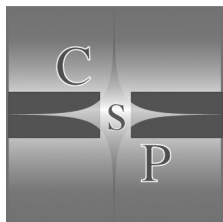


The Future of Post-Human Formal Science

The Future of
Post-Human Formal Science
A Preface to a New Theory
of Abstraction and Application

By
Peter Baofu



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To Those in the Future World Beyond Formal Thinking

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FOREWORD

For Dr. Peter Baofu, the more formidable the subject matter is, the more it attracts his attention. In this book he addresses the topic of Formal Science for systems theory and a host of similar theoretical formulations that have gained prominence in the past decades.

Applying rigorous critical techniques, he investigates what we have come to understand as Formal Science and posits a new approach that may lead future investigators in a new direction.

To those future investigators who will find inspiration in this book to accept the baton for the next leg of research, we extend our encouragement and our continued admiration for responding to a most worthwhile cause.

Sylvan Von Burg
School of Business
George Washington University

ACKNOWLEDGMENTS

This book, like all numerous previous books of mine, is written to challenge conventional wisdom—this time about formal science here—and in the process to offer a new theory to understand its future.

Because of this political incorrectness, this book receives no external funding nor help from any formal organization or institution, as this is something that I emphasized in my previous books too.

My only reward is that joyful feeling to discover new ideas not conceived before in history.

In addition, I greatly appreciate the foreword by Sylvan von Burg at George Washington University School of Business.

In any event, and as always, I bear the sole responsibility for the ideas presented in this book.

ABBREVIATIONS

- ALD = Peter Baofu. 2007. *The Rise of Authoritarian Liberal Democracy: A Preface to a New Theory of Comparative Political Systems*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- BCIV = Peter Baofu. 2006. *Beyond Civilization to Post-Civilization: Conceiving a Better Model of Life Settlement to Supersede Civilization*. NY: Peter Lang Publishing, Inc.
- BCPC = Peter Baofu. 2005. *Beyond Capitalism to Post-Capitalism: Conceiving a Better Model of Wealth Acquisition to Supersede Capitalism*. NY: The Edwin Mellen Press.
- BDPD1 = Peter Baofu. 2004. Volume 1. *Beyond Democracy to Post-Democracy: Conceiving a Better Model of Governance to Supersede Democracy*. NY: The Edwin Mellen Press.
- BDPD2 = Peter Baofu. 2004. Volume 2. *Beyond Democracy to Post-Democracy: Conceiving a Better Model of Governance to Supersede Democracy*. NY: The Edwin Mellen Press.
- BNN = Peter Baofu. 2006. *Beyond Nature and Nurture: Conceiving a Better Way to Understand Genes and Memes*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- BWT = Peter Baofu. 2007. *Beyond the World of Titans, and the Renaking of World Order: A Preface to a New Logic of Empire-Building*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FAE = Peter Baofu. 2007. *The Future of Aesthetic Experience: Conceiving a Better Way to Understand Beauty, Ugliness and the Rest*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FC = Peter Baofu. 2007. *The Future of Complexity: Conceiving a Better Way to Understand Order and Chaos*. London, United Kingdom: World Scientific Publishing Co.
- FCD = Peter Baofu. 2002. *The Future of Capitalism and Democracy*. MD: The University Press of America.

- FHC1 = Peter Baofu. 2000. Volume 1. *The Future of Human Civilization*. NY: The Edwin Mellen Press.
- FHC2 = Peter Baofu. 2000. Volume 2. *The Future of Human Civilization*. NY: The Edwin Mellen Press.
- FIA = Peter Baofu. 2008. *The Future of Information Architecture: Conceiving a Better Way to Understand Taxonomy, Network, and Intelligence*. Oxford, England: Chandos Publishing (Oxford) Limited.
- FPHC = Peter Baofu. 2004. *The Future of Post-Human Consciousness*. NY: The Edwin Mellen Press.
- FPHCT = Peter Baofu. 2009. *The Future of Post-Human Creative Thinking: A Preface to a New Theory of Invention and Innovation*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHE = Peter Baofu. 2009. *The Future of Post-Human Engineering: A Preface to a New Theory of Technology*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHFS = Peter Baofu. 2010. *The Future of Post-Human Formal Science: A Preface to a New Theory of Abstraction and Application*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHG = Peter Baofu. 2009. *The Future of Post-Human Geometry: A Preface to a New Theory of Infinity, Symmetry, and Dimensionality*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHK = Peter Baofu. 2008. *The Future of Post-Human Knowledge: A Preface to a New Theory of Methodology and Ontology*. Oxford, England: Chandos Publishing (Oxford) Limited.
- FPHL = Peter Baofu. 2009. *The Future of Post-Human Language: A Preface to a New Theory of Structure, Context, and Learning*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHLAW = Peter Baofu. 2010. *The Future of Post-Human Law: A Preface to a New Theory of Necessity, Contingency, and Justice*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHMA = Peter Baofu. 2009. *The Future of Post-Human Martial Arts: A Preface to a New Theory of the Body and Spirit of Warriors*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHML = Peter Baofu. 2008. *The Future of Post-Human Mathematical Logic: A Preface to a New Theory of Rationality*. Cambridge, England: Cambridge Scholars Publishing, Ltd.

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- FPHMM = Peter Baofu. 2009. *The Future of Post-Human Mass Media: A Preface to a New Theory of Technology*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHO = Peter Baofu. 2009. *The Future of Post-Human Organization: A Preface to a New Theory of Communication, Decision-Making, and Leadership*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHS = Peter Baofu. 2010. *The Future of Post-Human Sexuality: A Preface to a New Theory of the Body and Spirit of Love-Makers*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHST = Peter Baofu. 2006. *The Future of Post-Human Space-Time: Conceiving a Better Way to Understand Space and Time*. New York: Peter Lang Publishing, Inc.
- FPHU = Peter Baofu. 2008. *The Future of Post-Human Unconsciousness: A Preface to a New Theory of Anomalous Experience*. Cambridge, England: Cambridge Scholars Publishing, Ltd.
- FPHUP = Peter Baofu. 2009. *The Future of Post-Human Urban Planning: A Preface to a New Theory of Density, Void, and Sustainability*. Cambridge, England: Cambridge Scholars Publishing, Ltd.

• PART ONE •

Introduction

CHAPTER 1

INTRODUCTION—THE SPREAD OF FORMAL SCIENCE

[N]umber is the ruler of forms and ideas and the cause of gods and demons.

—Pythagoras (WK 2009)

The Addiction to Practical Convenience

What exactly is so appealing in formal science, such that its influence can be seen in numerous disciplines nowadays, for practical purposes like better functionality, performance, and so on—as Pythagoras already famously said in antiquity: “Number is the ruler of forms and ideas, and the cause of gods and demons”?

This contemporary addiction to practical convenience in formal science has turned a blind eye to its other side, which has impoverished both our knowledge of reality and the well being of our lifeworld.

Contrary to conventional wisdom, the other side of this appealing addiction has yet to be comprehensively understood and that its practical convenience is neither possible nor desirable to the extent that the proponents of formal science would like us to believe.

Needless to say, this by no means suggests that formal science should not be used for practical purposes, or that the literature in formal science (and other related fields like “computer science, information theory, decision theory, statistics, and linguistics,” just to cite a few of them) should be dismissed. (WK 2009) Of course, neither of these two extreme views is reasonable either.

Instead, this book provides an alternative (better) way to understand the nature of formal science, especially in relation to systems theory on abstraction and application—while learning from different approaches in

the literature but without favoring any one of them (nor integrating them, since they are not necessarily compatible with each other).

In the end, this book offers a new theory to transcend the existing approaches in the literature in a new direction not thought of before.

This seminal project is to fundamentally alter the way that we think about formal science, from the combined perspectives of the mind, nature, society, and culture, with enormous implications for the human future and what I originally called its “post-human” fate.

The Confusion between Science and Formal Science

At the outset, however, it is important to make a distinction between the term “science” (be it natural or social) and another related one known as “formal science”—as explicated below, in that order.

Science (Natural or Social)

On the one hand, the term “science,” especially since modern times, often refers to “the discipline using scientific method which bases on observation and empirical study.” (WK 2009)

Science can be about nature (as in the natural sciences like biology, physics, chemistry, and so on) and society (as in the social sciences like sociology, economics, organizational studies, and the like).

In natural science, for instance, the scientific method “starts from observation of the real world and leads to more or less useful models for an empirical part of reality.” (WK 2009)

In this empirical tradition, if a scientific model does not correctly match reality, one should not blame reality but the model in question. A scientific model is like a map, and “[i]f the map and the reality do not fit, it is the map which is wrong, not the reality. A map is a theoretical representation (model) of reality.” (WK 2009)

Formal Science

On the other hand, the term “formal science” has a different meaning, in that, in a conventional definition, it refers to “a branch of knowledge that is concerned with formal systems, for instance, logic, mathematics, [and] systems theory.” (WK 2009)