# Contents

## Part IV. An Outline of a Foundation for Logic

# 1

# Epistemic Friction and Freedom

My starting point is the observation that every rational act involves both *freedom* and *constraint*: freedom to act and set rational standards for our actions, and constraints imposed by our environment on the one hand and our standards of rationality on the other. The development of a system of knowledge—a body of disciplines and theories[1] seeking knowledge of various aspects of the world (in a broad sense of the word)—is also a rational enterprise, and as such it, too, requires both freedom and constraint. Freedom, here, is freedom to actively engage in epistemic pursuits: set up our epistemic goals, choose the subject matter of our investigations, ask questions, select and apply epistemic norms, design research programs, construct epistemic tools, do experiments, make calculations, draw conclusions, devise strategies, make practical and theoretical decisions, etc. And constraint is constraint coming from two sources, the world and the mind. The world as the object or target of our theories restricts what we can truly say about it, and the mind restricts our theories both voluntarily and involuntarily: voluntarily, through our chosen goals, standards, and decisions, and involuntarily, through our makeup and built-in limitations. We may say that neither freedom without constraint nor constraint without freedom can give rise to knowledge. Freedom alone cannot distinguish knowledge from phantasm; constraint by itself would leave us cognitively inert.

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[1] Two terminological notes:

(i) *System of Knowledge*: Throughout this essay I use the notion of *system of knowledge* as a partially idealized notion indicating the collection of disciplines that constitute our integrated body of theoretical knowledge.

(ii) *Theory*: I use the notion of *theory* in a broad, everyday sense. (For example, I do not limit "theory" to "axiomatic theory".) In addition, I sometimes use "model" (as in "model of knowledge") as synonymous to "theory" ("theory of knowledge"), and I do not draw a sharp distinction between a theory and its parts (e.g., the present essay develops both a *single* theory of knowledge, truth, and logic, and *three* interconnected theories, each devoted to one of these topics).