On the Contexts of Things Human

An Integrative View of Brain, Consciousness, and Freedom of Will
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for

Sam, Clinton, Felicia, Jon,
Ronnie, and Terri (1962–2000)
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Foreword

It is sometimes necessary, though difficult, to put oneself outside a personal orientation, regional culture, belief system, or academic field in order to better grasp its foundations, nature, outer margins, place, and shareable worth. This is the case, for example, when there is uncertainty or incompleteness in the foundations or substantive core of things at hand, in overall structural cohesion, or in corresponding sense of direction, or if there are gaps or disjointedness in its relations with other highly related or interested groups and areas. The suspicion that this has been the case for our scientific view of the brain prompted me some ten years ago to initiate this study of the foundations and wider contexts of this problem area. The overall cogency of first principles eventually adopted here and the wide scope of harmonious integrative understanding which follows in their wake seem to me the vindication of these suspicions.

This book has been some thirty years in gestation in addition to this last decade of hard labor. Blaise Pascal apologized for one his philosophical letters in Les Provinciales (ca 1657) that he hadn’t time to make it shorter. Unlike Pascal, I have taken the time to make this work shorter. I have sought succinct essential statements of many complex conceptions. I believe the work is both sufficiently full and clear so as to be widely accessible despite its relation to rather complex and often difficult subject matter. An outline summary of the first section of the work and chapter seven are published in the Journal of Integrative Neuroscience, 2002 and 2004.

Integrative neuroscience is a recently coalesced field which merges theory from all of the brain sciences with a view to the deeper perspectives required by the full range and nature of the brain. This field encompasses the requirements of physical-biological foundations, expansive inclusiveness of scope across biological and psychological
variables, multi-leveled hierarchical complexity, and analytical tools demanded by the brain's complexity. Integrative neuroscience embodies the future directions of theoretical neuroscience, and should provide many bridging recognitions. The first two sections of this work contain integrative material in and at the outer limits of this field. The larger interests and last section of the work speak to broader human considerations beyond science. The views in this book are my own and should not be attributed to the field or individuals in the field of integrative neuroscience, or my reviewers, many of whom may disagree with me regarding free will, the fabric or nature of the brain's inner sensibilities, or the likelihood of quantum mechanical effects in the brain.

I should like to thank my associates in the several departments of the University of Colorado, especially Max Peters, and the Rand Corporation in which I have served for their support and collegiality. I also thank at this late date my teachers at Purdue University, for their enthusiasm and classical training during my impressionable student years so many years ago, including most especially my mentor, Paul Lykoudis for his vision and inspiration, and his steady astute classical brilliance. I give special thanks to my reviewers, Roman Poznanski, Teresa McMullen, and Edwin Lewis, for their many constructive comments, both substantive and editorial. The book is considerably better in both qualities because of their efforts. I also thank James Lehman and Felicia, for pointing out literature on the neuropathology of attachment. I gratefully acknowledge reprint agreements with Imperial College Press (chapter seven), Academic Press ('stratification of variables' in chapter four and neural Darwinism in chapter five, both from MacGregor, 1993), and Mary Ann Liebert, Inc. (Figure 5 and caption, from Poznanski, 2001). I thank Millie for her interest and encouragement.

Most fundamentally, I thank the muses who have goaded and beckoned me, driven and led me.

Albuquerque, New Mexico, September, 2005
List of Figures and Tables

FIGURES*

3.1 The structure of human value 35
5.1 Self-organization of neural functions 76
6.1 Conscious autonomy and possible quantum effects 110
8.1 Neurobiological ground structure of language 142
12.1 A map of the whole things 190
14.1 Fountal streams of good and evil with ground structure 219
15.1 Contextual energization fields of personal human living 245
16.1 Areas of metaphysical uncertainty 269

TABLES

2.1 Capabilities of the biological primals 19
3.1 Domains of value 38–39
4.1(a) The hierarchical stratification of brain variables 55
4.1(b) Topographical localization of the inner sensibilities 63–64
10.1(a) A typology of knowing 165
11.1(a) Representative values of philosophical ethics 177–178
11.1(b) Placement of values of the world’s religions 183–184
11.1(c) Values of the world’s religions 185
12.1(a) Constitutive operative realms of the whole of things 194
12.1(b) A way of placing things (third-level headings) 197–198
13.1(a) The human condition in five compound tenets 212–213
13.1(b) The human condition by the universal human perspective 214–215
15.1 Contextual energization fields of human living 241

*The numerals in the titles of the figures and tables identify the chapter in which the figure or table can be found.
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CONTENTS

Foreword vii
List of Figures and Tables ix
How People Behave in Situations They Don’t Understand xiii

Ch 1 — Introduction and Overview 1

PART A — AN INTEGRATIVE VIEW OF BRAIN AND CONSCIOUS EXPERIENCE — THE INNER SENSIBILITIES

Ch 2 An Integrative View of Brain and Conscious Experience 15
Ch 3 The Structure of Human Value 31
Ch 4 The Inner Sensibilities and Neurobiology 43
Ch 5 Consciousness and Theoretical Neuroscience 69

PART B — AN INTEGRATIVE PHILOSOPHY OF BRAIN AND CONSCIOUS EXPERIENCE

Ch 6 Consciousness, Physics, and Neurobiology 91
Ch 7 A Functional Theory of Consciousness and its Relations in Brain 121
Ch 8 Consciousness, Inner Constructions, and Language 137
Ch 9 First Principles of Human Awareness and Apprehension 145
Ch 10 Knowing and Neurobiology 159
Ch 11 The Larger Nature and Setting of Value 169

PART C — ON THE CONTEXTS OF THINGS HUMAN

Ch 12 A Way of Placing Things 189
Ch 13 The Universal Human Condition 199
Ch 14 Fountal Streams of Good and Evil 217
Ch 15 Contextual Energization Fields 239
Ch 16 Implications and Interpretations 247

References 271
Detailed Table of Contents 279
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How People Behave In Situations They Don’t Understand

If I were certain of a certain star I would whisper
what are you for star but not wish an answer
every world takes getting used to
use and getting take world after world

it’s like looking in the darkness for a dark thing
or melting chips of chocolate on the stove
what meets the fingertips exists by specific accident
as if the plan is whatever happens so can’t be spoiled

what is all this star this what this is this all
this this the smoldering smallness of my utterance burns
maybe the name of anything is ashes gnashed
in an indifferent wind ghastly haphazard wind

I say mind I say moon I say me I keep losing my voice
in the space in the tree where there isn’t any tree
each shadow dapples itself together as if light were something obvious
as if wishes might be granted in a place between places like that

here between sunrise and circumstance I say okay
precarious things know about being precarious things
but there is clarity between this persistence and
okay I say where does the path disappear

Terri Jolene MacGregor, 1999
Chapter 1

Introduction and Overview

I came to feel, late in my career in theoretical neuroscience, and still do, that the conceptual constraints of our scientific view of the brain are inadequate to the field's intrinsic relevance to fundamental questions of human experience, the living of human lives, and the broader concerns of humanity. I have been dissatisfied with many overreaching claims regarding the human condition and potential which have found unwarranted widespread acceptance throughout much of academia over the last century and have now permeated pervasively throughout western culture at large. I have been driven by vague but pressing inner needs to a deeper study of the foundations and wider contexts of these larger human concerns within the partially conscious brain. I have now, after a decade of deep struggle, satisfied myself with at least an outline of the essential integrated ground structure within which these large quests can be further thrashed out.

This work, the result of that struggle, outlines a grounded, comprehensively inclusive view of man's nature, circumstances, and potential which speaks especially to the existential behavioral living of individual lives. It present a broad mainstream view of consciousness and brain which reaches to the foundations and outer reaches of the natural scope of its subject matter at and beyond the outer limits of current theoretical neuroscience. It reaches out from this scientific ground structure to the larger existential and philosophical questions regarding the fundamental nature of consciousness and its relations to brain and physical nature, freedom of will, the origin and nature of value and good and evil, our common human condition, the ambient force fields of human living, and how we know things. It discusses and