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### Of Cripples and Bags. Risk and the Stuff of Reality<sup>1</sup>

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#### **Abstract**

A better understanding of what knowledge is and how it works is a crucial tool to cope with the current paradigm shift and the uncertainty it is causing everywhere. It can shed some light on the imaginal foundations of human enterprise, even of reality itself. Reality is in fact the result of innumerable definitions and agreements, to which modernity gave an objective look and claim. Science, however, has grown past this comforting stage and revealed it as wishful thinking. As modern institutions were planned and realized in the light of such convictions, they are no longer up to dealing with a world where certainty is not to be found. Beck's analysis of global risks clearly shows the 'organized irresponsibility' that stems from this state of things. Taking Beck's insight as a new starting point, it is possible to focus on reality's complex texture – where real, possible and imagined seem to blend in a dynamic mix – and to advocate the urgency of new heuristic perspectives and frames where imagination and its structures are given back their dignity as fundamental keys to the understanding of human action and decision-making.

Keywords: imagination, knowledge, paradigm shift, reality, risk.

There is an idiomatic expression in Italian with no direct English equivalent. This is a shame, because I thought it would have made an excellent start for this essay – so much so that I have decided to use it all the same, with a few words of translation/discussion to explain its introductory relevance.

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'Il troppo stroppia' is a short sentence that – I've discovered – baffles English-speaking students of our beautiful language, as they cannot seem to find any credible translation to this saying. The best solution they (and I) could devise is 'too much breaks the bag' which might do, but happens to be another translation, this time of a Spanish proverb. Mark Twain seems to have been nearer the mark when he wrote that 'too much of anything is bad, but too much of good whiskey is barely enough', even if nowadays this statement would be barely politically correct. Anyway, the face-value sense of the saying should be more or less clear. In the forum where I found it discussed, however, there was an interesting remark that brings to light a hidden shade of meaning that is exactly what I had in mind when I thought of the stunning foresight of the anonymous creator of the phrase: 'The Italian idiom is chiefly used when you have "too much" of anything, but especially something that it's good or nice when it's taken in small doses, but quickly becomes a it's problem nuisance when excessive' or (http://forum.wordreference.com/threads/il-troppo-stroppia.54634/?hl=it, 11/03/17).

In general, the idea of the importance of some kind of measure in everything is widely known and accepted. Ancient Romans used to say 'est modus in rebus', there is a proper measure in things, and almost all traditional societies shared this belief, even though its practice has never been easy. It was a conviction born of necessity and scarcity, with a strong ethical flavour that implied the injustice of excess and waste, as it can be seen in the famous speeches of Cato the Censor. Some still think along these lines, with no more success than the distinguished Latin author. 'Il troppo stroppia', however, has no interest in morality and ethics. It is a much more prosaic perspective: it warns of an unseen danger that threatens those who exaggerate. It is an almost physical danger, as the verb 'stroppiare' is a popular variant of 'storpiare', that is to say 'to cripple'. Ancient wisdom seems to affirm that too much can damage you in an irreversible way, even too much of something you like or enjoy the most. That which pleases, perhaps, most of all.

You should be careful, then. Not (only) for justice or equality or respect, but because by exaggerating you put yourself at risk. What is worse, if you do not understand the risk you cannot recognize or fathom its consequences and you are likely to end up under the spell of another Latin saying, 'errare humanum est, perseverare diabolicum', to err is human, but to persist in error (out of pride) is diabolical. Out of pride or – I would add – out of stupidity.

This brief discussion highlights a constellation of linked concepts: measure, excess, waste, equality, limit, risk, error, danger, that might appear contradictory; there are synonyms and opposites, abstract and concrete ideas that seem impossible to connect – and perhaps this is true, as long as one follows the predominant logic. This essay, however, is mostly an exercise in

what the Germans call Andersdenken, thinking otherwise, and will make use of other instruments to try and go beyond the usual approach and its shortcomings. There is more to knowledge and reality than what Western culture has chosen to see. A gap is beginning to appear in the diffuse inability to understand recent developments in politics and everyday life, in international relations and conflicts and it has something to do with the Italian adage mentioned before: exaggeration makes things turn against you and Modernity's successes can easily be described as exaggerated. The path that led to such successes is starting to feel a bit too rigid, too self-assured, too suffocating. It might then be wise to do things differently and leave the comfort zone behind.

Easier said than done, perhaps. What is happening in the world in the 2010s has put our entire culture to the test and the outcome is not flattering. Beck, whose work will often be referred to in the following pages, makes a list of "logics" of global risks' – 'without any claim to completeness and for purely pragmatic reasons of reducing complexity' – where one can find 'environmental crises, global financial risks and terrorist threats' (2009: 13). Within this constellation, 'the idea of the controllability of decision-based side effects and dangers which is guiding for modernity has become questionable. Thus it is a constellation in which new knowledge serves to transform unpredictable risks into calculable risks, but in the process it gives rise to new unpredictabilities, forcing us to reflect upon risks' (2009: 15).

This is not the only Modern idea to have become questionable. There are at least two other claims that need be criticized and deeply revised: the mantra of the inevitability of infinite development in every direction and activity and the shibboleth of the objective truth of the scientific discourse. These form another constellation that is on the wane in the Western sky, while the others are waxing dramatically, shining on crucial issues that our current approach is apparently unable to cope with. These few pages will try to address one aspect of these that lies at the heart of contemporary bewilderment, that is to say the contradictorial connection between knowledge and certainty that reverberates on the rhetoric of control and, in the end, on the status of reality itself.

#### 1. Islands and stars

Once upon a time the Bard wrote, in *Henry VI*: 'Ignorance is the curse of God; knowledge is the wing wherewith we fly to heaven'. This has been the guiding light of Western culture for most of its history. Knowledge is the only means by which mankind can remedy its awkward position in the world: helpless and vulnerable, with no idea of the reason why and a clear awareness of its mortality. One who is religiously inclined might even say, following the

immortal poet, that thanks to knowledge man might save his soul, but this has not been the case for quite some time in the West. Westerners would rather say that knowledge is power or a useful tool of power. According to Saint Augustine, there are three deep motive desires that drive the human adventure in the world, three libidines: libido dominandi, libido sciendi and libido sentiendi. The first is easiest to decode: hunger for power and domination; the second has to do with knowledge for knowledge's sake and the third with the feeling of joy that comes with understanding (D'Andrea, 2014; Maffesoli, 2002). They are usually mixed, both on a subjective scale and on a macro-cultural level, but the current balance is strongly biased toward an alliance between libido dominandi and libido sciendi, with the second playing an ancillary role. The predominant culture conceives science - as the only acceptable and accepted form of knowledge - to be an instrument by which control can be obtained, whether over Nature or Economy or Society is irrelevant. The latest slogan to proclaim this 'truth' is something like 'Information is Power'. Implicit in this idea, there is the stubborn, unshakeable conviction that the more, the better: more development, more growth, more knowledge.

Progress is nothing but constant, infinite accumulation: lifetime, money, goods, formulas and algorithms, with each increase orderly disposed on a straight, infinite line.

Right at the beginning, however, when this powerful constellation started to emerge from scattered, distant stars, those who were to become the leading figures of the Scientific Revolution were of a different mind about the scope and potentiality of the new method of investigation of reality. Newton, who thought of himself more as an alchemist than as a scientist, shared Morin's perspective about uncertainty: 'We should teach strategic principles for dealing with chance, the unexpected and uncertain, and ways to modify these strategies in response to continuing acquisition of new information. We should learn to navigate on a sea of uncertainties, sailing in and around islands of certainty' (1999: 3). As we are going to see, the idea of knowledge as an archipelago of sound, dependable notions is closer to reality than the illusion of objective truth.

Notwithstanding the pervasive rhetoric about research and information, our culture asks itself fewer and fewer questions about knowledge, taking it for granted and consequently giving rise to disproportionate expectations. It is indeed peculiar, as Morin observes, that 'the education aimed at communicating knowledge is blind to what human knowledge is; to its devices, its infirmities, its difficulties, its propensities to error and illusion and it does not care at all about making knowledge known' (Morin, 2015: 67). Centuries of meticulous work have turned a dynamic, adventurous endeavour into a rigorous, predictable grind that has become transparent to its end users,

who never wonder about its ways and are exclusively interested in its results, providing they have no unforeseen consequences. Knowledge, however, 'cannot be considered a *readymade* tool that can be used without examining its nature' (Morin, 2015: 67), as it is the result of consecutive reductions and it is influenced by cerebral, mental and cultural factors as well as human dispositions, exigencies and desires.

In other words, Western culture seems to have forgotten that knowledge is a human enterprise, more and more precise in certain respects, but nevertheless partial and far from perfectly adherent to reality; and hence open to failure and misunderstanding: 'Knowledge is not a mirror of things or of the outside world. All perceptions are cerebral translations and reconstructions of stimuli and signs captured and coded by the senses. As we well know this entails countless errors of perception, though these perceptions come from vision, our most reliable sense. Intellectual error combines with perceptual errors. Knowledge in the form of words, ideas and theories is the fruit of translation/reconstruction by way of language and thought and, as such, subject to error. This knowledge, being translation and reconstruction, involves interpretation, introducing the risk of error within the subjectivity of the knower, his world view, his principles of knowledge. This causes countless errors of conception and ideas that occur despite our rational controls. Projection of our fears and desires and mental perturbation from our emotions multiply the risk of errors' (Morin, 1999: 5).

More should be said about this, but the present essay is not focused on the nature of knowledge; but rather, on the consequences of its representation as infallible and truthful. This representation is not scientific, obviously, but it is high time the Humanities started to take into account the way in which some statements are received and put to use in the world that exists outside disciplinary boundaries. While it is important to know that science is still founded on a trial-and-error method and its findings are always falsifiable, the real question is: how many scientists simply pay lip service to these assertions while behaving quite differently? How many laymen know about scientific findings and understand their real meaning? This is not an idle question, for we often forget that science and knowledge do not remain confined within books and lecture halls, but help people to shape the world and make sense of it. People generally cannot be presumed to understand such findings in the exact way they were meant to be understood, even if one is willing to trust the good faith of all those who are involved in creating that science and that knowledge in the first place. As Gleick points out, there is a gap between the formal architecture of XX century science and the actual behaviour of many of its practitioners: 'In these days of Einstein's relativity and Heisenberg's uncertainty, Laplace seems almost buffoon-like in his optimism, but much of modern science has pursued his dream. Implicitly, the mission of many twentieth-century scientists – biologists, neurologists, economists – has been to break their universes down into the simplest atoms that will obey scientific rules. In all these sciences, a kind of Newtonian determinism has been brought to bear [...]. There was always one small compromise, so small that working scientists usually forgot it was there, lurking in a corner of their philosophies like an unpaid bill. Measurements could never be perfect. Scientists marching under Newton's banner actually waved another flag that said something like this: Given an approximate knowledge of a system's initial conditions and an understanding of natural law, one can calculate the approximate behaviour of the system. This assumption lay at the philosophical heart of science' (Gleick, 2008: 14-16).

There it is, the invisible flaw: 'A kind of Newtonian determinism has been brought to bear', even though Newton was no determinist. He has been portrayed like that since the Scientific Revolution was invented, centuries after his death, because there was a need for certainty and control that is not scientific, merely human. The same need pushes scientists to overlook the 'small compromise' Gleick talks about and to behave as if they have the answers, if not now soon enough. Why should common people not believe them, why should they not trust them and expect them to be truthful, building their own world according to their claims?

#### 2. Risks and compensations

Science and calculus are what Modernity relied upon to establish itself as the 'end of history' (Fukuyama, 1992), a new eternity during which all that had haunted mankind for millennia would be tamed and managed with only a little stress or damage to an unlucky minority. Thanks to math and statistics, fate was no longer in charge and men and women no longer its impotent victims. While in premodern societies 'risks remained in essence "blows of fate" that assaulted human beings from "outside" and could be attributed to "external" gods, demons or nature' (Beck, 2009: 7), with Modernity's new skills things changed dramatically. A new idea imposed itself with the combined strength of science, technology and economy, the idea of a 'risk contract': 'That a "risk contract" is a possible or necessary response to the adventure involved in opening up and conquering new markets and in developing and implementing new technologies is a social invention, an invention that goes back to the origins of intercontinental merchant shipping and that was extended to almost all social problem areas and gradually perfected with the emergence of national capitalism. Consequences that at first affect individuals become "risks", that is, systemic, statistically describable and hence "calculable" event

types that can be subsumed under supra-individual compensation and avoidance rules' (Beck, 2009: 7).

In the semantic field of the 'contract', it is easy to find several well-known concepts: will, freedom, choice, guarantee, assurance. The contract is the perfect tool to control one's own destiny and to prevent its dangerous and unforeseen backlash; it is carefully written and honed and willingly, freely subscribed. In other words, it is one of the best figures of Modernity, even on the dark side of cunning and deceit; it is not by chance that it got to subsume most of human relations outside of economy: politics, marriage, care. It is no surprise then to find it also in the minefield of risk and uncertainty, working to defuse their constant menace.

Within the contractual frame, risks are understood as the result of conscious choices and strategies adopted to further progress and economic development, whose consequences can harm a part of the population; if push comes to shove, there will be compensation calculated on the basis of the precise, scientific knowledge involved and everything will be fine in the end: 'The risks generated by industrial and large-scale technologies are the result of conscious decisions, decisions which, first, are taken in the context of private and/or state organizations for economic gain and to seize the corresponding opportunities and, second, are based on a calculation for which hazards represent the inevitable downside of progress. Hence these hazards associated with industrialization do not become a political issue because of their scale but because of a social feature: they do not assail us like a fate; rather we create them ourselves, they are a product of human hands and minds, of the link between technical knowledge and the economic utility calculus' (Beck, 2009: 25).

All this works rather smoothly as long as risks are localizable, calculable and compensable, that is to say as long as the world corresponds to its Modern, ideological description – or more accurately: as long as the current, shared definition of the world is not contradicted by evidence or by the same discourse that contributed to its success. We must stress once more that this has to do with the way in which science is actually embedded in Western societies: 'Science's rationality claim to be able to investigate objectively the hazardousness of a risk permanently refutes itself. It is based, firstly, on a house of cards of speculative assumptions, and moves exclusively within a framework of *probability statements*, whose prognoses of safety cannot even be refuted, strictly speaking, by *actual* accidents. Secondly, one must assume an *ethical point of view* in order to discuss risks meaningfully at all. Risk determinations are *based* on mathematical *possibilities* and social interests, especially, if they are presented with technical certainty. In dealing with civilization's risks, the sciences have always abandoned their foundation of

experimental logic and made a polygamous marriage with business, politics and ethics' (Beck, 1992: 29).

The fact that most of the human race believes in this 'grand narrative' (Lyotard, 1979) shows its subterranean, clandestine link to the bond of trust that connects the new ministers of the scientific faith and their devotees. This is a strong image, but it is close to what has been said about science representation and impact on civil society. After all, whatever is perceived as infallible and truthful gains an aura of divinity, whether such an aura is wanted and pursued or not, just as every grand narrative has to do with redemption and deliverance. In spite of its vaunted separation from religion, so very different from the situation that marked its beginnings, science has turned into a kind of cult with billions of faithful ready to forgive more than a few glitches in order to feel saved and secure.

These glitches, however, have a way to multiply, like a nasty swarm of flies, and destabilize the whole 'house of cards', shedding light on its weak foundations. Metaphors aside, they are the result of the coherent practice of scientific enquiry as it was originally meant to be, and that now seems to be an accidental part of the whole business: 'Normal science does not aim at novelties of fact or theory and, when successful, finds none. New and unsuspected phenomena are, however, repeatedly uncovered by scientific research [...]. Discovery commences with the awareness of anomaly, i.e., with the recognition that nature has somehow violated the paradigm-induced expectations that govern normal science' (Kuhn, 1996: 52-53). As Kuhn affirms, normal science does not care about novelties, most likely because they undermine its pretension at perfect, objective knowledge. The gap between reality and its human representation, however, makes itself more evident as the scope of scientific enterprise widens and its self-assurance grows, resulting in anomalies, discrepancies, betrayed expectations. As Modern faith tends to become volatile and less blind than it used to be, these little, apparently anodyne events wear it down by sheer accumulation and the willingness of the congregation to turn a blind eve to them fades accordingly.

This is not the only reason of the contemporary, contradictorial bond between science and civil society, nor perhaps the most important one. There also seems to be some tension between the *libidines* that drive scientific research: while the *libido dominandi* pushes towards the eradication of the anomalies and the consolidation of the tale of unerring precision and objective truth, the *libido sciendi*, in some cases probably influenced by the *libido sentiendi*, leads to investigations open to unforeseen discoveries that might have crucial consequences on the whole enterprise. Laplacian optimism should already have given way to more mature attitudes towards knowledge, nurtured in the XX century by the formulation of laws and principles that prove the grand

narrative of infallibility wrong from the inside: Einstein's general relativity was presented in 1915, stunningly followed by Heisenberg's indetermination principle in 1927 and Gödel's incompleteness theorems in 1931. Then came Turing in 1950 and Lorenz's sensitive dependence from initial conditions in 1963. And yet, as Einstein observed a few years after the troublesome success of Project Manhattan, 'everything has changed except for our way of thinking'.

If one listens to the still predominant rhetorical discourse, Einstein seems sadly right in his discomfort. Things, however, are changing - slowly, ponderously, but definitely changing. The Manhattan Project marked a radical discontinuity in the widespread perception of science: 'Hiroshima, for the first time, forces the whole world to face an outcome of modernity terrible in its dimensions and terribly ambiguous in its implications. For the first time the whole world can ascertain the power developed by science, technology's capability to operate on a level comparable, if not superior, to that of the forces of nature man has always been confronted with, its capability to alter effectively the environment itself. Everyone can also ascertain the ambivalence of this power, the way in which technology bends according to different intentions and interpretations, the irremediably political nature of technique. At that moment, we can say, science and technology lose definitively their innocence towards humanity and nature, proclaimed by the Scientific Revolution since the dawn of modernity' (De Marchi, Pellizzoni, Ungaro, 2001: 12). After the Enola Gay, it is more and more difficult to keep on accepting at face value promises and guarantees that were previously taken for granted. It is hard to trust scientists and technocrats, but harder still not to trust them, as whole generations have been raised in unquestioning faith in their discoveries and they do not know whom else to turn to.

This ceaseless tension between sceptical awareness and the need to rely upon something is at the root of the current attitude toward scientific discourse, a (mis)trust that feeds uncertainty and stress, in a continuous oscillation between fear and hope. This oscillation not only involves finding out a darker side to an almost sacred activity, however; there is also a growing sense of too many promises betrayed, the almost everyday experience of a gap between self-assured statements and reality. As Boncinelli observes, 'the crisis of science is the crisis of the excessive number of explicit or implicit promises that have been made. As science keeps going on and does not honour – because it cannot honour – almost any promise it has made, a planetary distrust of it arises, especially in developed countries' (Boncinelli, Severino, 2015: 84).

There is another ingredient to this mix, close to the others and yet subtly different: the half-formed idea that the fault might lie with the whole

perspective and not simply with this or that failed achievement or broken commitment. This is a dizzying feeling, something that really pulls the rug from under one's feet, because it hints that reality might be a clever construction and no more, a kind of illusion made up by thought and reason as they draw their lines over the Weberian 'meaningless infinity of events in the world' (Weber 2012: 119). To these defining lines, 'men consign their lives, their destinies. Thus they acquire a special resistance, both individual and collective, as though they have become a steel mail that can finally contain the real and its metamorphoses and thus control the "chaos" in which things become and perish' (Rella, 1993: 22). All this seems for the best, but what would happen if these lines should falter? Bewildered outside habitual intelligence, outside the ancient home of language, out of the contexts in which we are used to read our experiences, everything seems to be caught in a vertigo. What looked like sure and certain paths become ephemeral, their layout evanescent. As Kafka affirms, "I have an experience and I am not joking when I say that I feel seasick on dry land" (Rella, 1993: 24).

#### 3. Reality and imagination

According to Furedi, 'in the XXI century the optimistic conviction of humanity's potential to tame the unknown and to become master of its own destiny surrendered to the conviction that we are too weak to face the perils that stand before us' (2012: 30). This reversal in widespread mood has a lot to do with Einstein's frustrated expectations. It took a few decades more than he expected, but in the end the truth hidden in the Italian adage mentioned at the start of this essay struck home: the more is not always the better, too much can be detrimental. This sounds like blasphemy, especially to Modern ears; the more so if one is talking about knowledge. And yet it seems to be what happened: knowledge reached further than its Modern representation and proved it wrong, stripping bare its rhetoric and nullifying its claims. As happens with long-lasting paradigms, this had lots of more or less evident consequences in every domain and niche of Modernity, whose whole Weltanschauung was built — as it still is — on the certificatory power of knowledge as produced by science.

Until very recent years, one of the less evident consequences of this soulquake was that it rendered obsolete and counter-productive the 'risk contract' described by Beck. Nowadays, 'large-scale threats are abolishing the three pillars of the risk calculus. They involve, first, often irreparable global harms that cannot be limited, so that the concept of monetary compensation fails. Second, precautionary aftercare [vorsorgende Nachsorge] for the worst conceivable accident is out of the question because it is impossible to gauge

outcomes in advance. Third, the "accident" has no limits in time and space, it becomes an event with a beginning but without an end, an "open-ended festival" of creeping, galloping and overlapping waves of destruction (e.g. climate change). But this implies that norms, measuring procedures and hence the basis for calculating the hazards prove to be inapplicable' (Beck, 2009: 28). Institutions, as well as individuals, still require sound evidence on the basis of which to make decisions and settle issues, but that kind of evidence is no longer available, so that 'incommensurables are compared and calculation turns into obfuscation, resulting in a kind of "organized irresponsibility". It rests on a "confusion of centuries" (Günther Anders). The challenges of the beginning of the twenty-first century are being negotiated in terms of concepts and recipes drawn from the early industrial society of the nineteenth and early twentieth centuries. The threats to which we are exposed and the security promises which seek to contain them stem from different centuries' (Beck, 2009: 28).

It is increasingly difficult to hold anyone accountable for anything, since the whole mechanism of accountability rests on the need for certain proof, while science is now coping with uncertainty everywhere and is no longer able to give straightforward answers to questions. The most frequent strategy to adapt to such circumstances is to work on the worst-case scenario: 'Thought tends to shift the process of risk evaluation on the worst case and the risk evaluation is based on the attempt to calculate the odds of different results. Worst-case thought, nowadays known as preventive thought, is based on imagination: one imagines the worst possible case and is required to act on the basis of this scenario [...]. Worst-case thought encourages society to adopt fear as one of the main principles on the basis of which the public, its government and its institutions should organise our lives. Insecurity becomes institutionalised thus fostering a mood of confusion and impotence' (Furedi, 2012: 31).

The new impossibility of keeping events at bay should open the way to the recognition of a key role of imagination in the shaping of the future, an imagination tinged with fear and apprehension in resonance with the *Zeitgeist*. The usual reaction to such observations, however, is a scoff and a retort: imagination is a tool of the weak, one that comes into play when more significant strategies show signs of malfunctioning or fail straightaway.

Which is exactly the case, it could be said, thus supporting this sceptical view.

According to the usual progression, one should not fall into this temptation, but rather renew every possible effort toward strengthening and upgrading scientific knowledge with its miraculous ability in solving reality's riddles. More science is the Modern answer to the shortcomings of science,

more technology the answer to the problems caused by technology. As we have seen, however, the more is not always the better, at least (and with a certain dose of irony) from a Modern point of view. Thanks to the advancement in knowledge, today a better understanding of knowledge itself is at hand, which discloses new depths in ancient fragments of wisdom: 'We had to await the events of the second half of the twentieth century to learn what Socrates meant by his puzzling statement "I know that I know nothing". Ironically, our continually perfected scientific-technological society has granted us the fatal insight that we do not know what we do not know. But this is precisely the source of the dangers that threaten humanity' (Beck, 2009: 47).

There is a gap between what man can tell about reality and reality itself—what the Germans call *Realität*—that is starting to show, after a long period in which reality and its representation seemed to coincide, in a reassuring discourse and an inebriating illusion. This discourse generated a false sense of omnipotence and the sensation of being at last free from primeval fears and threats, of being at last in command. Unfortunately it was but a phase. The illusion faded away and mankind is left to cope with the remnants of a broken dream, not knowing what it is that it does not know and how it could affect its plans and projects. A new paradigm has to be found, one that can put back together things that the current one has divided and stigmatised. Among them, one in particular stands out: imagination.

This is no place to give an account of the contradictorial relation between imagination and Western culture, a tension that started with Plato and reached its acme in the second half of the XX century. Such a tension can be understood in the light of the specific value that Western culture attributed and still attributes to rationality, even in its more and more rigid and narrow forms: rationalism, economism, financiarism (D'Andrea, 2014; 2017). In a totalitarian crescendo, Western reason issued an ukase against every form of imagination, intending to strengthen its position and get rid of what it perceived as a constant threat and a dangerous competitor. In this, it acted without any realisation of imagination's heuristic importance and of the crucial role it plays in the making of reality. This lack of understanding is clear, for instance, in Furedi's words: 'We live in an age in which problems connected with uncertainty and risk are amplified and through our imagination turn rapidly into existential threats' (Furedi, 2012: 30-31). Once again, in this sentence a vibrant nostalgia reminds us of the golden times in which this did not happen and mankind was able to face problems on their real scale, without fancies or childish fears. This is the constant subtext, a (self)reassuring strategy aimed at protecting the Modern dogma even in its current dire straits.

To take Beck seriously, though, this is but wishful thinking. The new knowledge of uncertainty shows clearly that things have always been like this: what we thought of as 'reality' was a more or less stable mix of facts and hypotheses, of mystery and imagination striving to get hold of it, to master and make some sense of it. It has always been imagination that drove research and desire to understand, before and after the Scientific Revolution. One might think of Plato and his charges against the poets as the beginning of the Western struggle against it, but we should keep in mind that what the philosopher aimed at was 'vision' rather than imagination and that he was, contradictorially, a master in myth creation and a teacher that mistrusted written words: Plato 'tells us explicitly that he did not deem appropriate to consign to his written works all that he has thought and particularly "the things of greater value". Consequently, Plato's works include most of his thought, but not everything; and specifically, they do not include the essential core' (Reale, 2010: 3-4). Centuries later, the beginning of the Scientific Revolution, when the Ptolemaic paradigm was giving way to Copernicus and Galileo, involved 'the substitution for the conception of the world as a finite and well-ordered whole, in which the spatial structure embodied a hierarchy of perfection and value, [with] that of an indefinite or even infinite universe no longer united by natural subordination, but unified only by the identity of its ultimate and basic components and laws' (Koyré, 1957: viii). Koyré shows punctiliously the clash between visions of the 'new' universe and the crucial role played by imagination in its different conceptions.

This is not all, however. Weber already pointed out the subjective bias essential in the choice of the matter of research, which has a lot to do with inner vision and the way it articulates itself in a constant 'anthropological journey' (Durand, 1984: 38) between subjective drives and objective intimations and resistances: a journey where the imaginary is a fundamental component in inextricable interplay with reason and emotion (D'Andrea, 2017). Modern rhetoric and scientific prejudice strove successfully to remove both emotion and imaginary from their representation of the world and from common sense, so much so that the current version of reality pretends to be rid of them. What this narrative does not seem to have suspected is that reality itself is connected with imagination in more ways than 'simple' background pressure on people's choices and motivations: they appear so closely entwined as to make it more and more difficult to tell real from unreal.

In fact, under close scrutiny the very concept of reality appears less solid and trustworthy than one should wish: 'Usually we distinguish in a general and sure way "reality" from "unreality". We employ these concepts without any explicit ontological clarification, limiting ourselves to an approximate and familiar understanding. "Real" and "unreal" are in a simple and solid

antithesis. This antithesis is even more solid than that between "big" and "small", "hot" and "cold" [...]. The reality of the properties is only possible because of the reality of a substantial bearer of properties. Reality, for its part, is not a property that can be attributed to a thing – or even subtracted from it. If reality is lacking, the whole thing with all its properties disappears. What strange character is this: the "reality" of a thing? Is it something that belongs to the thing? We can see and touch real things - but can we also see and touch the reality of these visible, tangible things?' (Fink, 1991: 61-62). If this is how things stand with material, reliable objects, they get even more complicated when one considers other shades of the meaning of the word: 'For instance we also talk *about* reality – and we do not mean the real being of these or those things, but the global field of reality. There is only one reality, for all its possible dimensions. The one and only global reality is not formed by patching together many single real things, rather the reality assembles preliminarily all individual realities. The concept of reality is ambiguous and problematic. And equally ambiguous and problematic is the concept of "unreality" (Fink, 1991: 63).

Even if one limits oneself to the kind of world Modernity claims we all live in - a directly experienceable world that has no need of thought or sophisticated understanding because it is reliable and self-evident, where one only need act to get things done or mend them up - there seems to be no black and white where reality is concerned, but myriad shades of grey. And it all gets more complex when one leaves 'real' things behind and tries to consider imagined things, such as values, projects, wishes and desires: 'What is purely imagined and therefore null is not after all nothing at all. It exists as an imagination, as a ghost, as the content of a representation. What is purely represented is not real, but it becomes so as the intentional moment of a representation. A real representation contains in itself an "unreality" as a semantic moment. So we can see that the sentence: something is real or unreal contradicts itself in its operative preconditions; because "something that is not real" is however real as the representation of an unreal. The absolute rigour of the current distinction between reality and unreality cannot be maintained. There is not only a real and an unreal or more categorically: the "real" is there, the "unreal" is not there, there is also the intermediate term between the two, that is to say a real that encloses the unreal in itself as a semantic content' (Fink, 1991: 63-64).

In reality, however hard one strives to reject the idea, there is a *quantum* of imagination that is not simply real or unreal. There is a third dimension that global risks drag into the light after centuries of elaborate denying ideology, a third dimension that *has always been there* and has now to be accepted, explored and understood, because it is getting the upper hand in the dynamic balance

from which stems what used to be called 'reality'. In Beck's words, 'risk is not synonymous with catastrophe. Risk means the anticipation of the catastrophe. Risks concern the possibility of future occurrences and developments; they make present a state of the world that does not (yet) exist. Whereas every catastrophe is spatially, temporally and socially determined, the anticipation of catastrophe lacks any spatio-temporal or social concreteness. Thus the category of risk signifies the controversial reality of the possible, which must be demarcated from merely speculative possibility, on the one hand, and from the actual occurrence of the catastrophe, on the other. [...] Risks are always future events that may occur, that threaten us. But because this constant danger shapes our expectations, lodges in our heads and guides our actions, it becomes a political force that transforms the world' (Beck, 2009: 9-10).

Uncertainty creeps back in through the cracks in the Modern paradigm and it turns the expected into the unexpected and, more, the unexpectable: the 'modernity formula follows a logic of order and action that drew sharp boundaries between categories of people, things and activities and made sharp distinctions between spheres of action and forms of life, which in turn made institutional ascriptions of authorities, competences responsibilities. This logic of unequivocalness - one could speak metaphorically of a Newtonian social and political theory of the first modernity - is being superseded by a logic of ambiguity - as it were, a Heisenbergian uncertainty principle of social and political reality' (Beck, 2009: 236). Risk then reveals its imaginary component, which plays a major role in expectations and anticipation, as has been seen in Furedi's words and as Beck makes even clearer: 'The global anticipation of catastrophe for the most part resists the methods of scientific calculation. The less calculable risk becomes, however, the more weight culturally shifting perceptions of risk acquire, with the result that the distinction between risk and cultural perception of risk becomes blurred. The same risk becomes "real" in different ways from the perspective of different countries and cultures – and is assessed differently' (Beck, 2009: 12).

So, a momentous process that got started centuries ago with the purpose of creating a perfect and safe world ends up in the opposite condition, with uncertainty on the rise and reality crumbling away faster and faster. It has been perhaps the most presumptuous paradigm ever, where the Western *hybris* came to the fore in all its grandeur and fragility: to know everything to control everything. We thought it could be done; many still do, but in the end it proved an illusion. Now it is high time we changed our point of view. This essay is but a sketch of how a new complex paradigm should be conceived, and is meant to open the way to discussion in the hope of mending the damages caused by Modernity's too sharp distinctions and denials. There are whole areas of knowledge that have been stigmatized and put aside under the

harsh light of scientific exceptionalism; their dignity need be reinstated, for they afford insights that are priceless in the new scenarios of the XXI century: Durand's mythodology (1996; Grassi, 2006), for instance, would prove an exceptional tool for a better understanding of the process of knowledge, of the shaping of perception and anticipation and of the subtleties of cultural interplay, so hard to make sense of – as EU evolution on the one hand, global terrorism on the other, eloquently show. A new dialogue among disciplines is also desirable, to give rise to new constellations where cutting-edge mathematics and physics coexist and co-evolve with humanities and neurosciences and every other discourse to weave a new knowledge in the form of a closely-knit, multi-coloured tapestry. It could be that, for once, more knowledge could really lead to a better knowledge.

#### References

- Beck, U. (1992), Risk Society. Towards a New Modernity, London, Sage.
- Beck, U. (2009), World at Risk, Cambridge, Polity Press.
- Boncinelli, E., Severino, E. (2015), *Dialogo su etica e scienza*, Reggio Emilia, Imprimatur.
- D'Andrea, F. (2014), Un mondo a spirale. Riflessioni a partire da Michel Maffesoli, Napoli, Liguori.
- D'Andrea F. (2017), "Being Human. A few Remarks about Descartes' *Cogito ergo sum*", Studi di sociologia, 2, forthcoming.
- De Marchi, B., Pellizzoni, L, Ungaro, D. (2001), *Il rischio ambientale*, Bologna, il Mulino.
- Durand, G. (1984), Les structures anthropologiques de l'imaginaire, [first ed. 1960], Paris, Dunod.
- Durand, G. (1996), Introduction à la mythodologie. Mythes et sociétés, Paris, Albin Michel
- Fink, E. (1991), *Il gioco come simbolo del mondo*, [first ed. 1960], Firenze, Hopeful Monster.
- Fukuyama, F. (1992), The End of History and the Last Man, New York, Free Press
- Furedi F. (2012), "La paura come chiave dell'irresponsabilità", *Idem*, 5 (12), 30-33.
- Gleick, J. (2008), *Chaos: Making a New Science*, [first ed. 1988], New York, Penguin Books.
- Grassi, V. (2006), Introduzione alla sociologia dell'immaginario. Per una comprensione della vita quotidiana, Milano, Guerini.
- Koyré, A. (1957), From the Closed World to the Infinite Universe, Baltimore, The Johns Hopkins Press.

- Kuhn, T. (1996), *The Structure of Scientific Revolutions*, Chicago, University of Chicago Press.
- Lyotard, J. F. (1979), La condition postmoderne: rapport sur le savoir, Paris, Minuit. Maffesoli, M. (2002), La part du diable. Précis de subversion postmoderne, Paris,

Flammarion.

- Morin, E. (1999), Seven Complex Lessons in Education for the Future, Paris, UNESCO, view 11/03/2017, http://unesdoc.unesco.org/images/0011/001177/117740eo.pdf
- Morin, E. (2015), Insegnare a vivere. Manifesto per cambiare l'educazione, Milano, Raffaello Cortina.
- Reale, G. (2010), Per una nuova interpretazione di Platone alla luce delle "dottrine non scritte", [first ed. 1984], Milano, Bompiani.
- Rella, F. (1993), Miti e forme del moderno [first ed. 1981], Milano, Feltrinelli.
- Weber, M. (2012), *Collected Methodological Writings*, edited by Bruun, H. H., Whimster S., (Eds.) (Transleiter by Bruun, H. H.), Routledge, London.