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Ontological imagination: transcending methodological solipsism and the promise of interdisciplinary studies = Wyobraźnia ontologiczna – przekraczanie metodologicznego solipsyzmu a obietnica badań interdyscyplinarnych

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Ontological imagination: transcending methodological solipsism and the promise of interdisciplinary studies

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Abstract

This text is a presentation of the notion of ontological imagination. It constitutes an attempt to merge two traditions: critical sociology and science and technology studies - STS (together with the Actor-Network Theory – ANT). By contrasting these two intellectual traditions, I attempt to bring together: a humanist ethical-political sensitivity and a posthumanist ontological insight. My starting point is the premise that contemporary world needs new social ontology and new critical theory based on it in order to overcome the unconsciously adapted, "slice-based" modernist vision of social ontology. I am convinced that we need new ontological frameworks of the social combined with a research disposition which I refer to as ontological imagination.

Keywords: ontological imagination; ontological turn; methodological solipsism; interdysciplinarity; phronesis.

Introduction

The notion of ontological imagination that I propose in the present text constitutes an attempt to combine two traditions: critical sociology and science and technology studies - STS (together with the Actor-Network Theory - ANT). To use shorthand, this project could be referred to as fusing Mills[29] together with Latour. But what does that mean? The first author is a symbol of critical sociology (Mucha 1986), the latter - a person who, next to Donna Haraway, has become the trademark of posthumanist thought.[30] Contrasting these two con-

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[29] Obviously I am referring to Mills' *Sociological Imagination*, first published in 1959, Polish translation 2007.

[30] Qualifying B. Latour as a post-humanist author might be somewhat misleading. The actor-network theory in its late form is "realist realism", and Latour strongly dissociates himself from

stitutes an attempt to bring together fire and water: humanist ethical-political sensitivity and posthumanist ontological insight. Why do we need such a synthesis? My starting assumption is that one of the problems plaguing the contemporary humanities and social sciences is their isolation from social problems (Flyvbjerg 2001: 166). This is why we need a renewal of the potential of critical thought (sociology and public philosophy). One of the reasons why social sciences cannot adequately participate in debates regarding the concerns and problems of our communities is the social ontology they share. It is the unconsciously adapted, modernist, "slice-based" vision of social ontology (in the broader sense of the term), within which social subsystem can be separated, as can, among others, culture, politics, economics, science and religion subsystems[31]. Today we know that these fictively-traced boundaries of modernity cannot be upheld (cf. Beck 1992, Feenberg 2010: 181). The ozone hole, anti-vaccination movements, energy security, terrorism and religious revival do not fit simple modernist frames (cf. Latour 2011). One can easily notice that all these phenomena are connected and how much we miss by analysing them separately. I am convinced that we need new ontological frameworks of that what is social and a research disposition which I refer to as ontological imagination.

What is the origin of this notion? One should start from a diagnosis: I am convinced that critical thought is in the state of a profound crisis, partly because in the course of its evolution it parted with ontological thinking. This is related to the excessive attachment to epistemological analyses, partly arising from Kantian and neo-Kantian heritage, as well as from postmodern critique. An additional problem is posed by the "toothlessness" of critical sociology in disputes regarding social-scientific problems and controversies. Habermas may serve as a hallmark example, as an author of an extensive theory of modernity and modernisation who did not analyse issues of technology at any point (Feenberg 2010: 129-156). This is also connected to neo-Luddite tendencies that have accrued since the countercultural revolution of 1968 (Nowak 2013b). A partial deliverance can be found in science and technology studies and the actor-network theory, which have brought about inspiring solutions regarding ontology. They have also made it possible to transcend the theory-centrism in approaches to science and technology, thanks to "lowering the tone" (Shapin 2010:1-14) of stories about science and technology, which was in turn due to the ethnographic research into technoscience and its real, practical functioning. There is hope that such research will gradually decrease the alienation felt by social scientists that results from the rapid development of technosci-

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postmodernism. Locating him within posthumanism might be unfortunate, as many authors within this trend are quite strongly dependent on the postmodern legacy.

[31] Cognitive scientists and system thinkers usually add one more "slice": the personality subsystem.

ence. There is also hope that it will translate into the increase in reflexivity among larger numbers of the participants of the public sphere and decrease alienation and future shock in contemporary societies. However, in order for that to be possible, a certain revision of this research is needed as well. This is because somewhere in the course of their existence, STS and ANT have lost the possibility of constructing a full-bodied critical instance as part of their framework, which necessitates their supplementation. This especially pertains to the actor-network theory, which can be accused of conformism and a tendency to "favour the winners" (Feenberg 2010: 144). Feenberg suggests that the critical potential related to considering the legacy of critical theory (Marcuse) and traditional philosophical approaches (Heidegger) should be renewed. He creates an interesting synthesis of critical theory, philosophy of technology and science and technology studies. However, I believe that it is worth following a different, alternative path, one that does not coincide with the philosophical canon. I am convinced that the "entrance fee" required while reading Heidegger and Marcuse is too high. Those socialised within philosophy are able to pay it with benefit; however, I am convinced that for those without education in philosophy the cost is too high and it is not offset by the achieved results. This is why I suggest a different road. The notion of ontological imagination becomes inscribed in the quests undertaken within the critical theory of technology (Feenberg 2002); yet, in contrast to the latter, a stronger accent is put on STS and ANT, and not on philosophy and critical theory.

My proposal takes on the following form: firstly, C. W. Mills and his notion of sociological imagination constitute an interesting way of "politicising" knowledge, i.e. sensitising us to duties and axiological entanglements inherent in conducting research, and the achievements of STS and ANT - the so-called ontological turn (Heur, Leydesedorff & Wyatt 2013: 341-362) - make it possible to track the "circulation" of our actions and the consequences they have for the community.

The notion of ontological imagination is conceived as multi-faceted, and if one follows Mills and draws and analogy to sociological imagination, at least three main aspects thereof can be listed: methodological, sociological-historical, and moral-political. Let us characterise each of them. The methodological aspect of ontological imagination is, above all, the abandonment of the ideal of science as theory and letting go of the illusions related to humanistic fundamentalism (Abriszewski 2010: 143-157). Using ontological imagination requires noticing the complex network of actors that construct our collective, in accordance with the principle of symmetry, raised by Bruno Latour (Latour 2011). The second aspect consists in the response to the challenge posed by the so-called reflexive modernity and to the fears evoked by technoscience (Nowak 2012). It is the hope that disseminating such sensitivity and cognitive disposition will help to empower groups and individuals in the world of technoscience. Evi-

dence-based patients' movements constitute my main inspiration in this re-spect (Rabeharisoa, Moreira & Akrich 2013).

Finally, the third aspect are the moral-political obligations; it is not enough to recognise the rhizomatic nature of reality, one should suggest how to move within its entangled nodes and how to reshape its strands. Ontological imagi-nation is the awareness of the fact that we have obligations both cognitive and axiological. They cannot be separated from each other.

This task I have set before ontological imagination is somewhat tremendous; not only must we reconcile with the collapse of modernist "ontological hy-giene" (Bakke 2010: 17), but also we should practice transgressing formerly drawn lines and divisions. Here, however, a more difficult moment occurs: the work of the imagination has two aspects: sociological (holistic), and con-structive (Wesołowski 1975). Simply subverting former disciplinary divisions is only the first part of the task. It is radical, courageous work of the imagina-tion, which consists in working through the limitations resulting from histori-cal and institutional conditions, institutional inertia, i.e. what I refer to as methodological solipsism. In order to complete the picture it is essential to include the second aspect of the work of the imagination - the constructive one. It is more difficult, requires taking risks, designating perspectives and assuming responsibility. The former has a more ontological character, the latter - a stronger political component. The work of the sociological-holistic imagination answers Latour's question "how many are we?" whereas politi-cal-constructive imagination answers the question of "can we live together?" (Latour 2004: 8). The first of these questions parallels traditional academic (research) work, it is the painstaking work of reproducing the shape of our collectivity, transforming it into words, notions, inscriptions. The second as-pect of the imagination consists in fufilling the promise and calling forth the engaged intellectual. It is a risky undertaking, demanding that Lenin's gesture be repeated - Lenin's gesture so well described in Stefan Żeromski's 1925 nov-el *The Spring to Come* (original title *Przedwiośnie*):

> *Do you have the boldness of Lenin to begin something never seen before, to demolish the old and institute the new? You only know how to abuse, to defame, to gossip. Do you have within you the dogged fortitude of those people—the steadfast virtus that may be mistaken in its calculations, but which is beyond a doubt a great attempt to improve humanity?* (Żeromski [1925] 2007: 399).

On a more practical level, it is also an attempt to reconcile two "Greek" [32] inventions: democracy and science, an attempt to reconcile the Reason, Might and Representation of the Plurality (Latour 1999). Such an attempt is a partial repetition of the gesture made by Laclau and Mouffe (Bobako 2010: 79-82), who wanted to rescue political-emancipatory content of the Enlightenment, and, simultaneously, to transcend its epistemological limitations. In the case of ontological imagination, such an attempt is realised as the will to rescue modernist, emancipatory political hope and the rejection of the Modernist Constitution (Latour 2011). I am convinced that the solution proposed by Bruno Latour (Latour 2009) is insufficient. Abandoning modernist illusions is an important procedure on the ontological level. Showing the complexity of ontological conditions and sensitising to the multiplicity of perspectives which should be applied to the analysis of phenomena, in turn, constitute the "academic" moment. Contrary to Latour, I believe there is no easy transition from ontological analysis ("how many are we") to a political-ethical articulation ("can we live together"). I agree with the aforementioned Andrew Feenberg and with Steve Fuller that actor-network theory may be harmful to the "cause" and "promise" of the social sciences, as it does not provide sufficient tools for affecting political engagement (Fuller 2006: 52). As radicalisation of ethnology, ANT provides us good, dense descriptions of reality. Such a "flat ontology" is sufficient when we want to conduct ontological analyses, "following the actors". However, such analyses are only a part of what constitutes activity in the field of social sciences (and its cultural functions). The Millsian stipulation of "sociological imagination", the promise of social sciences is not merely research activity - in his opinion it must be supplemented by activity of the so-called intellectuals, that is by aware participation in arguments, conflicts, concerns and cares of our collective. Latour is aware of this role of social science, however, he does not seem aware of the ambiguous character of ANT here. Staying in the ANT framework poses the danger of being stuck in the "karmic world-view" (Fuller 2006: 146). Karmic world-view, which according to Fuller is characteristic of the neoliberal capitalist culture, as well as so-called Darwinian left (Dawkins, Singer) constitutes the return to perceiving the world as a place where there is no interplay between free will and deterministic laws.

Let us embark on a preliminary definition of the notion we are interested in here: by ontological imagination I understand a certain ability, skill, research predisposition. This means on the one hand the ability to recognise the conditions of one's own situatedness and on the other - movement, allowing for it to be transcended. Ontological imagination, to synthesise this as far as possible, is both a radical multiplication of frames of reference which can be used in

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[32] It obviously should be kept in mind that the portrayal of Ancient Greece was to a large degree fabricated in the 19th century (Bernal 1987).

a given study (Latour 2010: 99), and the ability to choose the appropriate frame at any given place and time. The first disposition requires interdisciplinary training. One needs socialisation in many regimes of intellectual work, multiple research teams[33] and only this can give one the ability to use many frames of reference, necessary in the process of "opening social sciences" and creating one broad space for social research (cf. Wallerstein & Flis 1999). The question when and where to use a given frame is more difficult. It sends us back to the issue of prudence, practical wisdom - phronesis. The sense of the right moment, using the right frame means also the necessity of maintaining the game with multiple frames of reference, and it requires the use of violence (Zybertowicz 1995: 367). Following the ontological turn (Heur, Leydesedorff & Wyatt 2013: 341-362), unlike Zybertowicz, however, I would associate the category of violence with ontology (rather than cognition), which is related to the evolution of constructivism itself. However, I agree with Zybertowicz that it is precisely the establishing of new cultural fields (and the destruction of old ones), founding (and demolishing) of social structures that constitutes a crucial task of philosophy and social sciences. In my opinion such a task requires from the researcher both ontological analysis and for ontological imagination to be ethical action as well. The violence related to the choice of frame of reference in a given place and time is unambiguously associated with responsibility for said choice. This moment is the return to the modernist promise of our studies, which consists not only in studying but also participating in social change (or even commencing thereof).[34] For example, the analysis of the anti-vaccination movement is fascinating; ANT helps us to understand the complexity of this phenomenon. However, we are also participants of our collective, and sometimes we happen to need to speak as experts, which forces us to take a stand. On the one hand, we may sympathise with the movements of fearful, alienated patients. Criticising and revealing the abuses of the technocratic science, cooperating with the power of capital and the bio-liberal power of the state is a worthy endeavour. On the other hand, however, one cannot fail to notice that the critique of the state and the science it is related to (evidence-based medicine) today leads to hastening their decomposition. Will we help to empower patients by allying with the anti-vaccination activists,

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[33]It is worth to refer here to an anecdote regarding various regimes of work. The author of the present article had the indubitable pleasure of participating in seminars conducted by the late Professor Kozyr-Kowalski, which consisted in very piercing discussions and work on selected classical readings in sociology. For instance, Durkheim's *The Division of Labour in Society* was analysed throughout the entire semestre during weekly meetings. On average, a given student would prepare ca. 10 pages of text for presentation during a meeting. When it was my turn, I prepared 20 pages. The professor reprimanded me; he said that they had to forgive me such hastiness, as *Mr. Andrzej is a philosophy student*.

[34] Paradoxically, in risk society and within the broad spectrum of controversy related to the functioning of technoscience, changing society may consist in slowing down the changes caused by innovation.

or conversely, will we place them at the mercy of disease and the capital. Such a decision cannot be merely academic, it requires prudent decisions made in "real time", in the here and now of the social life (Nowak 2012).

The use of the category of prudence (phronesis) is not accidental. By introducing the notion of ontological imagination I consciously want to subscribe to the movement referred to by its initiator as phronetic social sciences (Flyvbjerg 2001). Terry Eagleton noticed that "[f]or Aristotle [...] ethics and politics are intimately related. Ethics is about excelling at being human, and nobody can do this in isolation" (Eagleton 2003: 142). He also remarks that Marx was a moralist, "the Aristotle of the modern age" (144). It seems that Mills and his notion of "sociological imagination" were a direct continuation of this Aristotelian-Marxist heritage. Introducing the category of prudence (phronesis) not only binds various positions but also makes it possible to transcend the impasse social sciences have found themselves in after the "science wars" (Flyvvbjerg 2001: 1-5). It is all the more needed since the development of the technoscience (Bińczyk 2012, Beck 1992) has resulted in making their traditional concepts, focusing on the notion of society and human nature, insufficient. Today we need a research platform that will combine the moral sensitivity of Aristotle and Marx, as well as rise to the ontological challenge posed by posthumanism.[35] Eagleton claimed that "To Aristotle 'Virtue' [...] means something like the technique or know-how of being human" (Eagleton 2004: 125). Through the notion of ontological imagination (supplemented with the use of the modernised concept of phronesis) I aim to ask about this know-how of being human (and a researcher) in our technoscientific community.

It is worth asking who will be teaching this know-how. The reference to STS and ANT suggests that the first, ontological part of the work may be done by researchers from these disciplines. Radicalised ethnography of the laboratory, social studies of science and technology provide us with good tools. We can learn how to "juggle" the frames of reference from STS and ANT. A more difficult question concerns who should teach us which frame to choose. The reference to the category of prudence, practical wisdom (phronesis) suggests that philosophers may teach it, that it may become, perhaps, one of the cultural functions of philosophy (Abriszewski 2010: 107-142). However, are philosophers capable of rising to this challenge?

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[35] This applies to cognitive science as well, especially to research into extended and embodied cognition.

Settling the score with methodological solipsism[36]

The notion of ontological imagination came to being as an antidote to the consequences arising from our historical-social entanglement in the structures of knowledge. Approaching the matter analytically, agreeing with Wallerstein, I suggest that we differentiate between disciplines, that is certain forms of creating regimes of rightness, methods of disciplining the intellect, institutions, that is certain organisational frameworks, and cultures, that is certain interpretative communities shared by scholars (Wallerstein 2004: 262-297). Every one of us must make their own research fit into certain existing institutions, everyone is subject to disciplining factors and a participant of research collectives (Fleck 2006), sharing certain thinking styles, that is Wallersteinian research cultures. Each of those areas has its own historical determinants, its genealogy, layers that can only be revealed through painstaking archaeological work. Each of those areas is subject to processes of self-organisation; the necessity of survival requires mechanisms of self-creation and self-regulation. This results from certain more general system properties that all living organisms (cf. Maturana & Varela 1980) as well as complex social systems (cf. Luhmann 2007) are subject to. These processes have their own political and power-related convections: each of them has its own stakes and power plays (cf. Bourdieu 2006). We are beholden to institutional and organisational pressures, we must fit our research into the corseting of specific disciplines, we must finally belong to specific cultures of researchers. The analysis of one's own determinants, which traditionally belonged to sociology of knowledge, following the ontological turn becomes the general theory of society (cf. Sojak 2004). We can confidently say that sociology of knowledge necessarily becomes ontology. I propose that methodological solipsism can be understood as an aversion to considering one's own situatedness. It is, in my opinion, caused by an excessive attachment to analyses on the epistemological level. After the time of postmodernism's dominance we inherit its aversion to undertaking ontological analyses. The flight to epistemology causes us to focus on the results of knowledge-production activities (Abriszewski 2010: 51-63). This is how we lose the possibility of tracking the entire knowledge-producing network. An analysis on the level of epistemology makes it impossible to see our own situatedness. We only see, like the modernists, half of reality (cf. Latour 2010). This has serious political consequences; analysis focused on the epistemological level ("epistemology police"), abstracted from its own determinants, has a

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[36] I do not want to enter into detailed argument with the position of "methodological solipsism" by Jerry Fodor (Fodor 1980). To be blunt, I believe his position to be an example of a particularly harmful approach and destructive to the possibility of interdisciplinary research. I would, however, like to note that it is impossible to break down the difference between our positions to that between internalism and externalism, for the simple reason that I do not consider that distinction to be cognitively valuable.

tendency to change casual determinants into necessity. An example of such a tendency is bioliberalism (Fuller 2006), one of the key dangers posed to social sciences according to Fuller. This term denotes a certain form of ideology resulting from the combination of neoliberal "distrust" in society and the promoting of individualist explanations for human nature (often biologist, or quasi-biologist). Bioliberalism[37] constitutes the denial (analogous to the psychoanalytic mechanism) of one's own situatedness. The consequences of bioliberalism include the downfall of social sciences, the downfall of social practices referring to the level of what is social. Fuller demonstrates that the project of social sciences modelled after sociology is inextricably linked with a political cause. By referring back to Durkheimian tradition, he shows that the common prefix in "sociology" and "socialism" is by no means a coincidence. The cause behind social sciences was, at the outset, strictly connected to their transformative function in relation to societies in and for which they were practiced. The key question here is "how to fulfil the promise of social science" (Wallerstein 2004: 262-297), while simultaneously retaining the tools developed by STS and ANT. Feenberg also points to the necessity for developing critical social sciences, which would constitute a political economy, that is a critique of marketisation, a critique of bureaucracy and social systems and a political ecology, that is a critique of technoscience (Feenberg 2010: 159). Only a combination of these three main aspects of modernity will make it possible to develop a project and a theory of modernisation. It will be all the more difficult as we know today that there is no progress, including technological progress, that would not be upheld by transcendental frameworks of the historiosophy of modernity. A challenge for today is to practice critical, emancipatory social sciences while knowing that future is a mystery and there is no external notion of progress placed somewhere among the laws of history.

As I have pointed out above, I am treating ontological imagination as an attempt at reconcile the cognitive function of science with the attitude of political engagement typical of intellectuals (Fuller 2009). A reciprocal reflection over our situatedness or being entangled in structures of knowledge should be the first step that begins intellectual work. Why? I start from a similar assumption as Immanuel Wallerstein; I am convinced that, above all, we should "unthink" inherited structures of knowledge (Wallerstein 1991). I am convinced that it is not the "ontology of the world," but cognitive assumptions generated by structures of knowledge that influence our vision of the world to a larger degree. This is the main impediment in studies that focus on problems, and not on fetishes produced as a result of one's discipline. As Bruno Latour notes, it is following "the actors" dictated by "problems and concerns" (and Latour agrees with Mills on this) that should direct our studies.

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[37] I will return to the term *bioliberalism* in the later part of the text.

Otherwise, what threatens us is the aforementioned methodological solipsism, that is a particular kind of insensitivity, the lack of ability to reflect at a level of radically considered, ontologised sociology of knowledge. It is a lack of a certain disposition that makes it possible to keep asking anew about one's own situatedness and influence that it has over our reflection, including a reflection over our own situatedness (and a reflection over it)[38]. Methodological solipsism consists in unconscious reifying of conditions that are historically incidental. As I have mentioned above, we are historically thrown into them due to our being determined by disciplines, institutions, research cultures. I will provide simple examples: the mind-body problem, fervently undertaken within analytic philosophy, ignores the knowledge available to a first year ethnology student coming across Marcel Mauss's works, wherein mind-body unity, as well as the proposal emphasising the importance of the body and its role in cognition are treated as an obvious and quite common-sense point of departure. Similarly, having read Bourdieu, a sociology student treats the assumption that body / mind is only a derivative of the wider category of habitus as obvious. Another example is sociology, which struggles with the distinction created as a part of its own institutionalisation: agency-structure (action – system). The suspension of sociology between nomothetic and idiographic sciences has resulted in cracks and tensions within the discipline. The theories which preferred idiography highlighted the axis of action and focused in the interactional tradition, while more nomothetic perspectives resulted in system theories and an economisation of the sociological discourse. The attempts at going beyond the agency/ action – system/structure distinction conducted by Sztompka or Giddens reinvented the wheel that had been already used by Foucault, the Orality/Literacy tradition, or, much earlier, by the Annales historical school.

An example of solipsism lies also in utilising tools shaped in one's own discipline that have been discredited by other disciplines. In Poland, basing one's knowledge about civilisations outside Europe only on Hegel's, Weber's, or Feliks Konieczny's opinions is an emphatic example of a lack of sociological imagination. The persistence of such discredited views results from the fact that in the 19th century Academy the philosophical and sociological studies became separated from ethnographic and Orientalist research. This served to legitimise imperialism and colonial divide. After all, the tools used to study Western societies could not be used with regard to the "savages," non-modern inhabitants of the rest of the globe. Thus, different research and different researchers were invented. Africa, parts of the Americas, Polynesia or Australia were not visited by sociologists going there in order to research societies; they

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[38] This strange, baroque-style sentence does not appear here by accident; when diagnosing methodological solipsism, I am indebted to Pierre Bourdieu.

were visited by anthropologists going there to research the Others - the "savages". Exceptions were made for Japan, China and India, which were well-developed social and political organisms; due to that, it was not appropriate to only carry out ethnological research therein, and thus, Oriental studies were created. I suggest a quick test in order to check how much our knowledge depends on 19th century conditions: what field of study would we think about when trying to find out about the functioning of a contemporary multi-generational Moroccan family in Casablanca? Would that be sociology of the family or ethnology? And should we want to learn about holiday and family customs in Kansas or Cleveland, would we first go to sociologists or to ethnologists? The final example is how a-sociological the concept of "state" is when developed at political sciences departments. A simple trip to another department, to another library would result in the majority of problems disappearing. That today "state-centrism," or, to put it differently, methodological nationalism remains in force is an astounding example of methodological solipsism, resulting from the 19th century division into political sciences, sociology and economy. Ever since the "Annales" school represented by F. Braudel, and in Poland by Witold Kula or Marian Małowist, we have known that these divisions lack methodological sense.

Why it is worth overcoming methodological solipsism can be seen in the effects of it being partially abandoned in certain disciplines. I am referring here to the process that can be termed the anthropologisation of humanities (cf. Piasek & Kowalewski 2009). It is a process that appeared in the period of countries being liberated from colonialism and gained force after the 1968 geocultural revolution. The collapse of the colonial order resulted in the impossibility of further persistence of the 19th century order of knowledge structures. Unemployed anthropologists had to return home.

> *Anthropologists started to study the societies that would previously delegate them to study the Others. The process turned out to be more radical in its results than could have been expected. Ethnographic research into science and technology was one of such unexpected revolutions within the structures of knowledge. There took place the aforementioned "lowering of the tone" within studies on science (Shapin 2010: 1-14). The attempts at connecting research from the field of distributed and embodied cognition with science and technology studies are another promising example of going beyond the methodological solipsism* (Afeltowicz 2012, Bińczyk 2011, Derra 2013).

Methodological solipsism constitutes one of the more serious obstacles that make it impossible for social sciences (and philosophy, which aids them) to achieve a stage that biology was at when neo-Darwinian synthesis was being created. In order for that to be possible, a double process must take place: first, developing a theory (a set of theories) that will be a platform enabling

the creation of one social science (or, better, a set of social sciences). It is only within one such social science that the functionalisation of scientists can take place, caused by challenges, concerns and needs of our collectivity. To an extent, in my search for social science (Wallerstein 2004: 262-297) I am indebted to Immanuel Wallerstein and the Gulbenkian Commission on the Restructuring of Social Sciences that he used to head (Wallerstein & Flis 1999).

Unfortunately, until now, narrow reified research perspectives raised to the rank of truths about the structure of the world have obscured the possibility of studying both the structure of the world, and the structure of knowledge.

Ontological imagination in action: what technological determinism and the Orality/Literacy Theory teach us

Below I am going to present ontological imagination in action; I will also show briefly why the lack of such disposition contributed to an insufficient absorption of the tradition of technological determinism and the "Great Theory of Orality / Literacy" (Godlewski 2008: 151-198). The closing of research cultures, disciplining practices that stabilise the given research field and social inertia of institutions resulted in the fact that in philosophical reflection such personas as Jack Goody, Elizabeth Eisenstein or Eric A. Havelock are virtually unknown. It is interesting that also Bruno Latour, who wanders between disciplines, frequently referring to philosophy, has blurred the traces of his dependence, even though he owes much to this tradition (Latour 2012).

What the philosophers missed

Let us take a closer look at the case of methodological solipsism, which has severely infested philosophy (and particularly the philosophy of language and analytical philosophy[39]). Since the times of Frege and Wittgenstein, philosophers have made language analysis into a particular object of their reflection, limiting themselves especially frequently to analyses of the so-called ordinary English language. There is nothing strange in them making such an important object of reflection out of this material of thought. After Kant, the tendency to

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[39] The author of the present article witnessed an information society panel during a conference devoted to information society, organised by the Austrian Ludwig Wittgenstein Society (ALWS, Kirchberg 2007), at which the cream of Anglo-Saxon analytics philosophy was not able to cite any sociologial theory, not even a simple one (including those pertaining to information society). The discussion during the panel went along the lines of rules of the game well-known within analytical philosophy: the participants discussed issues such as truth, meaning, information, etc. Nobody mentioned the problems connected with technology, economy, cognitive studies, sociology or culture. The ontology of the world was nothing compared to the wealth of the world that can be conjured when analysing sentences in the English language. This event was one of the impulses for the development of methodological solipsism and ontological imagination.

ask about the circumstances of one's own thinking is natural. Therefore, the analysis of language fits smoothly into the post-Kantian thought dynamics. However, it is another issue that is intriguing: to what extent philosophers did not care about the questions regarding the mechanics of appearing and functioning of a language. The processes of learning, of world technologies of intellect (Marody 1987), or the economic aspects of knowledge production were not an issue under reflection. It is intriguing that while seeking sense, philosophers would wander over to different (nonexistent!) Twin Earths in search of water that is not H_2O. They also tried to understand the world from the perspective of bats or the zombie, but did not make an effort to notice that they owe the development and the character of their reflection to the development of the writing revolution, print, mass education and electricity (McLuhan 1975). This inability to notice that which is close, constitutive for experience (Nowak 2001) is intriguing. It is especially interesting when keeping in mind that at least two philosophers used the same example, referencing a sheet of white paper in order to demonstrate the reality outside one's own mind. However, neither Descartes nor Husserl were sufficiently gifted with ontological imagination to make a sheet of paper as a thought tool into an object of reflection. A spiteful answer comes to mind: tools as mediation in the Latourian sense were so transparent for them as to become invisible. The philosophers lacked enough imagination to ask about the circumstances allowing them to philosophise.

Let us pose several questions connected with the subject: can a philosophical method that derives the ontology of the world from something as particular as written language and its features claim to be universal? In a 1982 book, Ong writes "We know that formal logic is the invention of Greek culture after it had interiorized the technology of alphabetic writing, and so made a permanent part of its noetic resources the kind of thinking that alphabetic writing made possible. […] In brief, [the] illiterate subjects seemed not to operate with formal deductive procedures at all […]" (Ong 1992: 81). When describing the world, creating our ontological descriptions, should we choose the descriptions derived from written language or speech, or maybe draw from the second oral reality (Nowak 2013b)? Or should we, perhaps, have at our disposal ontological theories that could also explain the dynamics of orality, literacy and post-literacy as conditions of our thinking? What today, thanks to the scholars from the tradition of distributed cognition, is increasingly more available for philosophical reflection has long been present in our knowledge resources. I would like to pose a question in a philosophical mode: how is it possible that the philosophy of language was not able to notice what was being discovered within the so-called Orality / Literacy Theory and make it into an object of its reflection? Why were such scholars as Elizabeth Eisenstein, Jack Goody, Walter Ong or Marshall McLuhan not included in the circulation of the philosophical reflection on a regular basis? This oversight results in

a state of matters wherein philosophers who, in theory, are best predisposed to fulfil the function of mediators, messengers and who mediate between various areas of culture, are not able to rise to this challenge. It seems to me that this is largely the result of institutional limitations, workplace culture (individual rather than team work, lack of contact with material or laboratory background during the research process). In short, within this discipline there is a lack of conditions necessary for developing ontological imagination. Let us take a closer look at several quotations and consider why they have not become a common "centre of gravity" around which the research practices of philosophers focus.

Let us begin with a rather sarcastic quotation depicting the consequences of philosophical work:

> *What I find most repulsive about philosophers is their evacuating thought process. The more often and the more deftly they use their basic notions, the less world is left around them. They are like barbarians in a spacious, high house, full of wondrous works. They stand there, sleeves rolled up, and they methodically throw everything they can out the window: armchairs, paintings, plates, pets and animals, until only naked walls remain. Sometimes even the doors and windows follow in the end. A naked house remains. The philosophers imagine such a devastation is better* (Canetti 1996: 141).[40]

Canetti pointedly shows that using one of the most important tools of contemporary philosophising - the abstraction method, and utilising the tools of logical analysis - can result in the loss of what Mills called sociological imagination. Philosophers gain the certainty of judgement, but they lose the world about which any judgements could be spoken. He notes further that "those Oxford philosophers scribble and scribble until there is nothing left. I have learned a lot from them: I know now that it is better not to start scribbling at all" (Canetti 1996: 195). This quotation quite clearly shows that there is value in performing an archaeological job, discovering places of bifurcation in the history of our structures of knowledge, re-considering their consequences, going back "to before the bifurcation" and beginning the work "anew." Procedures of abstraction, using logical schemata, deductive work are not something negative. They can be a useful tool which increases our cognitive abilities. The problem appears when we do not comprehend that "Neither Hume nor Kant, however, detected the hidden cause of our Western bias toward sequence as "logic" in the allpervasive technology of the alphabet" (McLuhan 1975: 89). So says the famous trickster, the magician from Toronto. As it is usual when it comes to McLuhan, the thesis is posed in a bold, daring way, with exaggeration. What does the quotation tell us? It connects Western philo-

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[40] Translation N. S.

sophical reflection with alphabetic writing. The quotation is short, taken out of the larger context, from which we would find out that it is also important to appeal to printing technology. Why is it that despite the presence of the names of the philosophers Hume and Kant we will not find many philosophers whose theoretical apparatuses would be able to deal with the ontology suggested by this humble quotation? And we have not yet put into motion many other frameworks of reference, we have not asked about capitalism (Zybertowicz 1995), about changes within biological sciences, about the connection between the appearance of the nations and print (Anderson 1997). Print, and visuality, coupled therewith, are key determining factors that make it possible for scientific rationality to appear. Stabilisation of knowledge, the creation of "centres of calculation" make it possible to master the world, reduce it to an inscription, thanks to which one can have command over the world (Latour 2012). The task would not be so difficult but for the fact that there took place a joyous castration of ontological imagination in the history of philosophy. Worse yet, the political results thereof were frequently problematic when philosophers would start to seek the sources of rationality. Instead of, as I have already mentioned, taking a look at their close surroundings - the piece of paper - they would seek the essence of "European rationality" in imagined attributes of the Europeans, mythical history of Greece, or the characteristics of Protestantism (Nowak 2011).

How many frames of reference can we invoke?

Today the Orality / Literacy Theory has an opportunity to enter philosophy through the back door, in a sense; this is possible thanks to contemporary cognitive studies (cf. Hutchins 1995). The turn towards distributed cognition is a consequence of the evolution that has been taking place in contemporary cognitive studies and that has influence on the image of academic practices (Bińczyk 2011: 119-137). These processes can be metaphorically deemed the end of the period of the "skin and skull" usurpation (Clark & Chalmers 2008: 342-357). Distributed cognition constitutes another, consistent step in leaving the solipsist cul-de-sac into which Western philosophy, especially its analytical variety, has stumbled. The lack of "unthinking" of its entanglement and situatedness, the lack of reflection conducted within ontologically radicalised sociology of knowledge results in our cognitive efforts defending in a disproportionate manner the approaches that are worth rejecting. Computational approaches to consciousness (treated in a "Cartesian" way), still defended by some, were one example of such a "cul-de-sac" (Miłkowski 2010). When starting from the traditions of embodied and distributed cognition, the problem would have to be presented differently. Firstly, the computationality itself undergoes a reflection as an element of coupling of the environment, artefacts, minds, inscriptions, etc (Latour 2012); secondly, consciousness and com-

putationality also undergo such a reflection. As a result, were they coupled, they would need to be relativised to the given environment every time. Here we arrive at the possibility of depicting both components of the ontological imagination: the sociological-holistic and the constructive-political ones. The first one demands radical re-defining of our thinking about the unit of analysis in a discussion about computationality and consciousness. If cognition is realised through the environment (including tools and artefacts), and the body that is coupled therewith, then, as we remember, an interference into the environment (and the body) has a moral dimension (Clark & Chalmers 2008: 342-357). At this point, our discussions cease to be academic, and there appears a role for an intellectual. If some device / artefact causes a change in cognitive possibilities, it means that we are also changing the entire collective with its members. The issue of literacy and of the communicative conditions for the existence of certain forms of democratic politics may be a good example here (Nowak 2010).

Before we go back to this issue, let us take a look at the complexity of notions connected with the Orality / Literacy Theory. It is a good exercise if we want to practise "juggling" frameworks of reference. Let us track the areas of our knowledge structures that would come under revision when taking into account notional and cognitive consequences of writing and reading (Olson 2010). I will omit here a more detailed account of the psychodynamics of orality (Ong 1992) and the consequences of literacy (Latour 2012; Eisenstein 2004).

The first issue of orality and literacy is connected with the so-called "great divide" (Godlewski 2008: 151), that is the divide into the modern and the non-modern ones, into Us and the Others, or, finally, into the West and the rest. In Levi Strauss's discussion with Goody this division took shape of a distinction: a savage mind vs. a domesticated mind (cf. Goody 2011). The discussion over the notion of oral and literate cultures soon leaves the safe frames of ethnological references and it becomes a political discussion entangled in postcolonial issues. It is sufficient to realise to what extent various cognitive communities (both literate and oral) were responsible for the fact that Western science had for so long perceived the Others as the "nations without history" (see Wolff 2009). This, in turn, made it possible to write such versions of history that legitimised the conquest of the world by the West, showing it as a historical and civilisational necessity (cf. Goody 2009). The characteristics that result from different dynamics of cognitive environments and the artefacts coupled therewith were and are understood as characteristics of cultures. Subsequently, there takes place an essentialisation of these cultures and a secondary assessment of their representatives. Communicative characteristics of orality require a deeper immersion into the context of community, as they connect a message with the recipient more closely, and the communication is synchronic, "orchestral" (see Winkin 2007). The embodiment of communication is a readily noticeable characteristics. The primary orality does not create a

strict division between speech, song, or dance. It does not have a stable notion of the "signifier" and the "signified," either.

It is only writing, and especially print, that makes possible a community that stabilises linguistic (literate) practices to a degree that allows the abstract languages to be created. It is only writing, alphabetic language and its spread through the process of mass education makes it possible for deductive methods to be widely used as thought tools: "In brief, [the] illiterate subjects seemed not to operate with formal deductive procedures at all" (Ong 1992: 181). However, this does not mean that oral cultures are "lower" than the literate ones; while certain cognitive possibilities (e.g. formal logics) are more difficult to obtain on their ground, other features are more difficult to reach for subjects from highly literate cultures. In the last years, literacy has been de-mythologised (Olson 2010: 35-39). Following Olson, I will name several myths pertaining to the alleged superiority of literacy over orality. Let us begin with the banal assumption that writing constitutes a transcription of speech. This is a good example for the lack of ontological imagination. The difference between literacy and orality is not strictly "linguistic." Orality and literacy require completely separate social institutions, communities, "distributed" systems of cognition that would be coupled with them. Orality demands different, "living" participants of communication, mnemotechniques (singing, prayer rosaries, rituals, rhyming, etc.). Writing puts in motion global networks of artefacts (tablets , papyrus, a laptop, a pen), it demands systems of schools and a long educational training. Both systems are connected with different ways of creating social power. It is enough to refer here to Havelock's reflections on power and orality in the Ancient Greece (Havelock 2007: 150-169) or Foucault's reflections on biopolitics and the classification systems possible thanks to writing (Foucault 2012). Now we can move on to the second myth: the superiority of writing over speech. Writing and speech are different "distributed systems of cognition," and each of them is connected to certain "losses" and "gains." The third myth is a variant on the previous one, and it pertain to the superiority of alphabet over other systems of writing. According to the fourth myth, writing is an instrument of social development (Olson 2010: 45). The correlations between the development of literacy and modern democracy are frequently emphasised. The fact that writing made it possible for large, hierarchical communities to appear, for obedient soldiers, for efficient workers to be created - standardised subjects of biopower - is referred to less often (Olson 2010: 45). As quoted by Olson, Levi-Strauss did not hesitate to state that "If my hypothesis is correct, it has to be assumed that the first function of writing was facilitating the introduction of slavery" (in: Olson 2010: 45). Another myth is connecting literacy with cultural development. Latour's delight over inscriptions (Latour 2012) may mislead us, cause us to succumb to the writing-centric and ethno-centric stereotype. Cognitive research (Hutchins 1977) shows that highly developed systems of navigation function also in illit-

erate cultures. We can smoothly move on to the final myth: writing is connected with cognitive development. The aforementioned example of navigation in Micronesia is very instructive in that regard. Hutchins noted that different situating of the "cognising subject/unit" was one of the characteristics of Micronesian navigation. Western navigators treat themselves as a mobile object, moving around the globe. Analogously, a finger (a pencil, a scriber) moves around the map (inscription). Micronesian navigators treated themselves as the stable place, and the sea as a variable. It was the sea that flowed in and out, the boat itself was treated as an "immobile" point of reference.

This interestingly interacts with two anecdotes recalled by Olson. In the first one he considers the paradoxical experience that is observing the evacuation map of a building. There we are, standing in front of a map on which there is a dot and the text "you are here," the disembodiment that is assumed in the culture of writing (and of printed inscription) is so obvious that is unnoticeable. The second anecdote pertains to the Inuit and their companions from the city that would wander with them. After several hours of futile searching for supplies, the city-dwellers, equipped with maps, announced "we are lost," while the Inuit replied "no, it's the supplies that are lost." Considering the contemporary discoveries in cognitive science (and enactivism in particular) it seems that situated, embodied manner of self-cognition characteristic of the non-literate people was much more cognitively adequate than the disembodied "Cartesian" point of view of the literate ones. As I pointed out before, the orality-literacy debate may have its implications for a revision of historiography, a change of perspective on the so-called "cultural differences." It is worth mentioning here that a rather controversial issue of supposed connections between class, ethnic and racial structures and intelligence (Murray 1994) can be connected to the "discoveries" made within this tradition. The author of *The Bell Curve* associated social and educational achievement with intelligence quotient (measured through tests). He additionally associated this quotient with genetically-understood racial background. This was groundless, not only because of "political incorrectness", but predominantly because there are no grounds for it in contemporary genetics. The current findings within it do not confirm the existence of "continental" subpopulations, known traditionally as "races" (Strzałko 2010). The debate surrounding the book was heated, with one of the more interesting voices being the words of a palaeontologist and evolutionary biologist, J. Gould (Gould 1996). I would like to avoid a debate in the area of biology and genetics here, as using that framework can prove very imprudent. Not because I lack the skills necessary for crossing disciplinary boundaries, but because I would not like to legitimise the very practice of using "genetic-evolutionary-biologist" framework before presenting different ones - too bold translations, argumentative "jumps" should be avoided. If we want to explain a given phenomenon, for example professional or educational success, by means of genetics or evolutionary references, it is

worth asking if we had previously used different, less risky frameworks of reference. For example, Murray does not have to recourse to genetics or evolution in order to explain differences in intelligence and their correlations with achievement.

A much more available explanation becomes obvious when we look at the issue from the perspective of distributed and embodied cognition, supplemented by the Orality / Literacy Theory. Intelligence as measured with tests is predominantly oriented towards the type of knowledge correlated with literacy. Such features of thinking as the ability to think in an abstract manner, the idea of a sequence, the ability to use syllogism are almost absent in thinking that is originally oral, as for instance Łuria pointed out in his research (Ong 1992). It is worth adding that oral communication is based to a larger extent on restricted code depending on the context, while literacy culture prefers more abstract elaborated codes (Bernstein 1990). Despite their names, the differences between the two codes are not evaluative: they only denote two opposite poles on the scale. Bernstein noted that reproduction of class relations as a part of education may be described precisely with the use of the aforementioned codes. For the purposes of this text, it suffices to say that lower class children who lack the same access to books, newspapers, or to literacy and schooling internalised in the parents' (family's, acquaintances') habituses, typically find schooling more difficult. To children who are strongly oral (and who use the restricted codes more eagerly), school knowledge may appear non-obvious and strange. The dynamics of oral language, which is inseparably connected with communication communities, and aided by gesture or moves of the body, results in statements being characterised by additiveness (rather than using main/subordinate clauses), high redundancy, neothic (mythical) strangeness, etc. The encounter with the literacy culture of the school (as well as the IQ tests) results in an intercultural clash. When, as it was the case with Murray in the USA, we add the interlayering of social, class and race divisions (in the sense of social perception of "race"), cultural difference becomes deeper. Lower class children (in the USA, these are to a significant extent African Americans) will achieve worse results in intelligence tests only because they were not socialised to that kind of an environment, a "distributed system of cognition" that is highly literate culture. We have to remember that literacy or orality are not features of individuals, but, above all, characteristics of entire societies. Scribner and Cole did not notice this in their criticism of Jack Goody. They argued that the development of deductive thinking, the ability to use syllogisms is not, as Goody wanted, a feature of literacy. According to these scholars, this is a function of school education (Olson 2010: 87). This is a great example for the lack of both sociological imagination, and its more radical version - ontological imagination. Both psychologists took an individual person and their intellectual competences as the basic unit of analysis. They did not see that literacy is not a feature of individuals, but of a whole network of

actors: artefacts, students, schools, etc. Goody's thesis emphasising the role of literacy implicitly included the conviction regarding the importance of the system of school education. It seems to me that the very brief explanation of the correlations between IQ and class (and "racial") background as presented above is more convincing than the one based on genetic criteria. One does not have to make any risky translations and ontological "jumps". Moreover, my explanation makes it possible for specific political steps to be taken. If we want to measure success with IQ tests, it means that, beside extreme cases (severe mental disability), we measure the degree to which a given person has been coupled with high literacy culture. If we consider high IQ something desirable, we must broaden the access to the high literacy culture. Murray's solution had a politically reverse effect, as a reference to genetics closes the political debate, and introduces karmic language: you have been born with this, and not a different set of genes, so you have this, and not a different kind of fate. I have chosen Murray's example deliberately, as he represents a tendency known as bioliberalism. This is a certain form of ideology stemming from coupling neoliberal "distrust" in society with promoting biologist or quasi-biologist explanations of human nature (Fuller 2006: 12).

Bioliberalism may manifest itself for example through favouring the categories of talent or genius. The best example of this kind, completely devoid of sociological and ontological imagination, may be Satoshi Kanazawa's reflections on the subject of relations between geniuses and criminals (Kanazawa 2003: 257-272). We will find out from his analyses what level of testosterone the scientists had[41], whether they had wives and children. We will learn noth-

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[41] It was Cordelia Fine (Fine 2010: 78-89) who wrote about neurosexism and the doubts connected with attributing features of the brain (and then, accordingly, of personality) to the exposition to testosterone during gestation. Neurosexism, which derives from bioliberalism, is a widespread and popular approach. For example, as a well-known Polish cognitive scientist stated in a popular interview, "Why is it that so that the majority of piano players are men? Because the left and the right hand play separately, which is easier for men. Perhaps this also has an evolutionary background: at one point, man would have to make signs towards another, while simultaneously watching the prey. And why is that so that there are so many female violin players in orchestras? [...] Because that requires a great coordination of the work of both hands, which women do better. Their brain hemispheres communicate better with one another due to their corpus callosum. In men, the cooperation between the left and the right hemisphere is weaker, which makes it easier for them to carry out various activities at the same time - because one does not disturb the other so much (http://www.wysokieobcasy.pl/wysokie-obcasy/1,98083,13772221,Dlaczego_kobiety _sa_skrzypaczkami__a_mezczyzni_mysla.html 29.09.13). Should he have troubled himself to use sociological (not even ontological) imagination, and carried out minimal sociological and historical analysis, he would have noticed the increasing number of women piano players. Moreover, should he have wanted to take a look at ethnomusicological research, he would have noticed that traditionally, it was mostly men who were violin players (at least in our region). Interestingly, it would be very easy to point out that in orchestras playing classical music in the USA there were few Afro-American musicians, in contrast to jazz orchestras. Would it be also possible to use a biological argument so easily, without the risk of a political scandal, in this case?

ing about organisation and institutionalisation of science, economic and class dependences, we will learn nothing about inheriting the social position, either. Obviously, according to well-rooted misogyny, there do not exist women geniuses in these studies.

Conclusion: What is to be done? How to reconcile the strictness of a scientist with the zeal of an intellectual?

The present text is, in part, a manifesto. It has been born out of the obvious conviction regarding the necessity to reform social sciences (and/or) philosophy. I am convinced that such a reform should occur in two aspects: one strictly academic, and the other - connected with public activity. In the first case, the results achieved within Science and Technology Studies or cognitive studies trends such as "distributed" and "embodied" cognition seem promising to me. Moreover, the results of monumental sociological-historical written within the historical-systemic paradigm (inspired by Braudel and Wallerstein) are also promising. The aforementioned approaches, although distant from one another when we think in narrow categories of disciplines and institutions, are close due to the shared "culture". Let us list several features of that culture: breaking away from the historically shaped divisions: body / mind, the West / the rest of the world, theory / practice, etc. Each of the aforementioned research areas draws scholars from many different, traditionally defined fields. I am convinced that social sciences (and philosophy) cannot withdraw to a text-centric and theory-centric ivory tower if they want to survive. This is closely connected to the second aspect of our studies: being engaged in social change. It is a risky undertaking. The call for change requires one to answer to the question of Lenin / Czernyszewski that has already been mentioned herein: How to proceed? When a scholar becomes engaged in social change, fulfils the role of an intellectual, it always carries the "Syracuse" risk, that is that of a hasty and harmful entanglement in political issues. However, indifference is not a solution. The outline of the concept of "political imagination" that I have presented above is an attempt at connecting both tasks listed. The first of them consists in ontology of ourselves, a radicalised version of historical ontology that was proposed by Michel Foucault (Foucault 2000) and Ian Hacking (Hacking 2004).The historical ontology of ourselves contains political potential, which, however, is frequently far from obvious. Foucault authored many insightful analyses of power mechanisms, but he was not a good philosopher of politics, and his intellectual choices were both prudent (when he supported Polish "Solidarity") and less prudent (when he was fascinated by Khomeini's revolution in Iran). This is why in addition to radicalised - thanks to cognitive studies and STS - historical ontology of ourselves, we need ethical and political analyses. This is where I place the greatest hopes for renewing the potential contained in the notion of being prudent, of practical wisdom -

phronesis. To conclude, without phronetic politics, ontological analyses are only an esoteric game, whereas politics and critical reflection are blind without a posthumanist, historical ontology.

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