

Why neuroscience matters to philosophy

Towards a personalist and compatibilist understanding of the gradual and limited freedom of wanting, willing and acting

Abstract

Neuroscience matters to philosophy because philosophy does not only care about the psychological structures of human actions, but also about the psychological conditions of freedom of the will. Since freedom of the will is presupposed by ethical judgments about moral responsibility and legal judgments about attribution and guilt scientific studies about the various inner and outer conditions limiting freedom of the will and action can be relevant to moral philosophy, philosophy of law and political philosophy. Neuroscience, like psychopathology and neurology, is studying the neuroscientific and sub-personal underpinnings of wanting, willing and acting. Therefore neuroscience can and probably will make some lasting scientific contribution not only to empirical psychology and clinical psychiatry, but also to practical philosophy.

Neuroscience is a rather young scientific discipline when compared to empirical psychology and clinical psychiatry. Therefore it is not sufficiently clarified yet, how neuroscience can successfully contribute to empirical psychology and clinical psychiatry, especially with respect to therapeutic treatment of psychiatric patients. Other than neuroscience psychopathology and neurology have already become established as empirical disciplines supporting both empirical psychology and clinical psychiatry with respect to the art of adequate diagnosis and successful therapeutic treatment.

Neuroscience however is still on the way to reach such a state of conceptual and methodological maturity by which it might become equally successful in supporting empirical psychology and clinical psychiatry.

Philosophy, well understood, is a discipline which can neither be replaced by any empirical science, as e.g. in the various fields of natural, social, cultural, or historical investigations, nor by any formal science, as e.g. logics, formal semantics and mathematics. This is mainly due to the fact that philosophy is not only reflecting empirical findings, but also reflecting *a priori* the various principles and presuppositions which are involved in the ontological, epistemological and methodological assumptions of each single science. Philosophy, well conceived, is reflecting the logics, semantics,

concepts, axioms, hypotheses, arguments and theories in all human endeavors whether they are theoretical, practical or poetical.

From the point of view of philosophy, neuroscience is a rather young and special field of empirical investigations about various kinds of phenomena in the living human brain and nervous systems as integrated into the organisms of human beings. At first sight, it seems to be a neighboring field to neurology and anatomy. However the living human brain is a special organ which is different from all other organs within the human body as studied by neurology and anatomy. While it seems to be sufficient to study the complex systems of various functions and causal mechanisms of other organs, such as e.g. the heart, the lungs, the liver and the kidneys, the living human brain has an exceptional steering function not only with respect to most inner organs, to all sensual organs and to the limbs of the human body. By way of the nervous system the living human brain is not only causally and functionally connected to the human body, but it is the physiological carrier and productive transmitter for most of human behavior, whether verbal or non-verbal.

Due to its special steering function among all other human organs neuroscience is raising rather high expectations about clarifying the sub-personal underpinnings of human behavior, verbal and non-verbal. This is why neuroscience is touching upon topics which have been and still are relevant to the philosophical reflection about the lifelong development of the human person and personality and especially to the sensual, volitional and cognitive preconditions of human intelligence which is the main reason for the special position of man among other living beings on Earth and for his human dignity. Since the intentional thought, volition and action of human beings have and need some sub-personal neuroscientific underpinnings, neuroscience can study them empirically and philosophy can reflect the empirical findings of neuroscience with respect to their ontological, epistemological and methodological assumptions.

Although philosophy, well understood, can never be replaced by the empirical findings of neuroscience or any other science, as e.g. empirical psychology or linguistics, it might be helpful to consider its potential, even if rather limited contribution to the understanding of man and his neuroscientific underpinnings of psychological

phenomena and volitional, cognitive and mental competences. In such a way philosophy might also be helpful by finding adequate paths of integrating neuroscience into clinical psychiatry and empirical psychology as another supporting discipline in addition to psychopathology and neurology. However, it would be clearly misleading to assume that neuroscience could ever replace psychopathology and neurology or even become the foundation for empirical psychology or even the practical discipline of clinical psychiatry and the art of psychological therapeutics. Similar high expectations had already been raised in the youthful beginning of psychoanalysis, cybernetics and artificial intelligence, but they also turned out to be misleading in the long run. Denying such misleading expectation is already an important result of philosophical reflection and intellectual contribution of philosophy which by its self-understanding is called to remember similar discussions with other empirical fields of studies. (end of shorter version)

Philosophy has a history and the history of philosophy is a rich memorial resource by which it is a learning, growing and maturing intellectual discipline in its own right. Ever since the early 17th century the leading European philosophers have started to discuss problems about the human body, soul and mind, as e.g. the problem about the freedom of the will or about the eventual immortality of the spiritual soul, not so much with respect to the theological convictions about the omniscience and foreknowledge of God, but with respect to the new cosmological assumptions of *Nova Scientia*, i.e. mainly with respect to classical mechanics and its rather determinist convictions about the main laws of nature governing all physical substances in nature as well as their movements and their changes of attributes in space and time.

At least since the early 18th century the leading European philosophers within the age and movement of the *Enlightenment* started to take also into account a large variety of empirical findings by the new and uprising fields of anthropological, psychological and cultural studies which, *nolens volens*, led to empiricism, naturalism and historicism and thereby to rather scepticist, relativist and subjectivist inclinations about ethics and morality, law and politics. Since most Western societies are the main successors and heirs of the era and movement of the European Enlightenment they tend to suffer from these rather scepticist, relativist and subjectivist inclinations until recently. Since in

human history no human society ever has existed, survived and prospered without some substantial and effective normative orientation in some traditional framework of ethical, political and religious institutions which constitute and shape the normative attitudes, convictions, goals, principles and ideals of human beings, Western societies are still endangered by the mostly misunderstood results of the era and movement of the European Enlightenment and the decline of many European traditions.

Just like modern physics has developed further in the 19th and 20th century when compared to classical mechanics of *Nova Scientia*, as e.g. with the realm of relativity theory and quantum mechanics, and just like logic and mathematics have further developed, as e.g. in non-Euclidian geometry, topology and set theory, philosophy has learned from the rather new empirical sciences of anthropology, psychology and cultural studies. Although many contemporary philosophers, e.g. in the more recent analytic, phenomenological and post-modern fashions of thinking, are still supporting such rather scepticist, relativist and subjectivist inclinations about ethics and morality, law and politics, there are still and always have been some other old-fashioned philosophers who are far away from supporting these tendencies. Since they are confident about the existence of at least some essential common features of human beings within the world in all cultures and eras they do not give in to the allegedly unavoidable scepticist, relativist and subjectivist inclinations prematurely adopted by comparative and trans-cultural studies in anthropology, psychology and cultural history.

All human beings are living beings within some natural and cultural surroundings in space and time. They do have common interests and they do have the inborn capacity to learn a natural language and to communicate, think and reflect in the language they have learned. This is why human beings are not only able to express their immediate and vital interests in various forms of wanting, willing and acting. They can also conceive previously and reflect afterwards about how they have behaved verbally and non-verbally and about what they have said and done. Language and thought are the main base for the human capacity to plan their actions and to reflect them afterwards, i.e. to intentional agency and practical rationality of some sort. Other than animals which are formed by and bound to the common inborn pattern of instinct within some species and type, human beings are in need of some life guarding linguistic, habitual and practical

conventions, traditions and institutions. Furthermore, adult human beings can also learn to intentionally reflect and argue about, change and improve these life guarding linguistic, habitual and practical conventions, traditions and institutions.

This special human capacity to intentionally reflect and argue about, change and improve these life guarding linguistic, habitual and practical conventions, traditions and institutions is a major challenge which can be both, destructive or productive for the existence, current stability and future development of these life guarding linguistic, habitual and practical conventions, traditions and institutions. Since it is one of the main duties of philosophy not only to carefully and methodologically reflect, but also to change and improve these life guarding linguistic, habitual and practical conventions, traditions and institutions philosophy, well understood, can be and often is a dangerous enterprise. Just like natural science and technology, religions and ideologies, philosophy can be both, destructive or productive with respect to the goal of safeguarding the presence and future of human life on Earth in all nations and peoples. However, since this always has been and still is the fate and challenge of the *conditio humana*, even and especially under the rather difficult conditions of our modern times, philosophy has to face the new challenge of neuroscience which can make some scientific contribution to understanding the neuroscientific underpinnings of the life guarding linguistic, habitual and practical capacities of human beings which are brought about and supported by conventions, traditions and institutions.

What happens to human beings on the personal level and to human brains on the sub-personal level when human beings and thereby their brains and nervous systems are not sufficiently formed and shaped by some substantial and effective normative orientation in the framework of ethical, political and religious institutions and by some important groups which constitute, form and shape the normative attitudes, convictions, goals, principles and ideals? What are the factual consequences and the functional effects and which are the natural substitutes for human beings and their brain and nervous systems when they are lacking some substantial and effective normative orientation in their lives? How does it influence and diminish their inborn capacity to learn a language and to communicate within a certain community of human beings? How does it effect and harm their vulnerable potential to become a personal being and a productive member of

a society by acquiring the capacity and art of rational planning ahead and to reflect their behavior and actions retrospectively?

From a philosophical point of view, strong individualism and subjectivism, habitual hedonism and normative relativism seem to be the unavoidable consequences when human beings and their brains and nervous systems are not sufficiently educated and formed by some substantial and effective normative orientation in the framework of ethical, political and religious institutions and by some important groups which constitute and shape the normative attitudes, convictions, goals, principles and ideals. However, can this also be empirically validated by the investigations of neuroscience?

Ever since Hume, Kant and Brentano, most philosophers reflecting wanting, willing and acting with respect to the reality of the human capacity of freedom of the will, prefer a personalist and compatibility conception of freedom of the will. Such a conception is *personalist*, because it accepts *the essential irreducibility* of the attribution of intentional psychological phenomena, stances and competences of human beings on the personal level to any sub-personal events and processes within the human brain and nervous system. Such a conception is *compatibilist*, because it accepts the logical and philosophical compatibility of the assumption of the existence of some sub-personal underpinnings within the human organism, brain and nervous system as a precondition for the realization and actualization of the capacity of freedom of the will. According to this position, the capacity of freedom of the will does not presuppose the metaphysical assumption of *transcendental freedom*, i.e. the complete absence of any determining factors which make up the physical form, temper and character of an adult human being. To the contrary, the opposite assumption of the existence of some presumed necessary and sufficient conditions which make up the physical form, temper and character of an adult human being, which has the capacity of freedom of the will within some factual limits in the inner and outer conditions, does neither lead to nor presuppose strong metaphysical determinism, as e.g. adopted by Laplace in the context of Newtonian mechanics.

Since the freedom of the will of adult and mostly psychologically and mentally healthy human beings – like the freedom to choose between alternatives and the freedom of actions – is always relative and limited by some inner psychological and some outer

natural and social conditions within the real situations of the spatio-temporal world, freedom of the will is a precarious and vulnerable higher psychological capacity which can be influenced (a.) by neurological and pathological conditions, such as manifest brain damage or hidden brain tumors, (b.) by psycho-pathological conditions, such as phobias and anankasms, psychological compulsion and material addictions, psychological dependencies and various obsessions, and finally (c.) by more or less healthy minded and well tempered psychological conditions, such as beliefs, convictions, interests, motives and intentions.

Since adult human beings share a common and essential interest in their acquired and fully developed capacity of freedom of the will in order to be fully accepted and appreciated as persons with social rights and duties corresponding to their essential dignity of human beings they do also share a common and essential interest in their own healthy mindedness with respect to both, their cognitive and mental capacities and to the well tempered state of their emotions and volitions. Although no empirical science whatsoever can ever understand and explain human dignity because, according to Kant, human dignity is an absolute value which is neither only based on (a.) the capacity of the freedom of choice between some alternative courses of action, nor on (b.) on the inwardly limited capacity of the freedom of the will, nor on (c.) the outwardly limited freedom of action, but mostly and especially on the very potentiality of the eminent freedom of the ethical right will (Brentano) and the morally good will (Kant), philosophy must also have an essential interest in all factual conditions which might be lasting foundations of virtues or severe hindrances to the supportive conditions to acquire, sustain and safeguard one's ethical and moral freedom of the will.

If neuroscience, like neurology and psychopathology before, in their supportive function towards empirical psychology and clinical psychiatry, can make some valuable and substantial scientific contribution to our current state of knowledge about the sub-personal underpinnings of the lifelong development of a human person and its virtues with some ethical, moral and legal rights and duties, then philosophy might also have some essential interest in the actual and future empirical findings of neuroscience.

However, as human beings we do not only have an essential interest in our own good

life, as a lucky and graceful congruence of vital well-being and moral integrity, but also in the prospering of the common well-being, justice and humanity of the society we are living in. If neuroscience can contribute to the serious question of what happens to human beings, their brains and nervous systems when they are not being sufficiently sustained and supported by prospering ethical and moral conventions, by fair and just legal and political institutions as well as by healthy minded religious, artistic and spiritual traditions, then human beings who accept the ethical and moral responsibility for themselves and the future development of their personalities and societies should also care about what we might have to learn from the empirical findings of neuroscience and from the philosophical reflection of these findings as a potential scientific contribution to safeguard human life on Earth in justice and peace.

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