

On Clear and Confused Ideas  
An Essay about Substance Concepts

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When my mother was three, her father came home one evening without his beard and she insisted he was Uncle Albert, my grandfather's younger and beardless brother. She thought he was, as usual, being a terrible tease, and she cried when he didn't admit his real identity. Only when he pulled out her daddy's silver pocket watch with its distinctive and beloved pop-up cover was she willing to be corrected. But just who was it that she had been thinking was being so mean, this man (her daddy) or Uncle Albert? This is what I mean by a confused idea.

I have an old letter from Yale's alumni association inquiring whether I, Mrs. Donald P. Shankweiler, knew of the whereabouts of their "alumnus" Ruth Garrett Millikan. This seemed a sensible question, I suppose, as according to their records we lived at the same address. Since I lived with myself, perhaps I knew where I was? By not owning up I evaded solicitations from Yale's alumni fund for a good many years.

More often, confusions about the identities of things are disruptive rather than amusing. It is fortunate that we generally manage recognition tasks so well, and our ability to do so deserves careful study. I will argue in this book that the most central job

of cognition is the exceedingly difficult task of reidentifying individuals, properties, kinds, and so forth, through diverse media and under diverse conditions.

Traditionally, failure to manage this task well has been assimilated to making false judgments or having false beliefs. In the Fregean tradition, judgments or beliefs employing different modes of presentation: judging that this man is Uncle Albert; assuming that Mrs. Donald P. Shankweiler is not Ruth Garrett Millikan. On the contrary, I will argue, this sort of failure causes confusion in concepts, which is something quite different, and at the limit causes inability to think at all. It results in corruption of the inner representational system, which comes to represent equivocally, or redundantly, or to represent nothing at all.

The very first duty of any cognitive system is to see to the integrity of its own mental semantics. This involves correctly recognizing sameness of content in various natural signs encountered by the sensory systems, these sources of incoming information being what determines conceptual content for basic empirical concepts. For animals with any sophistication, it also involves the continuing development of new empirical concepts, and the enrichment and sharpening, by training and tuning, of those already possessed, to attain greater variety and accuracy in methods of reidentification.

This book concerns only one kind of empirical concepts, but these are much the most fundamental. Echoing Aristotle, I call them concepts of "substances." The book is about what substance concepts are, what their function is, how they perform it, what ontological structures support them, how they are acquired, how their extensions are determined, how they are connected with words for substances, what epistemological

considerations confirm their adequacy, and how they have been misunderstood in the philosophical and psychological traditions. Having a substance concept is having a certain kind of ability—in part, an ability to reidentify a substance correctly—and the nature of abilities themselves is a fundamental but neglected subject requiring attention. If it's not an act of judgment, what it is to reidentify a thing also needs to be addressed. Reidentifying is not analogous to uttering a mental identity sentence containing two descriptions or terms referring to the same. Indeed, careful examination of this act undermines the notion that there even exist modes of presentation in thought. So an understanding must be reconstructed of the phenomena that have made it seem that there were.

The whole discussion will be placed in an evolutionary frame, where human cognition is assumed to be an outgrowth of more primitive forms of mentality, and assumed to have "functions." That is, the mechanisms responsible for our capacities for cognition are assumed to be biological adaptations, evolved through a process of natural selection.<sup>1</sup> Very many of the claims and arguments of the book can stand apart from this assumption, but not all.

This naturalist perspective has a methodological implication that should be kept constantly in mind. If we are dealing with biological phenomena, then we are working in an area where the natural divisions are divisions only de facto and are often irremediably vague. These divisions do not apply across possible worlds; they are not determined by necessary and/or sufficient conditions. If you were to propose to pair a set of dog

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<sup>1</sup> This framework for the study of human cognition is defended in (Millikan 1984; 1993 Chapter 2, in press b, as well as in Chapter Fifteen and Appendix B below.

chromosomes with a set of coyote chromosomes and then swap every other gene, you would not find any biologist prepared to debate what species concept to apply to the (in this case, really possible) resulting pups. Biological theories begin with normal cases, or paradigm cases of central phenomena, and work out from there only when needed to systematize further existing phenomena. Similarly, I will be concerned to describe substance concepts as they normally function, how their extensions are normally determined, the sorts of ontological structures to which they paradigmatically correspond, and so forth. But I will show no interest, for example, in what a person might be "credited with" referring to, or thinking of, or having a concept of, and so forth, in possible-worlds cases, or even in queer actual cases. Such questions rest, I believe, on false assumptions about the kind of phenomena that reference and conception are and tend to be philosophically destructive. The thesis and argument of this book itself are, of course, calculated to support this opinion.

Help from friends with the contents of individual chapters is acknowledged in footnotes. Some parts of chapters 1 through 6 and 12 are revised from "A common structure for concepts of individuals, stuffs, and basic kinds: More mama, more milk and more mouse" (Millikan 1998a) and "With enemies like this I don't need friends: Author's response" (Millikan 1998b), in Behavioral and Brain Sciences, with the kind permission of Cambridge University Press. Some portions of other chapters have also been taken from earlier papers. In a few cases, also the chapter titles. These sources are acknowledged in footnotes. My main debt of gratitude, however, is for the warmhearted personal support I have consistently received from my colleagues at the University of Connecticut,

recently also from the higher administration at Connecticut, always from my department chairman, and from graduate students both at home and abroad. To tell it truthfully, I have been quite thoroughly coddled and spoiled. At best this book may match some small portion of that debt.