

**IMPROVISACIÓN PARA MEJORAR:
LA IMPORTANCIA DE LA FILOSOFÍA EN LA UNIVERSIDAD**

**IMPROV TO IMPROVE:
THE IMPORTANCE OF PHILOSOPHY IN THE UNIVERSITY**

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Resumen: El estatus de la filosofía nunca llega a ser completamente comprendido debido, en parte, a su inutilidad. En un mundo enfocado hacia las metas, filosofar no sirve si no produce resultados materialistas. Un aspecto del pensamiento filosófico es promover actividades que son exclusivamente humanas y por lo tanto imposibles de simular por una inteligencia artificial. La improvisación es capaz de revelar la importancia de la filosofía manteniendo la relevancia de la subjetividad. Con el fin de justificar la presencia de la filosofía en la universidad, una manera importante es que ésta mantenga la idea de que lo mental no puede ser reducido a lo material o a lo físico. Por lo tanto, la fenomenología, en defensa de la filosofía, llega a ser más relevante cuanto más conscientes somos de que la filosofía está amenazada por la interdependencia del materialismo, la Inteligencia Artificial y la corporatización de la universidad.

Palabras clave: improvisación, materialismo, fenomenología, reduccionismo.

Abstract: The status of philosophy is contingent upon the civilizations that embrace or undermine its importance. Such status is never fully understood, nor clear, due in part to its inutility. In a goal-oriented world, philosophizing is pointless if it does not produce material results. One point of philosophy though is not only to recognize, but promote activities which are uniquely human and which therefore artificial intelligence could not possibly simulate. Improvisation, as one such activity, can reveal the importance of philosophy as a discipline by maintaining the relevance of subjectivity. In order to justify the presence of philosophy in the university, one important way is to have philosophy maintain the notion that the mental cannot be reduced to the material or physical. Consequently, phenomenology in philosophy's defense becomes more relevant the more we realize that philosophy is threatened by the interdependency of materialism, A.I. research, and the corporatization of the university.

Keywords: improvisation, materialism, phenomenology, reductionism.

1. INTRODUCTION: PHILOSOPHY'S PLACE IN THE UNIVERSITY

In the modern university, philosophy is a subject that is often overlooked. This is perhaps due to the label it receives as being 'useless'. Immanuel Kant, Moritz Schlick notes, thought that philosophy could not be taught as a science and so, it should be taught as an activity (Schlick 42). We can grip the current

distaste that educational institutions are adopting towards philosophy, in the example of a higher education institution in Ontario: the OISE (Ontario Institute for Studies in Education). It revealed the fate of philosophy as a specific graduate program in the Institute when the 'History and Philosophy of Education Program' synthesized with the 'Sociology in Education Program' to create the current 'Social Justice Education program' (Department of Social Justice Education). This shows one of the future possibilities for philosophy, that of being absorbed by already existing subjects or by new ones. The aim of being interdisciplinary for a university can either displace philosophy as a subject, labelling it as beyond any teachable discipline (supradisciplinary, as Kant hinted at above) or see it as already interdisciplinary. This latter notion can be seen particularly in the idea that there can be a philosophy of any type of discipline imaginable (i.e. the philosophy of science, of economics etc.). By not having philosophy explicitly taught and clearly present in a university as a program of study, however, does not guarantee that students will know how to engage in philosophy. They will not know when they are philosophizing or not, which is neither fair to their academic nor their self-development.

This paper will argue that philosophy should always be taught and studied as a distinct individual university subject. First this paper will argue for the importance of philosophy by showing that it promotes subjectivity, and this will be juxtaposed to science's materialist attitude which does not. To counter materialism, this paper will secondly defend subjectivity through a phenomenological acknowledgement of meaning and care, which will be framed as unique human attributes. Finally this paper will show that improvisation is an activity that helps us recognize our uniqueness as humans by confirming our subjectivity. To begin, we must first see how the argument for the reduction of the mental to the physical (henceforth: MR) aims to eliminate subjectivity in order to claim dominance for physicalism, materialism and science. This MR argument, if proven, would theoretically allow for artificial intelligence (henceforth A.I.: the research field that uses digital computers to simulate intelligent behaviour) to become truly intelligent (Dreyfus xxv). Consequently there would be sound claims to frame subjectivity as an illusion because there would be no mental states like self-consciousness to make humans the unique entities that they are. The MR considers everything in reality, even the mind, to merely contain physical properties.

2. SUBJECTIVITY'S DEFENCE AGAINST SCIENCE THROUGH PHENOMENOLOGY

The proof of the MR argument would decrease the need for philosophy and this would consider the study of subjectivity in the university to be in many ways superfluous. But through an analysis on subjectivity, meaning, care and improvisation, we can show that the mental is not likely to reduce to the physical. Despite the efforts and optimism of many scientists and philosophers of science who argue for this eventual reduction and resulting A.I., they also implicitly support a disregard for philosophy. Though much of philosophy's existence does not solely hinge on this MR argument, this argument is one of the most important protagonists assisting in the justification of the corporatization of the university. The university, the main promoter of philosophy, fulfills this role less the more corporate the university becomes. For that, the MR (and its materialism) is one of the pillars supporting the negative perceptions some individuals may have of philosophy.

The naive belief in science and technology can be witnessed through the ever increasing promotion of the MINT and STEM occupations we see today. Such naivety is also promoted through the intellectual and academic efforts that aim at proving A.I. as actually having consciousness. By using phenomenology to show that there are human capacities that A.I. will never be able to replicate, such as the care humans have for their existence, their value of meaning, and their capacity to improvise, it can be claimed that the MR is unachievable. A.I. under this phenomenological view will never be truly intelligent via any type of consciousness. Phenomenology maintains its relevance and the relevance of philosophy throughout this project, by providing 'ammunition' for philosophy's defence against encroaching materialism, not only in the university but in the world in general.

3. THE STATUS OF THE MENTAL UNDER MODERNITY

In philosophical anthropology and the philosophy of mind, dualism is usually equated with Cartesian substance mind-body dualism. This dualism supports an immaterial mind for the human person, since this mind can deal with an infinite amount of situations, whereas machines are limited by mechanisms (Dreyfus 144). Dualism has been important for understanding human identity and consciousness, and positions itself between the poles of idealism and re-

ductive materialism. Dualism is placed much closer to the idealist pole, however, in virtue of supporting the existence of a non-physical mind. One unsettled argument within this field of philosophy is whether or not mental states are mere epiphenomenal by-products of physical brain functions, and can thus be reduced to the physical or if mental states are essentially different substances and are irreducible to the physical. Jaegwon Kim for example considers mental states as mere epiphenomena that can provoke physical causation through supervenience, in which mental causation is reducible to a productive physical causation (211). The importance of this field of philosophy for this study is clear. This field allows us to consider that the more materialism is considered true (despite the MR not being proven to this day) through the belief in the MR, the less philosophy can be seen as a worthwhile discipline in the university. Such a demarcation of philosophy is due to materialism giving more relevance to science and A.I., which vouch for materialism's prominence for research in the university. Such materialism results in the framing of the mystery of consciousness, subjectivity, spirituality and even God to be on their way to being eventually 'debunked'. This will supposedly occur when the MR is finally proven.

The mindset that the modern world has adopted today, one of consumerism, capitalism and the value of the physical and material over any sort of spirituality or non-physical phenomena, coheres with a materialist view of consciousness. Hubert Dreyfus considers the West as having blindly accepted the idea that human behaviour is to be explained via a theory of practice, considering the human being an objective device merely responding to the influences of other objects via universal laws (144). Dreyfus explicates his issue with this sort of thinking; a mentality that has existed for over two thousand years, culminating in the mindset we contain in the modern world we have today. This manner of thinking for Dreyfus: "assumes that an explanation of human behaviour can and must take the Platonic form, successful in physical explanation; that situations can be treated like physical states; that the human world can be treated like the physical universe" (144). The naivety involved in considering that science will one day reduce the mental to the physical is a product of the natural attitude (Husserl 168). This attitude holds a faith in science's eventual explanation of everything. Such a faith overlooks phenomenological description and method. Its extreme optimism as a modern form of imperialism of 'matter over mind' and 'physical over mental' has become justified through today's

technological domination over nature. The natural scientific attitude aims to prove that science can define consciousness, hoping to clarify that nothing (not anything) and 'nothing' (every void or phenomena) are inescapable from objectivity's reach. What this scientific mode of thinking seems to overlook is *meaning*. Meaning is something that is uniquely human, and it is promoted and detected by philosophy through phenomenology. More importantly, it is also something that cannot be explained scientifically as to why we need it or why it exists for humanity's sake.

4. MEANING THROUGH PHENOMENOLOGY

We can state that meaning is derived phenomenologically because according to the pioneer of phenomenology, Edmund Husserl, the meaning of actions as phenomena derive from description instead of explanation (May 287). By not attributing meaning only to scientific truth derived from the natural attitude, phenomenology, by treating all experience as the experience of meaning (Derrida 30), does not aim at any causal or reductive explanations of consciousness (May 307). Phenomenology aims rather to provide a descriptive account of phenomena, which involves distinctions that provide clear understandings of the foundations of knowledge (Siewert 78). The method of phenomenology supports a transcendental ego, which can be conceived as providing a locus for meaning without reducing the ego to matter (Gutting 12). The support for such a transcendental and pure ego aims to show that we can attain meaning without instigating any explanatory reductionism or initiating any complete de-centering of the ego¹ (May 307). As a non-reductive method, phenomenology does not reduce other individuals to objects. The phenomenological experience of others is experienced rather through 'lived experience', so the experience of alterity and other individuals themselves are not conceived as just other objects in reality, but as psychophysically constituted (Donohoe 78). Meaning is thus intersubjectively attained through a horizontal openness to otherness and an inherent built-in experience which does not limit meaning to empirical reality (Moran 109).

¹ See structuralism, post-structuralism, and humanism for further insights on the centeredness of the ego/subject.

Human activity requires meaning or else it would have no reason to take place. If activity occurs without meaning, it is done so in a manner that is merely automatic. To protect meaning, we need to therefore protect the subjectivity from which it derives, which is to protect immaterial consciousness. This implies the support of philosophy, since it is perhaps the most important discipline for dealing specifically with issues on pure subjectivity and immateriality in secular and non-secular forms. Improvisation is an activity that justifies the need for philosophy and the existence of subjectivity. This allows us to frame improvisation as a uniquely human activity, in that it shows A.I. as incapable of replicating such action. And so improvisation can be understood as an activity that science will never be able to exactly explain. Science is unable to explain why we as human beings create and give meaning to life and its activities. We as humans 'care' to live, and philosophy, among many of its activities, is the only discipline found in the university that aims to understand why. In contrast, the science of the MR aims to eliminate any human notion of 'care' because such a reduction hopes to show we are merely physically determined as material beings.

Meaning reveals the notion that there are no fixed facts in the objective world to which computer programming could interpret as holding meaning. Philosophy makes this distinction between fixed objective facts and meaning, which allows us to see philosophy as always being relevant to the human condition. Humans create meaning phenomenologically through intentionality, and this requires an element of subjectivity (Stevenson 137). If there were only objectively fixed facts detectable by computer programming, computers would then have to eventually become artificially intelligent. But we do not have just fixed facts to be revealed objectively. Humans create meaningful facts which change when there are conceptual revolutions (whether scientific or cultural), and so A.I. cannot create, detect or engage with meaning as humans do (Dreyfus 194). Humans have the world organized by their interests and create facts based on their relevance (Dreyfus 212). Meaning, care and improvisation for example, along with interest and fact creation, are thus out of range for a computer's capacities.

Gestalt psychology, which has various ideas compatible with cognitive psychology, and which values the 'here and now' found in the experience of improvisation, supports the unique human attribute of meaning. We can see this

when we consider computer translation. Perception and thinking for Gestalt psychology are to be thought of as involving processes which are not only global, but which are not to be understood via sequences or operations. A.I.'s task of programming a computer to translate meaningful statements (semantics) to information (bits of syntax) for which a computer operates on, cannot therefore jettison the human translator who interprets for the computer (Dreyfus 78). A.I. thus needs humans to provide it with meaning, since it involves a cybernetics theory of information that in the end requires human interpretation. This theory was developed by Claude Shannon in 1948 to undermine meaning in favour of intelligence, by supporting a mathematical non-semantic theory of communication for data transmission (Dreyfus 77). Meaning can thus be considered the 'lynch pin' for A.I. Without meaning A.I. cannot be intelligent and on the flipside, without humans A.I. cannot have meaning.

Science and materialism aim at the obliteration of meaning and this can be seen in Stephen Hawking. For Hawking, if science develops a *string theory* 'to be' the unified theory of physics, we would prove the MR because we would be hypothetically 'smart' enough to prove this claim (131). We cannot escape, however, from humanity's 'cry' for meaning and this confronts Hawking's views. Hawking considers that discovering such a 'grand theory' of the universe would end an epoch in humanity's struggle to understand the universe (133). It would also undoubtedly change the landscape of university education and the value of philosophy, as such scientific reduction would undermine the need for philosophy in many areas, particularly in philosophy of science and mind. One consequence of the 'theory of everything', as mentioned above, would then have to be the proof of the MR, and thus the reduction of consciousness to the brain. After all, if such a theory is to provide humanity with the 'mind of God' (Hawking 136), then there are to be neither any 'gaps' between laws of physics nor between immateriality and its corresponding subjectivity. All supposed 'gaps' would be theoretically filled and all inconsistencies in physics eradicated with the 'theory of everything'. One such 'gap' that science naively takes to be eventually filled is the 'gap' brought on by the measurability between the mind and body. This dichotomy is a form of modern dualism that lies within the confines of the Cartesian spirit. It is a dualism which aspires to reduce the mind to the physical body and in turn forge a mentality that threatens philosophy's relevance by undermining subjectivity. How then should we 'mind the gap'?

Martin Heidegger claimed that the 'gap' for modern science between mind and body is a claim that is unjustified. This space for Heidegger is a result of adopting the scientific dogma that preaches treating only that which is measurable as being real, instead of the subject matter that is in question itself (*Zollikon Seminars* 80). Mark Letteri gives assent to Heidegger's notion and emphasizes that: "More strongly, science, because of its assumptions, tends to reduce phenomena to what is measurable. Science thus tends to reduce *psyche* to *soma*. Such a reduction deforms our understanding not only of *psyche* but *soma* as well (8)." Letteri sees Heidegger as maintaining a holistic and relational perception of human existence, demonstrating the one-sided rationale science endorses for understanding humanity. Letteri clarifies that for Heidegger the body is a mere object when treated by science, and so to avoid this treatment we should see that we exist as a sort of 'bodying forth'; a reality that is not measurable, and thus escapes scientific modernity's control, manipulation of measurement, calculability, and pre-calculability (8). Human behaviour therefore should not be reduced to A.I. and thus should not be considered explainable via physics nor by information processing mechanisms that merely receive and process inputs. Not only should we support this claim because physics and experience do not contain any 'reason' to provide meaning, but also because physically, energy is constantly changing, and phenomenologically, objects in reality are experienced in a field of experience that is already organized for us (Dreyfus 100).

5. SCIENCE IS A PHILOSOPHY

Now we have seen in depth the one-sidedness of science's perspective on humanity. The scientific monistic/materialist views on the mind-body relationship consider the idealistic views as their polar opposite. Materialistic views support the idea that the mental and thus consciousness are physical, whether by-products of the physical or not. It is no wonder that philosophy is considered an enemy of science when we see the latter's one-sided view of the world and humanity; however, it is also not surprising that universities which support their own corporatization coalesce with the materialist view of the world. This materialist view reduces the world, including mind, to objective calculations in order to justify the maximization of profit through university privatization

(Giroux 675). The link between materialism and corporatization is executed through increasing scientific research which aims to dominate the material world and allow those who support academic science to materially profit from it.²

When it comes to the science and philosophy divide, there are important insights into this dichotomy. When they are examined, they reveal philosophy's interdisciplinary nature. Rosenberg states that: "philosophy is a fundamental prerequisite for understanding the history, sociology and other studies of science, its methods, achievements and prospects [...] understanding science is crucial to our understanding of our civilization as a whole" (1). It is indubitable that this relationship would change if the MR was ever proven. The naive belief that it eventually will has already been sufficient to instigate the 'turf wars' we see between philosophy and science today. If the MR is indeed eventually proven, most philosophy would most likely become (to the delight of many anti-philosophers), 'swallowed up' by science. Such a dire situation would ironically be a form of 'cannibalism', since after all, science derived from natural philosophy.

Euclid's work in the third century B.C. commenced the separation of science from philosophy which led to a slow yet steady 'domino effect'. Newton gave birth to physics as a separate discipline from metaphysics in the seventeenth century A.D., Darwin separated biology from philosophy in 1859, psychology split from philosophy not long after, and finally logic eventually morphed into a separate branch called computer science (Rosenberg 3). The Greek creation of geometry and logic provided for the germ of A.I. and thus the MR. Since ancient times we have accepted the notion that reason could be reduced to a form of calculation, and so all meaning (semantics) could technically be reduced to rules (syntax); a notion that has dominated Western thought ever since (Dreyfus xv). Philosophers such as Leibniz and Kant even considered that science would eventually reach its zenith and its explanations would not leave anything unexplained. The completion of physical knowledge through science would allow each physical law to fit with the whole of a universal scientific theory to the extent that a change in one law would have to delegitimize the entire structure of

² The anti-psychiatry movement is an example of a reaction to materialism's pharmaceutical solution to mental illness.

such natural scientific theory; a notion that a fully evolved science could not permit (Rosenberg 62). Leibniz in particular thought that he could reduce thought to a manipulated system of numbers, and so the idea that reasoning equates with calculation was eventually expressed in the Calculus of George Boole and the 'Analytic Engine' of Charles Babbage (Dreyfus xviii). If the MR is ever successfully proven, philosophy runs the risk of losing any ground to stand on, and thus risks redundancy. Despite scientists and philosophers of science who may claim its importance to the field of science and humanity in general, how can philosophy defend itself against the ever increasing materialist view of the world?

A.I.'s competence involves a theory that proceeds without context, and so it is argued that A.I. cannot reproduce human performance. Human action involves 'moment-to-moment' behaviour, which by depending on context, reflects the impossibility of there ever being a complete theory of human behaviour (Dreyfus 103). As a result, subjectivity cannot be objectified; however, this does not prevent the monstrous amount of individuals who believe it can be. Despite humanity being faced with the possibility that it will never live to see the completion of science reaching its zenith, science is still considered today to be able to provide 'in principle' answers to all the meaningful questions in the world. We thus have a framing of science as destined to eventually reduce subjectivity to objectivity (Rosenberg 5). The naive optimism of science and the attitude that accompanies it considers science as already having all the answers and designates philosophy as merely dealing with pseudo-questions. This is the sort of perspective that can cause the university to justify its corporatization and undermine philosophy as a valuable discipline and activity.

The corporatization of the university is connected to the extension of a rationalist conception of objective knowledge or in other words, contemplative theory. This theory has been playing a part in the Western philosophical tradition since the time of Aristotle. David West informs that historically, a conception of theory as the contemplation of objectivity, thus of the unchanging and eternal, eventually combined with the Enlightenment and changed theory into: "an understanding of scientific knowledge as fundamentally instrumental" (119). From this, science and technology have become intertwined in order to manipulate the world, but to do so on a purely objective basis. As a result, idealism, meaning, context, and subjectivity must be eradicated for such objective

manipulation to flourish. West informs that modern theory today unfortunately aims to: “transcend all purely subjective points of view, in order to attain an intersubjective and eternal truth. Much of the Western tradition of epistemology sees its task as establishing [...] this goal” (119). Again, we see a connection between science, technology, and modernity, working together to theorize that no ‘gaps’ in knowledge or reality shall escape the wrath of the ‘omniscient’ power of scientific objectivity. This promotion of materialism encourages universities to ‘sell out’, by succumbing to the demands of such materialism and the natural attitude with which it complies through increasing investment in scientific research.

6. WHAT’S WRONG WITH SUBJECTIVITY?

Human value is dependent on the fact that unlike robots or animals, human beings care to exist and take part in the world because it has meaning. Such meaning is appreciated by philosophy, which in doing so, provides the means to promote the human activities that reveal the beliefs and desires that provoke action. These subjective beliefs and desires in turn allow us to grasp that which provides action with meaning; a meaning that is not found via natural scientific explanations (Rosenberg 59). For that, we can understand why science wants to reduce consciousness and the mental to the physical. Such a reduction would allow science to explain exactly why humans do what they do. Scientists would supposedly have the capacity to locate the origin of any action within the brain. This has caused a debate between psychology and social science over how beliefs and desires cause and explain actions and whether this is physically causal or not. The origins of this contemporary debate began when the mental started to become considered physically causal in the late 1950s. At this time, Herbert Simon propounded the idea that by the 1970s, psychology would involve theory based on computer programs and ideas on intelligent behaviour would be supported by heuristic rules which digital computers would be able replicate (Dreyfus 76). Alan Turing and Minsky contributed to the debate as they thought that humans could be considered ‘Turing machines’. Digital computers would thus be able to replicate human behaviour through data processes received from reality (Dreyfus 108).

The relation between mental states and physical action, in light of the unproven MR and our defence of subjectivity, shows that human behaviour cannot be replicated by computers. Rather, our behaviour contains and acts on meanings which pertain uniquely to humans. Rosenberg states that the reason why the MR is unlikely is because: "if desire/belief-rational-choice explanation is after all non-causal, then [...] meanings cannot be captured causally, second, human action cannot be treated scientifically and, finally, the search for meanings beyond human affairs [...] must transcend natural science" (60). Despite the tendency of material (non-cognitive) psychologists describing the mind as an information processor, this needs to be taken in a metaphorical sense only. The mind does not actually process information like a digital computer, because this would omit meaning (Dreyfus 77). The non-scientifically discovered meanings humans prescribe to in life thus show how important philosophy is as a discipline. Philosophy does not neglect the subjectivity on which meaning depends or synonymously, stands. This does not imply that science cannot support subjectivity in its system. Idealist philosophy for example has shown that it can work with science by linking with science through cognitive psychology.³

For psychology to eventually become the sole authority on human behaviour, which is one goal the MR and A.I. research strive to reach, it needs to support materialist views on the self and see it as an object. However, we have seen that the self is not to be treated as a mere physical object if we want to understand it. The objectification of the self equates with treating its behaviour as acts that merely respond to other objects. The view of the self as object considers that the self is a device (a reflex machine) that responds to elements in accord with laws (a.k.a. David Hume's empiricist psychology which has evolved into stimulus-response psychology) (Dreyfus 90). To support a non-material psychology thus requires the support of idealist, intellectualist, or mentalist psychologies, which are placed today under the umbrella term cognitive psychology. Cognitive psychology is thus more compatible with philosophy in general and idealist philosophy in particular. It treats the human self as an entity that according to Dreyfus, is thought of: "as an information-processing

³ The issue this paper uncovers is the one-sided progression of science and its undermining of philosophy, not vice-versa. Philosophy is an open discipline that can work in tandem with virtually any discipline or subject.

device (following) laws [...] understood on the Kantian model, as reasons, which are rules in the mind applied by the mind to the input" (90). It should be noted that empiricist psychology was valued quite intensively in the scientific world until it laid the groundwork for the introduction of the computer. The computer is the device that supports psychology without the need for an immaterial ego, which is why it is compatible with empiricist psychology. The idealist view of psychology on the other hand, does not involve a self that is to be perceived as a quantified object. For Dreyfus, this means that idealist psychology avoided the self's objectification by including subjectivity and thus an ego that was transcendental (90).

7. PHILOSOPHY'S POTENTIAL FATE

Philosophy can work with scientific disciplines to enhance their contribution to knowledge, but also to enhance itself. Whether supradisciplinary or interdisciplinary, such cooperation can take place, but such contact with philosophy is compromised the more the university succumbs to operating as a corporate business that adopts market values (Giroux 670). These values do not view philosophy as a lucrative discipline, and so we often see philosophy competing with new disciplines, which displace its interdisciplinary role. Cultural studies is one example of a competitor for philosophy. According to Gayatri Spivak, cultural studies, like philosophy, aims to be interdisciplinary as it: "must set up an active give-and-take with (history, anthropology, and comparative literature) [...] the educators must educate themselves in effective interdisciplinary teaching" (188). Philosophy's unique role is being undermined through this example, as its role of dealing with 'normative questions', an interdisciplinary task, is being taken over by other subjects. Though philosophy deals with the matters of what we should do, what ought to be the case in matters, good and evil, right and wrong, just and the unjust, all of which define cultures in terms of ethics through interdisciplinary means (Rosenberg 4), we see that other disciplines are taking over this role.

The biggest threat we see philosophy facing today has been the material worldview, which is a Newtonian mechanical view of the world. For this view the world is a mere mechanism and such a world functions in a way that allows science to explain the world through deterministic measures. We have seen above

that this determinism is limited today, however, by human behaviour's involvement of consciousness and subjectivity (Rosenberg 81). Consciousness and subjectivity prevent Newton's mechanical theory of the world from being able to complete itself through a method of 'reduction'. This method is responsible for the natural attitude Husserl warned about in his work and which seeks to prove the MR. Rosenberg informs, it came about when: "Newton showed how Galileo's and Kepler's laws could be derived from his own theories as special cases [...] this derivation of the laws of one theory from the laws of another [...] 'reduction'. Reduction requires that the laws of the reduced theory be derived from that of the reducing theory" (81). The threat philosophy faces from science can be derived from this 'reduction' of laws, which implies that there is the possibility philosophy can be reduced to or eliminated by science. But as we have seen, subjectivity will always retain a non-objective element which philosophy values, which means for science to successfully reduce philosophy, it would have to eliminate subjectivity. In physical terms, improvisation, we will see below, does not allow for such a reduction.

Reducing existing theories to theories that are more fundamental frames science as progressive and successively expanding its capacity to 'explain'. This reveals scientific change as progress via reduction (Rosenberg 81). Philosophy stands as a potential target of such reduction, due in part to its intimacy with subjectivity. For science, viewed through the extreme lens of reductive materialism, subjectivity is treated as just another 'stepping stone' for science to reduce. Such a reduction would permit science to complete its domination over knowledge, as the psychological sciences noted above would apparently be reduced to laws of biology. Philosophy can defend itself from the threat of science, through the reciprocal protection it shares with subjectivity. We will see below that this protection depends on human activities such as improvisation which engage with context rather than scientifically aim to liberate itself from it.

8. NO ESCAPE FROM SUBJECTIVITY

When we hold philosophical views on science that see science as based on paradigms, we see that science progresses and functions in a relative manner. For Thomas Kuhn, science works: "by discarding some previously standard be-

liefs or procedures and, simultaneously, by replacing those components of the previous paradigm with others. Shifts of this sort are [...] associated with all discoveries achieved through normal science" (66) Kuhn's conclusions concede that the history of science is really a history of change, not progress, since science is a creative undertaking just like other art forms. Rosenberg thinks Kuhn's ideas on scientific paradigm shifts lead us to see science as: "no more objectively progressive, correct, approximating to some truth about the world, than these other human activities" (145). When we view science in this light, we are left with room for subjectivity in the face of materialism and its supportive 'crew': naturalism, empiricism and logical positivism. This 'crew' aims to reject subjectivity and degrade philosophy by maintaining for Rosenberg the four claims of: "first, the rejection of philosophy as the foundation for science, the arbiter of its methods, or the determinant of its nature and limits; second, the relevance of science to the solution of philosophical problems; third, the special credibility of physics as among the most secure and well-founded portion of human knowledge; and fourth, the relevance of certain scientific theories as of particular importance to advancing our philosophical understanding, in particular, the Darwinian theory of natural selection" (161).

Scientific naturalism and materialism naturally find themselves at odds with philosophy because they do not cohere with subjectivity nor any sort of idealism. This is further understood when we contrast science with epistemic relativism. Epistemic relativism takes knowledge and truth to be relative to a scheme of concepts and perspectives, and just as Kuhn noted above, also paradigms. This coheres with the idea that there is no objective truth (Rosenberg 171). Rosenberg notes that for Paul Feyerabend, we should embrace subjectivity's role in science because science involves 'methodological anarchy' and cannot escape subjectivity because there is no way to choose a theory via cognitive bases (172). This in turn promotes subjective improvisation through creativity and originality. When we see that science is relative, we see that it is always subjective to a certain extent which promotes the presence of philosophy within the domain of science. In the social sciences, qualitative research is based on philosophical insights on subjectivity within the scientific method, and has successfully shown that natural science and quantitative research cannot be our only methods for investigation. The latter are not capable of providing explanations for semantic meaning or for human significance (Rosenberg 175). Mean-

ing was shown above to be problematic for A.I. research, and so subjectivity and the philosophy that contributes to its relevance should be considered inescapably essential to scientific research. Such importance usually goes unnoticed as we have seen; hence philosophy's struggle for relevance in the ever increasing corporate university of today.

9. CONTINENTAL OR ANALYTIC: WHICH ONE FOR SCIENCE?

Although philosophy is composed of many different schools, and set between analytic and continental strands for example, philosophy today seems to emit the mood of rejecting the idea of being intimately connected to or a continuation of science in the natural scientific sense (Glendinning 26). This indeed sets philosophy against science, but the analytic branch can be considered more compatible with science in virtue of its history. In the 1950s for example, the President of the University of Washington, Raymond B. Allan, expressed the benefits of philosophy aiming to be analytic, and so being strictly objective in its quest for 'truth' (Glendinning 98). This is a claim that characterizes the 'linguistic turn' in philosophy which has culminated in the emergence of analytic philosophy; the branch of philosophy that can be characterized as aiming to reach truth through the study of language, not through phenomena or studies of the mind (Flynn 124). Analytic philosophy discourages idealism, and so idealist philosophy often finds itself corroborating more with continental strands. For Enrico Berti, Fichte, Schelling, and Hegel, who were strong contributors to continental thought, allow us to see idealist philosophy as a philosophy that: "denies the existence of unchangeable essences and, resolving reality in thought, which is a continuous process, dissolves substances, essences and the bodies themselves in moments of a single major process" (68). The value of such idealist notions today counter the idea of there being only objective reality and has provided profound claims that display the impossibility of the MR.

In idealist philosophy, subjectivity is embraced, as we see in Berti it is a philosophy that involves the notion that: "thought itself is a form of life, as proved today by the fact that the Mind-Body Problem is no longer addressed by the cognitive sciences by means of information technology or computer science, but especially by recourse to the neurosciences" (72). Martin Heidegger had ideas that are also important for the defence of subjectivity (despite their over-

all aim at the 'Being' prior to subjectivity). Some of his ideas are useful for uncovering the self's illusions brought on by naturalism and modernity (Letteri 15). These ideas have been helpful for recognizing the importance of philosophy for understanding humanity and our existence, and so they are important for existentialism. Existentialism's Kierkegaardian ideas on subjectivity provide alternatives to objectivity by valuing subjectivity and its truths, but not irrationally. Thomas Flynn informs that existentialist philosophy rather, questions without denying the capacity of scientific reasoning to: "access the deep personal convictions that guide our lives" (9).

Although Heidegger's alternative to objectivity strays from subjectivity and objectivity, his existentialist tone allows us to counter objectivism. By not considering the human subject/self as a mere by-product of epiphenomenalism *derived from* language and culture, he gives credence to the subject as an equiprimordial phenomenon that *emerges through* language and culture (Mills 135). This highlights the importance of phenomenology for understanding subjectivity and consciousness. For Mark Letteri, Heidegger's thinking of being through phenomenology: "touches a deeper level of reality than the sciences can reach on their own, limited as they are by their own historically determined and indeed occluded points of origin" (5). Science is guilty of objectifying the human self and hopes to 'seal' the fate of any subjectivity deriving from the self through the MR, but also through the A.I. research that is designed to make such a reduction a reality. For that, Heidegger, though involving a sort of thinking that aims to abandon subjectivity and objectivity altogether, still provides ideas that can be used to affirm subjectivity and idealist philosophy in the face of materialism.

10. WHY DO WE CARE TO EXIST?

The detrimental effects of science on our understanding of the self provoked Heidegger to claim that we need to reject all: "conventional objectifying representations of a capsule-like psyche, subject, person, ego, or consciousness in psychology, and psychopathology must be abandoned in favour of an entirely different understanding" (*Being and Time* 327). Though Heidegger was seeking a fundamental ontology that could be considered primordial to any sort of subjectivity and idealism, he still aimed to discover new perspectives on reality in

order to counter naturalist and modernist conceptions. Naturalism and modernism value science at all costs and thus threaten philosophy's place in the world, and more noteworthy, in the university. When we experience the 'worlding' character of things in reality through philosophical means, which is neither a naturalist nor a modern perspective, Rudiger Safranski explains that we: "slide into a different order that is no longer the order of perceiving [...] it (a thing) assembles a whole world, in terms of time and space" (95-96). This unique notion of reality is not how A.I. processes the world, as it cannot interpret reality as such. So the way we see things in reality as 'worlding' leads us, unlike A.I., to care to exist. Heidegger's human Dasein, in its facticity as a 'throwing thrownness', retrieves meaning from the world which provokes it to have a concern for the world in which it finds itself (Letteri 15).

The 'care' that the human being acquires through the world sets it apart from animals and robotic A.I., but also from a reducible modern Cartesian *cogito*. The *cogito* involves a conception of the subject as one that fixes the mind as the centre of meaning in virtue of thinking, whereas Heidegger's idea of a non-fixed existence for the human is: "ahead-of-itself-already-being-in a world as Being-alongside entities encountered within-the-world" (*Being and Time* 327). The mechanized products of A.I. do not function in this transitory way, since they do not 'care'. A.I. does not interpret meaning, because such interpretation is needed for the 'care' that provides for the unique characteristic of the human condition. Only a being that perceives an open horizon ahead of itself to enter can be a caring creature that experiences an open time horizon, and so 'care' should be conceived as a lived temporality (Safranski 157). This manner in which humans perceive the world through 'care' not only encourages humans to realise the importance of improvising in the world, but allows improvisation to be framed as a uniquely human possibility.

11. IMPROVISATION AS PURE SUBJECTIVITY

Improvisation is a human activity that characterizes our 'way' of being in the world, but this is not realised through a natural, scientific or modern conception of the world. This distinction is important for self-discovery, since if we just focus on the uniqueness of human consciousness (the ego) and/or cognition (the *cogito*) we permit the possible objective reduction of the human self to

a mere animal or artificially intelligent robot to occur. Heidegger, though not rejecting the importance of the physical brain and existence, aims to interpret Dasein (the human *there-being*) in its own essential fullness not its mere technical and mechanical attributes (Letteri 33). Letteri claims that since consciousness is the presupposition for Dasein and not the reverse: "Consciousness and cognition [...] imply perspectives on the human being that Heidegger considers as unthought originally [...] Being there makes intelligible consciousness and cognition, whereas consciousness and cognition, even construed generously, cannot account for the elemental fact or truth of Da-sein as being t/here" (33). Such a notion propounds the impossibility of the MR, as it coheres with the idea that the use of memory for example (and we will also see below with the altered states brought on by improvisation), cannot be comprehended via any natural scientific method. The scientific method merely highlights a *tabula rasa* approach to consciousness in which the mind is considered an empty container waiting to be filled by and with knowledge instead of as a being-in-the-world (Letteri 51).

When we philosophically consider the bodily and mental attributes involved in the activity of improvisation, we can counter the scientific objectified conception of the human being. Heidegger underlies the importance of improvisation for being human, as he can be interpreted to frame existence as a 'prolonged and stretched' improvisation. Existence is to be conceptualized as a 'bodying forth', whereas for natural science the body merely exists as a physical object. Letteri frames Heideggerian existence as a: "dynamic and highly intricate expanse of "heres" and "theres" through which Da-sein sojourns [...] Da-sein exists. Being-in-the-world is the sway of the human being as a projective clearing in being. The body as gross matter is visible, but bodying forth through the world is invisible [...] human experience as bodying forth is meaningful in the first instance" (51-52). Improvisation, as an activity that A.I. cannot replicate, defends subjectivity from being reduced objectively in virtue of being a 'bodying forth'. Improvisation preserves human meaning from being explained by science through any MR, and this reveals the relevance of subjectivity's study in the university through philosophy. The unique relation humans have with meaning, in that they concomitantly create and recreate one another, can be understood through the *ad hoc* nature of improvisation, which is a nature philosophy aims to recognize and explore.

Improvisation shows that the human manner of thinking is much different from that of A.I. Gilbert Ryle states: "Unfortunately one over-dominant part of our everyday ideas about thinking is the assumption that since a stretch of calculating, say, or translating or anagram-tackling certainly does normally embody a succession of 'mental' moves, therefore to think is, always and essentially, to go through a sequence of 'mental' leapfrogging. This step-after-step picture of cogitation is then apt, though not bound, to be hardened up into the picture of a compulsory sequence of [...] steps individually admitting of no spontaneity, selection, initiative or imagination" (71). Ryle is frustrated with the notion that human beings think like computers, in the sense of thinking via mere sequences instead of depending on meaning and immediate wit (72). Consequently, he considers improvisation as an essential feature of human thinking in which the present moment, in its meaning, is crucial for human existence. Ryle states that to respond to the present moment, implies: "a union of some ad hocery with some know-how. If he (or she) is not at once improvising and improvising warily, he (or she) is not engaging his (or her) somewhat trained wits in some momentarily live issue, but perhaps acting from sheer unthinking habit" (77). Thinking for Ryle therefore becomes known as an engagement of wit under new situations, thus the application of a skill or competence within an opportunity, problem, or obstacle that is not programmed (77). Programming is what A.I. performs and so that which can distinguish humans from A.I. is improvisation. Philosophy is important for improvisation because it is the discipline that explicitly aims at producing thoughts on the uncovering of improvised meaning instead of just programmed responses to structural patterns from habit. The more the university undermines philosophy therefore, the more it produces students who are more artificially intelligent. This provokes the idea that perhaps we should be more worried about humans becoming more 'artificially intelligent' beings instead of vice-versa (artificial beings like computers becoming truly intelligent).

Through philosophy we have seen that A.I. will never attain human intelligence, which implies that we must not jettison the non-material mind that refers to subjectivity. Such an implication respects the notion that humans cannot be fully reduced to mere physical objects. Though this does not need to signify we have a theological spirit, it does signify that humans have rights that should protect that subjectivity. Such protection is essential to defend humanity

against the threat of being treated as slavish objects in a mere material/physical world. Philosophy stands up for these rights through its support of human capacities like improvisation, which defends subjectivity in particular by involving altered states of consciousness that further confirm such subjectivity. These states are subjective experiences which psychology has been unable to establish as having any objective manner in which to determine externally whether or not someone is indeed experiencing them (Farthing 206). Within improvisation, we attempt to escape our minds and thus our subjectivity, which involves an immediate experience that many different altered states of consciousness share (Scheiffele 14). Such immediate experience shows that idealism and subjectivity, which are expressed and studied through philosophy, are important for understanding humanity in the face of science's encroaching monopoly on this understanding. Such a non-scientific understanding can be interpreted through Schelling's ideas of God coming into existence within and through the human subject. This was a claim that considered that nature is able to open its eyes within the human and in turn realise that it indeed exists (Saf-ranski 200). If the human is nature's medium to know itself, and the human knows itself through subjectivity, then it needs philosophy to accomplish its full understanding. Perhaps this is the manner we should view humanity, nature and reality, and the manner which the university should promote. Not as objects to be reduced to numbers for calculability and manipulation, but as involving an inescapable subjectivity that values improvisation's capacity to improve our self-understanding.

CONCLUSION

The future of philosophy in the university will be shaped by university corporatization and its vocationalization (Giroux 687). In many ways this materialist university model hinges on the MR., and though humans are becoming creative in new ways through technology, philosophy is not always thought of as a contributing factor. A.I. has been shown to require the human 'touch' in order to involve any sort of meaning, so we can negate the claim that computers actually do create meaning (Simon and Newell 6). The university was once responsible for constructing the intellectual and spiritual world (Ott 179), so per-

haps it should improvise to 're-think' the ways in which it can return to fulfilling this role.

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