

CONTENTS

ABBREVIATIONS.....	9
PREFACE	11
INTRODUCTION	13
I. PART ONE: TWO PERSPECTIVES ABOUT THE CORPOREAL LIVING BEING	18
CHAPTER 1: THE CORPOREAL LIVING BEING IN THE WORK OF ST. THOMAS AQUINAS	19
1.1. Foundations for a philosophy of biology	19
1.1.1. Substance and accident.....	20
1.1.2. Composition of form and matter in the composite substance	26
1.1.3. Materiality and corporeity	35
1.1.4. Logical intentions: Genus, difference, and species	40
1.2. The living body and the degrees of corporeal life	47
1.3. The vegetative living being	60
1.3.1. The plant's operations and powers.....	62
1.3.1.1. Nutrition.....	62
1.3.1.2. Growth	64
1.3.1.3. Reproduction or generation.....	66
1.3.2. The plant's soul	71
1.4. The sensitive living being.....	77
1.4.1. The specific operations and powers of the animal	78
1.4.1.1. Sensible knowledge	79
1.4.1.2. Sensitive appetite	84
1.4.1.3. Locomotion.....	87
1.4.2. The animal's soul	90
1.5. The living human being.....	93
1.5.1. The specific operations and powers of man	93
1.5.1.1. Intellectual knowledge.....	93
1.5.1.2. Intellectual appetite.....	106
1.5.2. The human soul as a substantial and subsisting form.....	111

CHAPTER 2: THE CORPOREAL LIVING BEING IN EVOLUTION: MODERN AND CONTEMPORARY EVOLUTIONARY THEORIES.....	119
2.1. The background of the idea of evolution.....	119
2.1.1. Classical taxonomy	121
2.1.2. The renewal of taxonomy in the Renaissance	126
2.1.3. Charles Linnaeus, the systematizing genius.....	131
2.1.4. Buffon and his monumental history of nature.....	136
2.2. Modern evolutionary theories.....	140
2.2.1. The Lamarckian theory of evolution	141
2.2.2. Charles Darwin's theory of evolution by natural selection ..	147
2.2.3. The theistic model of evolution.....	160
2.3. Alternatives to Darwinism at the beginning of the twentieth century	165
2.3.1. Mutation theory	166
2.3.2. Orthogenesis.....	171
2.3.3. Neo-Lamarckism.....	177
2.4. The neo-Darwinian synthesis	182
2.5. Subsequent variants	192
2.5.1. The theory of evolution by punctuated equilibrium	192
2.5.2. Models of spontaneous organization.....	197
2.5.3. Structuralism	200
2.5.4. The theory of endosymbiosis	204
 II. PART TWO: THE ENCOUNTER OF TWO PERSPECTIVES ABOUT THE CORPOREAL LIVING BEING.....	 206
 CHAPTER 3: DISAGREEMENTS AND DIFFICULTIES	 207
3.1. The extremes of separation and negation	207
3.2. Recapitulation: The encounter of two diverse approaches regarding the living being	210
3.2.1. Thomistic philosophy of the living being.....	210
3.2.2. Biology and the courses of organic life.....	220
3.3. Mutual incomprehension	226
3.4. Real difficulties	241
3.4.1. The entitative structure of the living being.....	242
3.4.2. The notion of species.....	248
3.4.3. Microevolution and macroevolution	261
3.4.4. The ontological status of man	268

3.4.5. The finality of the cosmos and the living being	273
CHAPTER 4: SOME ATTEMPTS OF COMPOSITION UNDERTAKEN FROM THE THOMISM	284
4.1. The ups and downs of a partial reception	284
4.2. Edith Stein's explorations on the history of animal life	287
4.3. Manuel Cuervo's insights on evolution and philosophy	301
4.4. Jacques Maritain: A Thomistic idea of evolution	310
4.5. Antonio Moreno and Mariusz Tabaczek: A Thomistic response to the theory of evolution	332
4.6. Other Thomistic contributions	348
4.6.1. Juan González Arintero	348
4.6.2. Lorenzo Vicente Burgoa	352
4.6.3. Nicanor Austriaco	356
4.7. Overall assessment	361
III. PART THREE: NOTES FOR AN INTEGRATION	367
CHAPTER 5: THE EPISTEMOLOGICAL FRAMEWORK OF AN INTEGRATION	368
5.1. An analogical notion of science	368
5.2. Philosophy of nature	384
5.3. The plurality of the particular knowledge concerning the mobile entity	395
5.3.1. The mathematical approach	397
5.3.2. The schematic approach	401
5.3.3. The historical approach	407
5.4. Natural-historical knowledge	410
5.5 Philosophy of nature and natural-historical knowledge	420
CHAPTER 6: EVOLUTION: FROM NATURAL HISTORICAL TO PHILOSOPHICAL FACT	424
6.1. A persistent confusion	424
6.2. The fact: Notion and typology	429
6.3. Evolution as a natural-historical fact	438
6.3.1. The fact of evolution and evolutionary theories	440
6.3.2. Arguments in denial of evolution's factual status	444
6.3.3. An epistemological analysis of the evidence supporting the fact of evolution	450

6.4. Darwinian evolutionism as an ideology	455
6.5. The evolution of the corporeal living being as a philosophical fact	465

CHAPTER 7: RELATING THE FACT OF EVOLUTION WITH THE CONTENTS OF THE PHILOSOPHY OF ST. THOMAS AQUINAS	472
7.1. A three-step integration	472
7.2. Creation and evolution.....	481
7.3. Integrating the philosophical fact of intraspecific evolution	491
7.3.1. Intraspecific evolution as accidental change	496
7.3.2. Final and efficient causation in accidental diversification ...	505
7.4. Integrating the philosophical fact of transspecific evolution	513
7.4.1. Ontological and taxonomic species.....	514
7.4.2. Transspecific evolution as a substantial change	525
7.4.3. Final and efficient causality in the specific transformation..	542

CHAPTER 8: THE RESULTING COSMOLOGICAL PICTURE	559
8.1. The evolution of the corporeal living being: Four modalities	559
8.2. The evolution of the vegetative living being	566
8.3. The evolution of the sensitive living being.....	576
8.4. From sensitive living being to human being.....	581
8.4.1. Hominization.....	583
8.4.2. Hypothesis 1	598
8.4.3. Hypothesis 2.....	599
8.4.4. Hypothesis 3	600
8.4.5. Evaluation	602

EPILOGUE: WHAT IS GAINED WITH THIS INTEGRATION?	616
---	-----

BIBLIOGRAPHY.....	619
1. Sources of St. Thomas Aquinas.....	619
1.1. Works cited and cataloged in <i>Sancti Thomae de Aquino opera omnia</i> , Leonine edition.....	619
1.2. Other editions of St. Thomas Aquinas's works consulted.....	621
2. Classical sources.....	623
3. Documents of the Magisterium	624
4. Dictionaries and encyclopedias	625
5. Books and monographs.....	625
6. Articles	660

INDEX OF FIGURES AND TABLES	722
INDEX OF NAMES	723
INDEX OF TOPICS	739