

Preface

What are the varieties of meaning? And what do they have in common, so as to be treated together under one cover?

People mean to do various things. Body organs are meant to do various things. Tools and other artifacts are meant for various things. Conventional signs such as words and sentences mean various things. People mean various things by using words and sentences, and they don't always mean the same things that the words or sentences mean. Natural signs mean things. Contemporary psychologists and neurologists claim that there are representations in people's brains. Presumably these also mean things. What is in common among the various things that are said to mean things? Nothing, I think. Yet the story of how these various phenomena are related to one another, how they cross and overlap such that the term "meaning" moves freely among them, is deeply interesting. Indeed, none of these kinds of meaning can be thoroughly understood, I believe, without grasping its relation to the others.

In one basic sense, what something means, or is meant for, or is meant to do has to do with its purpose. What a sign means, however, is not usually described as its purpose, but rather as what it represents or signifies. What does meaning in the sense of purposing have to do with meaning in the sense of representing or signifying? According to the *Oxford English Dictionary*, all three of the following senses of the verb *to mean* go back as far as can be traced: *to have in mind*, *to intend*, *to signify*. The original connection seems to be that intention or purpose is what one has in mind as one acts, whereas signification is what one has in mind as one speaks. What one has in mind as one speaks is what it is one's purpose to represent or signify. But there are other places where purpose and signification intersect as well.

The paradigms of purpose are explicit human intentions. I will argue that these intentions are represented purposes. This does not mean

merely that they represent purposes. They possess the purposes that they represent. They are self-representing purposes. The paradigms of things that signify are intentional signs such as sentences. These are distinguished from natural signs by their capacity to misrepresent or be false. (For example, black clouds can be a natural sign of rain, but they don't mean rain unless it actually rains. They cannot be false.) Intentional signs, I will argue, have purposes essentially. The reason they can be false is that they have purposes, and purposes can always fail to be fulfilled. This is true of all conventional signs, of all signs by which animals communicate, and of all inner representations such as perceptions and thoughts.¹

I begin in Part I by discussing what purposes are, the purposes of people, of their behaviors, of their body parts, of their artifacts, and of the signs they use. Then I begin again at right angles in Part II, describing a variety of natural signs that I call "locally recurrent" natural signs.² These are more user-friendly than those that convey "natural information" in the sense of Dretske (1981). I discuss similarities between locally recurrent signs and natural language signs, for local signs are intrinsically "productive" and admit of embedding. Moreover, they can represent individuals, which natural signs have not previously been thought to do. I then introduce several varieties of intentional signs and describe their relations both to natural signs and to purposes. Part II ends with a discussion of how representations themselves sometimes get represented, and hence how the phenomenon of intensionality (with an "s") emerges.

Part III concerns important continuities between the ways local natural signs and public language signs are read and understood. Perception involves the interpretation of local natural signs, and interpreting conventional language signs is surprisingly like perception. The result is quite a different interpretation of the relation between semantics and pragmatics than has been traditional.

Part IV speculates about stages in the development of inner representations, from the most primitive kinds in the simplest organisms up to the perceptions and intentional attitudes of humans. The most primitive representations are what I term "pushmi-pullyus." Their functions

1. Notice that I do not say that the purpose of an intentional sign is to represent. That formulation muddles together a number of issues that need to be carefully separated. See chapter 5 below.

2. In (Millikan 2000), appendix B, I called these signs, or an earlier version of them, "soft natural signs."

are undifferentiated between description and direction. The problem is how and why any more specialized signs should ever have evolved, and ultimately, what in humans is the value of subject-predicate judgment and the peculiar ability to think negative thoughts. Sophisticated biological mechanisms are often built on top of more primitive ones, riding piggyback, as it were; nor is their higher authority always secure. For this reason, speculation about the evolution of increasingly differentiated forms of behavior control in animals is directly relevant to understanding the complexities of human behavior.

The book is written so that those more interested in thought than language can safely skip Part III, and those more interested in language than perception and thought can safely skip part IV.

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