivations. Although it may appear ungainly, item (5) is in fact very simple. The authors do not and would not pause to provide a natural language paraphrase, let alone to explain the symbols employed. Or rather, the symbols \(C\), \(f\), and \(x\) are explained, but within the formula itself, in the terms of the lambda-categorical language and semantic type theoretic notation standard in the discipline.

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19 For convenience, throughout I follow the practice of using symbols such as \(a\) as names for themselves.
Of course, such formalism can be learned, and likely with particular facility by philosophers comfortable with formal logic. However, I see no compelling reason to attempt a tutorial here and then to impose such expressions on my audience—especially in the context of introducing all of the informal, but unfamiliar, complex, sometimes abstruse linguistic ideas. The result is that the following chapters assume no background in linguistics; and the limited formal expressions I do employ are either explained when they occur or should be readily intelligible to anyone with basic logic. In general, all technical linguistic terminology and ideas are explained when they are first introduced.

Beyond having told the truth, my hopes for this study are twofold. I hope that the results will provide clearer and more secure foundations for value theory generally and for various particular inquiries that crucially involve the terms "good" and "goodness." Second, I hope that the method I have employed to pursue my governing question will encourage other philosophers who have not already been impressed by the linguistic developments of recent decades to consider these contributions and their applicability. There is much to be gained philosophically by attending to topics central to this study such as ambiguity and polysemy, gradability and multidimensionality, indexicalism (which I call syntactic "determinism") and free pragmaticism (which constitutes a large part of what I call "compatibilism"), mass nouns and count nouns, adjectival nominalization and bare noun phrases; and to the works of those who have thought deeply about them.

Finally, the structures of the chapters and their central claims and arguments are signposted and summarized all along the way. Consequently, at this point the reader should feel free to turn to chapter two. However, for those who would like a quick overview of the remainder, I conclude this introduction by offering one.

The study may be viewed as divisible into two parts. Chapters two through five focus on the meaning and use of the adjective "good." Chapters six and seven focus on the meaning and use of the adjectival nominalization "goodness."

Chapter two argues that "good" is three ways ambiguous. I call the three senses of "good" "evaluative," "quantitative," and "operational." I suggest that evaluative "good" and operational "good" are two polysemous senses of a single word, and that quantitative "good" is a distinct word, whose sense stands in the relation of homonymy to the former two.

Evaluative "good" is the sense of "good" that has been of principal philosophical interest and that is the focus of chapters three through five. Consequently, in the remainder of this introduction, I will drop the modifier "evaluative" when referring to this sense of "good."

As suggested above, "good" is a gradable adjective. With the aim of clarifying the meaning of "good," chapter three elaborates on the semantics of gradable adjectives, especially so-called relative gradable adjectives.

Gradable adjectives are associated with gradable properties. For example, "tall" is associated with the gradable property of height. "Good" is associated with the gradable property of value. Chapter four examines the nature of value, and does so by linguistic means. The central thesis of the chapter is that value is purpose serving. Consequently, if something has value, it serves or is serving a purpose; and so if something is good, it serves or is serving a purpose. "Purpose" itself is at least two ways ambiguous; and in the relevant so-called modal sense of "purpose," there are at least four fundamentally distinct kinds of purpose and so value and so ways of being good.
Some gradable adjectives are specifiable by kind; others are not. For example, there are not kinds of height; but there are kinds of value. As just noted, there are at least four basic kinds. But within each kind, there are countless sub-kinds. In the formal semantic literature, gradable properties are called "dimensions." Accordingly, I characterize "tall" as a unidimensional gradable adjective, and "good" as a multidimensional gradable adjective. Chapter five examines how the dimension of value with which "good" is associated is specified on occasions of use. In pursuing this question, I consider two broad types of explanation: syntactic determinism—exemplified by, among others, Szabó's position mentioned above—and compatibilism. According to the latter, dimensional specification is compatible with, but not mandated by the syntax of "good." In other words, dimensional specification is syntactically optional. The linguistic operation responsible for its occurrence is what I call "supplementation," the crux of which is adverbial modification of "good."

Having clarified the meaning and use of "good," I turn to the meaning and use of the adjectival nominalization. As noted above, "goodness" is a mass as opposed to count noun. Chapter six explains the distinction between mass and count nouns and argues that, semantically, the distinction rests on a pair of correlative properties, which I call "semantic cumulativity" and "semantic divisibility." I then explain the standard lattice theoretic account of the denotation of mass nouns, and finally clarify the metaphysical implications of the preceding linguistic results for the nature of goodness.

At the conclusion of chapter six, the governing metaphysical question "What is goodness?" has been answered. Consequently, chapter seven might be viewed as a coda to the study. However, the topic that it introduces is crucial to any adequate understanding of how "goodness" is used. As mentioned above, "goodness" and other mass nouns, as well as plural count nouns, can occur as bare noun phrases; and in such cases, they are subject to various readings. I consider two principal theories that have been proposed to explain the variety of readings: the kind-denoting theory, which ultimately derives from Carlson, and the ambiguity theory, various versions of which arose in response to Carlson. While I incline to accept some neo-Carlsonian explanation of the phenomena, the aim of the chapter is merely to introduce the problem of the ambiguity of bare noun phrases and the principal responses to it.