Sabbatical Report

Mind Body Relation: A Brief Historical Outline

by

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Mount San Antonio College

Sabbatical Project

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Sabbatical Proposal For

Fall and Spring 2018-19

The purpose of my sabbatical leave during the academic year 2018-19 is to be able to study independently the history of mind body relation beginning with Plato and ending with the most prominent recent philosophers of mind. The results of this study will be gathered in two separate monographs of approximately 75-80 pages each. The first of these covering the period beginning with Plato (428–348 B.C.) and ending with Husserl (1859-1938), and the second covering the main theories of mind since Gilbert Ryle (1900-1976).

Type of Sabbatical Leave Proposal:

My sabbatical leave application is to pursue an independent study plan for the academic year 2018-1 on the history of mind-body relation in the western tradition, beginning with Plato and ending with the most recent theories of the 20th and 21st centuries. The results of this study will be summed up in two monographs of approximately 75-80 pages each. The first

covering the period between Plato (428-348 B.C.) and Husserl (1859-1938), and the second one covering the period between Gilbert Ryle (1900-1976) and the present.

Purpose and Background of the Study:

Philosophy of mind, or how body and mind co-exist, interact or relate with and to each other has become a very important area of research in contemporary philosophy. All of the higher institutions to which our students regularly transfer to are teaching it, and expecting that our students, especially those who are majoring in philosophy, have some basic knowledge of it. As a member of the department of philosophy I and my colleagues would like to be current on this issue and make it part of our curriculum so that we can meet our students' needs. My objective is therefore to gain sufficient knowledge in this area of philosophy as to be able to provide guidance and instructions for students and faculty. The two monographs that will be produced during the sabbatical will be available in print and digital form for students and faculty.

The problem of mind body relation can be defined as the philosophical endeavor to solve the apparent puzzle how our material being, and that is our bodies, are connected to an entity that has variously been referred to as soul, spirit, or mind, which is by and large believed to be non-material, and thus not occupying space.

The notion that human beings are endowed with both physical and spiritual parts is a belief that predates philosophy. However, the first clear and systematic philosophical approach how these two parts, substances, or entities co-exist, relate and interact was proposed by Plato. And it is with him that I shall begin my study and research, and end it with the current debate on the subject.

Rationale for the study:

There are many reasons that have led me to research this particular topic.

First of all, it is a topic that is very much central in the history of western philosophy. It is indeed at the intersection of metaphysics and epistemology. Its importance on the other branches of philosophy, such as ethics and political philosophy, is also considerable. In effect, all philosophical inquiries and discussions can be tied to it, directly or indirectly.

Secondly, the question of the relation of mind and body is one of the most studied and researched areas in academic philosophy today. Being acquainted with this field is essential for all our students, in particular those majoring in philosophy. Even those who are taking only introductory courses in philosophy are today expected to have some knowledge of this particular field of philosophy. Thus it is primarily a question of being current and relevant that has motivated me to study this subject. But there is also the personal fact of my own fascination with the subject.

Thirdly, even though its importance can never be overstated, studies that are dedicated to the history of mind-body relation from the philosophical perspective are rather limited. Moreover, the limited literature that is available is very technical and aimed at more advanced students, and is not accessible to those untrained in the field.

Fourth, the importance of this study is not only relevant to those studying philosophy, but also to students of psychology, anthropology, English and other academic disciplines as will be described below.

My plan is therefore to write these two monographs in a language accessible to the uninitiated in this subject matter. My hope is that it will be useful not only to students but also to faculty.

Plan of Study:

My plan is to first focus on the period preceding Gilbert Ryle, a period that extends for more than two millennia, and secondly on the period that begins with Ryle and ends with the most prominent theories of mind of the contemporary period. The first period will be studied during Fall of 2018, and the second period in the Spring of 2019. A detailed plan of study is provided in the pages that follow.

Benefits of the Study:

Numerous and varied are the benefits of my sabbatical project.

Benefit to students:

Students taking philosophy classes in general, and those who major in it in particular will benefit greatly from a readily available online and print resource. Each theory of mind-body relation will be presented in a language that will be accessible to our students and all relevant bibliographic resource will be made available to them if they plan on pursuing study and research in this particular field of philosophy. The existing literature is mostly addressed to those already initiated in the field of philosophy of mind. My monograph will be addressing the need of beginning students.

Benefits to the department:

The department of philosophy will be soon granting an Associate in Philosophy. This, in and but itself, requires that our students be acquainted with this very important field of philosophy, i.e.:

the philosophy of mind. A faculty member dedicated to such a field will indeed become very useful.

The result of my work will become eventually not only available to our students but to all faculty interested in the field. Upon completion of my sabbatical research, I plan on sharing its results with my colleagues in lecture form.

Benefits to the College at large:

It is vital that MTSAC, as a leading community college, remain current and relevant in all areas of studies. A faculty member that strives always to improve his/her knowledge by taking advantage of the opportunities provided by MTSAC in the form of a sabbatical leave will not only benefit oneself, but is bound to improve the standing and quality of ones' department as well as the college as a whole. The foundation for a college to remain relevant and current is to allow its faculty to continue renewing their knowledge base and expanding their particular fields. It is from this perspective that I perceive how our college will benefit from my studies.

Personal Benefits

The main reason I am proposing to study this area of philosophy is to gain enough competence in it as to be able to teach it with confidence and provide students informed guidance; and in the process become a valuable resource to my department, and the college as a whole. I believe also that the purpose of a sabbatical leave is to find time to update, explore, and deepen one's chosen discipline and explore new areas of study. I am confident that upon completing my studies and producing the two monographs I will be satisfying these goals and aspirations of a sabbatical leave.

Specific uses or application of the two monographs:

The two monographs that I will be producing in the course of my 2018-19 sabbatical leave will eventually benefit the following areas specifically:

Phil 20A and 20B (History of Ancient Philosophy and History of Modern Philosophy, respectively): Philosophy of Mind, or how body and mind co-exist and interact, can become an important topic in the history of philosophy along the history of metaphysics, epistemology and ethics. This will be the most immediate and distinct contribution of the study.

Phil 5 (Introduction to Philosophy) Most introduction to philosophy courses today require at least a few lectures in theories or philosophy of mind. My monographs will be accessible for free and students can benefit from them.

Psychology courses: My monographs will provide students of psychology a philosophical side or dimension to what they study experimentally, thus giving them a more rounded perspective on the question of mind body relation. They will also discover the philosophical origins of the problem of mind and body.

English 1C: Students in this class are regularly assigned composition assignments from varying perspectives. My monographs being freely available to download and appropriate can provide them with a valuable topic to explore and write about. It can be also used for **Critical Thinking** class for debating the validity and merits of the various philosophical positions on the topic.

History courses: The history of ideas is a major component in the study of history as a whole. It gives historical studies their depth and breadth. I strongly believe that history students will be enriched in reading manuscripts dedicated to particular ideas of self and identity in historical perspective.

Cultural and Physical Anthropology: My study will benefit students of cultural and physical anthropology in the sense that it will give them the philosophical dimensions to their empirical researches: what does it mean to be conscious? How does consciousness/mind arise from the human brain? Etc…

Humanities in general: Philosophy of mind is an important aspect in the history of how human beings perceive and define themselves. Students of the humanities, in the departments of History, Political Science, Art History, etc.… will gain benefit from having an easy and readable monographs.

Methodology:

The way I plan to pursue my study is first of all to read the primary sources, and that is the writings of the most important philosophers in the field of philosophy of mind. I will be selecting only their most representative works because of time constraint (a list is provided in the schedule of study). Following this, I will be reading the secondary literature to enhance my understanding of the primary sources. I will be also in correspondence with prominent specialists in the field if I need clarifications on specific issues. After completion of my reading, I will be summarizing the main ideas of the selected philosophers in two separate monographs.

Schedule of Study

Fall 2018

In the Fall of 2018, I will be studying what are generally considered the classic theories of Mind/Body problem beginning with Plato and ending with Edmund Husserl. The focus during this semester will be on individual philosophers rather than schools of thought. I will be reading the most important works by these philosophers on this particular topic together with the most authoritative studies or commentaries on them.

Week One: August 27- 31

Text: Plato *Phaedo*

Commentary: Bostock, D. *Plato's Phaedo*. Oxford, 1986.

Week Two: September 4-7

Text: Aristotle *De Anima*

Commentary: Shields, Christopher, 2016, *Aristotle's De Anima*, translated with commentary, Oxford: Clarendon Press.:

Week Three: September 10-14

Text: Epicurus (edited and translated by Arrighetti, Graziano, 1973. *Epicuro Opere*, 2nd edition, Turin: Einaudi)

Commentary: Julia Annas, *Hellenistic Philosophy of Mind*, 2008

Week Four: September 17-21

Text: Stoicism: *The Stoics Reader*, edited and translated by Brad Inwood, 1993

Commentary: Julia Annas, *Hellenistic Philosophy of Mind*, 2008, Also: Inwood, B., *The Cambridge Companion to the Stoics*, 2003

Week Five: September 24-28

Text: Plotinus: *The Enneads*

Commentary: Blumenthal, H.J., *Plotinus' Psychology*, 1971

Week Six: October 1- 5

Text: Augustine: Selected passages from: *The confessions, De Quantitate Animae*

Commentary: O'Daly, Gerard, *Augustine's Philosophy of Mind*, 1987

Week Seven: October 8-12

Text: Thomas Aquinas: *Summa Theologiae* (selected passages)

Commentary: Anthony Kenny, *Aquinas on Mind,* 1993

Week Eight: October 15-19

Text: René Descartes: *Meditations, Les Passions de l'âme, Les Principes de la Philosophie*

Commentary: John Cottingham, *Descartes,* 1986, also his *Cambridge Companion to Descartes* (1992)

Week Nine: October 22-26

Text: David Hume: selected passages from: *A Treatise of Human Nature*, edited by L. A. Selby-Bigge, 1975

Commenrary: Bricke, J., *Hume's Philosophy of Mind*, 1980

Week Ten: October 29 to November 2, 2017

J.O. De La Mettrie: *L' Homme Machine*

Aram Vartanian, *La Mettrie's L'homme machine : a study in the origins of an idea,* 1960

Week Eleven: November 5-9

Text: Henri Bergson, *Matière et Memoire, L'âme et le corps*

Commentary: Kolakowski, L., *Bergson*, 1985

Week Twelve: November 13-16

Text: Edmund Husserl, *The Essential Husserl*, ed. D. Welton, 1999

Commentary: David W. Smith & Ronald McIntyre, *Husserl and Intentionality, A Study of Mind, Meaning and Language,* 1982

Week Thirteen to Sixteen: November 19 to December 14

During the last Four weeks of Fall 2018 I will be occupied drafting the results of my studies on the above authors. This will consist in preparing a manuscript of approximately 75-80 pages.

Spring 2019

The second half of my research will focus, as indicated above, on the developments in the philosophy of mind that began with the work of Gilbert Ryle and continues to the present. In this period, my focus will be on the various school of the mind-body relation that have sprung since the 1950's rather than on individual philosophers. For that reason, except for Gilbert Ryle, I will be dedicating two weeks for each of the major schools of philosophy of mind, and I would be reading selection of the works of three of the most representative exponents of each one of those schools.

Week One: February 25 to March 1st

Text: Gilbert Ryle, *The Concept of Mind,* 1949

Commentary: Michael O' Sullivan, *An analysis of Gilbert Ryle's The concept of mind*, 2017

Week Two and Three: March 4-8 & 11-15

Identity Theory of Mind:

John O'Connor, *Readings on Mind-Body Identity* (1969)

C.V. Borst, *The Mind-Brain Identity Theory* (1970)

Cynthia MacDonald, *Mind-Body Identity Theories* (1989)

Week Four and Five: March 18-22 & 25-29

Functionalism

Hilary Putnam, *Minds and Machines* (1960)

D. M. Armstrong, *A Materialist Theory of Mind* (1968)

Ned Block, *What is Functionalism?* (1980)

Week Six and Seven: April 2-5 & 8-12

Representational Theory of Mind

Jerry Fodor, *Mind-Body Problem* (1981)

John Searle, *Minds, Brains, and Programs* (1980)

Kim Sterelny, *The Representational Theory of Mind: An Introduction* (1990)

Week Eight and Nine: April 15-19 & 22-26

Normative Model of Mind

Donald Davidson, *Thought and Talk* (1975)

Daniel Dennett, *Kinds of Minds: Toward an Understanding of Consciousness* (1996)

Joseph Perner, *Understanding the Representational Mind* (1991)

Week Ten and Eleven: April 29- May 3 & May 6-10

Eliminativism

P. Feyerabend, "Mental Events and the Brain" 1963

P. Feyerabend "Materialism and the Mind-Body Problem" 1963

R. Rorty, *Body, Identity, Privacy and Categories* (1965)

P. &. P. Churchland, *Scientific Realism and the Plasticity of the Mind* (1979)

Week Twelve: May 13-17

Recent developments in the philosophy of mind. A general survey of the current state of philosophy of mind using available resources on the Internet.

Week Thirteen to Sixteen: May 20-June 14

During the last Four weeks of Spring 2019, I will be occupied drafting the results of my studies on the above authors. This consists in preparing a manuscript of approximately 75-80 pages. In addition preparing the entire sabbatical project for the Sabbatical Committee.

Outcome

Availability of the monographs

The primary users of my sabbatical monographs will be of course our Mt Sac students. It will be available to them both in print and digital forms.

- Dr. David Lane currently maintains an online library (Dr. Steve Ruhnenbaum) He has graciously agreed to include my monographs in this library.
- Copies of my manuscripts can be maintained in our College library for student and faculty consultation
- Copies of the manuscript will also be kept in our department library.
- Other department, such as the department of Psychology, English and History have shown interest in receiving copies of my sabbatical.

Use of the monographs

The two monographs can be integrated effectively and immediately in the following courses. And my colleagues have shown interest in using them in their classes.

- Phil 5, Introduction to philosophy

- Phil 20A and 20B History of Ancient Philosophy and History of Modern Philosophy
- Phil 8 Critical Thinking
- Phil 9 Critical Thinking and Writing
- Phil 15 Major World Religions

Sabbatical Report Lecture

The goal of producing a sabbatical monograph is not only for one's personal satisfaction, but also to be able to share its results with one's colleagues. I accordingly plan on organizing a lecture or a workshop that is aimed at doing precisely this. It can be presented as either a department or college event. The details much be worked out in consultation my department chair.

General Introduction

Ever since human beings became aware of their thoughts, ideas, will, desire, feelings, imagination, etc…they came to realize that these were outside and independent of the material realm in which they inhabited. By the same token, they knew that thoughts and other similar inner manifestations were not subject to physical laws that governed the material world. In fact, they formed a world of their own. They discovered in short a transcendent world whose source has been variously referred to as spirit, soul, mind, or self. Even before philosophy began to appropriate these terms and inquire about them, mythology and religion had already explored them extensively.

Before I begin to delve into the various philosophies of mind and the theories of the relation of mind and body, I will begin by determining exactly the meaning of the words spirit, soul, mind and self, first.

Roughly speaking, while the first two terms, i.e., spirit and soul, are mostly used in ancient and medieval philosophy, the latter two are terms that have become more prevalent in modern and contemporary philosophy. This, however, does not mean that ancient and medieval philosophers were not familiar with the notions of mind or self. On the contrary, they were the ones who provided us their precise

meaning. What really happened is that modern and contemporary philosophy has practically abandoned the notions of soul and spirit as dated and meaningless.

The best way to begin dealing with the philosophy of mind is to set forth the meaning of each one of these four terms within their historical context in order to avoid any confusion. The ancient Greeks made a clear distinction between the concepts of spirit (*pneuma*), soul (*psyche*), and mind (*nous*). The word self, though very much present as a synonym for mind or personal identity in modern philosophy, has had a full attention only with the development of modern psychology.

Both the Latin *spiritus* and the Greek *pneuma*, which are consistently translated in English with spirit, have almost identical etymologies: they both derive from verbs meaning to blow or to breath. Originally, by the word spirit the ancient religions and mythologies did not mean an immaterial substance, but a very light and mobile matter like wind or fire; but much more rarefied. As I stated above, it is only in modern philosophy, and that is since Descartes (1596-1650) that the term spirit has come to mean a type of substance that stands over and against matter; and that is, what is not material and cannot be explained by scientific laws, and is independent of those laws. This meaning of the word spirit has, by and large, dominated the subsequent philosophical language and thought.

The term soul, on the other hand, translates in the majority of cases the Latin *anima* and the Greek *psyche*. Both of these ancient words have similar etymologies since both derive from words signifying wind, or life giving breath. Originally soul meant the vital force within the living individual being. Later it went on to refer to the seat of consciousness, reasoning, memory, will and feeling. Today the word soul has been practically abandoned, especially by the Anglophone analytic philosophy, to be replace by the concept of mind.

The word mind and its cognate "mental" have their origin in the Latin *mens*, which corresponds exactly to the Greek *nous*. In this case, however, the etymologies of these two appear to be divergent. Whereas the Latin *mens* derives from the verb *monēre*, meaning to remind or remember, the Greek *nous* is of uncertain etymology. Although we give the word mind various meanings depending on the linguistic context, we have no problem understanding one another. The problem begins when we try to define it. This would put us in an analogous conundrum St. Augustine found himself in trying to define what "Time" is. "What, then, is time" asks Augustine. And he responds himself "if no one asks me, I know; if I want to explain it to someone who asks me, I do not know"[1]. Similarly, we find ourselves in great difficulty in trying to define what exactly is mind. Even Descartes, who is considered

[1] Aurelius Augustinus, *Confessions,* Book XI, 14, 17

to be the father of modern philosophy of mind, gave no clear definition of what mind is. Nor did Hume, who uses the terms self, mind and soul interchangeably.

Today the philosophical inquiry about mind has become one of the most central issues engaging philosophers as well as scientists. No one has yet come up with a universally accepted definition of it, nor indeed what it is exactly. For the purpose of this introduction, let us consider the mind as being the seat (if indeed it is a seat) of all intellectual, emotional as well as instinctive drives. By the term self it would be less confusing if by it we signify the human individual as subject and possessor of one' thoughts, actions, drives, and feelings. It is, in other words, the indicator of personal identity and personhood.

A related problem to determining what mind is, has always been the mind's relation to the body: how does an apparently non-material entity such as the mind has full control of the body? Or more generally, how does a non-material entity, such as the mind, move a material entity, such as the body? As we shall see, in more recent philosophies of mind, such relation is in essence implied in the very explanation of what mind is. In older philosophies of mind, on the other hand, what mind is and what its relation to the body is, are distinctly viewed problems. In effect, whereas in the tradition that goes back to Plato, the whole problem is seen as mind and mind/body relation, since middle of the 20th century, the focus seems to be entirely on the mind itself, or of its relation to the brain.

The purpose of this sabbatical research is to provide students with a brief outline of the history of the philosophy of mind from Plato to the present day. Since it is only an introductory outline, it is far from being exhaustive. It will only deal with the most prominent philosophies of mind of the past nearly twenty-five centuries in the Western philosophical tradition. The report of this research is divided into two parts. The first part deals with all the philosophies of mind prior to the middle of the 20th century. And the second part with the most notable philosophies of mind since then. The criterion for such division is not arbitrary but based on a defensible reason. There has been a profound change in how philosophy of mind has been done since the appearance of Gilbert Ryle's "The concept of mind" (1949). As we shall see in this report, this and subsequent works in the philosophy of mind have been so momentous to the point that it is not an exaggeration to say that philosophy of mind is, as John Searle- one of the pre-eminent philosophers of mind today- stated: "the most important subject in contemporary philosophy"[2].

In the first part, I will be summarizing the philosophies of mind of individual philosophers who have made substantial contribution in the field. In the second part, I will be doing the same for the better known and more established theories of mind rather than focus on individual philosophers of mind. The reason for this is the fact that today philosophical theories are more a product of a group of philosophers

[2] John R. Searle, *Mind. A Brief Introduction,* OUP, 2004, p.9

working on a problem than the finished product of an individual philosopher. Even if the original insight may come from a single philosopher, it is usually put to rigorous examination, and defended by several other philosophers who accept the insight. Often, in fact, there are only insights in perennial search for good arguments to support and sustain them. For ease of use, I have put together the two monographs as one manuscript.

Part I

From Plato to Husserl

Plato

In the *Phaedo*, Plato says that the soul is "like the divine" and "akin to the eternal forms"[3]. In other words, he clearly conceives the soul to be entirely non-material and completely independent from the body. He lays out her qualities of being "deathless, intelligible, uniform and indissoluble"[4], and as always being the same, i.e., immutable. Such is the nature of the soul because she is simple and not composed of parts. She is, we may say, a single continuous entity. She is quite unlike the body which is essentially a composite of parts and is "mortal, multiform, un-intelligible, soluble and never consistently the same" [5]

The soul's separated-ness, i.e., her apartness from the body, is reiterated in several ways in the *Phaedo.* Plato re-affirms it unequivocally in his definition of death which is: "anything else than the separation of the soul from the body?... the soul comes to be separated from the body"[6]. Whereas the body will inevitably be dissolved after death, the soul will continue to live on. But how can one be sure that the soul is immortal? Plato is thus compelled to provide arguments for his belief in the immortality of the soul. And he provides not one, but several of them.

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[3] Plato, *Phaedo*
[4] Ibid.,
[5] *Phaedo...*
[6] Idem, 64c

First of all, he contends that the souls of men (human beings) must come 'from the dead'. He supports this view by appealing to an ancient theory which states that "the living come from the dead, and the souls of the dead exist"[7]. This in turn is based on the presumption that 'if everything that partakes of life were to die and remain in that state and not come to life again, everything ultimately would have been dead and nothing alive'[8]. It is therefore a metaphysical necessity that causes the cyclicity of life and death; and thus the pre-existence of the soul. This explains also why the soul is clearly acquainted with the forms (abstract ideas) before she is joined to the body.

The cyclicity of existence of the human soul is in essence Plato's version of the doctrine of re-incarnation. He, in fact, asserts it unambiguously in *Phaedo* 84e-85b, where he compares the human body to a weaver's cloak. During his lifetime, the weaver does not wear-out only a single cloak, and similarly the soul can't be bound up to the life of one body alone, but must be assumed reasonably that she "wears out" several of them[9]. And indeed one must assume that the soul is of such strength that she is not worn out by many births[10].Plato appears to suggest also that re-incarnation is somewhat a consequence of a failure since it occurs as a result

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[7] *Phaedo,* 72d-e
[8] Ibid., c-d
[9] *Phaedo* 88a
[10] Ibid.,

of a soul being too "attentive" to bodily urges, needs, and pleasures. Here, one cannot miss the striking similarities between Plato's view of re-incarnation to Hindu and Buddhist conception of *Samsara*.

Another argument that Plato presents in defense of the immortality of the soul is tied to his doctrine of *Anamnesis* (recollection or remembrance). Plato, in diametrical opposition to empiricists, believes that knowing is nothing but recollection of knowledge possessed by the soul prior to her being conjoined to the body. Before the soul was joined to any one body, she "lived" in contemplation of the eternal forms (i.e., abstract ideas) in a realm he calls *uperuranos* (beyond the heavens), in other words, in a transcendental realm. And because she has pre-existed the body, she will inevitably outlive it.

The Third argument derives from the very definition of the soul being 'akin to the divine'. This implies that since the divine cannot perish (and is divine because it does not perish), the soul must be imperishable. And similarly she is akin to the eternal forms in which she has dwelt, she must be similar to them.

Since Plato could not ignore the fact that the human soul is not purely intellectual as he appears to suggest in the *Phaedo*, and neither entirely sensual as he describes her in the *Symposium*, he comes up with a tripartite division of the soul in the *Republic*. In this dialogue, Plato determines that there are three parts in the

soul: the rational, which does all our reasoning and thinking, the spirited, where our emotions reside, and the appetitive, which is responsible for our base drives. Plato was led to such division of the soul because he could not ignore the conflict and tendencies within the soul. The example of Leontius in *Republic* 439e-440a illustrates this point very clearly. While Leontius rational soul advises him not to look at the horrible sights of human bodies lying about the executioner's feet, his irrational part is egging him to do exactly that.[11]

However, it appeared unreasonable, not to say contradictory to Plato, of speaking of the immortality of the soul without specifying which of its three parts would outlive the body. Deathlessness could not belong to the two lower parts of the soul (spirited and appetitive) since they were intimately bound to the body and at all times doing its biddings, as Plato appears to suggest. Immortality must therefore belong to the rational soul since it is the direct creation of the Maker (Demiurge) himself. And the lesser parts are 'assigned to his progeny', i.e., to the lesser gods. Mind (*nous*) is indeed the one to reside in the soul and cannot exist without it. But is not mind the rational soul? Plato seems to neither contradict nor confirm this view.

[11] In the end he succumbs to his irrational drive saying: "Look for yourselves, you evil wretches, take your fill of the beautiful sight!"

Aristotle

Aristotle has dedicated a short but elaborate treatise on the nature of the soul (better known by its Latin Title *De Anima*, but its original Greek title was *Peri Psyche*). For him, the study of the soul was an honorable and precious endeavor because of its "greater exactness or higher dignity and greater wonderfulness of it objects"[12] and because knowing what the soul would contribute greatly to the advancement of truth and our knowledge of nature [13].

Aristotle's first objective is to answer the question: "What is the soul?". But after asking such question he appears to immediately realize that it is not something he can answer easily. He must first of all establish to what kind of things the soul belongs (in philosophical terms, to what *genera* would the soul belong). This is typical of Aristotle the natural scientist as well as the metaphysician. He thus asks whether the soul is a substance? A quale? Or a quantum"[14]. He determines that the soul cannot be identified with the body: "The body cannot be the soul"[15]. What this means is that for human body and soul are not one and the same. The soul is indeed a separate substance "in the sense of the form of a natural body having life potentially

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[12] *De Anima* Book I: 402a
[13] Ibid.,
[14] Ibid.,
[15] *De Anima* Book II: 412a

within it"[16]. He then defines the soul using his own typical terminology, he determines that she is "an actuality of the body"[17]. In effect, this is not a definition he reserves only to the human soul, but to all kinds of souls present in all living beings. Within this general definition, Aristotle gives the precise definition of soul as "actuality of a natural organized body"[18]. Based on such definition of the soul, Aristotle then asks several important questions related to the nature of the soul: Is the soul a divisible entity? Is it of homogenous nature? Are souls of various living creatures different or the same? Can the soul be defined univocally for all? Is there, to use his own words, "a plurality of souls, or a plurality of parts in the soul?"[19] Are affections the product of the soul and body complex, or "is there anyone among them peculiar to the soul by itself?"[20] Most of all, how do soul and body coexist and interact?

Before answering these and similar questions, Aristotle like the scholar that he is, passes in review the opinions of his predecessors concerning the nature of the soul. He demonstrates concisely why their ideas about the soul are logically untenable or inconsistent. I am not going to report here all his counterarguments and

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[16] Ibid.,
[17] Ibid.,
[18] Ibid.,
[19] *De Anima*, Bk I, 403a
[20] Ibid.,

criticisms, but only those which can help us understand better his own theory of the nature of the soul.

In opposition to his predecessors, Aristotle refutes, in the first place, the pervasive view that the primary attribute of the soul is movement. In other words, that the soul is what moves and what is moved. Aristotle rejects this view on the grounds that "there is no necessity that what originates movement should itself be moved". Because "if the soul naturally partakes in movement, it follows that it must have a place"[21]. What Aristotle means here is, to use an objection made later to Descartes, if the soul is capable of producing movement in another body, then it must be a quantum occupying space, i.e. must be a body. For him, this cannot be the nature of the soul. So the question is how does the soul move the body? Aristotle answers by saying: "through intention or process of thinking"[22],

His other objection is against his own teacher Plato's position, which he criticizes without naming (perhaps out of reverence?) its author, but which he vaguely attributes to others. This is the view that the soul is a form or harmony. He rejects it for the following two fundamental reasons:

1. Harmony presupposes the blending or composition of dissonant parts (Aristotle's terminology is contraries)

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[21] *De Anima* Bk I, 406a
[22] Idem, 406b

2. [The product of harmony] is compounded out of contraries. Furthermore, harmony implies proportionality of the component parts. And this would contradict the simplicity and homogeneity of the soul.

Aristotle rejects that body and soul as forming a unity as being meaningless. It would be like asking whether the wax and its shape are one [23]. The soul, for him, constitutes "the essential 'what-ness' of the body, or as he put it "the soul plus the body constitute the animal"[24].

In direct opposition to his master, Aristotle posits the inconceivability of a soul without the body, or a body without a soul: is it possible, to use his own illustration, to conceive of wax without the form? Just as the shape of the wax and the substance of the wax are inseparable and meaningless, so is the separation of body and soul: the body of a living being is so because it is *in-souled.* A corpse is not a body except by homonymy. To illustrate further this point, a corpse would be no different from a statue, it is body only by misapplication of a concept that belongs, strictly speaking, to a living, *in-souled* body. The relation of body and soul in Aristotle is based on his metaphysical theory of *Hylomorphism*. A theory

[23] Cf., *De Anima* Bk II 412b
[24] Idem, Bk II, 413a

that maintains that all material things are composed of matter and form. Accordingly, body is matter to which the soul corresponds as form.

Not all living beings or natural bodies obviously share the same kind of soul. Aristotle classifies souls into three types. At the most basic level, there is the nutritive (or vegetative) soul which is common to all living beings. This kind of soul is what defines life itself as we know it. It is in virtue of it that all living beings are alive. It gives them the power of self-nourishment and reproduction. The sensitive soul is only shared by animate beings, i.e., animals, which of course includes humans. This soul gives animals the power of perception, of experiencing pain and pleasure, of desiring, etc…Within it, Aristotle, distinguishes two parts, the cognitive which is responsible for imagination and memory, and the appetitive which gives them the power of movement. The thinking, or rational soul belongs only to human beings or to "possibly another order like man, or superior to him"[25]. Aristotle identifies mind in fact with the power of thinking. It goes without saying that in addition to this, human beings possess the faculties of nutrition and sensation.

For Aristotle, like for some modern thinkers, the mind is actually not a "real thing before it thinks". It is not something which blends itself with the body.

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[25] *De Anima* 414b

Otherwise it would acquire "an organ like the sensitive soul" [26]. Alluding to the Platonic line, Aristotle claims that "it was a good idea to call the soul (mind for him), the place of forms"[27].

In a passage that is reminiscent of Anaxagoras [28]Aristotle makes the comparison of mind to light. Mind, he says, has the power of becoming all things, making all things, "for in a sense light makes potential colors into actual colors"[29]. Unlike the other kinds of souls, mind alone has the capability of standing alone, because it comes from outside and it will continue to exists after the body has died. Though Aristotle does not share his teacher's belief in transmigration of the soul, he clearly states the possibility of an immortal part of the soul, which in essence is the mind (nous)[30]. But the other parts of the soul are bound to dissolve upon the death of the body.

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[26] Idem, 428b
[27] Ibid.,
[28] Fragment 476 in:
[29] Idem, 430a
[30] Ibid.,

The Stoics

For all intent and purposes, the Stoics had a materialistic conception of the soul. Their claims on this issue is unambiguous: the soul is physical as any three-dimensional object[31]. Their notion of it derives from their overarching belief that all what exists is material. Their principal argument for the materiality of the soul is based on the fact that body and soul interact intimately: what affects the body affects the soul and vice versa, e.g., when we receive a blow to the body the pain that ensues does not affect only our body, but our entire being. Whereas in Descartes interaction between the body and the soul is a mysterious fact that needs explanation, for the Stoics it becomes the very explanation of the materiality of both body and soul.

For the Stoics the soul is not some kind of supernatural or transcendent element standing over and against the natural world. It is part and constituent of the natural order. The human soul is not in any way fundamentally different from other kinds of souls. All souls are forms of *pneuma*[32] , i.e., a form of breath.

How do the body and soul co-exist according to the Stoics? The image given by the Stoics to illustrate the co-existence of body and soul is that of an admixture of wine and water, and that is a total blending without distinction. The Stoics, unlike Aristotle, do not maintain that it is the soul which gives life to the body, that in the

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[31] Julia E. Annas, *Hellenistic Philosophy of Mind* (Oxford: University of California Press, 1992) , p. 37
[32] Idem, p.44

absence of it, the body is inert matter. For them the soul co-exist with an already living body. And the soul interacts with "...a body functioning in the way appropriate to plants"[33]. This is quite removed from the Aristotelians who maintain that the body without the soul is neither sentient or alive. For the Stoics, the body, in and by itself, comes with its own biological and physiological functions. Furthermore, unlike Aristotle and his followers, the soul is not the distinguishing fact of being alive or not, because plants do not have one, not all the functions of being alive are to be ascribed to the soul[34].

The soul is an element that animals and humans alone share: "it is what makes them more than vegetables"[35]. It is what makes them aware of their surrounding and interact with it. From the above observations, J. Annas concludes that the Stoics must have used the word soul in two ways: "one for the mind and one for what we intuitively call 'body'" [36]. If one is to understand her conclusion correctly then the Stoics are using the ambiguity inherent in the word soul (pneuma) to mean both a life giving force and, at the same time, an element responsible for perception, consciousness and thought, i.e., mind.

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[33] Idem, p.53
[34] Idem, p.54
[35] Ibid.,
[36] Annas, idem, p.56

The Epicureans

Like the Stoics, the Epicureans have also a materialistic conception of the soul. In their case, what informs their view is their atomistic metaphysics, i.e., whatever exists is made of atoms and outside of these there is only void. The soul is no different: its constitutive elements are simply atoms, and nothing more. Their materialistic conception of the soul is supported by two arguments, one by Epicurus himself, and the other by the poet philosopher Lucretius[37].

Epicurus maintains that since we are incapable of thinking 'of anything existing without the body except for the void, and since the void does not act upon nor is it acted upon, and because the soul, on the other hand, clearly does act on and is acted upon, it must be that the soul is a body'[38]. Here the materiality of the soul is implied by the soul's ability to effect or be effected upon: by a kind of interactivity. This is a similar argument used also by the Stoics.

Lucretius's argument is not fundamentally different from Epicurus's. It is based on the fact that the soul and the body interact: the soul does indeed move the body, and what affects the body affects the soul[39]. Like the Stoics, the Epicureans

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[37] Idem, p. 124 and following pages.
[38] Cf., Ibid.,
[39] Ibid.,

believe that the soul is part of nature, and as such an object of the natural sciences: "Just as Nature is studied in terms of atoms and void, so must the soul"[40]. The soul is composed of atoms that are smooth and round. There are four kinds of soul atoms: one is fire-like, one air-like, one *pneuma* like, and the fourth one remains nameless. It is not hard to see that this idea of the composition of the soul is obviously inspired by the four elements of Pre-Socratic philosophy, with but a slight variation.

The nameless fourth kind of atom of the soul is the one which is responsible for the intellect and the emotions. Plutarch states that it is: "that by which the agent judges and remembers and loves and hates, and in general the intelligence and reasoning"[41]. Thus the fourth type of atom in the soul is the one responsible for all mental activities ranging from sensation to thinking and reasoning[42]. The fourth kind of atom in the soul has also a position to the other three, analogous to that of the soul and body: rather than being apart and independent, it is dependent on them as they are of it. Moreover, it is also the one to gather all of them to form a unity[43].

Unlike the Stoics, who conceive the co-existence of body and mind as a blending, the Epicureans assign precise locations to the various parts of the soul. Thus the rational part is situated in the chest while the irrational part is scattered

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[40] Ibid.,
[41] Quoted by Annas, idem, p. 138-39
[42] Cf., Annas, idem, p. 139
[43] Idem, p. 141

throughout the body[44]. The Stoics and the Epicureans differ also in one other aspect. While the Stoics consider emotions, perceptions, impulses and drives as part of the soul and involve the soul, the Epicureans believe sensations to occur in assigned organs, e.g., hearing occurs in the ear, and not in the mind. On the other hand, for the Stoics, sensation involves the whole soul.

Like the Stoics, however, the Epicureans maintain that the body and the soul are entirely interdependent. Even though one can see clearly traces of the Platonic view that the body acts as a container for the soul[45], Epicureans maintain also that the body is responsible in assuring the integrity and unity of the person. Their inseparability is expressed beautifully by Lucretius: "The soul is "in" the body like scent in perfume; it cannot be removed without destroying the substance"[46]. As he again states: "a body is never born by itself"[47]. The ability to sense is a fact that involves both body and soul. This, in effect, proves not only that they need each other, but cannot function without each other: "the body and the soul need each other to exist and function as soul and body"[48]. In the absence of the body, the soul would

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[44] Ibid.,
[45] Cf., Annas, idem, p. 147-48
[46] Paraphrase by Annas, idem, p. 148
[47] Ibid.
[48] Idem, p. 149

simply scatter, and the body cannot exist or function; it would be more like a corpse.[49]

Plotinus

All souls, at one point, dwelt in what Plotinus called the "Intellectual Cosmos", a kind of immaterial universe. And all souls present here in this world come from there as well. And, of course, there are those which still remain un-embodied. All souls in the Intellectual Cosmos are not separated from one another, but form an indissoluble unity. Even though the soul's descent into the body constitutes a kind of metaphysical separation, it is not the same kind of separation experienced in the material world. The soul, in some sense, remains non-separate from all souls. As Plotinus put it: "...something of it hold its ground, that in it which recoils from separate existence"[50]. The premise for such Plotinian view is that the intellectual principle, or spirit as one would have it, is not subject to division like matter. To speak of a separate individual soul would not make any sense. It follows then that within the soul one must consider two sides, but not two parts: one which remains ever "attached to the Supreme....[and one] reaching down to this sphere"[51].

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[49] Ibid.
[50] Plotinus, *Enneads,* IV.I.1
[51] Ibid.

In the soul itself, however, there is no division, there are no separate sections. It is not a "quantity", it is not a "magnitude" separable in units. It is present in the body as a unity: "the one complete thing multi-present at the one moment"[52]. Plotinus uses a beautiful simile to explain this apparently hard to conceive idea of the non-separated-ness of souls: the fact that light is separately present in separate houses does not make it multiple: "much as light is a divided thing upon earth, shining in this house, and that, and remains uninterruptedly one identical substance"[53].

There are two ways in which the soul finds its way into the body. One is through transmigration, or metempsychosis as Plotinus prefers to call it. In this case, the soul will journey from "one frame to another"[54], or it will descend directly into a body from the bodiless realm. But for the soul to enter a body, there must first exist a body to begin with because as Plotinus puts it: "in the absence of the body the soul could not have gone forth"[55]. But because it must go forth "it will generate a place for itself"[56] Why and how the soul proceeds to enter a body is also explained clearly by Plotinus.

The soul is neither commanded, nor forced, neither performs an act of freewill to enter the body. It just descends into the body spontaneously "of its own

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[52] Ibid.,
[53] Idem, IV.III.4
[54] Idem, IV.III.9
[55] Ibid.,
[56] Ibid.,

motion…at the precisely true time and enters where it must"[57] for every soul has its designated hour, and when that hour strikes, it will descend and enter its designated body[58]. It is like a sexual union; it is an instinctive desire to be joined. The variations in souls that we may observe are largely due to outwardly circumstances, such as "accidents of life, upbringing, temperament, or any combination thereof"[59].

Plotinus rejects the idea of the soul being present in the body "as something in a container"[60]: "It is certainly not there as the wine in the jar"[61]. Neither the body is a vessel of the soul as the Platonic tradition has come to conceive it. Plotinus rejection of these views and imageries of the body proceeds first from his fundamental premise that the soul is not an entity occupying space: it is fundamentally non-spatial. Secondly, if he were to accept the idea of soul being contained in the body, he would have to accept also its being circumscribed or limited by the body. This would have clearly contradicted his fundamental tenet of the unity and indivisibility of all souls. Thirdly, if the soul was contained in the body "their contact would occur superficially, instead of totally"[62]. Moreover, from such perspective, even the Aristotelian approach that sees soul as form of the body appears to be a non-viable solution to Plotinus since it postulates the inseparability

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[57] Idem, *Enneads* IV.III.12
[58] Cf. Ibid.,
[59] Idem IV.III.15
[60] Idem IV.III.20
[61] Ibid.,
[62] Ibid.,

of body and soul. Plotinus's only option is to perceive the body as being contained or possessed by the soul: a kind of irradiation of the body that outstrips the body!

Thus the soul is present in the body entirely, and not in one part alone, even though Plotinus concedes that the brain is "the principle which determines feeling and impulse and the entire act of organism as living thing"[63]. The soul is present in the body as an architect is present in his own [made] mansion: the architect lives in it, but is not possessed by it, he masters it, but is not mastered by it. This example shows not only the degree to which the soul is independent from the body, but that the body does not constitute the perimeter of the soul. The soul is forever unbounded by it.

All kinds of bodily acts, feeling, sensations, etc.... involve in one way or another the soul. The soul is totally present in the body uninterruptedly: "Its presence in the All is similarly unbroken; over its entire range it exists in every several part of everything having even vegetal life, even in a part cut-off from the main...and is present in all parts of the body not as several but as one"[64]. Thus the question of their interaction becomes moot.

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[63] *Enneads* IV.III.23
[64] Idem, IV.III.8

Saint Augustine

For Augustine, the two fundamental features of the soul are its immateriality and simplicity. In his *De Animae Quantitate*, Augustine states clearly of the soul that: "It is a simple immaterial entity that cannot be reduced to simpler elements"[65]. Nor does the soul can be identified with any part of the body, such as the blood, the heart or the brain as some have maintained during his life time. Against such views, Augustine maintains that the human soul is neither identical to any of those or other corporeal entities, not any relation between them.[66]

Augustine presents three arguments to support his belief in the immateriality of the soul. One is based on the fact of our faculty of imagination, another one on the soul's capacity for self-knowledge, and a third one on its indivisible nature. In his "*City of God* (*De Civitate Dei*)", Augustine offers his first argument in the following way: "...the faculty that enables us to perform imagination with immaterial content must itself be immaterial"[67]. If the soul was corporeal, according to him, it would not have the ability to behold immaterial things. In other words, as

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[65] *De Q.A.* 1.2

[66] B. Niederbacher, "The Human Soul: Augustine's case for soul-body dualism" in: *Cambridge Companion to Augustine* 2nd edition, Cambridge: Cambridge University Press, 2014,p. 129

[67] *De Civitate Dei* 8.5

Niederbacher puts it tersely: "If the object of cognition is immaterial, the faculty by which it is grasped must be immaterial as well"[68].

The second argument based on self-knowledge is encapsulated in a passage of *De Trinitate*, where Augustine states that: "as long as the mind knows itself, it knows its essence. And if it is certain of itself, it is certain of its essence…it is by no means certain whether it is air, or fire, or a body, or anything of a body. It is therefore none of these things" [69] . One might as well call this an argument based on self-intuition. An intuition which simply makes one aware that one, as a thinking being, is not any specific part of one's body, but on the contrary, that as a soul or mind one is apart from one's corporeal reality.

The argument from the indivisibility of the soul to affirm its immateriality is based on Augustine's plausible belief that the soul is present in all parts of the body simultaneously, equally and wholly "by a kind of tension"[70]. Meaning that the soul does not fluctuate from one part of the body to another: it is wholly present in the whole body. The consequence of such belief is that the soul is not made-up of parts, but is a simple continuous entity, and thus cannot be material, since material things are made up of parts. Thus it must be immaterial.

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[68] Niederbacher, p. 131 and following pages.
[69] *De Trinitate,* 10.10. 16
[70] *Epistulae* 166.2.4

Although Augustine is consistently committed to the idea of the simplicity of the soul it does not prevent him from identifying no less than seven degrees or powers within it. At the very primal level there is the vegetative power which he calls *Animatio*, it is the one responsible for giving life to the body, unifying the body and its function, and is also responsible for its reproduction. The second power, the *Sensus*, consists in the soul's ability to sense or perceive. It includes the use of the five senses and the capacities of appetition and movement, sexuality, the care of offsprings, as well as ability to form habits and memory. The third power, called *Ars*, refers to our practical ability of producing art, producing things, using language, calculating, writing, legislating and displaying social and political power. The fourth called s *Virtus* defines our moral essence making us capable of discerning right from wrong, and allowing us to aim for moral perfection. The fifth power, which he calls *Tranquillitas*, is the one responsible to overcome the fear of death and the struggles, temptations in our goal to achieve moral perfection. The sixth deals with our profound desire to know the ultimate truth. And the last one, the seventh, which he calls *Contemplation* is "the knowledge or contemplation....[to] understand that God, the highest truth is the cause and principle of all things"[71].

Despite these multiple levels or powers within the soul, Augustine has always maintained the one-ness of the human soul: "*quae diversa per eos ago unus ego*

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[71] G. O' Daly, *Augustine's Philosophy of Mind.* Berkeley and Los Angeles: University of California Press, 1987, p. 14

animus" [72] (translation: Their functions are diverse, but I, the one mind, act through them all)[73]. The diversity of the soul's activity does not imply the multiplicity of the soul.

Where does the soul come and where will she go? As far as the provenance of the soul is concerned, Augustine had to contend with four different views prevalent during his lifetime. The first one was Traducianism which in essence maintained that God created the soul just once in Adam whose descendants' souls derive from: in other words, our souls are simply transmitted with our bodies from our parents. The second one called Creationism was the belief that God creates each individual soul with the formation of the body of the child. A third theory, which comes in two versions, maintains the pre-existence of the soul in some mysterious realm. One version maintaining that the soul is then sent by God to be united to the body, while a second one contending that the soul comes to inhabit the body by its own free will. Augustine came to appreciate two of these theories for their theological explanatory possibilities. Traducianism would in fact explain better the doctrine of the original sin, i.e., how sin is transmitted to all humanity. The theory of the pre-existence of the soul, on the other hand, would safeguard the immutability of God's will which maintains that God's creative power must take place only once.

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[72] Augustine, *Confessions*, 10.7.11

[73] Augustine *Confessions*, transl. by Sister M. Boulding, p. 204

Otherwise if God were to "change his mind" about his actions he would no longer be immutable, and thus no longer omnipotent.

Augustine proposes two arguments to sustain his belief in the immortality of the soul: one is based on the claim that since truth is eternal, and because truth is soul-dependent, it must follow that the soul must also be everlasting. The second, which appears to be circular, maintains that since the soul is the power that makes all living beings live, it cannot die. The assumption here appears to be that the soul as a life giving power cannot cease, or otherwise all things will cease to exist.

The final destination of the soul is determined obviously by its actions here on earth, as dictates Augustine's faith. Upon death, which Augustine understands as the separation of the soul from the body, the deserving soul will enter heaven where it will remain in the presence of God until the Final Judgment Day when it will be recognized with the body.

Saint Thomas Aquinas

Aquinas derives his conception of the soul largely from Aristotle, although he integrates it with the views contained in the Bible and the writings of the Fathers of the Christian Church, including Augustine.

Aquinas overarching concern in the *Summa Theologiae*[74] is to prove – and quite understandably so – the immateriality of the soul. He unequivocally affirms there: "… it is clear in a quite general and certain way that the soul is not a body". The more convincing argument that he adduces to defend this point is by showing the absurdity of maintaining a materialistic conception of the soul: since the soul animates the body as a power or principle of life it cannot be a body, because if it were so how could a body animate another body? The analogy Aquinas presents to illustrate this point is heat. If heat were just another body how could it be the principle of heat: i.e., source of heat that produces heat in bodies?

Another defense for the immateriality of the soul derives, in a certain sense, from the previous one. It is, in a way, analogous to it. Aquinas argues that if the intellectual principle in the soul "were to contain within itself the nature of any particular body it could not cognize all bodies". In other words, if the soul were a body it could apprehend only individual things and would be incapable of abstract thought, for example conceive universals (i.e. general concepts).

The second fundamental feature of the soul according to Aquinas is its subsistence. By subsistence Aquinas means the certain independence of the soul from the body. Anything is called subsistent by Aquinas if it "has existence not in

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[74] Q. 75, art. 6

others, but in itself"[75], or again, if "[it] does not need some outside foundation by which it is sustained, but it sustained in itself"[76]. Thus for him the soul is an independent entity from the body although it is dependent on it for many of its functions, and its existence in the world; but it preserves a certain independence from the body. One knows this to be true because, according to Aquinas, "this intellectual principle, which is called mind or intellect has an operation of its own (*per se*) that the body does not share. But nothing can operate on its own unless it subsists on its own"[77]. In the end, it is intuition that tells us that our entire mental activities take place independently from the body, and this should be proof enough of the intellectual soul, or mind's subsistence, or independence from the body.

However, nowhere does Aquinas appears to suggest that the body is merely an instrument, or worse, a prison as Plato suggested. He indeed conceived the human being as essentially composed of body and soul. For him, in fact, there is no speaking of a human being outside the body soul composite. He tersely affirms that; "...so it belongs to the account of human being to be composed of soul, flesh and bones...the human being is not soul alone, but something composed of a soul and body"[78]. As it stands, the soul is "the form of the body". And in saying this Aquinas is using his

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[75] *Summa Theologiae* 29a, 2c
[76] *Quaestiones Disputatae de Potentia,* 9.1.c
[77] Ibid.,
[78] *Summa Theologiae*, Q. 75, a.4 (Respondeo)

and Aristotle's hylomorphic theory. Just as any object is composed of matter and form, so is the human being. Where the body is matter, the soul would be its form. However, the soul in and by itself cannot be composed of matter and form; because if it were, it would be only capable of "cognizing only singular things" as stated earlier.

Like Plato and Aristotle before him, Aquinas recognizes the existence of many types of souls. He assigns to plants the vegetative soul, and to animals the appetitive soul. But, in the case of human beings, there is only one kind of soul, i.e., the intellective which also subsumes whatever is possessed by the sensory soul of animals and the nutritive soul of plants[79]. The intellective soul is what differentiates us from other forms of life. As Aquinas puts it, it is the "differentia" of the species [animal].

The soul is not relegated to one part or organ of the body. As in Augustine, Thomas maintains the even and full amplitude of the soul in the body. This is so precisely because the soul, being form of the body must necessarily exist in the whole body and in each part of the body[80].

Both as a theologian and a philosopher, Aquinas maintained the belief in the immortality of the soul. In order to prove this, he had to prove first the

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[79] *Summa Theologiae,* Q. 76, a. 3
[80] Idem, a. 8

incorruptibility of the soul. And that is the impossibility of it to degrade, decompose and disappear like the body.

The soul is incorruptible for the very fact that it is the form of the body. It is, Aquinas says "impossible for subsistent form to cease existing"[81]. It is simply not a body, and therefore it cannot cease to exist. The second argument for the incorruptibility or immortality of the soul derives from what Aquinas thinks of the supposed absence of contrariety in the soul. What does this mean?

Another argument, which can be described as argument from desire, maintains that the intellective soul is incorruptible because it has a natural desire in it to live forever. And since it is so, it cannot be pointless, or more cogently, it cannot remain unfulfilled!

Only the human soul has the prerogative of immortality. Aquinas sustains this view by advancing a Christian version of the Platonic account[82]. The human intellective soul is immortal because, as stated in Genesis 2:7, only man received the breath of God, meaning that the human soul will not only continue to live in the here-after, but it will "maintain its natural readiness and inclination for union with

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[81] Idem, Q. 75, a. 6
[82] See Plato's Timeus

its body"[83], that is until universal resurrection. On the other hand, animals do not partake of this privilege because they are creature produced by "bodily power".

René Descartes

Our modern conception of mind and mind-body relation owes a great deal to Descartes. Although Descartes is categorized with the staunch dualists, such as Plato and the Neo-Platonists, his idea of mind[84] and its relationship to the body is quite revolutionary in a particular way. This can be seen clearly in his definition of death. For the philosophers, and the Christian believers as well before him, death occurred when the soul left the body. For Descartes, death is a physiological, biological or even a mechanical event. It occurs when one of the main parts or organs breaks down[85]. This tells us clearly that for him the soul is not the principle or power that gives life to the body as other dualists have maintained. The soul is and remains the seat of thought. And by thought Descartes understands the whole gamut of events that involve directly or indirectly the mind; such as thinking, imagining, perceiving, willing, feeling, etc....

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[83] *Summa Theologiae*, Q. 76, a. 1

[84] Descartes uses far more the term âme or anima (i.e., soul), and rarely mind

[85] R. Descartes, *Passions de l' âme*, art. 6

Like the other dualists, however, for Descartes the defining essence in the human composite is the mind. He reiterates in several passages that he, i.e., the human being in general, is a thinking thing[86]. In his own words: "I am a thing that thinks, a substance whose whole essence or nature is but to think"[87]. However, he also rejects the Platonic comparison of the relation of soul and body to the pilot to his ship. Descartes argues that when a ship breaks down somewhere, the pilot (or captain) becomes aware of it by inspecting it, whereas when our bodies receive a blow we not only feel it immediately, but feel it with our whole being. In other word, a bodily event is a soul event. What this demonstrates is that our souls or minds are very intimately conjoined to our bodies. When we experience hunger, thirst, pain, etc…, we are immediately aware of them. Descartes considers these kinds of experiences as merely confused forms of thought in the mind.

The soul or mind is governed by its own laws; and so is the body. The fundamental characteristic of the mind is being a simple, indivisible continuum. Whereas the body is made-up of parts and is subject to physical laws. So, how is it possible for the mind, which is essentially spiritual for Descartes, is united to the body, which is material and obeying only the laws of matter? To this Descartes never

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[86] In Latin "Res Cogitans" in French "une chose qui pense"
[87] Descartes, *Meditation 6* [my own translation]

gave a satisfactory answer. And for this reason he created a problem that is still debated among philosophers, and more and more among neuroscientists.

Basing his explanation on his and others scientists' studies of the human anatomy, Descartes surmised that what we experience with our bodies is transmitted by the nerves, which he correctly conceived as filaments or nets, to the pineal gland. He considered the pineal gland the locus where the soul and the body interact with each other. Thus Descartes, instead of solving the mind-body relation, he merely shifted it aside. But regardless how he solved this problem, it does not diminish his enormous influence on our modern conception of the mind.

Finally, it is also the act of being aware, of knowing, and thinking that in the final analysis proves one's existence. For this reason, Descartes is said to have placed epistemology before metaphysics: a clear turn from his predecessors.

Baruch Spinoza

Spinoza's conception of mind derives directly from his consistent application of the definition of substance. Spinoza, like Descartes, conceived of substance as

"an existent thing which requires nothing but itself in order to exist"[88]. But unlike Descartes, he conceived it *univocally*, in other words as having the same meaning consistently. And as such, for Spinoza, there is one and only one being that can be considered substance, and that is God or Nature (*Deus sive Natura*). Descartes, perhaps fearing that such consistency would ultimately lead to pantheism – a belief that would have led him to be condemned by the church – reverted to the Scholastic way of defining the term. As such, he maintained that the term (substance) does not apply to God univocally – and that is in the same way it applies to all other things – But analogically. Spinoza instead, by conceiving the term univocally, he not only accepted but embraced the fact that it led to pantheism.

Thus, since there is only one substance, *Deus sive Natura*, mind and body could not be two substances but only two modes of being of the one all-embracing substance. In *Ethics* part III, proposition 2, Spinoza states clearly that "…mind and body are one and the same thing, conceived now under the attribute of thought, now under the attribute of extension". By conceiving mind and body as simply modes of the same one unique substance, Spinoza appears rather than to have overcome or even resolved the mind-body problem initiated by Descartes, to have actually side-stepped it altogether. For Spinoza mind and body become simply two ways at

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[88] R. Descartes, *Principles of Philosophy* Part I, 5

looking at the same substance: when one considers the mind, one is only considering the human being from the perspective of thought, and similarly when one considers the body, one is doing it from the perspective of extension (a Cartesian term signifying matter).

Spinoza's approach to the mind-body relation can best be described as parallelism that dualism. Body and mind do not constitute two completely separate entities, entirely governed by their own independent laws, rather there is no mental event that is corresponded by a bodily event. This appears to be the meaning of his statement that "...nothing can happen in that body without its being perceived by the mind"[89]. And again, he asserts that 'mental decision and the physical state of the body are simultaneous in nature', and in fact they are one and the same[90].

Spinoza's justification for upholding such parallelism derives from his conviction that what makes one's body one's own is the fact that one's mind represents one's body. "And what it is for an idea to represent a body is for the idea to represent the body's place in a causal network"[91].

In reality, Spinoza does not appear to subscribe to the notion that the body does only the biddings of the mind. He in fact maintains that the body does many

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[89] B. Spinoza, *Ethics* Part II, Prop. 12
[90] Cf., Idem, Scholium
[91] M. Della Rosa, *Spinoza*, p. 108

things that the mind has not caused or is not even aware of [92]. And it remains a mystery to him "in what way and by what means mind can move the body"[93]. Only a mutual causation between mind and body would explain such state of sleep or being awake.

In what relation does the human mind stand with God's mind? In part II, Proposition 2 Corollary, Spinoza conceives the human mind as being part of God's infinite intellect. When the human mind conceives an idea, it is indeed God that has that idea. But this does not imply that whatever idea God has, we have it equally. If indeed we have it, it would be indeed only "partially and inadequately"[94].

John Locke

Although Locke accepts from Descartes the clear separation of mind and body, he does not appear to accept Descartes radical dualism of substance[95], nor was he concerned in demonstrating how body and mind interacted. He merely too it for granted[96]. If Locke is indeed a dualist, he is not a substance dualist, but a property

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[92] B. Spinoza, *Ethics* Part III, prop. 2 Scholium
[93] Ibid.,
[94] Ibid.,
[95] J. Bennett "Locke's Philosophy of Mind" in *Cambridge Companion to Locke*, p.98
[96] Idem, p. 90

dualist. In other words, rather than positing two radically different and independent substances, he appears to merely separate what is mental from what is material. This point becomes far more evident in his elaboration of the idea of personal identity.

For Locke two are the most fundamental defining components of mind: thinking and willing (or volition). Indeed the mind itself is a complex idea made up of several simple ideas produced by the operations of the mind itself, such as "thinking, understanding, willing, knowing...."[97]. We come to know about the external material world through sensation, and by reflection. Locke does not believe that we actually come to know substances directly. We only know them through their primary qualities. We are acquainted with the existence of minds through their "primary qualities of thought and volition; and of material bodies through their various modification of the extension of cohering solid parts, and their motion"[98].

In his *Essay*, Locke went at greater length in determining the nature of personal identity. He begins by defining personal identity as "a thinking intelligent being, that has reason and reflection, and considers itself as itself, the same thinking thing in different times and places"[99]. Thus personal identity extends only as far back as one is aware of one's actions or thoughts. Beyond that one cannot reasonably speak of personal identity. Therefore, it is not continuity of substance, e.g., sameness

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[97] J. Locke, *An Essay Concerning Human Understanding* Book II, XXIII.15
[98] Idem, XXX 30
[99] Idem, XXVII 9

of the body that makes personal identity, but continuity of consciousness. This should not however mean that "the whole train"[100] of all what we have done and thought should be constantly present in our minds. There is also the reality of sleep, or one may add, lapses of consciousness. But these cannot affect the same-ness and continuity of the person; since we simply continue where we left-off.

Locke argues effectively why personal identity cannot be based on the sameness of substance, be it material or spiritual. In his famous example of the prince and the cobbler, as far as he is concerned, it is not the sameness of body, but of consciousness that determines personal identity. It is not impossible to imagine the maintenance of personal identity through a succession of substances, and that is of bodies, as long as one remains aware of being the owner of one's actions and thoughts. If, for example, one were to claim to be Socrates, and to be aware of Socrates's actions and thoughts as being his own, then he is indeed Socrates! The fact that one may have to "transit" through several bodies to be here present with us is for Locke as irrelevant as changing one's attire! However, this does not imply that Locke entertained in anyway shape or form the ideas of reincarnation or transmigration of souls. His simile was simply to drive the point home. This is why Locke finds it hard to accept, from a philosophical point, how one can be considered

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[100] Ibid

the same person as the day of Final Judgment, or upon being re-incarnated, if one has not awareness (or recollection) of one's previous life.

Speaking of change of material substance, there is also the fact that our very own bodies are constantly in the process of change, from birth to the day of our demise. Also, we may be in accidents, or illnesses we may add, that could alter our bodies without our personal identities not being affected the least. If indeed, Locke argues, that by cutting off the little finger our consciousness went with it, we would be compelled to accept that our personal identity resided in that little finger. But this is not obviously the case. So we must admit that personal identity resides only in our consciousness. When consciousness stops, so will our personal identity.

David Hume

Hume considers the very ideas of self, mind or person as being baseless because none of them corresponds to any particular *impression*[101] . Can anyone indeed have an impression or experience of one's self as one self? As Hume argues cogently, if one were to attempt to "capture" the mind in and by itself, one would

[101] By "impression" Hume means the immediate experience provided to us by the senses, or feelings, etc...

fail consistently because every time one tries to do so one will only catch oneself being occupied mentally with one or other perception. As Hume puts it tersely: "I never can catch myself at any time without perception, and never can observe anything but the perception"[102]. In other words, when one "enters" in oneself, what one is simply occupied with is a particular idea or sensation. Furthermore, Hume denies the existence of such idea as self or mind for the very same reason he denies the existence of substance. Substance, as he argued in another context, does not correspond to any one impression and so we have no perception of it. And if we have no perception of it, we cannot legitimately affirm that such a thing exists. Thus, one must also deny the substantiality of the mind! If we were indeed capable of possessing an idea of the self or mind as something continuous and invariable through time, and as something to which all our impressions and ideas have reference to, then we would have a very clear perception of it. But we don't! What we have instead is a constant succession of ideas and impressions which follow one another rapidly. As Hume puts it famously: "I may venture to affirm of the rest of mankind, that they are nothing but *a bundle or collection of different perceptions,* which succeed each other with an inconceivable rapidity and are in perpetual flux and movement"[103]. Hume compares then the mind to a theatre "where several

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[102] David Hume, *Treatise of Human Nature* 1.4.6.3
[103] *Ibid.*, 1.4.6.4

perceptions successively make their appearance; pass, re-pass..."[104]. In noting immediately that such comparison would lead to an obvious misunderstanding, Hume states that the comparison pertains more precisely to "the successive impressions" and not to the theatre as such!

Although Hume presents solid arguments for his negation of the idea of self or mind, as a philosopher he is responsible to tell us why the rest of humanity believes in such idea. And here again he has a very compelling explanation to offer.

First of all, we are led to believe of the existence of one continuous self or mind because our perceptions "glide into one another quite smoothly"[105], just as transitions from one topic to another in a conversation without the participants being fully aware that they are doing so. This continuous flow gives rise to the belief in the existence of one self, mind or person. As Hume has argued at various points in his *Treatise*, the notion of identity in general is a product of *false belief*. It is in actuality the product of the "Three relations of resemblance, contiguity and causation"[106], and nothing more! The underpinning of these three relation is memory which in essence links or binds "together the different perceptions". It is also memory which is also the source of our [belief in] personal identity: "As memory alone acquaints us with the continuance and extent of this succession of perceptions,

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[104] Ibid.,
[105] Ibid.,
[106] Idem, 1.4.6.15

'tis to be considered, upon that account chiefly, as the source of identity"[107]. It is memory in fact that allows us to connect events as causes and effects. And for this alone it "constitutes our self or person"[108].

Julien Offray de La Mettrie

La Mettrie's conception of the relation of body and soul arises against the backdrop of Cartesian dualism. Even the title of his best known work: *"L' Homme Machine"* [Man a Machine] appears a defiant response to Descartes view that animals are no more than complex machines, and human beings, as "thinking substances" [*res cogitans*], are more than machines. La Mettrie wanted precisely to negate human beings any special status, and perceive them as merely animals, and that is no more than complex machines.

For La Mettrie, the proper study of the human body-soul composite does not belong to philosophers or theologians, but to physicians and the Natural Sciences. An attitude, I may add, that is widely shared by some of the most prominent philosophers of mind of today, like Daniel Dennett and John Searle. According to La Mettrie, philosophers and theologians have offered us nothing but muddled

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[107] David Hume, *Treatise* 1.4.6.20
[108] Ibid.,

questions. It was time, according to him, to let scientists give a reliable account of the human composite. And this is what he attempts to do in all of his most important writings.

In opposition to philosophers who have the tendency of proceeding *a priori* in the study of the human mind or soul, La Mettrie decides that he must proceed *a posteriori*. From the outset, he attacks the Cartesian contention that body and soul are made-up of two radically different substances, i.e., thought and extension, or mind and matter. The reason for this attack is quite obvious: if one is to accept Cartesian dualism, one is condemned to never resolve the body-mind relation. This in fact reflects exactly contemporary philosophers position.

The fundamental flaw of Descartes's solution, according to La Mettrie, lies in the fact that Descartes granted matter only one and only one attribute, namely extension. This is exactly where the problem begins. If matter has only extension, then the principle of movement must be external to it. Like his contemporary materialist philosophers, such as Henri d'Holbach and Claude Adrien Helvétius, La Mettrie contends that matter, besides extension, possesses at least movement as its inherent attribute. And this constitutes exactly the point of departure of his materialistic solution of the body-mind relation.

The strategy used by La Mettrie to prove the materiality of the soul or mind is by providing a physiological explanation of the processes of sensing and feeling. He attempts to show that there is no change in the soul which does not involve some physiological change in the body: "[That] the soul feels and is really only affected in the brain by those feelings specific to animals; [and secondly], [that] the soul only possesses feelings and knowledge as long as it is receiving the impression of the animal spirits"[109]. In other words, the soul is entirely dependent on the neurological network of the body; without it, it cannot exist, let alone know or act.

Descartes had felt the need to indicate the locus of interaction of the body and soul in the pineal gland. Such solution becomes irrelevant for La Mettrie because he eliminated the obstacle inherent in Descartes' dualism: there is no breach between the body and the soul; there is only continuity. He in fact declares: "It does not matter for our system whether the soul occupies only a point in the brain or its seat is more extended"[110]. But should lead one to conclude that the soul is un-extended [i.e. not occupying space]. On the contrary, one can clearly see that "various sensations occur in various sites of the brain"[111]. La Mettrie appears to even suggest that the soul is co-extensive with the body "The soul's extent

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[109] La Mettrie, *Treatise of the soul,* p. 55
[110] Ibid., p. 56
[111] Ibid., p. 63

constitutes thus, as it were, the body of this sensitive active being..."[112]. In many ways, thus, and as indicated by many of his passages, La Mettrie is very much in line with the Epicurean, and sometimes Stoic, view of the human composite. The best solution to the problem is to admit the indistinctness of body and soul. And such solution is not so outlandish as one may think if one can simply reflect on the fact that why should it be so impossible for the Creator to make matter think![113]

Henri Bergson

From the outset, Bergson aligns himself in the dualist tradition[114]. However, he neither subscribes to Descartes interactionism, nor to any form of parallelism. He nevertheless admits that there is "solidarity between the state of consciousness and the brain"[115]. For him, it is a fact that a psychological state is linked to a cerebral state. But this cannot lead us to conclude that there is perfect correspondence and parallelism between the two[116]. Science appears to imply that if we were able to see what goes on in a live brain, and that is if, on one hand, we were in possession of a powerful microscope capable of magnifying millions of times [the brain

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[112] Ibid., p. 64
[113] Ibid., p. 65
[114] H. Bergson, *Matière et Memoire,* p. 161
[115] Ibid., p. 164
[116] Ibid.,

components] and were thus able to observe the "dance" of molecules in the brain, and on the other hand, we had a dictionary that translated each one of the molecules' movement in the language of thought and feeling, we would know what the mind thinks, feels, wants even better that the mind itself[117]. This is precisely [a scientific] assumption that Bergson attacks in his writings.

To illustrate why such scientific parallelism is untenable, Bergson uses his famous analogy of the nail and the coat that hangs on it. There may be correspondence and "solidarity" between the nail and the coat hanging on it, but this can't lead us to conclude that "every detail of the nail is equivalent to the clothes', and much less that the two are the same thing"[118]. Similarly, consciousness is attached to the brain, but it does not follow that the brain delineates all the particulars of consciousness. Neither can one proclaim that consciousness is but one function of the brain[119]. In the end, what science can demonstrate is that there is some relation between mind and the brain, and nothing more[120].

Bergson believes that scientists have done no better than metaphysicians in presuming a perfect parallelism between mind and body. In fact, this is nothing but a metaphysical theory disguised as science.

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[117] H. Bergson, *l âme et le corps*, p. 28
[118] Ibid., p.29
[119] Ibid.,
[120] Ibid. p. 30

The fundamental tenet of Bergson in regard to the brain and mind relation is that the "brain does not determine thought"[121]. Thought is to a greater extent independent of the brain[122]. For him, the body (and included in this is the brain, of course) is confined to space; whereas the mind extends through time. Their point of intersection is memory. And why memory?

Before Bergson answers this question, he needs to identify which kind of memory he is referring to. According to him, there are two kinds of memory. One which we may call muscle memory is the one that is pegged to the brain. It is the kind that is at work when we try to learn a poem, or a series of mechanical movements. One may compare this kind of memory to a parrot's in its ability to reproduce human words. The other one, which Bergson calls *pure memory*, has to do with our remembrances and recollections; and thus linked to Bergson's notion of *pure duration*. Such kind of memory is not, and cannot be localized in the brain: it is impossible to uphold the theory that every perception remains "imprinted" in a particular point in the brain. If it were so, think of all the difficulties that will arise. Just the mere fact of remembering a particular object will not give only one picture of it, but literally millions of it, depending on the [multitude] of angles the object

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[121] Ibid. p.33
[122] Ibid.,

was perceived from. And imagine if the object of my perception is a person's face which assumes constantly different expressions?

It is clear that our minds do not present us with a multitude of pictures of one object or person, but of just one. This is a clear proof that our memories are not simply "imprinted" in the brain. We do not record things as a recording machine does. And this is a proof in itself that the mind, or pure memory, "outstrips" the brain, and is not entirely contained by it.

For Bergson, the brain stands to the mind as a conductor stands to a symphony. The symphony, as it were, is not confined by the movements of the conductor; but it goes beyond it[123]. The brain is primarily an organ of survival; an organ attentive about life[124]. A part from "mechanical memory", it does not 'conserve the past', but it makes it so that consciousness does not get overwhelmed by its vast content and makes it focus on what requires immediate attention. It is indeed an organ of action. This, in essence, is the reason why Bergson does allow the possibility of the survival of the soul after the death of the body.

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[123] Ibid., p. 35
[124] Ibid., p. 36

Edmund Husserl

Husserl's conception of the body and mind relation has been called many-aspect monism or two aspect theory[125]. This would in essence put him in the same tradition initiated by Spinoza, where mind and body would simply be two aspects of the same substance. On the other hand, Husserl appears to distinguish no less than five components in the human essence. At the base level, there is what Husserl calls the physical body (in German *Körper*) this is the [human] body considered from the perspective of time and space, i.e. as material object liable to scientific consideration. Husserl considers also the human body as a living organism (*Leib*) which, as the Greeks would have it, is moved by the soul (*psyche*); it is the body that we move through our will, and share the social space and the Life-World (*Lebenswelt*). It is the one that constitutes us as embodied selves. Husserl considers the psychic aspect of the human person in the very Aristotelian, and in general classical Greek sense of an animating power; i.e., the one that makes the human being a living being. The human aspect of the person comes to the fore in being participant in the Life-World, in being with others, in sharing the world with others. Finally, there is the "I" which is consciousness.

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[125] D. W. Smith, *Cambridge Companion to Husserl* p. 327

Husserl distinguishes clearly between Nature and Consciousness. As in Descartes, he maintains that objects in the world are essentially spatial. While consciousness acts are unrelated to space[126]. Whereas, the same individual person is both spatial and a thinking being, it does not follow that he/she is two separate beings or things, but the same individual presenting two aspects, or two instances of Nature and Consciousness[127]. To put the matter in theological form, one could say that the human being possesses two essences while being the same individual[128].

Husserl, unlike most materialists, rejects the reduction of consciousness to brain activity. In this, he appears to be remarkably close to Bergson's position. What characterizes acts of consciousness is that they are *intentional*. Here *intentional* should not be understood as an adjective of intention, i.e., as wish or will to do something. By *intentional*, or intentionality, Husserl means that consciousness is essentially consciousness about something. There is no "empty" consciousness in se. Consciousness is always consciousness about something, just as thinking is about thinking about something. There is a specific object by which consciousness is revealed. On the other hand, acts of the brain are entirely defined and explained by the laws of the natural sciences. But this should not lead us to conclude that the two

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[126] D.W. Smith, ibid., p. 337

[127] Ibid.,

[128] Cf. the notion of Hypostatic union in Christian theology regarding Jesus.

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[126] D.W. Smith, ibid., p. 337

[127] Ibid.,

[128] Cf. the notion of Hypostatic union in Christian theology regarding Jesus.

are separate and independent. On the contrary they are merely two aspects of the same event.

For Husserl, the expression "I" refers to the whole person, body and soul. However, he clearly views the soul as the ultimate determinant of the concept of "I". He conceives materiality as being distinct from spirituality though they belong together in the actual person. However, "it is possible to conceive of psychic being without a body"[129]. The body, on the other hand, is expression of the psychic and an instrument or organ of it[130]. What is properly subjective is in the spirit; the body assumes subjectivity by virtue of its being animated. Its states and conditions are, in a sense, subjective only through the Ego"[131]

[129] E. Husserl, *Ideas* bk ii, p.100
[130] Ibid., p. 102
[131] Ibidem

Part Two

The Analytical Tradition

Introduction

The term analytical tradition or analytic philosophy is used, almost unanimously, to refer to the philosophical tradition which has dominated English speaking countries since at least the turn of the 20th century. It is often a term used to contrast Anglophone philosophy to European continental philosophy. There is no unanimous set of criteria for the distinction of these two philosophical traditions. However, there is a general agreement on what is distinctive to each philosophical tradition. I will attempt here to give my own personal perspective as to what differentiate one tradition from the other.

In general, continental philosophy does not consider itself as being continental vis a vis Anglophone philosophy. It considers itself to be simply the last expression of a philosophical tradition that dates back to the 7th century B.C. Hellenic world. Even though it may be dominated by one or two schools during long stretches of time, it is generally "inhabited" simultaneously by several philosophical schools, often competing with each other. As such there is no one philosophical tradition that arrogates itself the term "continental", all can share it equally. But in effect none define themselves as being continental in any "public" way.

On the other hand, Analytic philosophy does self-consciously distinguish itself from the philosophies that prevail on the European continent. Some of its

salient characteristics are: its extremely sharp focus on language as conveyor of philosophical concepts, thus the central place it gives to the analysis of language; its focus on "philosophical puzzles" rather than the traditional historical problems of philosophy; in fact, its a-historicity is one of its distinctive features; its rejection of all metaphysical "grand narratives" or "grand picture theories", and conversely its pointed focus on minute philosophical problems. Analytic philosophy puts enormous premium on clarifying concepts by adopting a technical language and logic. Where continental philosophy's concern with language is not overemphasized; and rather than being engaged in clarification of concepts and terms, it is more concerned of producing new perspectives on old problems, without being overly concerned with the precise use of language. This has given rise among analytic philosophers the belief that continental philosophers are willfully obscure to sound more profound than they are. An accusation no continental philosopher appears to have been bothered by or felt the need to respond to!

This second part of my sabbatical report focuses on the contribution made by philosophers of the analytic tradition on the "mind body problem"; in fact, I should say that this philosophical topic has dominated the philosophical debates in English speaking universities for the past seventy years. We can safely say that until the middle of the 20th century, there wasn't as such a truly distinct Anglophone philosophical tradition on such a topic. The first work to approach the problem from

the analytic perspective in a systematic way was Gilbert Ryle with his "The Concept of Mind" in 1949. And it is with him that I will begin this second part.

Generally, we may distinguish several successive "Theories of Mind" since the appearance of Ryle's book. The 1950s were dominated by the "Identity theory of Mind" which was the brain child of three Anglophone philosophers from the positivistic and analytic traditions: Herbert Feigl (1902-88), an early member of the Vienna Circle (from circa 1923 to sometime in the 1940s), but whose academic career was mostly spent in the U.S. J.J. Smart (1920-2012) an Anglo-Australian philosopher, and U.T. Place (1924-2000), a British philosopher.

The following theory of mind to dominate the analytic world was Functionalism. It came at the precise time when computers were beginning to take center stage in our modern life in the 1960's. And it owes a great deal to computers for its conception of the mind. Functionalism never ceased as a theory, but it continues to this day having gone through several permutations. Prominent adherents of this theory are Hilary Putnam (1926-2016), long time professor of philosophy at Harvard, Ned Block (1942-), previously of Harvard University, and more recently of New York University, and David Lewis, (1941-2001) who taught at Princeton University for most of his academic career. These three philosophers of mind are also considered the principal exponents of the three strands of

functionalism. Respectively, of Computational or machine functionalism, Psycho-functionalism, and analytic functionalism.

An offshoot of functionalism that has gained some attention since the mid-seventies is the Representational theory of mind, propounded first by Jerry Fodor (1935-2017), long time professor at Rutgers university. Another one is "the normative model of mind", also known as the "interpretationist theory of mind" which came to the fore between the late 1960s and early 70s through the works of Donald H, Davidson (1917-2003), and Daniel Dennett (1942-).

Even though Eliminativism, or eliminativist theory of mind, traces its origin to some articles written by Paul Feyerabend (1924-1994) and Richard Rorty (1931-2007) in the early Sixties, its principal exponents are Paul and Patricia Churchland (1942 and 1943 respectively). And it is with them that I will conclude my survey of the analytic philosophy of mind.

Gilbert Ryle

The primary objective of Ryle in his "The Concept of Mind" is to show how Descartes's dualistic conception of the human being is the product of an error that Ryle calls a "category mistake". Before explaining why such mistake is called a "category mistake", we need to revisit what Ryle understands to be Descartes doctrine of the body and mind, and their relation to each other. Since Descartes's theory has in effect become the most dominant one for many centuries, Ryle calls it "the official doctrine".

The "official doctrine" holds, according to Ryle, that "human bodies are in space and are subject to mechanical laws which govern other bodies in space"[132], while human minds are not subject to such laws, but have their own parallel laws. Our bodies are public, i.e.: they are out there to be perceived and observed. Our minds, on the other hand, are private realms and inaccessible to others. It is only the individual self which has access to his/her mind, thoughts, feelings, etc… To put the matter briefly, a human being is condemned to live throughout his or her existence two parallel lives, one in and one out, metaphorically speaking. Thus, whatever occurs in our lives falls either under physical events or mental events. The only way minds can meet is "through the medium of the public physical world" where "the

[132] G. Ryle, *The Concept of Mind* p.11

mind of one person (can) make a difference to the mind of another"[133]. What I presume he means here is through verbal communication.

For Ryle, this doctrine is a fundamentally flawed way of conceiving the human person. He refers to it with ridicule as "the dogma of the ghost in the machine", and declares it as the outcome of a category mistake. Ryle provides us with three particularly illuminating examples to explain what he means with the phrase "category mistake". For brevity sake, I will only summarize here the first one.

Suppose, Ryle tells us, a foreigner comes either to Cambridge or Oxford universities to visit. He then is taken for a tour of the grounds. He is shown the various historic colleges, libraries, playing fields, scientific laboratories, etc... Suppose that after such a tour, the visitor were to ask where the university was! It would be immediately clear that the foreign visitor has mistaken the university to be one other component of the university like the several he had visited. It has to be explained to him that the word university means "the way in which all that he has already seen is organized"[134]. By the very fact that he asked such a question, the visitor committed a category mistake. This kind of error occurs when one commits the logical error of assigning one logical type to another. In the case of the mind body relation, a category mistake occurs in conceiving or speaking of mental life "as

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[133] Ibid., p. 13
[134] Ibid., p. 16

if they belong to one logical type or category....when they in actuality belong to another"[135]. The proponents of the "official doctrine" in considering "minds as extra-centers of causal processes" commit the same kind of mistake as the visitor who thought the university was one component among many that he was shown on the grounds. They in effect consider mental events as being a category separate and independent of bodily events. What Ryle has set out to do is to disabuse us of such notion. How then does he do it?

In analyzing the various types of mental activities or mental characteristics, such as intelligence, will, feeling, etc... Ryle tries to show that these are essentially outward and behavioral, not private and never "sealed out" completely from the public. To understand what this means, let us take his analysis of the notion of intelligence as an illustration.

When we apply the epithet "intelligent" to a person, what we are implying in general is that the person in question is possessed of a mental capacity which is totally in his private domain, and that is in his head. Furthermore, it is presumed that his intelligent performances are somewhat preceded by some intelligent thinking. So, in a sense, his action or praxis is anticipated or precede by some theorizing. This mode of thinking about intelligence and intelligent acts is, according to Ryle, the

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[135] Ibid., p.16

direct product of the tradition of the "Ghost in the Machine" which hails back, as I stated earlier, to Descartes. He calls it "the intellectual doctrine" of intelligence. What this mode of conceiving intelligence does is to consider two distinct activities within the same intelligent performance. The first one taking place entirely in the head and privately, and the second outwardly and publicly. The first would consist in theorizing mutely, while the second one comes to be displayed in public. The one that is generally considered intelligent is what goes on privately in the head, and that is the theorizing, because it is considered "the primary activity of the mind". And this is precisely what Ryle attacks.

He first dispels the notion that intelligent performances are effectuation of some theorizing that took shape in the head. There is no appealing by the intelligent person to some theory in his intelligent performance. Ryle wants to show indeed that the performance of an intelligent act "does not entail the double operation of considering and executing"[136]. He forcefully argues that we are hardly ever aware, if at all, of the theoretical rules by which we act intelligently. To quote one of his examples: "a soldier does not become a shrewd general merely by endorsing the strategic principles of Clausewitz; he must also be competent to apply them" [137]. In

[136] Ibid., p. 30
[137] Ibid., p. 31

effect, therefore, if indeed it happens, his theorizing is indistinct from his performance.

Even though Ryle does not dispute the fact that there is such a thing as intelligent planning prior to its implementation, this does not as such involve a two phase process. If such were the case, we would fall victim to infinite regress because "our intellectual planning process must inherit its title to shrewdness from yet another interior process of planning, and this process could in its turn be silly or shrewd, etc...."[138].

This is in effect the reason why Ryle earned the appellation of behaviorist, i.e., his refutation of two stage process in the human act. His objective was to explode Descartes' myth of the "Ghost in the Machine", he succeeded in causing serious damage to it; but was not successful in refuting it completely. Ryle was still faced with the reality of introspection which he could not dismiss offhand nor explain away with his behaviorist approach.

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[138] Ibid., p.31

Identity Theory of Mind

The fundamental idea of identity theory of mind is that "consciousness processes are brain processes", or to put it in another way: "states (i.e., events, etc…) of consciousness are states (events, etc…) of the brain". Simply put they constitute neurophysiological states: for any conscious state (or event) x there is a neural state (event) y such that x is identical with y. Thus the name identity theory of mind.

What this theory is in effect stating is that when one is for example thinking, one's mental processes are nothing but brain processes. Why such theory?

Most of the theories of mind proposed since Ryle were essentially meant to overcome the difficulties posed by Cartesian dualism, i.e., the kind of dualism proposed by René Descartes in the 17th century and which influenced much of the subsequent theories of mind. And identity theory of mind must be seen from such perspective.

Identity theorists of the mind are of the opinion that their theory is far more credible for both metaphysical and logical reasons. First, there is no reason to introduce a "spiritual" principle, such as the soul, to explain what in essence is material: a mental process would be nothing but a material process. A material event caused by another material event. Secondly, it adheres perfectly to the logical principle of parsimony, which we commonly know as "Ockham's razor": the simpler

an explanation, the more likely to be true. In this case tying mental processes to brain processes. And thus mental characteristics would simply be material characteristics!

Even though at the present state of our scientific knowledge we are not able to demonstrate conclusively the perfect identity of the two processes, identity theorists of mind believe that scientists, and more specifically neuroscientists, may eventually be able to "uncover the intimate relationship between neurological and mental processes".

A corollary of such thesis is that identity theorists of mind maintain that every mental property is a material property. What this means is there is no mental state, property, event independent of the brain: a mental state is quite simply a brain state of being. The two are identical!

How this identification of the mind and brain processes is explained and elaborated by its two preeminent exponents varies. And I will endeavor in the next pages to explain their positions.

Herbert Feigl

The main objective of Herbert Feigl's article "The Mental and Physical" (1958) is to explain, or better, interpret "the relation between raw feels (by this I

think Feigl means immediately felt experiences) and the neural processes"[139]. But before he does this, he wants first to answer two preliminary questions 1) what the identity theory of mind maintains concerning the relation of "rawfeels" and neural events, and 2) what the difference between epiphenomenalism (sometimes known as psycho-physiological parallelism) and identity theory of mind is.

Feigl maintains that identity theory of mind's fundamental tenet as being "that the states of direct experience which conscious human beings "live through", and those which they confidently ascribe to some higher animals, are identical with certain (presumably configurational) aspects of the neural processes"[140]. The main presupposition of Feigl is that, at least the way I understand it, the subjective nature of rawfeels and the objective state of neurological processes are not unbridgeable, i.e.: they do not constitute different "realms" as in Descartes. The reason for this assertion of Feigl is that "there seems to be no reason to assume the existence of absolutely private mental states". In other words, there are no captive minds in our world. The notion of inaccessible "locked" minds is untenable and indefensible.

On this account, Feigl rejects Spinoza's double aspect theory of the human composite "because it involves the assumption of an unknown…neutral (third) substance"[141], a kind of - one presumes- Kantian "thing in itself" of which the mental

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[139] P.1 of the same article
[140] Ibid.,
[141] Ibid.,

(sentience) and the physical (appearances, properties, structure, etc…) are complementary aspects"[142]. Based on the principle of parsimony, Feigl proposes to exclude this third neutral unknown as unnecessary.

Feigl appears to suggest that, in the present state of our knowledge of the brain, and given the early stage of our technological tools, we may not be sufficiently equipped to determine how mental processes are manifested neurologically, he believes that:

> "If a brain physiologist were equipped with the knowledge and devices that may be available a thousand years hence, and could investigate my brain processes and describe them in full detail, then he could formulate his findings in neurophysiological language, and might even be able to produce a complete microphysical account in terms of atomic and subatomic concepts."[143]

In order to understand precisely what identification theory maintains, Feigl Suggests that we first agree on the meaning of the word identification. We must clarify that by identification we do not mean to "identify rawfeels with the scientific tinkertoy models of complex molecular structures"[144]. This would amount to confusing the evidence with the evidenced, the indicator with the indicated; it would be like confusing smoke with fire, footprints with a man walking, etc… A logical error for which Feigl appears hard-pressed to find a name.

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[142] Idem, p. 4
[143] Ibid.,
[144] Idem, p. 7

U.T. Place

Like his contemporaries Feigl and Smart, Place's fundamental thesis is that "consciousness is a process in the brain"[145], and "that we can identify consciousness with a given pattern of brain activity, if we can explain the subject's introspective observation by reference to the brain processes with which they are correlated"[146]. The question then is to explain how precisely this identification should be understood, and not exactly how it actually is from a purely scientific point of view.

What Place is in effect trying to argue is that "an acceptance of inner processes does not entail dualism....that consciousness as a process in the brain cannot be dismissed on logical grounds"[147]. Place then begins his argument by providing a clarification of the verb "is" in the statement "consciousness *is* a process in the brain". It entails an important distinction, because it would be clearly false to maintain that "statements about consciousness *are* about brain processes". To clarify Place's point, let me give my own example here: to say that I am fully awake describes my state of consciousness, not my brain's! This is so, according to Place, for three reasons or facts: 1) "one can describe one's sensations and mental imagery without knowing anything about one's brain processes, or even if such things [indeed] exist. For as far back as we can trace the history of homo sapiens, human

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[145] U.T. Place, "Is consciousness a brain process" (1954)
[146] Ibid.,
[147] Ibid.,

beings have been able to think and express their thoughts and their sensations without ever knowing how, or being able to do so. 2) 'statements about one's consciousness and statements about one's brain processes are verified in entirely different ways'. Obviously, statements that describe my personal state of consciousness are subjective because I would be relating my experience: I am simply saying that I am aware of such and such state of affair, this is what I experience, etc…Whereas brain processes are verified for example by using direct observation of the brain, with electrical and technologically advanced instruments. The brain thus comports an objective approach 3) there is no contradiction arising from stating or relating of an event concerning consciousness while [we observe] "nothing happening" in the brain.

For the reasons stated above, Place introduces the distinction between the use of "is" in a definition and the "is" of composition. The "is" of definition, for example "a square is an equilateral", or "red is a color", suggests, according to Place, that such use of "is" predicates a *necessary* qualification: they are true by definition. They are intrinsically true, or to use a Kantian terminology, they are analytical. The "is" of composition in such examples as "his table is an old packing case" provides a predicate that is contingent; in other words, the use of a packing case as a table is not an inherent function of a packing case: it is an added, improvised use of it. Again

to use Kantian terminology, we would say it is a synthetic proposition: the packing case and table have, as it were, an "accidental", i.e., non-necessary relationship.

According to Place, the rejection of the statement "consciousness is a brain process" arises from the logical assumption that "if the meaning of two statements or expressions are quite unconnected they cannot both provide an adequate characterization of the same object or state of affairs: if something is a state of consciousness, it cannot be a brain process"[148]. The assumption being here that "I feel pain and there is nothing happening in the brain" is not a contradictory statement.

It appears that Place's distinction is introduced for the specific purpose to not misconstrue the word "is" in the statement "consciousness is a brain process": an "is" of composition and not of definition. The understanding of "is" in the same proposition as an "is" of composition can lead, it appears, to asserting the ontological independence of consciousness and the brain. A fact Place has striven to reject.

The simplest and direct way Place explains the mind/brain or consciousness brain identity is through his example of lightning. When lightening occurs we can't actually see the electric charges; what we can perceive or experience is only the light [and rumbling, if we are near enough]. So, in lightning there is an observable event

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[148] Ibid.,

through our senses, and an electric charge that can only be quantified scientifically. It is in this manner that a consciousness event is at the same time a brain event. They are not correlated but identical.

The phenomelogical fallacy that Place speaks about is a logical fallacy that stems from "supposing that when a subject describes his experience, when he describes how things look, sound, smell, taste, or feel to him, he is describing the literal properties of objects and events on a peculiar sort of internal cinema or television screen [the phenomenal field]"[149]. The presumption of this fallacy is "our descriptions of things are primarily descriptions of our conscious experience, and only secondarily, indirectly and inferentially descriptions of the objects and events in our environment"[150] In other words, to put the matter quite simply, we have only access to our consciousness or experience data. Place rejects this phenomenalist view, and asserts its opposite, and that is it is through our sense data or perceptuals that we come to "recognize the real properties of things in the environment", and "indeed, it is only after we have learnt to describe the things in our environment that we can learn to describe our consciousness of them"[151]. How do these assertions relate to the identity theory of mind? Place discusses the phenomenological fallacy and rejects it for the purpose of showing that 'the explanation of introspective

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[149] Ibid.
[150] Ibid.
[151] Ibid.

observations in terms of brain processes is not insurmountable'. Implying that we are not simply relegated to our consciousness experience with no access to processes in the brain.

Functionalism

Janet Levin defines functionalism in the philosophy of mind as: "the doctrine that what makes something a mental state of a particular type does not depend on its internal constitution, but rather on the way it functions, or the role it plays in the system of which it is part"[152]. In order to understand this definition it is useful to use the example that Ned Block, one of its foremost exponents, provides in his article "What is functionalism?"[153]. What makes a carburetor a carburetor is not its physical properties but the role it plays in a car, i.e., mixing air and fuel to a specific proportion. It is a fact indeed that carburetors have different configuration from one type of car to another and even from one model to another. What makes them what they are is their function.

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[152] J. Levin, "Functionalism" in Stanford Encyclopedia of Philosophy, p.1

[153] N. Block "What is Functionalism?" in *Consciousness, Function, and Representation: Collected Papers* 2007

Thus the functionalists maintain "that mental states and events, pains, beliefs, desires, thoughts, and so forth, are defined by causal relations to other mental states, stimuli (inputs") and responses ("outputs")[154]. Being in pain is not merely agitation of nerve cells, and demonstrating in various ways that I am in such state, but it also involves concomitant mental states such as belief that one is in pain, the desire to rid oneself of the pain, etc…

One other fundamental tenet of functionalism is that mental states, say for example pain, "can be realized by different types of physical states in different kinds of creatures"[155], What exactly does this mean? It means that a mental state, such as pain, is not tied to a certain specific type of brain, but it can occur even in "non-biological species"[156] In fact, it could even be realized in non-material beings, even though virtually all functionalists discount the possibility that such beings do in fact exist! Putnam goes as far as saying that it can even be "realized" in cheese!

Functionalist methodology. Ned Block states that functionalists favor a method of explanation "that relies on a decomposition of a system into its component parts; [so as to explain] the working of the system in terms of the capacities of the parts and the way the parts are integrated with one another"[157]. Block illustrates his

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[154] O. Shagrir "Hilary Putnam and computational functionalism" in *Philosophy of Mind: The Key Thinkers,* 2014, p.148
[155] J. Levin, ibid., p.3
[156] O. Shagrir, ibid., p.149
[157] N. Block, ibid., p.27

point by bringing the example of a factory. If one wanted to understand how a factory produces say a refrigerator, one way to explain to him/her is by describing what the various parts do, i.e., workers and machines, and how they are organized as a whole. In other words, by de-composing the system.

Antecedents of Functionalism. Functionalists believe that Aristotle presents the earliest form of their theory in that, unlike his teacher Plato, he maintained that the soul could not exist independent of the body, and that the soul is the form of the natural body: "The soul [as it were] is to be identified with whichever powers and capacities enable a natural, organized human body to fulfill its defining function….[that is] to survive and flourish as living, acting, perceiving, and reasoning being"[158]. Much later, Thomas Hobbes, in presenting a mechanistic view of the human body, declares that reasoning is "nothing but reckoning, that is adding and subtracting"[159]. But as stated in the introductory paragraph, functionalism, as we know it today arose towards the middle of the 20th century with the rise of computers and computer programming.

Varieties of Functionalim. Contemporary functionalism arose in reaction to the two previous dominant theories of mind: philosophical behaviorism of Ryle, and physicalism which is largely responsible for the identity theory of mind. However,

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[158] J. Levin, Ibid., p. 5
[159] T. Hobbes, *Leviathan,* Chp. 5,

it did not react to these theories in a uniform way and by using similar arguments. It instead reacted in several differing ways that gave rise to several versions of the theory. I will briefly consider some of the better known ones here. As a note of caution, these various forms of functionalism are not unanimously known by the same name. In fact, they are called by different names. I therefore will adopt the names by which they are known by the majority of the authors I have consulted.

In her article on "Functionalism" in the Stanford Encyclopedia of Philosophy, Janet Levin distinguishes three main strands of functionalism: 1) Machine functionalism 2) Psychofunctionalism and 3) Analytic functionalism [160]. On the other hand, Orin Shagrir, while he has identical names for 2 and 3, he speaks of computational functionalism instead of machine functionalism[161]. Ned Block, on the other hand, speaks of Computation-Representation functionalism, Metaphysical functionalism, and Machine functionalism. To avoid any confusion, I will adopt Levin and Shagrir's typology of functionalism. Before I explain more in depth the ideas of their pre-eminent exponents, I will briefly summarize the main points of each type of functionalism mentioned here.

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[160] J. Levin, ibid., p. 9 and following pages.
[161] O. Shagrir, Ibid., p.150 and following pages.

Computational or Machine Functionalism

The pre-eminent representative of this brand of functionalism is Hilary Putnam (1926-2016) who in his seminal articles "Minds and Machines" [1960] and "The Nature of Mental States" [1975] proposed it in reaction or as an alternative to Logical (or philosophical) behaviorism and the identity theory of mind.

Computational/Machine functionalism was inspired primarily by the emergence of computing machines, known in those days as "Turing Machines". What in essence Putnam observed was the analogy existing between minds and these machines: minds relate to the brain as computers programs relate to the computing machines. Or to put the matter succinctly, the mind is to the brain what a software is to the hardware. And thus "brain states realize mental states, much as the physical states of the hardware realize the logical state of the software"[162]

Psychofunctionalism

Psychofunctionalism, rather than drawing analogy with computing or Turing machines, it adopts "the methodology of cognitive psychology" in its characterization of mental states and processes as entities defined by their role in a

[162] O. Shagrir, ibid., p.154

cognitive psychological theory"[163]. It bases its theory of mind, as it were, on the best psychological explanation of human behavior available[164]. This means that it relies on "information available only by careful observation and experimentation"[165]. Thus psychofunctionalism avails itself of "all the tools of inquiry available to scientific psychology"[166].

The prominent philosopher of mind Ned Block accuses psychofunctionalism of being chauvinistic because such theory would in effect "deny mentality to any other creature" that is not human. In other words, it essentially attributes "mentality" only to humans, or to creatures which essentially have mentality identical to humans.

Analytic Functionalism

Unlike psychofunctionalists, analytic functionalists take common folk psychology and the language used by it to analyze the nature of mental states. The presumption of this theory is that "people ordinarily ascribe mental states according to the functions they judge those states to play within a cognitive system"[167]. For example, let us take a mental state such as pain. We can identify what pain is by

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[163] J. Levin, Ibid., p.13
[164] Ibid.,
[165] Ibid.,
[166] Ibid.,
[167] M.Phelan and W. Buckwalter "Analytic Functionalism and State Attribution" p. 1

"whatever particular plays the causal role specified by our ordinary pain concept within a cognitive system"[168]. This is the view that has been advocated by David Lewis. It is the counterpart in functionalism of logical behaviorism. Instead of defining mental states by their outward manifestations, as logical or philosophical behaviorism does, analytic functionalism wants to define mental states by the role or function they play within a cognitive system.

Hilary Putnam

Consistent with his analytical tradition, Putnam sets the mind body problem as being "wholly linguistic and logical in character". This is a clear departure from its traditionally assigned place in metaphysics.

The objective of his landmark article "Minds and Machines" is not specifically to answer the question as it has been traditionally posited, but to "show that all the issues arise in connection with any computing system capable of answering questions about its own structure"[169]. Thus the paper is not solely about the human mind, but about any system that functions as such.

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[168] Ibid.,
[169] H. Putnam, "Minds and Machines", p.363

Putnam, in order to test his own theory, takes up the traditional questions associated with the mind-body problem. The first one of these concerns the notion of privacy: e.g., how do I know I have pain? He considers such question to be a "logical odd and deviant question" while the question "how does anyone ever know that someone else is in pain" as being non-deviant and not odd. The other question is if it is possible at all to identify mental events with physical events. Clearly, this was posited as a response to the identity theory of mind.

Putnam constructs his entire argument on the premise that the human mind and a Turing machine are analogical. He appears to reject the thesis advanced by Nagel and Newman "that the structure and power of the human mind are far more complex and subtle than any-living machine yet envisaged"[170]. In fact, the whole aim of the article seems to aim at drawing a perfect parallel between a Turing machine and the human mind's operation. And on both questions of identity and the mind body relation, he sees no substantial differentiation between a Turing machine and the human mind.

When Putnam speaks of a Turing machine, he is not speaking of a physical machinery, or a computer hardware. A Turing machine can be realized in all kinds of ways, and it does not need to be even physical. A Turing machine is understood

[170] Putnam's quote of Nagel and Newman's book "Gödel's Proof", p. 10

by Putnam in an abstract way. And that is how he wants us to conceive it in order to follow his argument[171]. One way he sees the analogy between a Turing machine and a human mind is in the process of self-detection. For example how a computer detects a certain malfunction in its structure appears to be parallel to the way a human being detects "some, but not all of the malfunctions of his own body, and with varying degrees of reliability"[172]. However, the detection of a malfunction doesn't need as such a physical Turing machine; it could be realized in an abstract way.

Putnam's stark conclusion is encapsulated in the following quote: "Any conclusion that might be reached in the case of the mind-body problem would have to be reached, *and for the same reasons*, in the Turing machine case"[173]

John Searle's critique of computational functionalism

In an article published in "Scientific America"[174], John Searle argued that the mind is not a computer program. The reason for this is succinctly stated just below the article's title: "A program merely manipulates symbols, whereas a brain attaches meaning to them". The whole article is in essence an elucidation of this point.

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[171] Ibid., p.371
[172] Ibid., p.372
[173] Ibid., p. 384
[174] January 1990 issue. The article's title is "Is the Brain's Mind a Computer Program?"

Searle's article begins with the questions "Can a machine think? Can a machine have conscious thoughts in exactly the same sense that you and I have have [consciousness]?"[175] Searle does not outright respond to these questions in the negative. He in fact states that "for all we know, it might be possible"[176], i.e., to create one "out of different materials altogether"[177]. In reality, this is not exactly the issue he is concerned about in this article. What he wants to tackle with is the question whether a machine (i.e., a computer, robot, etc…) can be said to think "by virtue of implementing a computer program"[178]. Or if indeed a program constitute in itself thinking.

Those who answer yes to such a question are called as advocates of a strong Artificial Intelligence (AI). They are convinced that with the right programs, with the right inputs and outputs, minds can be created (or duplicated)[179]. And there would be the Turing Test to prove it which states that if a machine/computer performs in a manner indistinguishable to a human mind as judged by an expert, then the computer has identical abilities to a human being.

A weaker AI does not go so far as identifying the mind to a computer program. But sees computer models as providing a tool for studying the mind just as they are

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[175] Ibid., p. 26
[176] Ibid.,
[177] Ibid.,
[178] Ibid.,
[179] Cf. ibid.,

useful in providing weather, economic models. According to Searle, strong AI reduces thinking to mere manipulation of formal symbols. A task that basically defines the function of a computer. This is the view that in essence led to the famous assertion that "the mind is to the brain as a computer program is to the computer hardware".

Searle refutes such conception of the mind with his famous "Chinese Room" simile which has been the subject of numerous criticisms and counter-arguments. The "Chinese Room" simile describes a hypothetical scenario where a person is in a room containing "basketful of Chinese symbols". The person is totally ignorant of the Chinese language, but is given a rule book in English (his language) through which he is instructed to match certain Chinese symbols with certain other Chinese symbols. The rulebook does not provide the meaning of the signs, but helps identify them by their shape. Suppose that people outside the room who understand Chinese hand him through an open slot a bunch of Chinese symbols and he, by following the instructions in the book, hands them back a bunch of symbols which to them makes perfect sense, but which he does not understand at all! Can one say that the person in the room speaks Chinese?

What Searle wants to illustrate through this simile is that computer software or programs do not do anymore substantially different thing from what the person in the Chinese room does. What a computer program does is simply manipulate

symbols; nothing more, nothing less. Computer programs do not assign meaning. And simply manipulating symbols does not amount to "cognition, perception, understanding, thinking, and so forth"[180]. At this point, Searle lays down four axioms that clearly sets the fundamental differences between a computer program (software) and the mind.

The first axiom states that computer programs are formal[181] (or syntactic). In other words, they operate according to a set pattern. A series of commands to manipulate symbols "without reference to any meaning"[182] On the contrary, the second axiom maintains that human minds have mental contents (semantics). Simply put human minds deal with meanings. Syntax for humans is simply a tool for making sense. The third axiom asserts that syntax by itself is neither constitutive of nor sufficient for semantics. This latter axiom allows Searle to make four further conclusions:

i. Programs are neither constitutive of, nor sufficient for minds. What this means is that "thinking is not equivalent to formal symbol manipulation"[183]. (my own example: when a computer does complex mathematical operations it is not thinking, even if it mimics mental operation).

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[180] Ibid.,
[181] Idem, p. 27
[182] Ibid.,
[183] Idem, p. 27

ii. Even though there could hypothetically exist other beings out there that can think, or even if we posit the possibility of one day creating a "thinking system artificially", as far as we know "only biologically based systems like our brains can think"[184] [as far as we know so far!]

iii. Strong AI is not saying that computers will be able to think provided they are given the right program. It maintains that they already do " because that is all there is to thinking"[185].

iv. Finally, symbol manipulation is not thinking; and as such computer simulation is not duplication of the mind but simply aimed at "providing models of the formal aspects of "the mental" processes[186].

The fourth axiom states that "Brains cause minds". What this means quite simply is that cognition, i.e., the act of knowing, is a "biological phenomenon: mental states and processes are caused by brain processes"[187]. Simply running a computer program is not equivalent to mental processes.

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[184] Idem, p. 27
[185] Ibid.,
[186] Ibid.,
[187] Idem, p. 29

Representational Theory of Mind

The philosopher most associated with this theory of mind is Jerry Fodor (1935-2017), long time professor at Rutgers University, and before that at CUNY Graduate Center and MIT.

The fundamental tenet of this theory is that "all of the various kinds of mental states and activities involve mental representations"[188]. What this means is that such mental activities as knowing, perceiving, remembering, dreaming, fearing, hoping, etc…, involve some form of mental representation of something or other. The consequence of such theory ultimately is that mentality, or any form of mental activity or state "is fundamentally a representational affair"[189]

Thinking takes place in effect "within a mental language". This language need not be articulated in the manner of natural languages. But it is nevertheless a form of language. What philosophers of mind call "propositional attitudes" and that is "mental states such as beliefs or desires, involve [an attitude] that a thinker bears toward a proposition"[190], for example towards the proposition "it is raining" and "desiring an umbrella". Such propositional attitudes involve "relations between subjects and mental representations"[191]

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[188] P. Mandik, "introducing the representational theory of mind" online resource
[189] Ibid., p.3
[190] P. Mandik, *Key Terms in Philosophy of Mind* (2010) p.95
[191] Ibid.

For this reason, representational theory of mind maintains like functionalism, of which it is considered an offshoot, that thinking is essentially a computational process. And indeed Fodor saw his own philosophical project as an attempt at marrying Turing's idea of thinking as computation with folk psychology [192].

By folk psychology – which is often contrasted to analytic or scientific psychology – analytic philosophers of mind mean the kind of uncritical everyday psychology that operates in our daily lives and behavior. It is generally anticipatory, predictive and inductive. One evidence that Fodor provides in support of his view that thinking is computation is the process by which we come to a decision. Think of the process by which we decide to go to a particular school as opposed to another. This decision comes as it were as the consequence of computations about "representations of possible acts"[193]. If we have no representations, then we have no computations.

Fodor's theory that thinking involves some form of language-system representation in the brain is informed by the view that like in natural language – where out of a set number of words we can practically form potentially an infinite number of sentences – "complex representations are constructed from a finite store

[192] M. Katz "Jerry Fodor and the representational theory of mind" in *Key Thinkers. Philosophy of Mind*, 2014 p. 173
[193] Ibid.

of atomic representations"[194]. This is what Fodor calls "productivity" [of mental representations].

In addition to this concept of productivity, Fodor recognizes two characteristics of the human mind: systematicity and modularity. The first one means essentially that our thoughts are always tied to other thoughts in such manner that one who understands one is able to understand the other. The notion of modularity of the mind mean that "some mental capacities are functionally localizable in distinct modules"[195]

The Normative Model of Mind

The normative model of mind, also known as interpretationist theory of mind, came to the fore between the late 60s and early 70s. Its most famous exponents are Donald H. Davidson (1917-2003), and Daniel Dennett (born 1942). They came to have similar views independently from one another. In fact, they hardly quoted each other's work. However, despite not being exact contemporaries – Davidson, being

[194] Ibid., p. 177
[195] P. Mandik, *Key terms*, p. 75

about 25 years older than Dennett, could have easily been his teacher – they both produced their versions of the theory about the same time.

Andrew Brook theorizes that they arrived at similar results in their conceptions of the mind because a) they were both students, at different times of course, of W.V.O. Quine, and they were both profoundly influenced by him b) they both worked on versions of this theory while they were at Oxford c) They were both influenced by the same philosophers and philosophical themes (they worked both on Wittgenstein's philosophy) and d) They are both children of American pragmatism, and their models of mind are steeped in this philosophical tradition[196].

As we will see, even though their theories fall under the common denomination "normative model of mind", each of their theories is also known under more specific label. Davidson's is known as "Anomalous Monism", while Dennett's is called "Type Intentionalism".

The fundamental tenet of this theory of mind, in both versions, is that "for an organism, or entity, to have a mind, its behavior must satisfy certain norms. Since this is not true of any other complex system, it immediately follows that minds, though natural systems, are very different from other natural systems"[197]. For this

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[196] A. Bark "Donald Davidson, Daniel Dennett and the Origins of the Normative Model of the Mind" in: *Philosophy of Mind*, ed. By Andrew Bailey (2014), pages 191-193

[197] Ibid.,

reason, psychological explanations (i.e., reasons provided for behaving or thinking in a certain way) are *holistic*, meaning that they cannot be reduced to simple cause-effect explanations. In other words, in explaining for example the behavior of one person, we must assign to him or her such things as motivation, belief, sufficient rational control, etc..., and, secondly, [that] beliefs are mostly accurate and consistent.

Davidson's Anomalous Monism

Davidson articulated first his theory of mind in an article titled "Mental Events" published in 1970, and revisited it in a few subsequent articles, e.g., "Thought and Talk" (1975). Davidson's article begins, in a sense as a response to Kant's desideratum that "no true contradiction will be [or should be] found between freedom and natural necessity in the same human actions, for it cannot give up the idea of nature any more than that of freedom"[198]. What Kant is inviting philosophers to do is basically to find a way of overcoming the apparent contradiction between human indeterminism (freedom) and natural (or nature's) determinism.

It is in attempting to overcome this apparent contradiction that Davidson formulates his theory of mind, known as anomalous monism. If we indeed approach the term etymologically, we will be able to somehow anticipate what it is about.

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[198] I. Kant, *Groundworks of the Metaphysics of Morals*,

Davidson is not using the term anomalous in the sense of abnormal or deviant. He is using it in the Greek sense of *a-nomos*, i.e., without rule or law; or not following a rule or law, indeterminate… Monism is a philosophical term signifying any theory which affirms the existence of one and only one substance in the universe. In the case of Davidson, his monism is materialistic. In other words, he believes that the universe is purely material. In fact, philosophically, he adheres closely to the physicalist identity theory of mind. In his article, he indeed qualifies his position as token-physicalism.

Davidson begins his argument by stating three principles which are supposedly contradictory, but can be shown that their contradictions can be overcome.

i. First Principle (which he calls the *Principle of Causal Interaction*) affirms that: "at least some mental events interact causally with physical events"[199]. In this case, what Davidson has in mind is perception. In perception, he maintains, "causality may run from the physical to the mental"[200]. The same can be said of human action.

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[199] Idem, p. 137
[200] Ibid.,

ii. The second principle states: "Where there is causality, there must be law: events related as cause and effect fall under deterministic laws"[201]. Davidson calls this principle "the nomological character of causality".

iii. The third principle, which he calls "anomalism of the mental", states that there are no strict deterministic laws on the basis of which events can be predicted and explained.

The assumption or belief of most philosophers is that these three principles cannot be reconciled. Davidson, on the other hand, by affirming each one's intrinsic truth, wants to demonstrate that they are not necessarily contradictory.

Davidson's main objective then is in essence to defend a kind of token physicalism, which by virtue of his argument, he re-baptizes as "anomalous monism". He does so by positing or demonstrating first that mental events are physical events. And secondly, by admitting the indeterminacy (anomaly, as he would call it) of the mental. And thirdly, by affirming that "there can be no lawful connections between the mental and physical events". This clearly implies that the mental and the physical are not deterministically correlated. What Davidson has basically done is to re-habilitate the physicalist theory of mind by eliminating its inherent and debilitating contradictions.

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[201] Ibid.

Amir Horowitz reconstructs Davidson's argument in the following manner[202]:

P1. Mental events bear causal relations to physical events.

P2. If there is a causal relation between events, then there is an implied existence of a strict deterministic law that connects those events.

C1. There are strict laws that connect mental events with physical events (*modus ponens*, P1, P2)

P3. Strict laws only connect events under physical descriptions with events under physical descriptions.

C2. There are strict laws that connect mental events under their (non-mental) physical descriptions with physical events (instantiation, P3, C1)

P4. If there are strict laws that connect mental events under their (non-mental) physical descriptions with physical terms, then mental events have physical descriptions.

C3. Mental events have physical descriptions (*modus ponens*, C2, P4)

P5. If a mental event has a physical description, then it is a physical event.

C4. Mental events are physical events (*modus ponens,* C3, P5)

This in essence sums up Davison's position.

Dennett's type intentionalism

Daniel Dennett was a student of the oxford philosopher Gilbert Ryle. Even though there is clear evidence that he was influenced by him, unlike him he was determined to provide a philosophy of mind which was informed by the most

[202] A. Horowitz "Davidson's Argument for Anomalous Monism", in *Just the Arguments: 100 of the most Important Arguments in Western Philosophy*, Blackwell, 2011

scientifically grounded researches on the brain. He, in fact, is among a handful philosophers of mind who work closely with brain scientists.

Dennett's approach in philosophy of mind has been described often as instrumentalist: a view that attribution of belief or desire to a person can be true even though there are actually no real "inner states" to speak of. According to this view a being having a mind is more a useful projection on our part of that being having a mind than actually that being having really a mind. It is motivated by our desire to see another as one of us, i.e., a being having beliefs, desires, reasonableness, rationality, etc… [In reality] this other being need not be a human person. It could be a bird sitting on a branch in my garden. For the matter of that it could be a worm slithering from a hole.

The assignation of desire, belief, or what in general philosophers of mind call "propositional attitudes" to others, whatever kind of creature they may be, is what Dennett calls the intentional stance. It is a mode that allows one "to make sense of" and even predict the behavior of virtually any organism.

Is the fact that we assign intentions to such creatures as birds, worms, or even bacteria mean that they do in fact have beliefs and desires? Do they really behave rationally? Or do they do so as if they are endowed with one? Are we ascribing beliefs and desires to creatures realistically or metaphorically?

All these interesting questions are considered by Dennett as wrong-headed since 'a creature's having beliefs and desires *is just* a matter of the creature's being describable and explainable through the use of an intentional stance'[203]. In a nutshell, Dennett's position is that "if you can make sense of the behavior of a microbe by taking up the intentional stance towards its activities, then the microbe does have beliefs and desires, hence reasons, for what it does"[204].

The philosopher of mind John Heil rightly counters this view by stating what would prevent one, if one were to accept Dennett's premise, to see desires and beliefs in plants, or even in such human artifacts as computers, smartphones, or printers? Couldn't one say that the tree spreads its roots in the ground because it wants to stay alive and thrive, and that doing so achieves its goal? We often catch ourselves ascribing will and purpose to small creatures, electronic or mechanical devices; sometimes even to very simple objects. But these ascriptions of will and purpose are done with a clear knowledge that they are purely metaphorical. However, Dennett is adamant in stating that "ascriptions of beliefs and desires to single-cell organisms, plants and artifacts are no more metaphorical that those we ascribe to fellow human beings"[205]. All that matters to Dennett, it appears, is that "all there is to an entity's acting on reasons is the entity's behaving as if it had

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[203] Cf., J. Heil, *Philosophy of Mind. A Contemporary Introduction*, 3rd edition Routledge 2013, p. 131
[204] Ibid.,
[205] Ibid.,

beliefs and desires, and acted on reasons"[206]. This, in essence, is what it means to have an intentional stance [for Dennett]. The intentional is one of three modes by which we explain the behavior of things and persons. These are the physical, the design, and intentional stances.

The three kinds of stances:

Let us take the famous case of Kasparov, the great Russian chess grandmaster, playing against Deep Blue, the IBM supercomputer. There are three possible ways why Deep Blue makes a certain chess move:

i. First, we may explain its moves by *physical stance*, which would involve very precise and detailed explanation how Deep Blue is built and functions. This approach of explaining one simple chess move would be extremely complex and difficult for a lay person to follow and understand.

ii. Another mode of explaining is what Dennett calls the *design stance*. This entails understanding the program, or software that operates it. Even though it may be simpler than the physical stance approach, it comes at the price of being less precise and predictable: there is no guarantee that it may behave in a certain way. This approach is less secure.

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[206] Ibid.,

iii. Finally, there is the *intentional stance.* This is a mode of explaining the move by treating Deep Blue as if it has goals and the ability or capacity to achieve these goals. It is the simplest form of explanation. The obvious drawback of this approach is that it must treat all kinds of systems as being endowed with reason and rationality.

In Dennett' view, there is no question of compatibility or incompatibility of these three stances. They are simply modes we choose to explain all sorts of behaviors and events. According to him, by ascribing beliefs and desires to living and non-living things we run the risk of "anthropophizing" their behavior. It may be our simplest and immediate explanation; and it can even be useful in the short term. But it is far from being objective, much less scientific.

Different kinds of mind

According to Dennett, mind is not an exclusive feature of the human being. It is something present in all living creatures; it only differs in kind. Having a mind involves being guided by representations or by behavior that can be explained by appealing to representations. He distinguishes four kinds of minds that he posits hierarchically and labels with suggestive names:

At the very bottom of the mind echelon is what he calls the *Darwinian Minds*. These belong to creatures whose minds have evolved to respond to a stable environment. A subset of these kinds of minds are the *Skinnerian minds* (After the famous psychologist B.F. Skinner, 1904-1990) which are capable of learning through trial and error. They display mental plasticity non-observed in *Darwinian minds*. They adopt behavior to changing circumstances. They basically can adapt themselves to match or fit their environment.

A level above these are the *Popperian minds* (named after the famous philosopher Karl R. Popper, 1902-1994) which belong to creatures "who have managed to device a method of representing their environment in a way that enables to test likely outcomes of distinct courses of action their heads, and learn without exposing themselves to lethal errors"[207]. Simply put, *Skinnerian minds* operate by trial and error, and *Popperian minds* learn by modelling experience in advance.

Above all these three are *Gregorian minds* (named after the famous British psychologist Richard Gregory, 1923-2010). These kinds of minds possess the ability of testing hypotheses in their minds. They are capable of self-conscious representations. Human beings are the ones possessing such kinds of mind. But the

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[207] J. Heil, ibid., p. 139

other kinds of mind are subsumed under them. In fact, any kind of complex actions requires the coordination of all of them.

Consciousness according to Dennett

According to Dennett, the so-called problem of consciousness is one created by the philosophers own doing (in his own words: "of our own doing"). He is not actually claiming that there is no such thing as consciousness. But it must be understood in a novel way. Consciousness for him is quite simply the capacity to reflect upon representations. And such capacity is intimately bound to the ability for language. Put simply, thinking and consciousness are only present in creatures endowed with language. Conversely, a creature not possessed of language cannot be claimed to have consciousness.

For example, a creature is said to be able to have experience of pain only if it is also capable of reflecting upon it. If a creature is incapable of reflecting upon it, which is to say that it is unable to anticipate what it would be like, dread it, dwell upon it, or be haunted by it, it cannot be said to "feel" pain in the same sense or, for that matter, in any sense as a creature which does.

Eliminativist Theory of Mind

Even though the current form of this theory emerged since the 1980's through the works of husband and wife philosophers Paul and Patricia Churchland, the preliminary sketch of this theory was already outlined in the seminal articles by Paul Feyerabend[208], and Richard Rorty [209].

The philosopher of mind John Heil views eliminativism as a kind of "dark cousin" of Dennett's instrumentalist theory of mind. In effect, it is the logical end of Dennett's position in some regards. As we have seen, for Dennett explanations of what the mind is must go beyond the intentional stance to adopt a design stance, and ultimately, the physical stance. What eliminativism appears to do, at least in the form it assumes in the works of the Churchlands, is to completely repudiate the first of the two stances (of Dennett) and admit only the physical stance. Put simply, for eliminativists there are no intentional stances. In other words, no beliefs, desires, intentions, reasons for actions, or what philosophers and psychologists call "states of mind". What eliminativists eliminate in effect are really talk about minds or states of mind to explain the behavior of sentient beings. Eliminativist consider talk about minds or states of mind as being no different talk of natural phenomena by imputing them to gods, demons and spirits. These, as we know now, are explanations that are

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[208] P. Feyerabend "Mental events and the brain" (1963)
[209] R. Rorty "Mind-Body Identity, Privacy and Categories" (1965)

remnant of a superstitious view of the world. In the case of the mind and its states, they must be replaced by a scientific description, i.e., neuroscience. Even psychology, which reputes itself as a scientific explanation of the mental, must be eventually be replaced by neuroscience. Our common sense conception of the mind and its states, as it is represented by what is called *folk psychology*, must be completely abandoned, in the same way that alchemy was abandoned with the advent of chemistry.

When neuroscientific explanations will eventually become the most dominant ones, there will most likely be two outcomes: A) Academic psychology will be reduced to neuroscience or B) Neuroscience will completely replace it. This may not entail that we will automatically abandon our usual talk of mind and its states, but we will have a different conception of their meanings.

Earliest formulations of Eliminativism: Feyerabend and Rorty

The very first philosophers who laid the grounds for an eliminativist theory of mind were Paul Feyerabend (1924-1994), one of the pre-eminent philosophers of science in the 20th century, and Richard Rorty (1931-2007) among the best known American philosophers of the second half of the 20th century. Their theories emerged, not as deliberate philosophical program, but in response to and in defense

of the identity theory of mind. In other words, they wanted to provide the identity theory of mind with stronger additional arguments to make it more acceptable.

Feyerabend's eliminativist position can be gleaned from his notable article: "Materialism and the Mind-Body Problem". He states the purpose of his article as being twofold: A) to defend materialism against attacks coming from certain quarters (which he does not specify) and B) Place, or situate philosophy in its proper place. For the purpose of his paper, Feyerabend begins from a basic form of materialism which he calls "crude materialism". A kind of Democritean[210] atomism which would assume that "the only entities that exist in the world are atoms [and] aggregates of atoms; and that the only properties and relations are the properties, and the relations between such aggregates" [211]. The question then becomes: Can a Democritean "cosmology give a correct account of human beings"?[212] An initial response to such a question appears to be no. Because, as he says, "human beings, apart from being material, have experiences, they think, they feel pain, etc… These processes cannot be analyzed in materialistic fashion. Hence, a materialistic psychology is bound to fail"[213]. This assertion is based on the following argument:

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[210] Democritus of Abdera (460-370 B.C.E.) who formulated the first materialism in the West.
[211] Feyerabend, ibid. p. 49
[212] Ibid.,
[213] Ibid., p. 50

We cannot ascribe experiences of thoughts, pains, etc… to material processes. And conversely. Claims made of material processes cannot be made of thoughts, pains, etc… Should we attempt to do so our speech would turn non-sensical. Moreover, it would violate our grammatical rules. Because there is a fundamental incompatibility between the idiom for thoughts and pains and other states of mind, and the idiom that speaks of material processes, a material idiom of mind must be rejected.

Feyerabend believes that he can overcome this apparent obstacle by adopting a less intransigent materialist posture. This entails not refuting common idiom, in this case English, but by adopting it as a prevalent theory. This indeed is very much in the spirit of a scientific tradition that has been adopted since Newton. And that is that it is preferable to uphold "a theory which is confirmed to a very high degree" than to adopt one with "more tentative general ideas"[214]. Secondly, common idiom is not held to the same proof as scientific theory. Thus it is not confronted with facts, and it might as well be an "accompanying noise"[215]. Thirdly, it is not sufficient to confront "common idiom" with facts. Because these facts are often formulated in terms of the idiom and therefore [are] already prejudiced in its favor"[216].

What Feyerabend wants ultimately to assert is to actually abandon common idiom and adopt materialism's explanation as better suited to provide language to

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[214] Ibid., p.50
[215] Ibid. [this posture of Feyerabend appears to be diametrically opposed to that of the Churchlands as we will see]
[216] Ibid. p. 52

describe satisfactorily our mental realities. Moreover, the anti-materialist argument of the irreducibility of introspection does have much traction for Feyerabend.

Feyerabend's final message is that materialist language [of mind and states of mind] being the more accurate one will eventually supersede common idiom. It must only be given time as much, he says, as the English language, which has taken considerable time to reach its present day level of sophistication.

The objective of Rorty's article, is in essence to defend the tenability of the identity theory of mind. But in the process he in fact lays the grounds for an eliminative theory of mind. He declares his paper's line of argument as one based on the analogy between the mental event and supernatural event. To be more specific between sensations and demons. Following this, his intention is to shore up the identity theory's position by neutralizing what is considered to be its fatal flaw, i.e., the [in-eliminability of] privacy of mental events. The supposition of opponents of the theory of mind-body/brain identity is that any theory which does away with "privacy" is deemed confused.

In a manner analogous to what the most eminent proponents of the identity theory of mind maintain, Rorty begins by distinguishing two meanings of identity. The translation type identity and the disappearance type identity. The former occurs when an expression is basically translatable into more precise topic neutral ones: for

example, experiencing pain with brain processes. And in the case of the latter, considering it as a substitution. Even though Rorty speaks of the eliminability of commonly used expressions describing mental states, in his defense of the mind identity theory, he actually lays the ground for the eliminativist theory of mind. He in fact declares that :

"Now the Identity Theorist's claim is that sensations may be to the future progress of psycho-physiology as demons are to modern science. Just as we now want to deny that there are demons, future science may want to deny that there are sensations. The only obstacle to replacing sensation-discourse with brain-discourse seems to be that sensation-statements have a reporting as well as an explanatory function. But the demon case makes clear that the discovery of a new way of explaining the phenomena previously explained by reference to a certain sort of entity, combined with a new account of what is being reported by observation-statements about that sort of entity, may give good reason for saying that there are no entities of that sort. The absurdity of saying "Nobody has ever felt a pain" is no greater than that of saying "Nobody has ever seen a demon," if we have a suitable answer to the question "What was I reporting when I said I felt a pain?" To this question, the science of the future may reply "You were reporting the occurrence of a certain brain-process, and it would make life simpler for us if you would, in the future, say 'My G-fibers are firing' instead of saying 'I'm in pain'." In so saying, he has as good a prima facie case as the scientist who answers the witch doctor's question "What was I reporting when I reported a demon?" by saying "You were reporting the content of your MIND-BODY IDENTITY, PRIVACY, AND CATEGORIES 31 hallucination, and it would make life simpler if, in the future, you would describe your experiences in those terms."[217]

Rorty does not predict that we will ever in fact completely rid ourselves of our most common expressions describing our mental states. Trying to do so, he believes, would be "monstrously inconvenient". Chances are that we will abandon engrained expressions describing mental events when we come to have convincing reasons to do so. As we have done with such terms as demons, spirits, etc… But if we don't

[217] R. Rorty, Ibid., p.30-31

find some of these expressions terribly inconvenient, we will most likely continue to use them.

Eliminative Theory of mind of the Churchlands

Eliminativist theory of mind, in the form that we know it today, was proposed in a programmatic way as an alternative to other philosophies of mind by Paul Churchland in his article "Eliminative materialism and the propositional attitudes" (1981). But as stated in the introduction to this part, as a philosophical stance, it traces its origin in the writings of Paul Feyerabend and Richard Rorty in the early 60s.

In his article, Churchland begins by defining eliminativism as "the thesis that our common conception of psychological phenomena constitutes a radically false theory so fundamentally defective that both the principles and ontology of that theory will eventually be displaced, rather than smoothly reduced, by complete neuroscience"[218]. This "complete neuroscience", according to Churchland, will be far more powerful and convincing that common sense psychology; and eventually will displace it to eventually occupy the place within the physical sciences"[219]

[218] P. Churchland "Eliminative materialism and the propositional attitudes" p. 67
[219] Ibid.

What Churchland does in the part of the article is to demonstrate that folk psychology, i.e., "the commonsense understanding of mental phenomena"[220], is a theory and must be perceived as such. This is a theory that we have come to realize only in the later part of the 20th century. According to Churchland, the structural features of folk psychology are perfectly analogous to mathematical physics[221]. And as such it is a theory in every sense of the word.

The main reason that Churchland wants to affirm the status of folk psychology as a *bona fide* theory is to be able to counterpose it to neuroscience, which will eventually supersede it. Rather than being reduced or integrated, it will be displaced by neuroscience because it is awfully inadequate, 'too confused and too defective' to survive the onslaught of neuroscience.

Unlike the theories of mind which do not exclude the possibility of reduction or integration of folk psychology with the sciences of the brain, Eliminative materialism affirms the total false-ness of folk psychology. And therefore the need for its wholesale rejection ad replacement. But why does Churchland has such a firm rejection of folk psychology? He presents several reasons in response to such question: First and above all, folk psychology has extremely poor capacity to explain what occurs in the brain. For example, it has precious little to offer in terms of

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[220] P. Mandik, *Key Terms in Philosophy of Mind* (2010), p. 48
[221] Churchland, ibid., p. 71

explaining "the dynamics of mental illness", "the I.Q. variation in the population", "the nature and function of sleep, perceptual illusions, memory, etc..." According to him "Folk psychology...[is]"[222] constitutionally incapable of even addressing these basic phenomena. It is, according to him, to put it charitably, a most superficial theory: "a partial and un-penetrating gloss on a deeper and complex reality"[223]. There is in essence little chance that folk psychology's explanations will or can find confirmation in neuroscience. It stands to neuroscience, as alchemy stood to scientific chemistry. It needs therefore to be eliminated. Churchland's conclusion are encapsulated in the following terse statement: "Folk psychology is a theory and quite probably a false one, let us attempt, therefore, to transcend it"[224].

Patricia Churchland, the wife and partner in philosophy of Paul Churchland, lays out her argument in her article "The impact of neuroscience on philosophy" (2008). It follows closely the fundamental tenets laid down by her husband in the article summarized above. She begins with the famous Russellian (Bertrand Russell, 1872-1970) belief that philosophy is destined by its very own nature to be gradually superseded by the empirical sciences. In this case, philosophy of mind will eventually be superseded by neuroscience.

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[222] Ibid., p. 74
[223] Ibid., p. 74
[224] Ibid., p. 76

So far, philosophers of mind have essentially based their conclusions on the nature and state of mind, mind and body relation, qualia[225], etc... on folk psychology, which as we have seen, is a non-scientific and unreliable form of knowledge. In terms of method, it has relied on intuition rather than on empirical facts in speaking of the mind, its states, and its relation to the body. It is untenable and unsustainable as folk biology or folk physics. According to her, any philosopher of mind worth his/her salt today must be thoroughly acquainted with the most updated empirical sciences of the brain. And in fact "the most productive philosophers of the mind/brain are steeped in the relevant sciences"[226].

Not only neuroscience will most probably supplant philosophy of mind and psychology, but even the social sciences, ethics, etc... Those who think that brain science has nothing to do with these latter fields, are simply deceiving themselves. Present research on social behavior is already conducted on a naturalistic framework, and this trend will only become dominant. Eventually moral behavior as well as social behavior will be explained by the sciences of the brain.

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[225] *Qualia* are "properties of conscious experiences in virtue of which there is something it is like to have experiences" P. Mandik, ibid. 97 (for example what it is like to experience a certain color, smell, etc...)

[226] P.S. Churchland "The Impact of Neuroscience on Philosophy" (2008)

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