

## Topics in Contemporary Philosophy

### *Editors*

Joseph Keim Campbell, Washington State University

Michael O'Rourke, University of Idaho

David Shier, Washington State University

### *Editorial Board Members*

Kent Bach, San Francisco State University

Michael Bratman, Stanford University

Nancy Cartwright, London School of Economics

Richard Feldman, University of Rochester

John Martin Fischer, University of California, Riverside

Nicholas F. Gier, University of Idaho

Philip J. Ivanhoe, University of Michigan

Michael McKinsey, Wayne State University

John Perry, Stanford University

James Rachels, University of Alabama at Birmingham

Stephen Schiffer, New York University

Harry Silverstein, Washington State University

Brian Skyrms, University of California, Irvine

Peter van Inwagen, University of Notre Dame

## Meaning and Truth

### Investigations in Philosophical Semantics

Edited by

Joseph Keim Campbell  
Washington State University

Michael O'Rourke  
University of Idaho

David Shier  
Washington State University



SEVEN BRIDGES PRESS  
NEW YORK • LONDON

Seven Bridges Press, LLC  
135 Fifth Avenue, New York, NY 10010-7101

Copyright © 2002 by Seven Bridges Press, LLC

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission of the publisher.

*Executive Editor:* Jehanne Anabtawi  
*Managing Editor:* Katharine Miller  
*Composition:* Bytheway Publishing Services  
*Cover Design:* Darby Downey, DD Creative Services  
*Printing and Binding:* CSS Publishing Company, Inc.

**Library of Congress Cataloging-in-Publication Data**

Meaning and truth : investigations in philosophical semantics / edited  
by Joseph Keim Campbell, Michael O'Rourke, David Shier.

p. cm. — (Topics in contemporary philosophy)

Includes bibliographical references and index.

ISBN 1-889119-55-5 (pbk.)

I. Semantics (Philosophy)—Congresses. I. Campbell, Joseph Keim,  
1958— II. O'Rourke, Michael, 1963— III. Shier, David, 1958— IV. Series.

B840 .M456 2001

121'.68—dc21

2001002390

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

## Contents

Foreword by Stephen Schiffer	vii
Editors' Acknowledgments	ix

### Introduction

<u>JOSEPH KEIM CAMPBELL, MICHAEL O'ROURKE, AND DAVID SHIER</u>	
1. Investigations in Philosophical Semantics: A Framework	1

### Part I. Cognition and Linguistic Meaning

<u>KENT BACH</u>	
2. Seemingly Semantic Intuitions	21

<u>MICHAEL MCKINSEY</u>	
3. The Semantic Basis of Externalism	34

<u>ROBIN JESHION</u>	
4. Acquaintanceless <i>De Re</i> Belief	53

<u>STEPHEN SCHIFFER</u>	
5. Meanings	79

### Part II. Linguistic Meaning and the World

<u>NATHAN SALMON</u>	
6. Mythical Objects	105

<u>MARIAN DAVID</u>	
7. Truth and Identity	124
<u>KIRK LUDWIG</u>	
8. What Is the Role of a Truth Theory in a Meaning Theory?	142
<u>JONATHAN SUTTON</u>	
9. A New Argument against Modesty	164
<u>ROBERT CUMMINS</u>	
10. Truth and Meaning	175
<b>Part III. Aspects of Linguistic Meaning</b>	
<u>HERMAN CAPPELEN AND ERNIE LEPORE</u>	
11. Insensitive Quantifiers	197
<u>EMMA BORG</u>	
12. Deferred Demonstratives	214
<u>LENNY CLAPP</u>	
13. What Unarticulated Constituents Could Not Be	231
<u>ANNE BEZUIDENHOUT</u>	
14. Generalized Conversational Implicatures and Default Pragmatic Inferences	257
<u>KENT BACH AND ANNE BEZUIDENHOUT</u>	
15. Distinguishing Semantics and Pragmatics	284
Index of Names	311
Index of Topics	343

## Foreword

Stephen Schiffer  
New York University

THE PAPERS IN this volume are article versions of selected talks given at the third annual Inland Northwest Philosophy Conference, on Truth and Meaning, held in Moscow, Idaho, and Pullman, Washington, March 24–26, 2000. This was the first year the conference was funded to bring in participants from all over the United States, and if, as I expect, future colloquia in the series meet the same high standards, the annual INPC will occupy an important place in American philosophical life. As a high-quality annual colloquium, it will quickly gain the prestige and attention now held by only two other such philosophy colloquia in the United States, the one at Chapel Hill and the one at Oberlin.

I was honored by the invitation to be the keynote speaker at the colloquium, but I had little idea of what to expect from a philosophy of language colloquium in Moscow, Idaho. Happily for me, it turned out to be one of the best-run and most stimulating philosophy conferences I have ever attended in any area of philosophy. The editors of this volume, Joseph Keim Campbell, Michael O'Rourke, and David Shier, who must be thanked for conceiving the series and actually getting it to happen, organized and ran the conference with near-awesome skill. The Universities of Idaho and Washington State are to be commended for their generous and wholehearted support, thereby making this new philosophical institution possible, one that will bring to those universities each year a level and excitement of philosophical activity enjoyed at very few other universities.

The collection of papers published in this volume, aptly subsumed under the wide-ranging rubric *Meaning and Truth*, covers most, if not all, of the topics in the philosophy of language that are currently of most concern. The papers by Lenny Clapp, Robert Cummins, Marian David, Kirk Ludwig, Michael McKinsey, Jonathan Sutton, and myself deal with foundational questions about the nature of meaning, of meaning theories for particular languages, and the

- Grimberg, M. 1996. "Pragmatically Determined Aspects of What Is Said: A Reply to Bezuidenhout." *Mind and Language* 11: 415–26.
- Kaplan, D. 1977. "Demonstratives." In J. Almog, J. Perry and H. Wettstein (eds.), *Themes from Kaplan*. Oxford: Oxford University Press.
- Kripke, S. 1977. "Speaker Reference and Semantic Reference." *Midwest Studies in Philosophy* 2: 255–76.
- Neale, S. 1990. *Descriptions*. Cambridge, Mass.: MIT Press.
- . 1993. "Term Limits." In J. Tomberlin (ed.), *Philosophical Perspectives 7: Language and Logic*. Atascadero, Calif.: Ridgeview.
- Nunberg, G. 1993. "Indexicality and Deixis." *Linguistics and Philosophy* 16: 1–44.
- Russell, B. 1905. "On Denoting." *Mind* 14: 479–93.
- Quine, W. V. 1968. "Ontological Relativity." *Journal of Philosophy* 65: 185–212.
- Recanati, F. 1993. *Direct Reference: From Language to Thought*. Oxford: Blackwell.
- Salmon, N. 1998. "Nonexistence." *Notus* 32/3: 277–319.
- Schiffer, S. 1995. "Descriptions, Indexicals, and Belief Reports: Some Dilemmas (but Not the Ones you Expect)." *Mind* 104: 107–31.

## CHAPTER 13

## What Unarticulated Constituents Could Not Be

Lenny Clapp  
Illinois Wesleyan University

### INTRODUCTION

IN THIS CHAPTER I clarify and take a side on an issue that currently divides theorists working in semantics and the philosophy of language. On one side of the issue are theorists who defend the traditional theoretical frameworks of Davidson's or Montague's semantic programs<sup>1</sup> and on the other side are those who favor rejecting these traditional frameworks in favor of some form of *dynamic semantics*, or *truth conditional pragmatics*.<sup>2</sup> My allegiance lies with the latter camp. I think there are many *semantic* phenomena that cannot be adequately explained within the more limited constraints of Davidson's and/or Montague's semantic programs. More precisely, I think these semantic programs cannot adequately account for the truth conditions of all assertions. Moreover, the demise of these more traditional semantic frameworks has significant consequences for issues of much interest to philosophers—issues concerning the nature of intentional states, meaning, and communication. But, for reasons that will be made clear in what follows, there is no way to demonstrate *directly* that there are assertions whose truth conditions cannot be accounted for by some semantic theory that falls within the traditional semantic framework; i.e., I cannot provide a counterexample. So here I take a somewhat indirect approach: I argue that the situation of the traditional semantic theories is analogous to the situation of logicism/reductionism and the problem of *multiple reductions* in the philosophy of mathematics. That is, I argue that *if* we agree with Benacerraf (1965) that numbers cannot be sets of various sorts—because there are too many sorts of sets that would do the trick and no principled means of choosing between them—then we should concede that there are semantic phenomena that cannot be adequately explained within the constraints of the traditional semantic framework. Moreover, though I will not support this claim here, one ought to accept Benacerraf's argument, and thus the traditional semantic framework should be rejected.

### TRUTH CONDITIONAL COMPOSITIONALITY AND TRADITIONAL SEMANTIC THEORIES

What is at issue in the disagreement between the traditional semanticists and the truth conditional pragmaticists? The essence of the disagreement concerns the following general principle,

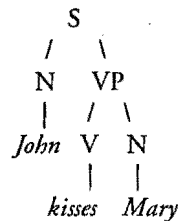
*Truth Conditional Compositionality.* The truth conditions of an utterance are a function of (i) the logical form of the utterance (i.e., the structure of the LF of the utterance), and (ii) the meanings of the words in the utterance (i.e., the *semantic values* of the terminal nodes of the LF of the utterance).

Traditional semantic theories presuppose Truth Conditional Compositionality. Indeed, Truth Conditional Compositionality is the central motivating idea of traditional semantic theories—the principle is a slightly more precise rendering of the slogan, often attributed to Frege, that “the meaning of a sentence must be a function of the meaning of the words in the sentence.”

Consider the sentence

(1) John kisses Mary.

How would a traditional semantic theory explain the meaning, or truth conditions, of an utterance of (1) in keeping with Truth Conditional Compositionality? A traditional semantic theory specifies a function that takes as inputs the LF of an utterance, and the semantic values of the words in the utterance, and has as its output the truth conditions of the utterance. Following most contemporary theorists working within the traditional semantic framework, I here assume the “Revised Extended Standard Theory” of syntax, and thus I assume that the entities interpreted by a semantic theory are phrase structure markers at the level of LF, or simply “LFs”. (The syntactic details do not matter for my purposes; all that matters is the assumption that some sort of syntactic representations of sentences play the role of LFs as specified by Truth Conditional Compositionality.) Suppose then that the LF of (1) is something like this:



The following is a very simple, and partial, traditional semantic theory that can account for the truth conditions of an utterance of (1) in keeping with Truth Conditional Compositionality:<sup>3</sup>

#### Lexical Rules

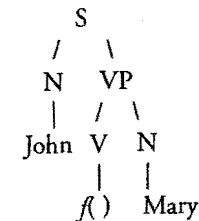
1.  $SV(John) = John$
2.  $SV(Mary) = Mary$ .
3.  $SV(kisses) = f: D \Rightarrow \{g: g \text{ is a function from } D \text{ to } \{\text{true, false}\}\}$   
For all  $x, y \in D$ ,  $f(y)(x) = \text{true}$  iff  $x$  kisses  $y$ .

#### Combinatorial Rules

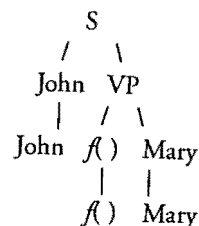
1. If  $\alpha$  has the form  $\begin{array}{c} VP \\ / \quad \backslash \\ \beta \quad \gamma \end{array}$ , then  $SV(\alpha) = \beta(\gamma)$ .
2. If  $\alpha$  has the form  $\begin{array}{c} S \\ / \quad \backslash \\ \beta \quad \gamma \end{array}$ , then  $SV(\alpha) = \gamma(\beta)$ .
3. If  $\alpha$  has the form,  $\begin{array}{c} \alpha \\ | \\ \beta \end{array}$  then  $SV(\alpha) = SV(\beta)$ .

This fragment of a simple traditional semantic theory determines the truth conditions of an utterance of (1), in keeping with Truth Conditional Compositionality in the following way. First, the lexical rules are applied to determine the semantic values of the lowermost nodes in the LF for (1): ‘John’ is assigned the semantic value John, ‘Mary’ is assigned the semantic value Mary, and ‘kisses’ is assigned a particular function from individuals to functions, these latter functions being functions from individuals to truth values.

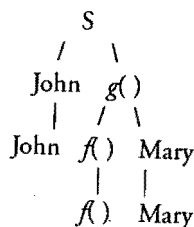
Once these semantic values are assigned to the lowermost nodes, the combinatorial rules, which are directed by the structure of the LF, can be applied to determine the semantic values of the non terminal nodes. That is, we can think of the combinatorial rules applying to an LF structure where the words (or morphological information) are replaced by the corresponding semantic values:



The Combinatorial Rules are now applied to determine the semantic values of the non terminal nodes. Where there is no "branching," Combinatorial Rule 3 is applied. Thus the semantic values of the intermediate N and V nodes are assigned as follows:



Combinatorial Rule 1 is now applied to determine the semantic value of the VP node. Hence the function  $f()$  from individuals to functions that is the semantic value of 'kisses' is applied to the argument Mary. The value of this function applied to this argument is another function, a function  $g()$  from individuals to truth values which is such that  $g(x) = \text{true}$  iff  $x$  kisses Mary. In this way the non-terminal node VP is assigned a semantic value in such a way that the semantic value assigned to it, viz.,  $g(x)$ , is a function of the semantic values assigned to the nodes which VP immediately dominates.



Finally Combinatorial Rule 2 is applied to determine the semantic value of the top S node, or rather to determine the conditions under which this node is assigned *true* as its semantic value. More specifically, the semantic value of VP, function  $g()$  from individuals to truth values, is applied to John, the semantic value of 'John'. Hence the top S node is appropriately determined to be true iff John kisses Mary.

This simple example illustrates how traditional semantic theories respect Truth Conditional Compositionality. The semantic theory determines the truth conditions of an utterance, or more specifically the LF of an utterance, by first assigning semantic values to the terminal nodes in the LF via the Lexical Rules. The truth conditions of the nonterminal nodes, including the top S node (or IP node, or whatever) are then determined by the semantic values of the terminal

nodes and the structure of the LF via the combinatorial rules. In this way a traditional semantic theory, which is composed of such lexical and combinatorial rules, illustrates how the truth conditions of an utterance are a function of (i) the *semantic values* of the terminal nodes of the utterance's LF, and (ii) the structure of the utterance's LF.

It should be noted that utterances of context-sensitive sentences such as

(2) I am upset

do *not* constitute even *prima facie* counterexamples to Truth Conditional Compositionality. The truth conditions of utterances of (2) of course vary depending upon relevant aspects of the contexts of utterance: If Monica utters the sentence on Tuesday, November 23, 1998, at 6:30 P.M., *her* utterance is true if and only if *she* is upset at *that* time. And if Bill utters the sentence on Wednesday November 24, 1998, at 7:00 A.M., then *his* utterance is true if and only if *he* is upset at *this other* time. The truth conditions of sentences such as (2) can be adequately explained by traditional semantic theories which deviate only slightly from the sort of theory sketched above. This is because though (2) is context sensitive, its context sensitivity can be traced to the presence of two phonetically realized indexical words and morphological features, viz., 'I', and the tensed form 'am' of 'to be'. Thus, to explain the truth conditions of sentences such as (2) in keeping with Truth Conditional Compositionality one need only allow that *some* of the elements occupying the terminal nodes of LFs will not have a *constant* semantic value. The semantic values of such *indexical elements* will not be provided by fixed lexical rules like lexical rules 1-3 above, but will instead be determined by context-sensitive lexical entries (or *characters*, as Kaplan and his followers call them) together with relevant information provided by the particular context of utterance. For example, the *character* of 'I' is something along the lines of

SV('I') in context  $c =$  the agent of  $c$ .

Such context-sensitive lexical rules allow traditional semantic theories to adequately explain the truth conditions of context-sensitive expressions such as (2) in keeping with Truth Conditional Compositionality. The semantic values of the terminal nodes in the LF for (2) are allowed to vary from context to context, but once these semantic values are fixed the truth conditions of an utterance of (2) are *still* a function of (i) the semantic values of the terminal nodes of the sentence's LF, and (ii) the structure of the sentence's LF.<sup>4</sup>

#### PROBLEMS FOR TRADITIONAL SEMANTIC THEORIES: PRIMA FACIE COUNTEREXAMPLES TO TRUTH CONDITIONAL COMPOSITIONALITY

Though utterances of sentences such as (2) are not counterexamples to Truth Conditional Compositionality, consideration of such sentences does suggest a

strategy for finding counterexamples. Suppose an expression *S* (which may or may not be a complete sentence) can be used to make assertions, and further suppose that *S* has the following two properties:

- (a) *S* is context sensitive so that its truth conditions vary from context to context.
- (b) The LF of *S* contains no relevant context sensitive words and/or features.

Such an expression would constitute a counterexample to Truth Conditional Compositionality. This principle claims that the truth conditions of *every utterance of S* are a function of (i) the *semantic values* of the terminal nodes of *S*'s LF, and (ii) the structure of *S*'s LF. But it does not even make sense to think of the LF of an expression *S* changing from utterance to utterance; if *S* and *S*\* have different LFs, then, in the relevant sense of 'expression', *S* and *S*\* are different expressions. Consequently, if Truth Conditional Compositionality is to be preserved, no expression that can be used to make an assertion can possess both property (a) and property (b). Therefore, for any context-sensitive expression *S* that can be used to make an assertion, Truth Conditional Compositionality requires that the LF of *S* contain some context-sensitive element so that the variance in truth conditions across contexts can be explained by a variance in the semantic values assigned to this context sensitive element across contexts. The upshot is that a potentially assertion making sentence, or mere phrase, that had properties (a) and (b) would constitute a counterexample to Truth Conditional Compositionality, and thus if such sentences and/or mere phrases can be found, then this principle ought to be rejected.

As Bach (1994), Sperber and Wilson (1986), and other advocates of truth conditional pragmatics have demonstrated, there are many expressions that at least *seem* to have properties (a) and (b) and thus there are many expressions that constitute *prima facie* counterexamples to Semantic Compositionality. Here I present only four sorts of *prima facie* counterexamples.

### Quantifier Domain Restriction

One sort of *prima facie* counterexample concerns quantifier domain restriction. Sentences such as

- (3) Every student came to Anna's party

clearly have property (a), and they seem to have property (b). A typical utterance of (3) does not state that every student in the universe came to Anna's party; rather a typical utterance of (3) states merely that every student relevant to the people engaged in the discourse came to the party. That is, the domain of quantification is not restricted to merely the set of *students* in the universe, but is fur-

ther restricted to a proper subset of relevant students. Moreover, the proper subset of students that serves as the restriction varies from context to context. For example, one utterance of (3) might be true if and only if every philosophy graduate student attending MIT in 1999 came to Anna's party. But a different utterance of (3) might be true if and only if every philosophy or linguistics graduate student attending MIT in 1998 came to Anna's party.<sup>5</sup> So if Truth Conditional Compositionality is to be upheld, the LF of (3) must contain a context-sensitive feature that, relative to a context of utterance, serves to further constrain the domain of quantification. But there is no overt, phonetically realized, term or feature that could plausibly serve this purpose. So sentences such as (3) seem to possess properties (a) and (b), and thus there are at least *prima facie* counterexamples to Truth Conditional Compositionality.<sup>6</sup>

### Comparative Adjectives

Another sort of *prima facie* counterexample concerns relative adjectives. Sentences such as

- (4) Bradley is tall

also seem to possess both (a) and (b). Again, (4) is clearly context sensitive. A typical utterance of (4) does not state that Bradley is tall *simpliciter* (whatever that might amount to), but rather that he is tall relative to some contextually salient contrast class. For example, an utterance of (4) that occurred in a discussion concerning the physical characteristics of presidential candidates would be true if and only if Bradley is tall for a presidential candidate, while an utterance of (4) that occurred in a discourse concerning great centers in the NBA would be true if and only if Bradley is tall for a great center in the NBA. Thus, the truth conditions of (4) depend upon what contrast class is invoked by the utterance. But, again, there is no overt, phonetically realized, word or feature that might have the relevant contrast class as its semantic value. So sentences such as (4) also seem to possess properties (a) and (b), and thus they also are at least *prima facie* counterexamples to Truth Conditional Compositionality.<sup>7</sup>

### Propositional Attitude Ascriptions

Yet another, and much more widely appreciated, problem for Truth Conditional Compositionality is posed by attitude ascriptions. It is now widely appreciated that attitude ascriptions are context sensitive. Consider the ascription

- (5) Jerry believes that Marie baked the cookies.

In many contexts an occurrence of (5) is true only if Jerry thinks of Marie as the referent of 'Marie'; i.e., in many contexts an utterance of (5) is true only if Jerry

utilizes a woman-named-‘Marie’ “mode of presentation” of Marie. For example, suppose we are at a cookie baking contest, where there are plates of cookies set out with name tags, where the name tags state who baked that particular plate of cookies. We are observing Jerry who is tasting the cookies from a plate with a tag that reads ‘Ms. O’Connor’. Further suppose that we know that Jerry does not realize that the baker of the cookies, Ms. O’Connor, just *is* his acquaintance Marie, and that we are discussing Jerry’s plight. I thus say, “Ha! Poor Jerry does not know that ‘O’Connor’ is Marie’s last name, so he doesn’t know that those are Marie’s cookies!” If you were to utter (5) immediately following my statement, your utterance would be false. Moreover, it at least seems that it would be false because Jerry does not think of the baker of the cookies as the referent of ‘Marie’—he does not utilize the referent-of-‘Marie’ mode of presentation. But in other contexts (5) is more transparent, and in these contexts it is not the case that (5) is true only if Jerry utilizes a woman-named-‘Marie’ mode of presentation of Marie. Again suppose that we are at a cookie baking contest, and suppose that Jerry, whom we know to have no prior acquaintance with Ms. Marie O’Connor, observes her at a distance placing her cookies on a plate. Seeing Jerry observe Marie putting her cookies on a plate, I utter (5) to you. In this context my utterance of (5) is (probably) true, even though Jerry does not think of Marie under a referent-of-‘Marie’ mode of presentation. So (5) is clearly context sensitive in that some (“opaque” and/or *de dicto*) utterances of (5) are true only if Jerry thinks of Marie as the referent of ‘Marie’ (under a mode of presentation associated with the name ‘Marie’) while other (“transparent” and/or *de re*) utterances of (5) do not require that Jerry think of Marie in such a way (or under such a mode of presentation). So, if Truth Conditional Compositionality is to be preserved, there must be some indexical element in the LF of (5) that is assigned different semantic values in different contexts. But again, there are not any phonetically realized words or feature in (5) that are indexical in the relevant way. Consequently, attitude ascriptions such as (5) also constitute *prima facie* counterexamples to Truth Conditional Compositionality.<sup>8</sup>

### Nonsentential Assertions

And finally, there are cases of what Stainton (1994, 1995) calls “nonsentential assertion.”<sup>9</sup> Suppose that Ben and Melia are at a party, and across the room Melia observes a woman who is surrounded by a large group of people who are listening attentively to her. Melia turns to Ben and quizzically raises her eyebrows while nodding toward the woman. Ben then utters the phrase

(6) A world famous topologist.

In this context Ben’s utterance of a mere noun phrase has truth conditions and thus is an *assertion*: Ben’s utterance is true if and only if the observed woman is a world famous topologist. But clearly (6) is context sensitive, for in most con-

texts the utterance of a mere noun phrase does not constitute an assertion at all, and thus has no truth conditions whatsoever. Moreover, (6) does not have any phonetically realized indexical words or features that might have different people as semantic values in different contexts. Consequently nonsentential assertions such as (6) also constitute *prima facie* counterexamples to Truth Conditional Compositionality.

One might claim that the above example involving Ben’s utterance of (6) does not constitute even a *prima facie* counterexample to Semantic Compositionality on the grounds that this example involves the phenomenon of *syntactic ellipsis*. Consider the following segment of discourse:

Jeremy: “Who believes in God?”

Anders: “James.”

In this brief dialogue it is plausible to suppose that Anders’ utterance of the noun phrase “James” is *syntactically elliptical* for the complete sentence, ‘James believes in God.’ That is, it is at least plausible to suppose that the verb phrase “believes in God” is somehow “copied” as a phonetically unrealized element into the LF of Anders’ utterance, so that the LF of Anders’ utterance is the LF of a complete sentence. Thus, the explanation runs, in some contexts syntactic ellipsis occurs, and an utterance of (6) has a complete sentence for its LF, while other utterances of (6) do not involve syntactic ellipsis, and in these utterances (6) does not have a complete sentence for its LF. So cases such as Ben’s utterance of (6) do not constitute counterexamples to Truth Conditional Compositionality. This explanation, however, is inadequate. For, as Stainton points out, syntactic ellipsis requires a syntactic antecedent that can be copied into the LF of a later utterance. Note, however, that in the case at hand Ben’s utterance of (6) occurs in *discourse initial position* and thus there is no syntactic antecedent that can be copied as an unarticulated constituent into the LF of (6). More specifically, there is no previously occurring noun phrase referring to the relevant woman that could be copied into the LF of Ben’s utterance. Thus it seems that Ben’s assertion of (6) cannot plausibly be construed as an instance of syntactic ellipsis.

### Two Strategies for Rescuing Truth Conditional Compositionality: Pragmatic Ellipsis and Hidden Indexicals

If the defender of traditional semantics is to defend Truth Conditional Compositionality, she must show that each of the above sentences and/or phrases, despite appearances, does not really have property (a), or does not really have property (b). That is, she must show that each of the *prima facie* counterexamples is either not really context sensitive, or really does contain a (relevant) context-sensitive lexical item. She can at least attempt to do this by arguing that the LFs of these sentences are richer than they seem to be. More specifically, the de-



fender of traditional semantics must argue that the LFs of these sentences and/or phrases contain phonetically unrealized elements that can explain, in keeping with Truth Conditional Compositionality, the truth conditions of the assertions.

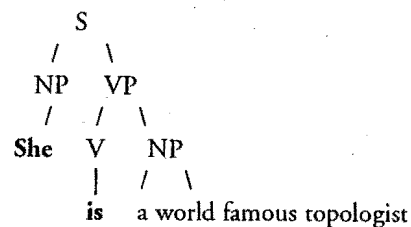
There are two principal ways in which this general strategy of response can be fleshed out. The first way, which I shall refer to as the "pragmatic ellipsis" sub-strategy, involves positing *familiar* lexical items, i.e., lexical items that are normally phonetically realized, as phonetically unrealized elements in LFs. These phonetically unrealized yet familiar lexical elements are then assigned semantic values by the semantic theory in the usual way. Thus, in proposition speak, the proposition expressed by an LF that contains such phonetically unrealized lexical items contains "unarticulated constituents," i.e., semantic values that are not the semantic value of any phonetically realized word or feature. The second way, which I shall refer to as the "hidden indexical" substrategy, involves positing a new, *unfamiliar*, sort of phonetically unrealized indexical element in LFs and claiming that these "hidden indexicals" are assigned different semantic values in different contexts. The semantic values so assigned are again *unarticulated constituents*, as they are not the semantic values of phonetically realized words or features. The "hidden indexical" substrategy thus attempts to rescue Truth Conditional Compositionality from *prima facie* counterexamples by claiming that the assertion in question really does contain context sensitive elements.

Both substrategies have been utilized in attempts to rescue the Principle of Truth Conditional Compositionality from the *prima facie* counterexamples discussed above.<sup>10</sup>

Stanley (2000) utilizes the "pragmatic ellipsis" substrategy to explain away the *prima facie* counterexamples involving nonsentential assertions. Stanley proposes that the LF of Ben's assertion making utterance of

(6) A world famous topologist

is



where both the familiar noun phrase 'She' and the familiar main verb 'is' are phonetically unrealized. Stanley claims that even cases of nonsentential assertion that occur in discourse initial position are a special case of ellipsis. Stanley explains,

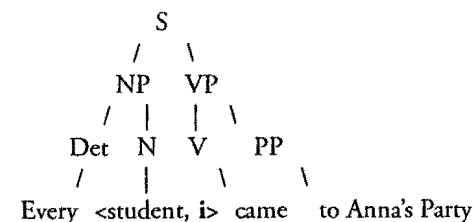
It is true that syntactically elliptical sentences cannot felicitously occur in the absence of a linguistic antecedent. But explicitly providing a linguistic antecedent by mentioning it is only the simplest way to provide it. There are other methods of raising linguistic expressions to salience in a conversation with explicitly using them. (2000, 21)

Thus, in the case of Ben's felicitous and assertion making utterance of (6), Stanley claims that the context of utterance somehow makes the lexical items 'She' and 'is' salient, and in virtue of this salience, the LF of the utterance contains these lexical items as phonetically unrealized elements. These phonetically unrealized elements are then assigned semantic values in the usual way, and thus the semantic values so assigned are unarticulated constituents. If the LF of an utterance of (6) is elliptical in this way and the requisite sort of semantic values are assigned as unarticulated constituents, then the truth conditions of utterances of (6) can be explained in keeping with Truth Conditional Compositionality. Stanley's pragmatic ellipsis proposal also accounts for the apparent context sensitivity of (6). In some contexts appropriate lexical items are made salient, by pragmatic processes such as the raising of eyebrows. In such contexts utterances of (6) are elliptical and thus correspond to full blown sentential LFs, and they thereby have truth conditions. But in other contexts appropriate lexical items are not made salient. In these deficient contexts the nonsentential utterances are not elliptical for full blown sentences. But, Stanley claims, such nonelliptical utterances lack illocutionary force and thus have no truth conditions.

Stanley and Gendler Szabo (2000) utilize the "hidden indexical" substrategy in an attempt to explain away the *prima facie* counterexamples concerning quantifier domain restriction. Consider again sentences such as

(3) Every student came to Anna's party.

Stanley and Gendler Szabo propose that this sentence be analyzed as containing at the level of LF a "hidden indexical" that takes on different semantic values in different contexts. More specifically, they propose the LF of (3) is something like this

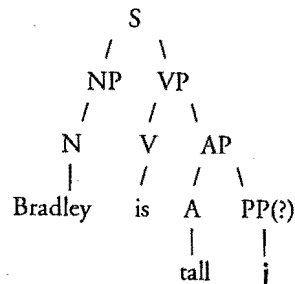


According to Stanley and Gendler Szabo's analysis, the terminal node corresponding to the phonetically realized noun 'student' is syntactically complex: It is an ordered pair, the first member of which is the phonetically realized familiar lexical item 'student' and the second member of which is a new sort of phonetically unrealized indexical element *i*.<sup>11</sup> This phonetically unrealized indexical element is assigned, relative to a context, a semantic value. Thus there is a semantic value invoked by an utterance of (3) that is not the semantic value of any phonetically realized, or articulated, word or feature in (3); the semantic value of *i* is then an "unarticulated constituent" of the proposition expressed by an utterance of (3). Moreover, since *i* is an indexical element, it is assigned different semantic values, i.e., different unarticulated constituents, in different contexts. In terms of the previous example involving different utterances of (3), in some contexts *i* is assigned as its semantic value the set of all philosophy graduate students attending MIT in 1999, while in other contexts *i* is assigned as its semantic value the set of all the linguistics and philosophy graduate students attending MIT in 1998. If there is such a "hidden indexical" in the LF of sentences such as (3), then such sentences do possess a context sensitive lexical element and thus they would not constitute counterexamples to Truth Conditional Compositionality. That is, positing such a "hidden indexical" element that has different "unarticulated constituents" as its semantic value in different contexts explains the context sensitivity of (3) in keeping with Truth Conditional Compositionality.

Ludlow (1989) has proposed using the hidden indexical substrategy to cope with the *prima facie* counterexamples posed by comparative adjectives. That is, Ludlow has proposed that the LF of

(4) Bradley is tall.

is something like



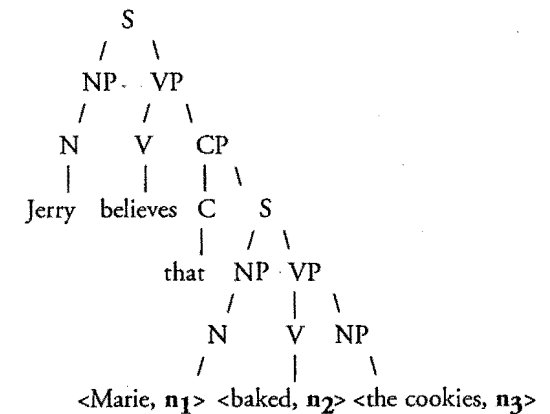
The phonetically unrealized indexical element *j* can be assigned different semantic values, different unarticulated constituents, in different contexts. In

terms of the previous example involving (4), in some contexts *j* is assigned the set of presidential candidates, while in other contexts it is assigned the set of great centers in the NBA.<sup>12</sup> Again, if there is such a hidden indexical element, then the context sensitivity of sentences such as (4) can be explained in keeping with Truth Conditional Compositionality. In other words, if there are "hidden indexicals" such as *j*, then sentences such as (4) do contain a context-sensitive lexical element, and thus they do not constitute counterexamples to Truth Conditional Compositionality.

And finally, Crimmins (1992) has utilized the hidden indexical substrategy to explain the context sensitivity of attitude ascriptions. Crimmins does not present his theory using phrase structure markers, but under one way of understanding his proposal,<sup>13</sup> the LF of an attitude ascription such as

(5) Jerry believes that Marie baked the cookies

is something like



Each of the *n<sub>i</sub>* is a phonetically unrealized indexical element that can be assigned different "modes of presentation" as its semantic value, and thus different modes of presentation will be unarticulated constituents of propositions expressed by utterances of (5).<sup>14</sup> In terms of our previous example involving (5), in some contexts *n<sub>1</sub>* is assigned Jerry's "the referent of 'Marie'" mode of presentation, while in other contexts *n<sub>1</sub>* may refer to some sort of perceptual "the person I am now seeing" mode of presentation. Again, if there are hidden indexicals such as *n<sub>1</sub>* that have the requisite modes of presentation as their semantic values, then the context sensitivity of sentences such as (5) can be explained in keeping with Truth Conditional Compositionality. Again, if there are hidden indexicals such as *n<sub>1</sub>*, then the LFs for sentences such as (5) do contain context-sensitive lexical

items, and thus such sentences do not constitute counterexamples to Truth Conditional Compositionality.<sup>15</sup>

### PRAGMATIC ELLIPSIS, HIDDEN INDEXICALS AND BENACERRAF'S ARGUMENT

I claim that the recently rehearsed attempts to explain away the *prima facie* counterexamples to Truth Conditional Compositionality are unsuccessful, and they are all unsuccessful for essentially the same reason that the reduction of the natural numbers to sets cannot succeed. Let us revisit Benacerraf's (1965) argument against such reductions. According to one proposed reduction of the natural numbers, the natural number sequence is *really* the following sequence of sets:

$$\{\emptyset\}, \{\emptyset\{\emptyset\}\}, \{\emptyset\{\emptyset\}\{\emptyset\{\emptyset\}\}\}, \{\emptyset\{\emptyset\}\{\emptyset\{\emptyset\}\}\{\emptyset\{\emptyset\}\{\emptyset\{\emptyset\}\}\}\}, \dots$$

But according to another proposed reduction, the sequence of natural numbers is really the following distinct sequence of sets:

$$\{\emptyset\}, \{\{\emptyset\}\}, \{\{\{\emptyset\}\}\}, \{\{\{\{\emptyset\}\}\}\}, \dots$$

Benacerraf argues that neither sequence of sets can be identified with the sequence of natural numbers. His argument proceeds from two key premises. First, the two proposed reductions are incompatible. For example, according to the first proposed reduction one is a member of three, but according to the second proposed reduction one is not a member of three. Since one cannot both be and not be a member of three, *both* sequences of sets cannot be the sequence of natural numbers. And second, there is nothing that could recommend one proposed reduction over the other; there is no possible evidence that would make it rational to prefer one proposal over the other. Benacerraf concludes, rightly, that neither proposed reduction is correct and thus numbers are not sets:

If numbers are sets, then they must be particular sets, for each set is some particular set. But if the number 3 is really one set rather than another, it must be possible to give some cogent reason for thinking so; for the position that this is an unknowable truth is hardly tenable. But there seems to be little to choose among the accounts. Relative to our purposes in giving an account of these matters, one will do as well as another, stylistic preferences aside. There is no way connected to the reference of number words that will allow us to choose among them, *for the accounts differ at places where there is no connection whatever between features of the accounts and our uses of the words in question*. If all the above is cogent,

then there is little to conclude except that any feature of an account that identifies 3 with a set is a superfluous one—and that therefore 3, and its fellow numbers, could not be sets at all. (1965, 62)

The same considerations that led Benacerraf to reject the reduction of natural numbers to sets compel us to reject the above attempts to rescue Truth Conditional Compositionality. In what follows I will demonstrate how Benacerraf's argument refutes Stanley's pragmatic ellipsis analysis of nonsentential assertions and Ludlow's hidden indexical analysis of comparative adjectives. I intend my examination of these cases to illustrate that any analysis utilizing either the pragmatic ellipsis substrategy or the hidden indexical substrategy will fall to Benacerraf's argument.

Consider again Stanley's proposed pragmatic ellipsis analysis of nonsentential assertions. According to the pragmatic ellipsis analysis, Ben's assertion making utterance of

(6) A world famous topologist

is elliptical for

(6\*) **She is** a world famous topologist

even though there is no appropriate linguistic antecedent such as "Who is she?" present in the context. The problem is that there are equally plausible candidates for what the elided material could be other than 'She is'. Here are three plausible alternatives:

- i. *That woman*
- ii. *That person*
- iii. *The loud mathematician*

First, these candidate-unrealized lexical items are incompatible; only one of them can appear as the phonetically unrealized noun phrase in the LF for a felicitous and assertion-making utterance of (6). But, second, there is no possible evidence that would recommend one candidate over the other. In many contexts the speaker will have no discernible intentions discriminating enough to recommend one candidate over the other, and neither will there be salient features of the context that recommend one over the other. But these are the only kinds of admissible evidence; any other facts to which one might appeal to support one candidate over the others is, to use Benacerraf's term, *superfluous*. So Benacerraf's reasoning compels us to deny that any phrase such as (i), (ii), or (iii) occurs phonetically unrealized in the LF for an assertion making utterance

of (6).<sup>16</sup> Therefore, Stanley's proposed analysis fails, and we must conclude that nonsentential assertions such as (6) constitute counterexamples to Truth Conditional Compositionality.

A defender of Truth Conditional Compositionality might respond by suggesting that the threatened indeterminacy can be resolved by appeal to *simplicity*.<sup>17</sup> Perhaps the candidate for the elided material that is to be selected is the simplest possible candidate. An obvious problem for this proposal is that it is not all clear what the notion of simplicity amounts to here. One possible dimension along which simplicity might be judged concerns the semantic content of the candidates for the elided material. Judged along this dimension, one might suppose that candidate (ii) is to be preferred over (i), (iii), and even Stanley's proposed 'she is', as its semantic content is intuitively simpler: All women and loud mathematicians are persons, but not all persons are women, nor are all persons loud mathematicians. But if this sort of simplicity is invoked, then the even less informative 'that is' is to be preferred over candidate (ii), because every person can be referred to using 'that', but not everything that can be referred to using 'that' is a person.

There are, however, serious problems with this appeal to simplicity of semantic content. First, the proposal is at odds with the generally accepted principle of communication that requires that speakers be interpreted as being maximally informative (e.g., Grice's maxim of quantity). But more importantly, there is no reason to believe that the proposal will resolve the indeterminacy. For example, 'it is' and 'that is' seem to have equally simple semantic content. One might attempt to bolster the simplicity of semantic content by invoking simplicity along another dimension; perhaps the simplest candidate is also to be judged along dimensions of *syntactic* and/or *lexical* simplicity. But then which to take precedence, simplicity of semantic content, or simplicity of syntactic structure? Stanley's 'She is' is simpler syntactically than 'That person is', but the latter seems to have simpler semantic content. Moreover, regardless of which dimension is to take precedence, there is still no reason to think that the indeterminacy can be resolved, as 'it is' and 'that is' seem to be equally simple along both dimensions. It is apparent that no intuitive and straightforward notion of simplicity will determine a unique candidate for the elided material.<sup>18</sup>

In addition, it should be noted that candidate (iii) would not suffice as a complete specification of the elided material, as it contains a quantifier phrase (an "incomplete definite description") and a comparative adjective. So, for example, Ben's utterance of (6) cannot be elliptical merely for the sentence 'The loud mathematician is a world famous topologist', for, like (6), this expression also seems to have properties (a) and (b). And thus it also constitutes a *prima facie* counterexample to Truth Conditional Compositionality. A *complete* specification of the elided material would have to specify some lexical element whose semantic value was the relevant contrast class for the comparative adjective

'loud'. And it would also have to specify some lexical items whose semantic values were the relevant quantifier domain restrictions for the quantifier phrase 'the loud mathematician'. If one were to apply the pragmatic ellipsis strategy "all the way down," one would have to avoid positing incomplete definite descriptions and comparative adjectives as phonetically unrealized elements, for these elements would themselves be in need of further analysis; one would have to "bottom out" with an analysis that posited no such problematic elements. This is reminiscent of a familiar problem with Russell's descriptive analysis of referring terms: For example, one cannot maintain that 'Plato' is *really* an abbreviation for merely 'the teacher of Aristotle', for 'Aristotle' is itself a referring term, and thus in need of further analysis. Hence Russell's doomed search for "logically proper names," i.e., expressions in no need of further analysis. The advocate of the pragmatic ellipsis substrategy is committed to a very similar, and equally implausible, search.

The defender of Truth Conditional Compositionality might object that I have failed to establish the second key premise on the grounds that discernible intentions of the speaker and salient features of the context do *not* exhaust the admissible evidence. After all, if LFs have some sort of psychological reality, and are somehow represented in people's brains, then all sorts of psychological and/or neurological facts about Ben could be brought to bear on the question of what the LF of Ben's utterance *really* was. And of course Ben need not have explicit knowledge of, or be conscious of, any of these facts.

This objection, however, confuses psychology and semantics. If LFs are instantiated in people's brains somehow, then all sorts of psychological and neurological evidence is relevant to determining what LF is instantiated in Ben's brain. But most of these psychological facts are irrelevant to the *semantics* of Ben's utterance, because semantics is concerned with communication and interpretation. Stanley and Gendler Szabo (2000, 11) assume that the task of semantics is to explain the interpretation of "typical assertions," and they maintain that such interpretation "is successful just in case the hearer can identify the proposition the speaker intends to communicate."<sup>19</sup> The model of interpretation assumed by Stanley and Gendler Szabo is paradigmatic of the model presupposed by traditional semantic theories generally. According to this model, interpretation is a two-step process whereby a hearer identifies the proposition the speaker intends to communicate, or equivalently determines the truth conditions of an assertion. In the first step the hearer uses her syntactic and phonological knowledge, together with whatever clues she can garner from the context of utterance, to determine the LF of the assertion. Stanley and Gendler Szabo (2000, 13) use the equation, "what is articulated + context = what is uttered" to describe this first step, where "what is articulated" is a "phonological sentence," and "what is uttered" is a "grammatical sentence," i.e., an LF. In the second step the hearer uses her semantic knowledge, together with whatever clues she can garner from

context, to determine the proposition expressed, or equivalently the truth conditions of the utterance. Stanley and Gendler Szabo (2000, 15) use the equation "what is uttered + linguistic meaning + context = what is said" to describe the second step, where "what is said" is the proposition expressed, or the truth conditions of the utterance.<sup>20</sup>

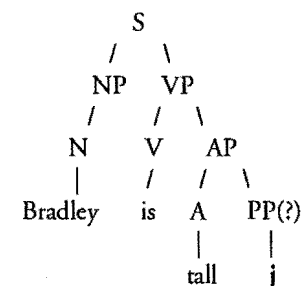
The general problem with the pragmatic ellipsis substrategy is that it renders the first step in the process of interpretation impossible. If the truth of the equation "what is articulated + context = what is uttered" is to be preserved, the hearer must be able to determine what is uttered, i.e., the LF, from discernible features of the context of utterance. So even if facts about the speaker's psychological state determine what LF is instantiated in his brain, these facts are not discernible by the hearer. Therefore such indiscernible psychological facts are irrelevant to interpretation, and so are irrelevant to the semantics of his utterance.<sup>21</sup> Again in terms of Benacerraf's argument, such indiscernible psychological facts are *superfluous*. (Consequently, if the level of syntactic representation known as LF is not in the relevant sense discernible in a context of utterance, then LF is irrelevant to semantics, where *semantics* is concerned with *interpretation* and *communication*.)

The defender of Truth Conditional Compositionality might accept the above objections against the pragmatic ellipsis substrategy yet still endorse the hidden indexical substrategy, for the hidden indexical substrategy seems well suited to avoid the problems encountered by the pragmatic ellipsis substrategy. In particular, because the hidden indexical substrategy eschews positing *familiar* phonetically unrealized elements in LFs and instead posits specially designed *unfamiliar* (i.e., never phonetically realized) context sensitive items, there is not an overabundance of candidate LFs. Consider again an utterance of

(4) Bradley is tall.

If one were to attempt to explain away this *prima facie* counterexample utilizing the pragmatic ellipsis substrategy, one would be faced with an overabundance of suitable proposals for the elided material. That is, an utterance of (4) might be elliptical for 'Bradley is tall for a middle aged American male in 2000' or it might be elliptical for 'Bradley is tall for a presidential candidate'. Thus there are many equally plausible proposals as to what the LF of the utterance is, and no reason to prefer one proposal over the others. According to Ludlow's hidden indexical analysis, however, there is only one plausible proposal as to what the LF of the utterance is, for one can maintain that it is built into the grammar that in sentences such as (4) comparative adjectives occur only with the appropriate sort of hidden indexical. So on Ludlow's hidden indexical

analysis there is only one plausible candidate for the LF of (4), and it is something like



Hence it appears that the hidden indexical substrategy is much more plausible than the pragmatic ellipsis substrategy.

This appearance, however, is illusory, for the hidden indexical substrategy succeeds only in relocating the fundamental problem. According to the model of interpretation presupposed by traditional semantic theories, successful interpretation requires that the hearer identify the proposition expressed by an utterance, and this identification proceeds by way of the two-step process described above. The problem with the pragmatic ellipsis substrategy is that it renders this first step impossible, for it allows for an overabundance of proposals concerning what the LF for an utterance is, and no means of choosing between them. But notice that on the pragmatic ellipsis substrategy, if a hearer somehow managed to succeed in taking the first step and thereby identified the correct LF, then there is nothing especially problematic precluding her from successfully completing the second step of interpretation. This because the pragmatic ellipsis strategy posits only *familiar* elements as phonetically unrealized elements, and consequently no special problem is posed regarding the assignment of semantic values to such phonetically unrealized elements. Hence the pragmatic ellipsis strategy poses no special problem for the second step of interpretation, but does so only because it renders the first step impossible.

The hidden indexical substrategy faces the complimentary problem. The hidden indexical analysis poses no special problem for the first step of interpretation, for according to it a *hearer's linguistic knowledge alone* would enable her to determine the LF of an utterance of (4); this because it is simply built into the grammar that in sentences such as (4) comparative adjectives occur only with the appropriate sort of unfamiliar hidden indexical. The problem for the hidden indexical substrategy arises for the second step of interpretation, viz., going from the LF of the utterance to identifying the proposition expressed by the utterance, or equivalently determining the truth conditions of the utterance. The

problem now is that there are too many equally plausible proposals as to what the semantic value of the hidden indexical is, and no admissible evidence that would justify a hearer in choosing one proposal over the others.

Consider Ludlow's hidden indexical analysis of an utterance of (4). According to this analysis the LF for an utterance of (4) contains a hidden indexical, *j*, that has as its semantic value the appropriate contrast class. The problem is that there is an overabundance of plausible proposals as to which contrast class is the semantic value of the hidden indexical. Here are two, among many, plausible contrast classes which might serve as the semantic value of *j* relative to a particular utterance of (4):

- (i) {*x*: *x* is a current presidential candidate}
- (ii) {*x*: *x* is a current or past presidential candidate}

Again, these candidates are *incompatible*. The sets in question are not identical, and therefore only one of them can be assigned as *the* semantic value of *j* relative to a particular utterance of (4). Moreover, there is no possible evidence that would make it rational to prefer one candidate over the other. In most circumstances a speaker who utters a perfectly felicitous utterance of (4) has no discernible intentions that would determine which, if either, of (i) or (ii) was the contrast class he *really* "tacitly referred to."<sup>22</sup> And it can simply be stipulated that there are no discernible features of the context that recommend one proposal over the other. Moreover, appeals to simplicity again cannot be invoked to decide the matter because, first, it is not at all clear what it is for one set to be simpler than another, and second, there is no reason to believe that such a notion of simplicity, even if it could be made precise, would determine a unique set. And finally, for reasons given above, indiscernible facts concerning the speaker's psychological state cannot be appealed to as evidence to support one candidate over the others; such facts are again superfluous. So we are in the same position with regard to the question of which set is the semantic value of the posited hidden indexical *j* as we are with regard to the question of which sequence of sets is the natural numbers. Hence we ought to conclude that no set is the semantic value of such a hidden indexical; there is no such unarticulated constituent. And consequently Ludlow's proposed hidden indexical analysis cannot explain context sensitivity of sentences such as (4) in keeping with Truth Conditional Compositionality. Sentences such as (4) involving comparative adjectives constitute counterexamples to this principle after all.<sup>23</sup>

The defender of Truth Conditional Compositionality might respond by pointing out that even familiar phonetically realized elements suffer from an indeterminacy of semantic value. Consider a typical utterance of 'Now it is time to go.' Precisely what span of time is to be assigned as the semantic value of the occurrence of 'now'? Is it a two-second span, a five-minute span, a ten-minute

span, or what exactly? Again, it is quite likely that the speaker has no intentions, discernible or otherwise, that would discriminate between these candidate semantic values. Or consider again a typical utterance of

- (3) Every student came to Anna's party.

Precisely what set (or intension) is to be assigned as the semantic value of the occurrence of 'student'? Is it the set of all full-time students, or does it include people who take an occasional night course? If the former, precisely what constitutes being a "full-time" student? Once again, it is likely that the speaker has no discernible intentions, nor is there anything in the context, that would provide answers to these questions, and thus there is nothing that would discriminate between a number of candidate semantic values. So, the response concludes, there is nothing especially problematic concerning the assignment of semantic values to hidden indexicals; such indeterminacy is no more problematic for the posited unfamiliar hidden indexicals than it is for familiar phonetically realized elements. And consequently such indeterminacy ought not prevent us from positing hidden indexicals to rescue Truth Conditional Compositionality.<sup>24</sup>

This response gives rise to a number of perplexing issues, but I think it is relatively clear that it fails to justify positing hidden indexicals. The responder is correct to acknowledge that the indeterminacy of semantic value is commonplace. The meanings of words and speaker's intentions, discernible or otherwise, cannot decide for every possible case whether or not the word applies to that case. (This, I think, is a major theme in Wittgenstein.) But it seems to me that the defender of Truth Conditional Compositionality cannot be so sanguine about the indeterminacy of semantic values. For far from supporting the positing of hidden indexicals, acknowledgement of how commonplace this sort of indeterminacy is seems to undermine the need for positing such hidden indexicals in the first place. If there is no precisely defined set (or intension) that is the semantic value of, e.g., 'student', then what need is there for machinery that would further constrain the (indeterminate) domain of students? Why posit machinery to fine tune that which is indeterminate? Consider again the case quantifier domain restriction involving a typical utterance of (3). One might respond to such an utterance in a number of ways. One might *accommodate* the utterance, that is, accept it as true and move on: 'Yeah, what a blast! The faculty left early, but no student left before two!' Or one might refuse to accommodate by rejecting the assertion: 'No, not *every* student was there; for example several students with nonresident status were not there'. Or, one might refuse to accommodate by requesting clarification: 'By "student" do you mean to include students with nonresident status?' If one accepts the indeterminacy of semantic value, then one can and should view this phenomenon of accommodation, or

refusal to accommodate, as discourse participants to some extent deciding and/or stipulating as they go how expressions are to be used and interpreted in their discourse. There is no reason to posit a precise and fixed proposition that is exactly what the utterance of (3) expressed when it was uttered; i.e., there is no reason to suppose that there is a precise content that can be precisely stated in other terms. But if there is no reason to posit such a precise and fixed proposition, then there is no reason to posit machinery that would explain how such a precise and fixed proposition could, in keeping with Truth Functional Compositionality, be expressed by such an utterance. So, far from justifying hidden indexicals, the appeal to the widespread phenomenon of semantic value indeterminacy undermines the need to posit such entities. These brief remarks do not resolve these perplexing issues, but they do demonstrate that the defender of Truth Conditional Compositionality cannot unproblematically appeal to the widespread phenomenon of semantic value indeterminacy in defense of the hidden indexical substrategy.

### CONCLUDING REMARKS

If we accept Benacerraf's argument against reducing numbers to sets, then we ought to reject both of the substrategies for rendering the many *prima facie* counterexamples compatible with Truth Conditional Compositionality. Moreover, we ought to accept Benacerraf's argument, and there are no other plausible strategies for rescuing the principle that will not fall to Benacerraf's argument. Therefore Truth Conditional Compositionality ought to be rejected. Rejection of the principle has obvious consequences for semantic theory. If the principle is rejected, then the traditional theoretical frameworks of Davidson and Montague must be rejected. Moreover, the traditional Gricean distinction between semantics and pragmatics breaks down. That is, if the domain of semantics is truth conditions and "what is said," then semantics cannot be concerned only with LFs and the semantic values of terminal nodes of LFs; rather the domain of semantics must be expanded to include features of utterances and discourses that were relegated to pragmatics under Grice's way of drawing the distinction. It does not follow that Frege's fundamental insight that the meaning of an utterance is a *function* of the logical structure of the sentence uttered together with antecedently given information; Frege's fundamental insight that determining meaning is a matter of computing functions need not be rejected. What does follow is that the truth conditions of an utterance cannot be a function of *only* the logical structure of *the utterance itself*, and the meanings of the words and semantically relevant features of *the utterance itself*. It is still eminently plausible that the meaning of an utterance is a function of logical structure, the meanings of the words and semantically relevant features of the utterance, and *other relevant information provided by the context of utterance*. Such other information might include more global discourse properties such as *topic* and *focus*, as well as the previous utter-

ances of the discourse and their structure. Many of the projects and proposals of truth conditional pragmatics, including the project of Discourse Representation Theory, attempt to formally model and thereby explain how such *extrasentential* information contributes to the meaning of an utterance.

### NOTES

This chapter benefited as a result of comments and criticism from Andrew Botterell, Jason Stanley, Robert Stainton, Michael Glanzberg, Mark Richard, Michael O'Rourke, and those who attended the session at the 2000 INPC where an earlier version was read.

1. Heim and Kratzer 1998 and Larson and Segal 1995 are excellent texts introducing semantic theory within the traditional framework.
2. Kamp and Reyle (1993), Recanati (1996), Bach (1994), Carston (1991), Sperber and Wilson (1986), and Travis (1885) are good examples of theorists developing dynamic semantics and/or truth conditional pragmatics.
3. I will here give a simple extensional semantics, but my remarks apply *mutatis mutandis* to intensional, Montague inspired, semantic theories as well. The simple theory fragment is inspired by the semantic theory developed in Heim and Kratzer 1998.
4. Similar remarks apply to sentences containing demonstratives such as 'this' and 'that', even though such demonstratives do not seem to have anything like a *character*.
5. I here ignore other obvious ways in which (3) is context sensitive: tense, the referents of 'Anna' and 'Anna's party'.
6. The problem posed by quantifier domain restrictions was, I believe, first invoked by Strawson (1950) as an objection to Russell's quantificational analysis of definite descriptions.
7. The problem posed by comparative adjectives is discussed by Bach (1994).
8. Bach 1997 contains a cogent discussion of the problem attitude ascriptions pose for the traditional semantic framework.
9. Stainton's work on nonsentential assertion builds upon Barton 1990. Moreover, an anonymous referee informed me that some of Barton's criticisms of elliptical analyses of nonsentential assertions are similar to my objection against Stanley's pragmatic ellipsis strategy. See Barton 1990, chapter 2.
10. These two substrategies do not exhaust the possible ways of rescuing Truth Conditional Compositionality. Another strategy would be to claim that, despite appearances, one of the phonetically realized elements of a *prima facie* counterexample is actually context sensitive. Richard (1990) applies this strategy to *prima facie* counterexamples involving attitude ascriptions; Richard claims that, despite appearances, propositional attitude verbs are really context sensitive. And Heim and Kratzer (1998) suggest applying this strategy to *prima facie* counterexamples involving comparative adjectives. Heim and Kratzer (1998, 71) suggest that the lexical rule for 'small' could be

$$SV(\text{small}) = \lambda x \in D_e.$$

*x*'s size is below *c*, where *c* is the size standard made salient by the utterance context.

The effect of this lexical entry is to make the semantic value of 'small' vary from context to context. I do not consider these other substrategies here for they run afoul of the same sorts of difficulties as does the "hidden indexical" substrategy.

11. Actually, Stanley and Gendler Szabo's proposal is more complicated, and much less plausible, than this. For reasons that go beyond the scope of this paper, they suggest that the second member of the ordered pair consists of a combination of an indexical  $f()$  that has as its semantic value, relative to a context, a function from individuals to sets (or properties), and an indexical  $i$  that has as its semantic value, relative to a context, an individual. The set that is determined by applying the function "provided by context" (?) to the individual provided by context serves to further restrict the domain of quantification. Not surprisingly, Stanley and Gendler Szabo are wholly silent as to how such functions might be provided by context.



12. Ludlow defends a more sophisticated analysis for cases in which the subject NP is headed by a noun whose semantic value would serve as an appropriate contrast class. For example, on Ludlow's analysis, "That man is tall" is true iff that *man* is tall for a *man*. Generally, on Ludlow's analysis a sentence of the form "That N is A<sub>C</sub>", where N is a noun and A<sub>C</sub> is a comparative adjective, is true iff that N is A<sub>C</sub> for an N. (Please forgive the use/mention sloppiness here.) This analysis cannot be correct, however, as it clearly fails in many, if not most, contexts in which comparative adjectives are used. Suppose I am trying to break the ice on my pond, and I say "I need something hard to break the ice." John, picking up a large rock, replies, "This rock is hard." Clearly John has not said that this rock is hard for a rock. In fact, Ludlow's analysis seems to hold only in very minimal contexts in which it is not all clear why one might be uttering a sentence of the form 'that N is A<sub>C</sub>'.
13. I say "one way" because Crimmins (1992) does not commit himself to the existence of a phonetically unrealized element at LF. In my view his analysis is wholly unmotivated if he does not make this commitment. If the purpose of the "unarticulated constituent" analysis is not to preserve (at least something like) the Truth Conditional Compositionality, then what is the purpose? Why posit "modes of presentation" ("notions," "ideas," whatever) as semantic values at all?
14. The phonetically unrealized elements *n*<sub>2</sub> and *n*<sub>3</sub> are needed to explain opacity allegedly arising as a result of there being various modes of presentation (ideas or notions) of baking and the cookies, respectively.
15. An anonymous referee suggested to me that the context sensitivity of (5) could be accounted for by a sort of structural ambiguity. That is, one could maintain that some ("de re") utterances of (5) have an LF that more closely resembles
- (5\*) Jerry believes of Marie that she baked the cookies
- while other ("de dicto") utterances of (5) have an LF that more closely resembles the phonetic form of (5). Thus the context sensitivity of (5) is likened to the structural ambiguity of, e.g., 'Flying planes can be dangerous.' Moreover, this "structural ambiguity" proposal has little in common with either of the two substrategies considered in this paper, and consequently it will not fall to the objections presented against these substrategies. So, with regard to the problem posed by attitude ascriptions there is an alternative strategy of response available to the defender of traditional semantics.
16. This point was made by Howard Wettstein (1981) with regard to an elliptical analysis of "incomplete" definite descriptions, a special case of quantifier domain restriction. Definite descriptions such as 'the murderer' are incomplete, because there is, unfortunately, not a unique murderer in the universe. But Wettstein points out that concerning such incomplete definite descriptions
- there will be any number of ways to fill out the description so as to yield a [complete] Russellian description (e.g., 'Harry Smith's murderer', 'the murderer of Joan Smith's husband', 'the murderer of the junior senator from New Jersey in 1975') and in many cases there will be nothing about the circumstances of utterance or the intentions of the speaker which would indicate that any of these [complete] Russellian descriptions is the correct one. (1981, 250-51)
17. This response was suggested by an anonymous referee.
18. An anonymous referee suggested that evidence in support of Stanley's proposal is provided by the fact that after Ben's utterance of (6), Melia might felicitously utter
- (6a) No, She's not. She's a world famous topologically challenged linguist.
- The suggestion is that the occurrences of 'she' in (6a) must be anaphoric on a previous phonetically unrealized occurrence of 'she'. In my view the alleged phenomenon of intersentential anaphora involving phonetically unrealized items is mysterious enough that little weight should be placed on such evidence. But if such evidence is to be considered, the fact that (6a) would be a felicitous utterance all by itself provides no evidence in support of Stanley's proposal. For note that all of the following would also be felicitous utterances:

- (6b) No, he's not. He's a world famous topologically challenged linguist.  
 (6c) No it's not. It's a world famous topologically challenged linguist.  
 (6c) *That woman is not a world famous topologist! She's a poser!*  
 (6d) *That person is not a world famous topologist! He's a poser!*  
 (6e) No way. Just another mathematician who talks too loudly.

Moreover, note that the following would be *infelicitous* following Ben's utterance of (6), though it seems that they would be felicitous if 'She is' were present, but phonetically unrealized, in Ben's utterance:

- (6f) Actually, it's a "hc," not a "shc."  
 (6g) Are you sure that's a "she"?  
 (6h) Oh! I thought that was a man!

19. Stanley and Gendler Szabo (2000, 11) define *typical assertions* as follows: "In typical assertions (i) there is a single speaker and a single hearer, (ii) the speaker vocalizes a well-formed, meaningful sentence, and by doing so (iii) the speaker intends to convey a certain proposition."
20. Though Stanley and Gendler Szabo clearly endorse the two-step model of interpretation, they are quick to point out that in practice "interpretation may not be a linear progression from the sentence articulated [i.e., the phonological sentence] through the sentence uttered [i.e., the LF] to the proposition expressed to the proposition communicated" (2000, 17). That is, actual interpretation may involve a complex process of going back and forth over the two steps.
21. Stanley and Gendler Szabo (2000) distinguish between "the foundational problem of context dependence" and the "descriptive problem of context dependence." The descriptive problem of context dependence is solved by determining *what* role context plays in determining the truth conditions of utterances. Hence, solving the descriptive problem is a matter of teasing out the roles played by syntax, linguistic meaning, and context. The foundational problem, on the other hand, concerns *how* context manages to play the role so described. Hence another way of putting my objection to the pragmatic ellipsis substrategy is that it renders the foundational problem unsolvable.
22. Schiffer (1992) raises essentially this problem, which he calls the "meaning-intention problem," for a hidden indexical analysis of attitude ascriptions.
23. One might attempt to avoid these difficulties with the hidden indexical analysis by invoking some sort of *superevaluation* procedure to determine the semantic value of *j*. One might suggest, for example, that the actual semantic value of *j* is the intersection of all the sets that are plausible candidates to serve as the relevant contrast class. Such superevaluation procedures, however, only relocate the problem. For such procedures presuppose a determinate class of sets over which the superevaluation procedure is to be performed. The problem now is that there are many equally plausible, yet incompatible, candidates to serve as this class, and no admissible evidence that would support one over the others.
24. This response, or something like it, has been offered by both Mark Richard and Herman Cappelen.

## REFERENCES

- Bach, K. 1994. "Conversational Implicature." *Mind & Language* 9: 124-62.  
 ———. 1997. "Do Belief Reports Report Beliefs?" *Pacific Philosophical Quarterly* 78: 215-41.  
 Benacerraf, P. 1965. "What Numbers Could Not Be." *Philosophical Review* 74: 47-73.  
 Barton, E. 1990. *Nonsentential Constituents*. Philadelphia: John Benjamins.  
 Carston, R. 1991. "Implicature, Expliciture, and Truth-Theoretic Semantics." In Stephen Davis (ed.), *Pragmatics*. Oxford: Oxford University Press.  
 Crimmins, M. 1992. *Talk About Beliefs*. Cambridge, Mass.: MIT Press.  
 Heim, I., and A. Kratzer. 1998. *Semantics in Generative Grammar*. Oxford: Blackwell Publishers.  
 Kamp, H., and U. Reyle. 1993. *From Discourse to Logic*. Dordrecht: Kluwer Academic Publishers.  
 Larson, R. and G. Segal. 1995. *Knowledge of Meaning*. Cambridge, Mass.: MIT Press.



- Ludlow, P. 1989. "Implicit Comparison Classes." *Linguistics and Philosophy* 12: 519-33.
- Neale, S. 1990. *Descriptions*. Cambridge, Mass.: MIT Press.
- Recanati, F. 1996. "Domains of Discourse." *Linguistics and Philosophy* 19: 445-75.
- Richard, M. 1990. *Propositional Attitudes: An Essay on Thoughts and How We Ascribe Them*. Cambridge: Cambridge University Press.
- Schiffer, S. 1992. "Belief Ascription." *Journal of Philosophy* 89: 499-521.
- Sellars, W. 1954. "Presupposing." *Philosophical Review* 63: 197-215.
- Sperber, D., and D. Wilson. 1986. *Relevance*. Cambridge, Mass.: Harvard University Press.
- Stainton, R. 1995. "Non-Sentential Assertions and Semantic Ellipsis." *Linguistics and Philosophy* 18, 281-96.
- . 1994. "Using Non-Sentences: An Application of Relevance Theory." *Pragmatics and Cognition* 2: 269-84.
- Stanley, J. 2000. "Context and Logical Form." *Linguistics and Philosophy*, 23: 391-434.
- Stanley, J., and Z. Gendler Szabo. 2000. "Quantifier Domain Restriction." *Mind & Language* 15, no. 283.
- Strawson, P. 1950. "On Referring." *Mind* 59: 320-44.
- Travis, C. 1985. "On What is Strictly Speaking True." *Canadian Journal of Philosophy* 15: 187-229.
- Wettstein, H. 1981. "Demonstrative Reference and Definite Descriptions." *Philosophical Studies* 40: 241-57.

## CHAPTER 14

# Generalized Conversational Implicatures and Default Pragmatic Inferences

Anne Bezuidenhout  
University of South Carolina

## INTRODUCTION

GRICE DISTINGUISHED BETWEEN generalized and particularized conversational implicatures. The latter are "cases in which an implicature is carried by saying that  $p$  on a particular occasion in virtue of special features of the context". The former are cases in which the "use of a certain form of words . . . would normally (in the absence of special circumstances) carry such-and-such an implicature or type of implicature." (Grice 1989, 37). Grice himself did not develop this distinction to any great extent. He gave a few examples meant to illustrate the distinction he had in mind. He never indicated that he thought generalized conversational implicatures occupied a separate level, between the level occupied by conventionalized meaning on the one hand and the level occupied by the one-off speaker meanings that correspond to the particularized variety of conversational implicatures on the other. However, some neo-Griceans, especially Levinson (1987b, 1995, 2000), have recently been developing a theory of generalized conversational implicatures (GCIs). Levinson proposes to treat GCIs as (the output of?) "default pragmatic inferences which may be cancelled by specific assumptions, but otherwise go through." (Levinson 1987a, 723). He has been developing a set of heuristics or default inference rules that he says are used to generate GCIs. These default inferences yield interpretations that represent a level of meaning that he calls utterance-type meaning, which is intermediate between sentence-type meaning and speaker meaning.

In this chapter I argue against the idea of a set of default inference rules that are attached to certain classes of expressions. An account of utterance interpretation that appeals to cognitive strategies that are independent of particular ut-