PROUD AND USELESS?
THE CURIOUS CASE OF THE SOCIAL SCIENCES AND HUMANITIES IN THE 21st CENTURY

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Abstract

Public perception of the Social Sciences and Humanities (SSH) as a significant component of higher education is in decline, with funding of SSH research increasingly hard to secure. Recent high profile initiatives to counter this trend–such as the Vilnius Declaration–attempt to revitalize 'soft sciences' via indirect references to the framework of the Enlightenment: what is allegedly at stake is the betterment of society, or at least the alleviation of societies' ills. However, in this paper we argue that such moves are counterproductive, as they marginalize SSH even further and reduce them to 'maidservants' of science and technology. Instead of trying to secure a place at the table of research grants, social science and humanities should re-think and re-classify their methods and disciplines. Given the current demarcation between SSH and natural and technical sciences as a cultural and historical construct, curricula should focus on alternative methods of organizing knowledge. Taking a clue from Emerging-Field Projects such as ELINAS at the University of Erlangen Nuernberg, the faculties of Humanities, Social Science, Medicine, Natural Science, and Engineering–among others–should design joint degrees. Those degrees should start at the undergraduate level in order to guaranty the dissemination of fundamental knowledge in these fields, and to provide a steady stream of capable students for graduate and postgraduate studies. Ideally, the artificial gulf between SSH and Natural Science would already be abandoned in primary and secondary education. In this paper, we are particularly interested in the historical and philosophical underpinnings of this possible paradigm change, which is increasingly being enforced by Natural Science's success. Ironically, it appears that the hard sciences stimulate a renewed interest in the complex relationship between man, nature, and manmade artifacts, yet in doing so challenge SSH with problems whose discussion have traditionally been associated with Philosophy. In order to illustrate this point, our argument will particularly refer to ethics and aesthetics.

Keywords: Higher Education; University Reform; Interdisciplinarity; Neurophilosophy

1 INTRODUCTION

The recently agreed upon Vilnius Declaration aims to bring the Social Sciences and Humanities (SSH) back into the focus of research funding. By integrating SSH into Horizon 2020–the new EU research programme–research that "is to serve society" (Vilnius Declaration, 2013, p.1) will be prioritized. SSH is to be integrated in "partnership with other disciplinary approaches" to provide, among other benefits, "critical insight", and "to help achieve the benefits of innovation" (Vilnius Declaration, 2013, p.1). In the declaration, the indispensability of Social Sciences and Humanities for society as a whole is emphasized, as is its necessity for the survival of democratic societies.

For this paper, the Vilnius Declaration has been singled out as one of many attempts to reposition SSH in the academic world and beyond. The background to this laudable approach of repositioning SSH is complex. While public perception of SSH as a "significant part of higher education" (Gottschall, 2010, p.457) is in decline, official funding of research in SSH is increasingly hard to secure, as can be seen from a recent U.S. Congress vote against the funding of political science through the budget of the National Science Foundation (NSF) (Mole, 2013). If lawmakers have their say, exception would be granted only where benefits in "national security and economic interest" can be proven (Nowotny, 2013).

Embattled on all fronts, representatives of SSH–at least in Europe–vow to fight back. But one is tempted to ask: fight for what? Can there indeed be a place for these fields at the table of research grants distributors? Might SSH even undergo a resurrection as a "contributor to the sum of knowledge and the well-

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being of society"? (Gottschall, 2010, p. 457)

Before discussing why initiatives like the Vilnius Declaration are timely, certain objections to the underlying premises of those initiatives cannot remain unmentioned. Indeed, several presuppositions leading to the Vilnius Declaration contain enough material to undermine and subsequently damage SSH's position in the academic world and beyond.

Instead of cementing the current demarcation between the Social and Natural Sciences, this paper wants to propose in a programmatic manner an alternative organization of knowledge to respond to Natural Science's success and societies' needs.

2 THE "OLD" HUMANITIES

2.1 System and Classification of Disciplines

The relationships among diverse academic and scientific disciplines must be thought of in historical terms. However, the Vilnius declaration (and other attempts to solve the current crisis in the humanities) presents the demarcation between SSH and natural sciences as a natural phenomenon, rather than a cultural and historical construct. It assumes an agreement on the intersection between science and the humanities, whereas in reality, the line has been redrawn, transgressed, attacked, and defended since the beginning of Western thought in ancient Greece. The influence of the Aristotelian classification of disciplines into theoretical, productive, or practical endeavors is still considered the starting point for compartmentalizing knowledge in academia. Aristotle's belief in telos, or purpose, guided academic thinking and research funding criteria as well. (Carr & Kemmis, 1986, p.32). His noted support for the institution of slavery afforded Aristotle personal freedom to focus on contemplation and the pursuit of truth for its own sake as the ultimate intellectual virtue. Although for Aristotle it was the highest form of human activity, this interpretation suppresses the importance of the productive, and the practice and making of things and judgments (Smith, 1999).

From the 'trias,' to 'septem artes liberales,' to the current liberal arts model, universities and academies responded to economic, cultural, and political changes by re-organizing their methods of knowledge dissemination. The latest universal model for higher education–which is at least partially the result of colonialism and later attempts at modernization (Peters, 2003, p. 76)–is assumed to be rooted in Wilhelm von Humboldt's layout for a modern university (Ash, 2008, p.57). However, it bears remembering that Humboldt's outline of a modern university, with its focus on teaching and research and its intellectual independence, was largely due to economic changes and needs in Prussia at the time (Lenoir, 1998, p.22). Although employment options were guiding the action, employability was not viewed through such a narrow perspective. As often occurs during the dissemination of knowledge, the most important aspect got lost: Humboldt did not criticize an education that is governed by economic concerns, but he warned students against specializing in one profession only. He wished for more general education, as it would prepare students for later changes in their professional lives, changes which are projected to occur at an ever increasing rate. At the same time, current progress in the natural sciences is challenging a wide range of cultural beliefs; both the structure of knowledge dissemination and general education needs to be redefined.

2.1 The Humanities' Minority Complex

The humanities seem to suffer from a 'minority complex,' resulting from an implicit (but not necessary) acceptance of capitalist utilitarian thinking. Students choose majors based on their chances for employment; businesses want less time wasted at universities and an earlier entrance into the labor market. Parents want value for the money that they have invested in their children's education. Humanities departments go to great lengths to show that philosophy degree holders can compete in the marketplace. However, lurking at the heart of the debate seems to be a political and cultural problem best described by the German word '*Deutungshoheit*'; that is, whose interpretation of the world will govern the imagination and understanding of the majority within a society: religious leaders, technocrats, artists and novelists, philosophers, or scientists? We face a competition among the different academic fields that goes far beyond the establishment of academic life.

Since the establishment of the first modern universities in Europe (as opposed to scholarly institutions such as monasteries), the humanities have been leading in the race. Logic was understood as a rhetorical tool in debate which dominated at Oxford, and ancient languages gave reminiscence of a glorious past and an uninterrupted connection to the first philosophers and thinkers (McConica, 1986). Philosophy's longing for the return of its golden age is best illustrated by the lamentation that "(p)hilosophers become janitors in the

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Crystal Palace of science" (Critchley, 2001, p.5).

The questions that arise from such simplistic and/or metaphorical statements are manifold. Firstly, an unspoken distrust runs through the argumentation; science and scientists become suspicious. Scientists create the problems and SSH have to mop up after them. Secondly, scientists are denied any ability at critical evaluation. The effective myth of the crazy scientist seems to be underlying much of the more sober-sounding criticism of the dominance of science in life. Lastly, in conjunction with the Enlightenment-era aim of betterment to society, SSH feel entitled to a leading role in guiding the way after scientific progress has occurred.

One look at history proves the claim of a critical and wise SSH wrong. While the more important question of the proper role of science in modern thought is not answered by such distortions, the humanities seem to be the ones stuck in a binary divide of knowledge. Nonetheless, the Social Sciences and Humanities (SSH) do not present themselves as equal and independent partners, but rather request to be "integrated" (Vilnius Declaration, 2013, p. 2). Subsequently, they are taking the role of a contributor, follower, and/or critic of contemporary science.

While this is not the place to investigate the origin of such a minority complex further, it seems somewhat implausible to assume that there has ever been a time in human history when science was silent and philosophy talking. Such an assumption might be only a delusion of humanities teachers, and the history of mankind could therefore be provocatively reduced to the claim that technology (techne) has always ruled human life.

2.2 The Humanities' Utilitarian Side

While the utilitarian approach of the U.S. Congress' decision against funding for political science is bemoaned, several arguments in the Vilnius Declaration focus on geopolitical and political objectives, ranging from "redefining Europe in a globalizing world and enhancing its attractiveness" and "enhanc[ing] the effectiveness of technical solutions" to "sustaining a vital democracy" (Vilnius Declaration, 2013, p.1). These political approaches, however, are not further discussed. Utilitarianism equally reigns over the Vilnius Declaration, as seen in the European Research Council's new funding initiative "Proof of Concept" which stipulates that marketability is vital for being granted funding (Nowotny, 2013). Given this line of reasoning, by their own admission SSH are considered instrumental, but not as a necessity and possessing unique value in themselves.

2.3 Limits of Current Deliberate Countertrends

One last point of contention against the chosen example of the Vilnius Declaration is that it belittles its efforts for joint research and mutual distributions by focusing only on post-graduate education and training (Vilnius Declaration, 2013, p.2). No reason is given why "innovative curricula" should not start at the bachelor's level of higher education. Given the complexity of knowledge in the 21st century and the need to rethink how knowledge is understood in the first place, it might be more appropriate to foster transdisciplinary and cross-cultural analysis of the production and circulation of scientific knowledge among all students, beginning from a very early age.

3 PLEA OF NEW HUMANITIES

3.1 The Ultimate Death of Academic Philosophy

To exemplify the academic 'fate' of classical fields of the humanities, Philosophy will be singled out. With the emergence of cognitive neuroscience, Philosophy has faced a challenge in one of its last strongholds as declared in the 18th century, Ethics and Aesthetics. This challenge might be symptomatic of the shifting battle lines between the sciences and the humanities (as seen, among other indicators, in the U.S. Congress' reluctance to finance non-vital research, and in the dwindling numbers of Humanities students at U.S. colleges). At the beginning of the 21st century, life–individually and socially–is increasingly bound to bio- and neuroscientific knowledge. Our understanding of the 'human condition' is inextricably interconnected with developments in biomedical and scientific fields. Some universities are doing justice to this development by offering joint master's degrees in Philosophy and Life Sciences, while research projects at universities bring together students of science, literature and media studies, anthropology, and sociology to engage critically with the sciences. This engagement seems to be dominated by one side, as the task of categorical re-organization and theory building (in the spirit of positivism) is often much better accomplished by scientists than philosophers.

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Thus, the death-knell of philosophy is sounded once again–a call that has been repeatedly heard since its very establishment as an academic field.

3.2 Alternatives to the Current Academic Structure and Education System

As has been shown, the political symbols of contemporary crises in the humanities and knowledge organization at universities, such as the Vilnius Declaration (and similar programmatic suggestions), do not go far enough to reclassify disciplines, methods, and research. In addition, they do not address the place of humanities and social sciences in and outside the academic world. They do not offer an alternative organization of knowledge.

How should such an alternative look? Answers can be found at individual universities on the local level, such as the Emerging Field Project ELINAS at the University of Erlangen Nuernberg (see: NeuroHumanitieStudies at the university of Catania, Italy as another approach). ELINAS, an acronym for Erlangen Center for Literature and Natural Sciences, will be founded by the Faculty of Humanities, the Faculty of Sciences, the Faculty of Medicine, and the Faculty of Engineering, through the Departments of Physics, Mathematics, Physiology, and Material Sciences, as well as the Departments of German, English, and American Studies. It is not structured as an independent department and/or major, but as a platform for interdisciplinary exchange and mutual recognition of the different discourses of knowledge production. Understanding that present and future problems cannot be solved by the narrow limits of highly specialized expert discourses, sound knowledge of the respective methods and theories–be it literary criticism or concept formation in the natural sciences–is vital in order to understand the complex relationship between man, nature, and manmade artifacts.

However, without diminishing such initiatives, nothing but a complete overhaul of the methods of knowledge organization will suffice in order to counter the common misconception that science and technology initiate processes which in turn lead to changed economic, cultural, technical, and political landscapes. The contrary holds: the initiating of the process begins by thinking about phenomena. Science and technology provide new tools to test scenarios and hypotheses.

Although all of these issues and claims have been discussed in academia for the past two hundred years (Wende, 2011), the advance of scientific discoveries and the force of these discoveries on societies and human understanding have never been stronger. Thus, if SSH are not to be proven to ‘useless’ and out of work, an alternative model is necessary.

Our own highly informal ‘declaration’ is intended to start a debate on an at least partially non-commercially driven review of education.

Starting from kindergarten, both scientific curiosity and artistic appreciation should be taught by specialists trained in both their respective fields and in the relevant pedagogic skills.

At the high school level, science classes should make up half of all classes taught. In addition to teaching methods and concepts, science classes should focus on the history of the respective field, so that students can see the history of science as one of universal intellectual inquiry reacting to a wide range of phenomena, problems, and developments. In addition, the social, political, technical, and spiritual consequences of the respective discoveries should be explored. At the same time, in high school, art, literature, and social science classes should present art alongside the most important innovations at the time of production, while allowing students to experience the importance of alternative views and developments. By presenting the interconnection of natural science and humanities, the current tendency of blindly copying empirical terminology in humanities fields in order to prove its usefulness and adherence to the current paradigm should not be necessary.

At the undergraduate level of university studies, at least one third of compulsory classes should cover an academic field ‘opposite’ from the chosen major. Consequently, students would accumulate a broader range of knowledge on methods, limitations, and changes, while at the same time adhering to the functional differentiation of education systems. This dissemination of fundamental knowledge in the different fields would provide steady stream of capable students for graduate and postgraduate studies. One minor side effect might be strengthening universities’ ability to keep talented researchers from moving to foundations and independent institutions. Furthermore, interdisciplinary research proposals would be the norm. Such a development might facilitate research funding.

Ultimately though, creating transdisciplinary majors, even at the bachelor’s level, should be considered the main objective, while all master’s-level degrees will combine at least two highly specialized expert

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discourses. This would involve a complete reconstruction of the current liberal arts and business school education model. However, given the new challenges and possibilities generated by natural science and their associated technological developments, no one with a one-sided educational background–be that in natural science, business, and/or humanities–would be able to gain true proficiency with such limited knowledge.

4 A FINAL EXAMPLE

In regard to the aforementioned challenges, a closer look at current research on emotions and the neuroscience of moral judgment can help illustrate how natural sciences once again inevitably redirect philosophy and the humanities. We particularly choose moral perception as the subject of our short final note, as we believe that it is an area that alludes to a traditional stronghold of SSH. We do not have the room here to offer any thorough discussion of what is now referred to as Neuroethics. Our main goal is merely to highlight the radical challenges that neuroscience poses to folk psychology and philosophy. However, what appears crucial to us is to avoid a straightforward model of scientific maturity; unlike modern particle physics and astronomy that indeed have made philosophical and religious cosmologies obsolete, modern biology cannot simply be substituted for ethics (or aesthetics for that matter). Let us explain.

The notion of perception plays a central role in SSH, allowing for the subjective variability of a physically unified world. All cultural and political activity stems from particular ways of how the world is 'seen.' Curiously, current scientific research into embodied cognition and perception does more than reject dualism. Through the notion of embodiment, the subject-object dichotomy erodes, and enforces a categorical reorientation that has prominent predecessors in Merleau-Ponty's *Phenomenology of Perception* (Merleau-Ponty, 2005) and Gibson's notion of affordance (Gibson, 1979). Indeed, contemporary neuroscience not only suggests the naturalizing of epistemology, it more radically challenges philosophical anthropology through the *cognitive* role it assigns particularly to (emotional) proprioception. For instance, Wisnewski's recent philosophical reshaping of moral perception draws significantly from the James-Lange theory of emotions (Wisnewski, 2013) that has its contemporary expression in the Somatic Marker Hypothesis (see Dunn et al., 2006). Notably, emotions (Prinze, 2006) and also the mirror neuron system (Shapiro, 2009) are treated as senses in their own right, importing particular social emotions that underpin ethical behaviour and are crucial sources of moral motivation.

What makes neuroscience a challenge for ethics is not just that it identifies moral 'senses.' It is rather the actual discovery of heterogeneous functions of social emotions that ultimately sets boundaries for moral philosophy. For instance, Singer and Steinbeis (2009) examine the contribution of shared neural networks in third-person perception of pain. Their experimental results suggest that male subjects especially make distinctions between in- and out-group members in their empathy reactions. Further, moral perception, in terms of pain empathy, appears to present a suffering fellow human being first and foremost as an in- or out-group member. Thus, while empathy happens to be an immediate reaction to seeing someone in pain, the association of a suffering individual with either an in- or out-group position defines whether empathy generates compassion, or rather turns into feeling of revenge. The important detail in this is that in- or out-group classifications, for instance being a fair or unfair player in an economic game, determine divergent moral perceptions. Subsequently, empathy and compassion should be categorically detached, and belief/desire holism receives an empirical test in the form of how *social* classification interferes with the immediate performance of 'shared neural networks' that help put us in the shoes of others.

At this point, a moral philosopher may raise the objection that normative ethics must not build on moral psychology. Indeed, no fancy experimental result in neuroscience can dismantle Hume's *is/ought* distinction, or Moore's naturalistic fallacy. However, moral psychology *does* interfere with the most promising theory of moral rationality: universal prescriptivism. Note that while moral values seem to be ultimately irreducible to natural properties, the axioms of formal ethics account for 'moral possibility.' Only the possible can become a duty. From this follows a paradox of contemporary scientific culture: through technology and engineering, society's action potentials increase exponentially, putting ubiquitous pressure on moral human decision-making, which for instance can be seen in areas of bio- and medical ethics. With regard to the human brain, however, science progressively suggests moral idiosyncrasies and limitations, e.g. concerning the functioning of the ventromedial prefrontal cortex (Greene, 2007), the correlation between the "big five" character traits with the extension of particular brain regions (DeYoung et al., 2010), and the behavioural idiosyncrasies in autism (De Vignemont, 2007). This casts a long shadow over the project of a rational and universal foundation of ethics, or a 'just' establishment of universal legal frameworks.

The intriguing development in neuroethics is that the natural foundations of morality themselves become

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objected to technological manipulation. Klimecki et al. (2013 a & b), for example, investigate the effects of "compassion training" in situations with an overload of empathy-causing stimuli. Their experiments show that emphatic responses to the so-called Socio-affective Video Task are often accompanied by negative affect and activations in the anterior insula and anterior medial cingulate cortex that constitute the core neural network underlying empathy for pain (see Klimecki et al., 2013b). Compassion training in the form of loving-kindness meditation (Klimecki et al., 2013a), however, leads to significant reorientation with "stronger activations in a specific neural network including the mOFC (medial orbitofrontal cortex), the pallidum, the putamen, and the VTA/SN (Ventral tegmental area/substantia nigra)—brain regions previously implicated in positive valuation..." (Ibid., p. 8). Affective training is a paradigmatic example for a therapy of moral sense that, according to the scientists, could possibly "serve as a new, powerful method for enhancing positive affect in response to adverse situations" (Ibid., p. 9). Obviously, "positive" is here an ingredient of the "language of morals," rather than "descriptive" science.

An evolving technological practice where the empirical sciences colonize morality through therapy, and, possibly, augmentation of moral sensation, as opposed to rational deliberation, calls for a philosophical critique. The theme itself is not new. Anthony Burgess, for instance, in his famous 1962 novel "A Clockwork Orange", lets a Dr. Brodsky re-socialize the young outlaw Alex through a fictitious method (the so-called Ludovico technique) that causes nausea whenever violence comes into Alex's mind. With natural sciences' concrete experimentations, philosophy and SSH receive material that urges reconsideration and remodelling of their traded theories. Particularly in relation to value studies and theories of human behaviour, the detailed interpretation and evaluation of experimental scripts appears to be a crucial interdisciplinary academic exercise that we believe cannot be excluded from SSH curricula (which demands the integration of a certain degree of scientific knowledge).

For instance, Kahane's methodological scrutiny of the neuroscience of moral judgment (Kahane & Shackel, 2010, Kahane, 2013) issues doubts as to whether it is actually possible to link moral intuitions, and their alleged neural substrate (see Greene, 2007), to abstract moral principles. What Kahane aims to demonstrate is the difficulty to conclude from a particular ethical decision the principle of reasoning that it is supposed to instantiate. Kahane stresses that theoretically different moral content, i.e. utilitarian and deontological perspectives, appear often only remotely attached to what can be assessed in terms of how healthy or neurally-impaired individuals respond to case studies such as the infamous trolley dilemmas. Whether ethical consistency has natural underpinnings, or can actually be emancipated from one's 'moral nature,' have become questions that are intrinsically interwoven with experimental settings in neuroscience. Subsequently, philosophers and social scientists need to be aware of both scientific methods and experimental results in order to interrogate their own theoretical assumptions.

Philosophy and SSH have traditionally been the signature of a 'modern' Liberal Arts education, with an emphasis on critical thinking, argumentative versatility, and methodological plurality. If these components are to be maintained in the framework of the university in the 21st century, a detailed philosophical analysis of scientific discoveries, as the one by Kahane indicated above, is indispensible, particularly with regard to cognitive neuroscience. Notably, in the areas of ethics and aesthetics, real interdisciplinary recognition would mean that philosophers and experts in the humanities cooperate with natural scientists in experimental design. In order to familiarize researchers with such a procedure, academic curricula have to be shaped accordingly. Finally, even those who do not pursue scientific careers after receiving their academic degrees cannot be spared from thinking about the radical anthropological re-orientations that natural sciences will continue to evoke. Only an honest picture of what we humans are can ultimately lead to social progress, as the Vilnius Declaration demands. It is a reality that the natural sciences have become the main source for our anthropological self-findings. Subsequently, without science becoming an integral part of academic communication across disciplines, SSH will keep their roots in what becomes an increasingly suspect common sense, losing sight of what is ultimately academia's currency: reasonable beliefs.

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