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## Mapping uncertainties and black swans in dealing with traditional and non traditional security threats

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### **1. The rise of uncertainty**

An unlikely, entertaining and strangely lucid breakdown of the basic categories of knowledge can be found in the utterance of former Secretary of Defense Donald Rumsfeld, uttered during a press conference in the heat of war in Iraq, at time when allied intelligence services were somewhat in doubt, and confidence in the U.S. strategy for ending the war was at a low point.

Perhaps the most noticeable mutation in current security thinking is the emergence of the notion of risk. The study of risk and risk governance in the social sciences has increased significantly in scope in the last two decades. It corresponds in general to a market-driven need to quantify and of course minimize uncertainty about the future. Not-knowing what negative event the future holds costs money and efficiency when one competes with others who do know. Thus dangers become the object of the actuarial sciences. Risk can be calculated; the result of the calculation can serve as the basis for action, even without actual knowledge of the event.

The concept of 'risk' replaces in more and more contexts the notion of danger or threat. The implication is that in today's 'security environment', even though we do not know what the danger is we can respond to that non-knowledge as a kind of knowledge. Even unknown danger can be integrated into the calculus of how to respond as though it were a kind of known danger. This implementation of risk thinking is a response to the rise of non-conventional, non-national, non-contiguous threats, precisely those that bring ambiguity to the interpretation of security threats.

### **2. The new logic of insecurity**

How do we measure change in an organization like NATO, the largest military alliance in history? A simple first cut analysis might begin by distinguishing between changes in the meaning of the central principles that carry the historical force and legitimacy of the alliance from the empirical facts on the ground. In short: is it the ideas that have changed or is it the world that has changed (or both)? Do terms like 'collective defense', 'security', 'stability', etc. refer to something other than what they referred to in 1949 (Washington) or 1991 (Rome) or 1999 (Washington)? Or rather is it the world of events, of all that is not-NATO, that is significantly changed, in such a way that the 'fundamental' tasks that NATO accords itself must forcibly change?

The well-known basic *concept* of the 1949 NATO treaty is that the protection of 'international peace and security and justice' is to be accomplished by promoting 'conditions of stability and well-being' (Article 1). Consultation will take place in the Alliance whenever 'territorial integrity, political independence or security' of any of its members is threatened (Article 4). This is not the

place for a full analysis, however there are grounds to suggest that the interruption of the kind of stability and well-being that was codified in the 1949 treaty would perhaps not give legitimacy to the same kind of actions as it once did.

In terms of a changing *empirical* reality, much can be said about the new and changing world that a 50-year old alliance is obliged to confront. The world ticks in a significantly different way than it did in 1949. Clearly the political map of the world has changed immensely, particularly since 1989. But more importantly we experience a new and unique set of actual threats to the pillars 'peace and liberty and security'. Post-Cold War and residual post-colonial ethnic conflicts, migration, pandemic, transnational organized crime, and not least a new brand of transnational terrorism are just some of the new challenges that must be taken up in the debate. To link again to the original principles of the Alliance, these threats have little to do with 'territorial integrity' and 'political independence' that were central to the original conceptual architecture of the Alliance.

This awkward relationship between concept and reality in the self-understanding of the Alliance became clearly visible in the aftermath of the 11 September attacks. When, the day after the attacks in New York and the Washington the NATO treaty's Article 5 was invoked, little thought was given to the fact that virtually none of the parameters that were valid when the Article was formulated in 1949 were applicable with any degree of precision: The attacks were not carried out by a nation-state against a nation-state, there was no spatial contiguity, and, less obvious, the attack was not carried out against Europe, thus invoking the assistance of the US, but rather the contrary. Nor did the invocation of Article 5 actually lead to the application of NATO's traditional structure.

This is not an argument, as made by some, for the irrelevance of the Alliance. Rather, it is an appeal for a broader and more self-critical understanding of what the Alliance is or can be in our present day and age. The starting point is recognition of the dangers in thinking that the Alliance is and always will be what it now is. To its credit the Alliance has been surprisingly supple in this regard. The 'transformation' mentioned earlier is witness to NATO's response to a changing world with changing concepts. This process must continue, even leading to the thought that NATO mutate into a strictly diplomatic organ in which military operations one day cease to be a part of the thinkable portfolio.

A certain understanding of security plays a role in every aspect of life. Despite the fact that fear, anxiety, danger and doubt are fundamental social and individual experiences, the scholarly study of security has traditionally been limited to the field of international studies, associated primarily with the status of nation-states in relation to each other. According to this conventional concept, the state is both the object of security and the primary provider of security. Today a burgeoning literature is revisiting the traditional Cold War based notion of security.

This literature is based on a general consensus among both scholars and practitioners that a wide range of security threats, both new and traditional, confronts states, individuals and societies. New forms of nationalism, ethnic conflict and civil war, information technology, biological and chemical warfare, resource conflicts, pandemics, mass migrations, transnational terrorism, and environmental dangers challenge the conventional means of understanding threats and of assuring the security of all regions of the world. The growing awareness of these new threats is challenging the way in which the principles and tasks of security scholarship are presently understood.

Across this wide range of insecurities, two distinct features characterize threats to security: they surpass the boundaries of the nation-state and they are interconnected through processes of globalization. No one state can manage the array of threats to its own security, nor can any one

state manage the threats to the security of its neighbors both inside and outside of its region. In the globalized setting, the challenge of maintaining security is no longer limited to the traditional foreign policy and military tools of the nation-state, security and insecurity are no longer considered as conditioned only upon geopolitics and military strength, but also on social, economic, environmental, moral and cultural issues (Tuchman, 1989; Suhrke, 1999).

This mutation in our understanding of security is not only an empirical one, it is a conceptual one as well. The conceptual logic of security has evolved significantly in the past decades. By conceptual logic, we mean the interacting function of three dimensions of the concept: its object, its subject and its agency.

### **3. The inflation of security and insecurity**

The concept has had a relatively short and significantly turbulent history. This is coupled with observable inflation in the use of the concept. Reaching far beyond the scope of traditional national security a new economy of security has formed, identifying, analyzing, re-tooling and voicing a new set of security threats to which it proposes to respond with a set of newly adapted security measures. This economy is a perpetual motion machine: threats we never knew we actually faced appear to be answered by new means of differentiation. This tendency can be characterized through five general observations.

Firstly, security is becoming increasingly commercialized. Security has become merchandise that can be bought or sold on a more or less open security market. Commercial security guards replace public police forces, the number of tasks carried out by contracted security consultants has grown sharply, mercenaries replace national security forces. Security merchandise circulates across borders, social classes, services, organizations, interests and allegiances.

Secondly, providers of security, be they public or private, take increasingly often recourse to technological solutions. If security were ever considered a human enterprise, (a question to which we will return) then it is most certainly less so today. Human beings are less than ever part of the security equation. The security challenges of today are more than ever resolved by investing in the tools of science, in the ambition of developing more certain, more precise, more invisible and more dependable solutions to security threats. Humans, the traditional object of security, increasingly stand in the way of security solutions, reducing their efficiency. The epitome of security today is a tool whose technological qualities makes possible the absence of humans.

Thirdly, the technologization of security has lead to the advanced stages of an industrialization of security, implying a kind of internal 'product' differentiation. According to the well exercised logic of late capitalism, demand thereby does not increase as a function of needs, but rather as a function of supply: the more the supply of commercially available technological security solutions, the more we need them. Security is itself merchandise: the more it becomes more diversified, localized, tailored to its context to its consumer, and to its user.

Fourthly, security has become globalized. Traditionally linked to the autonomy of the territorial nation-state, linked to the categories, concerns and tools of political and geographical borders, where physical frontiers demarcate friend from foe and war from peace. This territorial attachment, and even predication, of security is gradually being loosened. The image of threat has become more diffuse and more ubiquitous, ambiguous, and invisible. Moreover, we see the rise of the notion of risk in conjunction with the changes in the concept of security. *Risk* replaces *danger* as the object of security concerns. The discourse of risk replaces *real* danger with virtual danger, unspecified but calculable danger.

Fifthly, the collective effect of these transformations in the notion of security is *production* of insecurity. In other words, insecurity increases proportionally with the accelerated reflection

upon security and changing approaches to security. The battle against a variety of forms of threat most often leads to instrumental and technological responses, that leave little space for the human subjects. We fortify walls, erect barriers, develop systems of detection. Yet these technological systems have only a limited effect of rendering us secure. They have the side-effect of rendering us less sure, less confident, more dependent. Less confidence implies less security.

*A catalogue of non-military security challenges includes* human insecurity, migration and insecurity, climate change and insecurity, water security, energy insecurity, transnational organized crime, health insecurity, security of identity, personal security (personal liberties), political security.

#### **4. Black swans: the impact of the improbable**

The difference between the known and the unknown is not merely empirical. The difference between the known and the unknown is asymmetrical. The unknown, in addition to being empirically unknown, is accompanied by the aesthetic, the moral, cultural *effect* of being unknown. The asymmetry of the known and the unknown lies in the astonishment or the shock of it unexpectedly appearing. There is a near *moral* reaction or indignation at it appearing in a way that did not correspond to our preparations for the dealing with the world. It makes a statement about us, about our knowledge of ourselves and our surroundings.

The Black Swan, is what Taleb calls an *outlier*, a phenomenon that lies 'outside the realm of regular expectations' something which cannot be immediately assimilated into any given logically associated chain of events. Such outlier phenomena, Taleb argued, are characterized by three qualities: First, 'rarity', that is, they lie outside of regular experience in the sense that nothing from the past adequately indicates that they should normally take place, second, they display 'extreme impact', in other words, they have effects which also lie outside of the ordinary, and, third, 'retrospective predictability', that despite the fact that they are both unexpected and have unexpected impact, we have an uncanny capacity for creating completely coherent and cogent explanations for them *after* they have happened (Taleb, 2007: xvii-xviii).

Black Swans have impact on the world for two fundamental reasons. The first, is entirely conventional: the impact by force of the event themselves. The onset of World War I, the Crash of 1929, the oil crisis of 1972, the Chernobyl accident in 1989, the attacks of 9/11, etc. all had the real, empirical effects that are known and documented or which are in any case knowable. The second impact, is related in a secondary sense to the first. But it does not concern knowledge of events or facts. It concerns *non-knowledge*. It concerns what we do not know. Or rather it concerns what we know *now* but did not know before, before when it could have would have made a difference that we know. It concerns the unpredictability of the phenomenon. The knowledge of what didn't know, *that* we didn't know and a moral insight about the meaning of this ignorance.

Clearly, this unpredictability is also empirical: the event was simply and factually not foreseen is nonetheless a real empirical event. Yet this secondary fact has immense historical force, immense impact in our understanding of the world. The secondary effect unites fact and human pathos. It *unites* facts and human pathos: two domains of experience that none of the sciences, be they natural or social or human are equipped to account for. This secondary effect manifests how facts themselves, through their experience, contain emotion, longing, hopes and aspirations, fears and disappointments.

Rather the sciences, the social sciences, in particular deal with this phenomenon backwards. As Taleb points out, since the beginnings of the conceptualization of risk and risk analysis, the social sciences have feigned to possess tools capable of measuring uncertainty as though it were an empirical phenomenon, something like measuring temperature. The insurance and finance industries have brought this illusion to the highest levels: the uncertainty of loss is adequately

calculated in order to eliminate it from the equation of profit. Yet in a very real sense, what we do not know is far more historically consequential than what we do know. What we do not know is what cannot conceivably happen. When it does happen, against all conceptualized likelihood, its meaning is immense.

Yet not only is the experience of the unknown a problem for the sciences because of the non-scientific moral pathos it produces, the knowledge itself is *based* on the pathos. We did not know these things would happen. Furthermore, if we *had known* they would happen, then they would not have happened. Their historical weight or meaning is derived from their unpredictability, from the fact that we did not know. As Taleb puts it:

had the risk [of 9/11] reasonably conceivable on September 10, it would not have happened. If such a possibility were deemed worth of attention, fighter planes would have circled the sky above the twin towers, airplanes would have had locked bullet-proof doors, and the attack would not have taken place, period. Something else might have taken place. What? I don't know (Taleb, 2007: xix).

What is uncanny here is that the non-knowledge is more meaningful than the knowledge. What we *do not know* has greater impact than what we know. Or, our non-knowledge produced consequences far greater than those that our knowledge would have produced.

The whole logical opposition between facts (which have meaning, consequences, etc.) and non-facts, fiction, poetry, images, etc., is problematic. What happens happens, not simply, autonomously, unproblematically as a singular event, without past or future. What happens, happens because it was not supposed to happen. The non-knowledge of the event is deeply imbedded in the causality of the event.

Thus, according to Taleb, the correct formula for harmless, innocuous ignorance is not 'what you do not know cannot hurt you.' It is rather 'what you *do* know cannot hurt you'. For what we do know already has already entered the empirical world, has already taken place, the damage is done, the lives are lost. It may have hurt us, but, strictly speaking no longer contains the potential to hurt us.

## **5. Making sense of the future through the *precautionary principle***

According to the logic we have presented, making decisions that have real significance for human lives—that is, consisting of something more than the acknowledgement of what already is and what already is known—*always* takes place in the absence of adequate empirical knowledge. In other words if we already know what we need to know, then the event is in some sense already a decision made, already resolved, already fixed. In any case it no longer belongs to the sphere of decision-making. Recognizing this, helps us to understand the meteoric rise of the so-called *precautionary principle*. The principle has a variety of definitions, varying according to scientific specialization

However they point in one basic direction: they ascribe to the precautionary principle the imperative to take action in the absence of, or in advance of scientific *knowledge* of the kind necessary to adequately make the decision. And, the precautionary principle presumes, such a decision must be taken, and consequentially actions taken, on the grounds that *not* taking action will have greater negative consequences than the taking action.

The rise of the concept has both a deep historical explanation and a more recent pragmatic correlation. Firstly, historical explanation of the principle situates its emergence in a phase of late modernity and late capitalism in which specialization in the sciences and product differentiation in the liberal market together lead to a vast multiplication of knowledge types and to the virtual impossibility of mastering them all. To master any given field of scientific knowledge today requires a specialization that excludes even the most proximate neighboring

knowledge. Secondly, the compression of time and the media-driven simultaneity of events in our era creates a temporal imperative for action, a perception of the velocity of events, and a political, at times ethical imperative to act sooner rather than later (Virilio, 1977; 1978).

The political uses of the precautionary principle have for a number of reasons limited themselves to the environment and health issues in governance. Thus questions of climate change, pollution, food safety, and public health general are often treated in terms of the principle. A number of environment agreements and treaties has adopted it as a foundation for translating observations of environmental degradation into political prognoses. The principle was adopted in the Maastricht Treaty. These areas are of particular importance for European Union activities in the field of environmental protection, where it is the centerpiece of XIX of the Treaty on European Union.

In the 2000 Commission Communication on the Precautionary Principle, it is linked to questions of governance and decision-making and the challenges to political liberalism the contemporary insecurities leave us faced with:

Thus, decisions makers are constantly face with the dilemma of balancing the freedom rights of individual, industry and organizations, with the need to reduce the risk of adverse effects to the environment, human animal or plant health. Therefore, finding the correct balance so that the proportionate, non-discriminatory, transparent and coherent actions can be taken, requires a structured decision-making process with detailed scientific and other objective information (European Commission, 2000).

Deploying the precautionary principle is in this sense a challenge of decision-making. Indeed it is a kind of decision making itself. The central function of this decision-making is the assessment, management, and communication of risk. It should lead, according to the Communication, to measures that are proportional, non-discriminatory, consistent, based on cost-benefit analysis, subject to review and possible correlate with responsible actors.

The precautionary principle will be invoked under two conditions:

1. identification of potentially negative effects resulting from a phenomenon, product or process; and
2. a scientific evaluation of the risk which because of the insufficiency of the data, their inconclusive or imprecise nature, makes it impossible to determine with sufficient certainty the risk in question.

Thus the precautionary principle is invoked on the condition that a an unknown phenomenon looms possible, that the likelihood of the undesired or negative phenomenon realizing itself is more likely than impossible and less likely than necessary. In other words a wide range of levels of likelihood or intensities of knowledge are to be considered. The precautionary principle is in this sense not based on knowledge, but rather on meta-knowledge, on knowledge about knowledge. It is based on uncertain knowledge of a *likely likelihood*.

Knowledge of risk in general, and of the kind necessary to invoke the precautionary principle is a special kind of knowledge indeed. However the 2000 Communication to the European Commission leaves us rather far a field from the phenomenological or experiential understanding of risk introduced by Taleb earlier. After all, risk by any measure unfolds around experiences of people and is only a partially scientific brand of knowledge. It is deeply interwoven with individual and collective *experience*. But not with the experience of knowledge, but with the experience of non-knowledge, with a certain *experience* of the unknown, of knowing and relating to the unknown.

## 6. Risk and responsibility

Clearly this situation ultimately has important ethical consequences as well. For to take responsibility in any given situation implies relating to the unknown. To take responsibility in a strong ethical essence is to act in the *absence* of knowledge. Complete and integral knowledge makes responsibility meaningless. Knowledge sets aside the ethical imperative. Knowing, particularly in the realm of protecting from the non-perceived dangers of the unknown, requires no ethical insight. Its transparent self-evidence is factual, empirical, not normative, ethical or value-oriented. True responsibility takes the form of *invention*, of making something from no raw materials at all. Empirical knowledge, for example statistical knowledge about past occurrences can support our reflections, but cannot tell us about what we should do. Empirical knowledge does not participate in the ethical moment of decision making (Derrida, 1999: 19-20). On the contrary, it is, according to Taleb's vision, a hindrance to it. 'Why', he asks, 'does reading the newspaper actually *decrease* your knowledge of the world?'. It is because the major phenomena of life will never have appeared on the epistemological radar screen before passing into the past, into the set of events that happened in the past. The will never belong to the field of real knowledge about what is. The knowledge that really could change something is invisible to us in the moment of truth, in the moment of decision or responsibility. Knowledge that could make a difference is not recognizable as knowledge that could make a difference because we cannot know what it will ultimately make a difference about supposed it, never will have registered as knowledge in correct, apposite, suitable, appropriate sense. We cannot know that a plane flying off course implies a collision terrorist attack unless we *already* know it. Yet history has shown that the epistemological gatekeepers in our minds and hearts have an immense capacity to block out what is for us beyond the imaginable. As the French folk singer Renaud puts it, 'if voting could change the world, it would certainly be prohibited'.

An alternative to these approaches to value, a supplement really because it simply shifts the plane of the analysis, might be based on arguments about the nature of rationality itself. Let us examine risk assessment, risk management and risk communication as questions of *representation*. The precautionary principle, so prominent in EU approaches to uncertainty, is in many regards a theory about how to tell stories about the future. By using the terms 'stories' we don't mean to suggest that the risk prognoses are not true. We do however insist on two characteristics risk narratives: *First*, that stories of risk assessments *may not* be true and, *second*, that the *possibility* of their not being true is the *condition* of them having meaning at all. This presents a profoundly ethical moment for both social scientific and natural scientific.

*First*, statements of risk assessment have the distinct epistemological character of being quite possibly untrue, and even likely partially untrue, even though they quite naturally aspire to being true. They are based on as much facts, analysis, and likelihood as is available, but nonetheless belong to a particular genre, a particular subset, of *not knowing*. By calling themselves risk assessments they place themselves in a particular epistemology and situate themselves in a space of value judgments.

*Second*, this horizon of possible falsehood, of inaccuracy or illusion is the very foundation of what risk is. It is necessarily possibly untrue. Thus the dimension of unease linked to the suspicion that something undesirable may be out there lurking after us, is exacerbated by the uncertainty, and the human pathos that this implies in a highly technological and highly rational society, of not knowing how well we know that the unknown may be out there. In this sense, risk assessment resembles to some degree fictions.

Fictions too, we must recall, can in the end be true. When this happens it crosses a border that society cannot tolerate. Thus the caricatured disclaimer of all fiction writers: 'no matter how true this story is, and particularly when it is precisely true, it is untrue'.

The same epistemological dilemma is valid for risk assessment: Our risk analysis may be absolutely true, but this fact does not increase its usefulness to us (the potential libel law against God) since we cannot know that it is absolutely true. (To follow the disclaimer analogy: the declaration of the non-truth of the truth legal protects an author from libel, while the recognition of the truth of non-truth protects one from libel against God.)

For this reason we are in need of a theory or risk that can understand it as a kind of knowledge and as a representation of something that has a unique kind of existence. For risk is among other things a *representation*. It expresses a reality that is not present, either in space or in time. In some cases, as we have seen in the model of Daase & Kessler, it represents something unthinkable all together. Like linguistic representations in general, its meaningfulness depends on this absence of its referent-object. Unlike linguistic representations risk contains a strategy for *warning* against that which it represents.

In this regard risk might also be fruitfully analyzed in terms of discourse. By *discourse*, we mean a set of tacit rules and procedures that govern the formation of meaningful statements in a given cultural setting. Discourse in this sense contributes to the structured production of knowledge through language. An essential moment of that structuring, as far as risk is concerned, are the horizon of danger against which it functions, the social defenses, official and unofficial that would defend against, the personal the culturally, political and socially determined norms of knowledge and behavior that help to organize it, etc.

The concept of discourse thus aims to overcome the traditional opposition between what one *says* through language and what one *does* in practice. Discourse structures and gives guidelines for what is valuable and not, what is legitimate. It governs the *way* in which a given theme can be talked about, what kind of arguments are available, which are not available, etc. In this way, discourse is *not* simply transparent, a conduit or pipeline for transmitting knowledge from actor to another. Programmatically analyzing risk as discourse in this way should, notwithstanding the necessary risks, will contribute to our understanding between the rationality of democratic participation and rational decision-making—or goal—and the profound and uncharted humanity of the experience of risk.

The concept of risk plots a vast array of dimension in human experience: it reflects our experience of the past and our aspirations for the future, draws upon our own individual experience as well as the experience of others, it reflects what we know and necessarily delves into the unknown, it revolves around certainty uncertainty, and the very frontier between faith and reason. Risk is profoundly involved in the metaphysics of the unknown, in concern for the other-worldly. This can be clearly illustrated by a historical reconstruction of risk. From its first traces risk seems inseparable from religion, from Ancient Greece to the superstition of the Middle Ages, to the Enlightenment philosophers, and onward. In other words, risk is not only a *physical* necessity, that it derives from the reality of what we commonly call the 'laws' of nature. It is also a *value-driven* phenomenon. It marks a certain relationship between human subjects and other subjects. A relationship between hopes and wants, fears and aspirations. This experience of risk, is not just an accessory to human life and experience. It is central to it.

## References

- Derrida, Jacques. *Donner La Mort*. Paris: Editions Galilée, 1999.
- European Commission. 'Communication from the Commission on the Precautionary Principle.' 2000.
- Suhrke, Astri. 'Human Security and the Interest of States.' *Security Dialogue* 30, no. 3 (1999): 265-76.
- Taleb, Nassim Nicholas. *The Black Swan: The Impact of the Highly Improbable*. London: Penguin, 2007.
- Tuchman, J. 'Redefining Security.' *Foreign Affairs* 68, no. 2 (1989): 162-77.
- Virilio, Paul. *Vitesse Et Politique*. Paris Éditions Galilée, 1977