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# Impossible Synchronization

## Temporal Coordination in the Risk Society

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### 1. Synchronization and Non-Contemporaneity

Synchronization is a problem, and a problem that seems to become more and more pressing. At a personal level and in communicative contexts one often feels an interlacement and a contrast between different rhythms, temporal horizons, durations and terms, and usually the result is a sort of pressure and a sense of inadequacy. This can be seen for instance in the now omnipresent formula »the future has already begun,« that taken literally obviously doesn't have any sense (if the future has already begun it is not future any more), but apparently expresses a widespread concern. It is usually felt as an exhortation to hurry and try to coordinate with a time we are not synchronized with—even if we are in the same present.

With what or with whom should we synchronize? With the course (or the several courses) of a time that has its autonomy? Or with the rhythms and deadlines of other people experiencing time in their own way? It is not clear at first glance if it is a problem of temporal coordination or of social coordination, or maybe a mixture of the two. But the issue cannot be explained without analyzing in detail the notion of time and its impact on social relations.

The problem is well-known, and is often presented in the form of the puzzle of non-synchronicity (Ungleichzeitigkeit)—or of the »simultaneity of the non-simultaneous«.<sup>1</sup>

According to Reinhart Koselleck different temporal layers that create tensions, break lines (Bruchlinien) and potential conflicts<sup>2</sup> produce accelerations and the enhancement of slowness, projects and nostalgia, different innovation plans, different futures and different pasts. There are always many stories contemporarily, each one articulating time in its own way, and they all must somehow coexist,<sup>3</sup> as

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<sup>1</sup> Referring to Ernst Bloch: *Heritage of our Time*, transl. by Neville Plaice and Stephen Plaice, Cambridge 1991; Id.: *Tübinger Einleitung in die Philosophie. Gesamtausgabe*, Bd. 13, Frankfurt/M. 1970, p. 161.

<sup>2</sup> Reinhart Koselleck: *Zeitschichten*, Frankfurt/M. 2000, p. 9, 175.

<sup>3</sup> Reinhart Koselleck: *Vergangene Zukunft. Zur Semantik geschichtlicher Zeiten*, Frank-

the incomparable temporal experiences of different subjects coexist—hurry and boredom, waiting and remembering.

It seems to me, however, and this is the point I will develop here, that the difficulties we have to face don't depend so much on the fact that we belong to a condition of non-contemporaneity: such conditions existed in past semantics, we can describe them and reconstruct their relationship with time, but they didn't have the problems of disorientation that torment us today. On the contrary: we have them because our semantics is a semantics of contemporaneity, producing the need to find a synchronization in a complexity of temporal relations that often disorients us.

I will first explore the meaning and the presuppositions of non-contemporaneity and contemporaneity, to describe how in our society we all share the same present, with always mobile and always different horizons of past and future. This contemporaneity does not imply the same time for everyone, but rather allows each one to experience his own duration and to construct his own references. This gives rise to problems of social and temporal synchronization, which I will examine in the following paragraphs. How can we coordinate with a time in which everyone does different things with different horizons, but we all depend on each other? Can we coordinate with a time that continuously moves from a present to a different one, which constitute their past and their future in different ways? In the final paragraph I will present the practical consequences of this temporal complexity, describing risk as a problem of synchronization—which, as it always happens in the case of risk, raises many difficulties but also fascinating opportunities.

## 2. The semantics of contemporaneity and of non-contemporaneity

Non-contemporaneity was typical of pre-modern societies, reflected in the way of conceiving time, in the relationships with the material dimension, in the forms of measurement, and certainly also in subjective experience. Ancient historians testify it: they accepted without any difficulty the presence of separate chronologies in their narrations, therefore also of different times that couldn't be reduced to a unitary scheme. Herodotus and Thucydides were concerned with the temporal coordination of episodes only in the cases in which this coordination was relevant for the meaning of the narration; events with no connection had also no temporal relation. When the characters of the story moved from a place to another, or the context of the narration was somehow modified, also the temporal

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furt/M. 1979, p. 323. (cf. id.: *Futures Past: On the Semantics of Historical Time*, New York 2004)

frame changed, with no need to establish general relationships of contemporaneity: in different places and in different stories also different times applied.<sup>4</sup>

In this understanding time was not an independent and autonomous dimension, used to locate an event and to understand its meaning, but rather a derivative dimension, that depended on the meaning of the event and on its relationships with other data and other stories: it was meaning that established time, when this was relevant, not the contrary, as we tend to think. Using chronology to establish an order among events was regarded as a merely formal and unduly simplifying expedient: simultaneity, when it happened, depended on a thematic and meaningful coincidence, and not simply on the position in a sequence. That's why the great *auctores* of rhetorical tradition, from Aristotle to Thomas Aquinas, from Catullo to Petrarca, could be considered all contemporary, even if they are separated by hundreds of years: they were connected by the participation in a unique project and by the search for the truth, that was obviously atemporal—a much more relevant level than casual historical location. Even Kant, however, considered meaning more important than chronology, which he regarded only as a mysticism that makes facts dependent on numbers, and not vice versa.<sup>5</sup>

This experience of not-contemporaneity clearly belongs to a temporal semantics very different from ours. It can be described on the basis of the distinction *aeternitas/tempus*, which ordered the temporal dimension without referring primarily to the difference between past and future—which obviously was known, but had a different role.<sup>6</sup> The order of time referred to God, who was absolute contemporaneity and as such always present in any event: its dimension was eternity (*aeternitas*), where everything is given together with everything else and events are distinguished by their meaning, not by historical location. History, sequence, *tempus*, were only human dimensions, due to the narrowness of mortals and to their incapability to attain the divine level—in a certain sense they were a »collapse

<sup>4</sup> See Donald T. Wilcox: *The Measure of Times past: Pre-newtonian Chronologies and The Rhetoric of Relative Time*, Chicago and London 1987, chapter 3, pp. 53–82 (chapter 3); Jacques Le Goff: *Storia e memoria*, Torino 1977, p.15f.; Hermann Fränkel: *Wege und Formen frühgriechischen Denkens*, München 1955. According to Christian Meier, time was not sufficiently abstract and did not allow to grasp either the contemporaneity of the contemporary or the non-contemporaneity of the non-contemporary. See Christian Meier: *Die Entstehung des Politischen bei den Griechen*, Frankfurt/M. 1980, p. 358.

<sup>5</sup> See Wolf Lepenies: *Das Ende der Naturgeschichte und der Beginn der Moderne. Verzeitlichung und Enthistorisierung in der Wissenschaftsgeschichte des 18. und 19. Jahrhunderts*, in: Reinhart Koselleck (ed.): *Studien zum Beginn der modernen Welt*, Stuttgart 1977, p. 318.

<sup>6</sup> Niklas Luhmann: *Temporalisierung von Komplexität: Zur Semantik neuzeitlicher Zeitbegriffe*, in: Id.: *Gesellschaftsstruktur und Semantik*, Bd. 1, Frankfurt/M. 1980, pp. 235–300.

of duration« (Zerfall von Dauer)<sup>7</sup> we have to resort to because of our inability to reach the higher spheres. We then order the events in sequence when we are not able to do otherwise, but the true order relies on the contemporaneity with God, in which it is entirely irrelevant if these sequences are coordinated with one another. Contemporaneity, one could say, is given outside time and outside sequence, and therefore there is no reason to extend it to all events, that remain safely non-contemporary.

Our temporal semantics, typically modern and based on the distinction past/future, is bound to the relatively late construction of a unique chronology and to the so-called ›newtonian time«. With newtonian time one means the idea, for us entirely taken for granted, of time as an objective, continuous and absolute dimension, that involves all events and gives to each of them a univocal position. All what happens has a place in space and in time, and these places can be located with reference to the position of each other event, in the present, in the past or in the future—even if there are no references, sense relationships or causal connections. The formal support is chronology: an absolute dating system that extends endlessly backwards and forwards starting from the purely arbitrary reference of Christ's birth (B.C./A.C). Every possible event can be dated and its temporal distance to every other one can be quantified, even if they don't have any relationship and even if they are entirely unknown (as future events are): one does not need to know the meaning of an event in order to date it—on the contrary: it is rather the date that gives clues as to the meaning and the implications of events. The measurement of time becomes a purely numerical and formal activity, and this allows eventually to use it in order to establish meaning relations: the order is not given in advance in the form of fate or destiny, and we must try rather to reconstruct it on the base of the available elements, including chronological location.

The consequence is that time doesn't exist ontologically anymore, because past and future are no autonomous dimensions of reality. The contemporaneity symbolized by eternity was compatible with the idea of ›past things« and ›future things« that are given in a dimension inaccessible to us, but nevertheless exist and are determined (for instance in the divine perspective). If there is a way to glimpse them, for instance in the form of divinatory procedures, we can know what has already been determined: what the future has in store or what happened in a past with its own objectivity independent from interpretation. For us, however, »everything that happens happens simultaneously,«<sup>8</sup> hence in the present: past and future simply do not exist—or exist only as perspectives of past and future of the

<sup>7</sup> Niklas Luhmann: Gleichzeitigkeit und Synchronisation, in: id.: Soziologische Aufklärung 5. Konstruktivistische Perspektiven, Opladen 1990, pp. 95–130: 113.

<sup>8</sup> Ibid., p. 98 (»alles was geschieht, geschieht gleichzeitig«).

actual present, i. e. as ways of the present, as present ways. Past and future have become horizons, by definition inaccessible: horizons of the present that move with the passing of time, without thereby becoming actual. The passing of time doesn't actualize the future: it only moves the present with its horizons of future and past. And reality is only present.

### 3. Problems of synchronization in the contemporary present

What does all this imply for our issue of contemporaneity/non-contemporaneity? That what happens is always present doesn't mean that past and future become irrelevant: on the contrary, precisely the modern unique chronology allows to produce more and more complex and articulated temporal perspectives—with all related problems. The reliability and univocity of the chronological location allows everyone to develop his own specific temporality, that is experienced as duration<sup>9</sup> and can be declined at will: time can seem slow or rapid, can accelerate or slow down according with the intensity of events, but we see it like that because we compare it with a univocal measurement—otherwise time would not be ›slow‹, but only what it is. Duration can be long for me, but time proceeds for everyone at the same pace, measured by clocks, and my experience doesn't involve that I lag behind the others—as I don't go ahead when enthusiasm makes me anticipate the course of events and makes me feel that time flies. Everyone has his horizons of past and future, with his memorable moments, his timing and his expectations, which will necessarily differ from those of any other one and even from those of society as a whole.

Therefore we live of expectations and memories: because the present is contemporary for everyone and we can afford to anticipate and to remember without losing our coordination with the world. What we experience, however, is the present expectation of a future state and not the future becoming present (›already begun«). Temporal experience presupposes contemporaneity, but multiplies it in a multiplicity of different distinctions, giving rise to new coordination problems, both in the social and in the temporal dimension: therefore the univocal time of modernity requires the complexity of synchronization—which does not cancel temporal differences, rather the opposite. Indeed a series of new distinctions arise, both socially (in the relationships between actors) and in an unprecedented temporal reflexivity (in the relationships between different presents).

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<sup>9</sup> In the sense of Henri Bergson: *Essai sur les données immédiates de la conscience*, Paris 1989, and related studies.

#### 4. Problems of synchronizing with others

On the social level one can observe a shift from »temporal symmetry« to »temporal complementarity«. <sup>10</sup> The first formula still refers to a kind of (premodern) ontology of time, that affects or should affect the meaning of events, according to which there is a correct time and a correct hour for everything. It was expressed for instance in the table of the hours (*horarium*) of Benedictine monasteries, where temporal coordination still implied temporal identity: the monks had to engage themselves in the same activity at the same moment—doing the same thing at the same time (the »correct« time). Chronology allows a more complex situation, corresponding rather to a condition of complementarity: everyone has his own personal schedule, such that everyone does different things at the same time, but the results can nevertheless be synchronized. Coordination doesn't require identity, but allows and multiplies diversity—of times and of activities.

The assumption is obviously that time doesn't affect the content of the things to do and allows to do very different things that can all be correct (or not). When one must do what, is no more implied a priori by time, according to the model of the sacred time that influenced content and left little space to contingency. The profane time of *vita activa* is not automatically synchronized anymore and must consider demands that are independent from the rhythm and the terms of religious life: today even a devoted person doesn't organize his job according to the rhythms of religion. One must decide now how to coordinate the things to do, in which sequences, what to do earlier, what to do later, how to organize terms and deadlines—but now one can do it, on the basis of an autonomous chronology, that remains fixed, reliable and the same for everybody. <sup>11</sup> The crowding of events in a creative phase can involve a special density of time, but if one doesn't keep a deadline one is late anyhow.

In our society this temporal complementarity is particularly clear if one observes the different fields, that have each their own rhythm, with their urgencies, priorities and terms. The criteria indicating what must be done in a given moment are different if one is oriented to the search for profit, to juridical norms, to the timing of learning or to the dynamics of scientific research—but July 10<sup>th</sup>, 2016 is the same date for everybody. It is well known for instance that elections are a fundamental deadline for political life, and for the government it would be con-

<sup>10</sup> See Eviatar Zerubavel: *Hidden Rhythms: Schedules and Calendars in Social Life*, Chicago 1981.

<sup>11</sup> This is one of the cases where a contingent ordering of contingencies takes the place of a former necessity.

venient if in coincidence with them also the economy had an acceleration and science an accumulation of results. The rhythms of the various fields, however, are not coordinated in the contents, but only according to the formal scheme of chronology: the dates are the same but not the deadlines, the haste or the expectations. Economy is said to have no memory, and each payment is valid independently on the sequence of transactions it derives from; families, on the contrary, are defined mainly by their very private shared history; science preserves in selective way its own history and uses it to state the sense of actual research; politics reconstructs the past for the use in present communication; mass media make the present constantly get old by communicating information and looking for new one—and all this even if time, calendars and dates are the same for everyone, or rather precisely therefore.<sup>12</sup>

The univocity of chronology guarantees synchronization of times that can now be deeply different, and guarantees also the fundamental condition of contemporaneity: in all fields, with their deadlines, priorities and memories, what happens happens in the present, and the present is the same for everyone. In a seemingly contradictory way, our widespread feeling of non-contemporaneity can be seen as consequence of this contemporaneity: of the tensions and stresses due to the fact that after all we all live in the same present, that disappears immediately and seems not to have time for the different temporalities that crowd inside it. Synchronization is necessary but also painful and never perfect: it compresses and dilates, produces impatience and waiting, slowing down and worry. If you are late, or have the impression to be ahead of times, this happens not because you actually live in a different (not contemporary) time, but because time is ineluctably one and the same for everyone—with horizons that are different for everyone.

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<sup>12</sup> The story of the introduction of the Euro can be seen as a paradigmatic example of the diversity of orientations and rhythms in the various systems involved: for politics presumably too late, for the economy too early, for families too fast, for media too slow (after a while there was nothing to report)—but the highly symbolical and completely conventional datum was the same for everyone: the first day of the new millennium.

## 5. Problems of time synchronizing with itself/ Problems of synchronizing time with itself

The complexity of synchronization does not end here, in the coordination between the different perspectives of the actors. Our unique and univocal time must also coordinate with itself. The projection of horizons of past and future is as we have seen a present performance, and it is contingent (i. e. it could be different). Since past and future »are not there« in an ontological sense, everyone projects them as he wants and only has to provide sufficient coordination—with the horizons of other systems, but also with the horizons of other presents.

Every present has its own past and its own future, that are at the moment the present past and the present future; in this future and in this past, however, there are other presents, with their own horizons of past and future, that very probably won't coincide with the present ones, and we know it. The present past, resulting from experience and accumulated knowledge, is usually different from what we thought before living them—hence different from the past present, indeed from all the past presents that generated it. And the way the future appears to us now is necessarily different from what will happen in the future, if the future is open and a source of novelty and surprises: the present future is different from the future presents it faces, and we already know it now—a condition producing a practically inexhaustible source of uncertainty and necessity of coordination.<sup>13</sup>

Under normal conditions this dizzy reflexivity and the resulting complexity can luckily be more or less ignored: the present generates surprises and time regenerates in the course of time, producing nostalgia and expectations—because nostalgia is regret not so much of past things, but rather of the opening of the past future with respect to the determinacy of the present, while expectation is not primarily anticipation of an event but preparation to surprise. And the present, meanwhile, constructs and reconstructs its own horizons. The problem arises in the cases in which a coordination of time perspectives is needed: when for instance you must decide today the premises of what you will have to do tomorrow, or you must otherwise produce the assumptions that will bind future decisions—and you know it. The problem arises when you must decide, and specifically when you must decide under conditions of uncertainty—as today it is always the case.

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<sup>13</sup> See Niklas Luhmann: *The Future Cannot Begin: Temporal Structures in Modern Society*, in: *Social Research* 43 (1976), pp. 130–152.



## 6. Risk as a problem of synchronization

All this can sound very abstract. The problem of synchronization, however, is not only an academic question. Its complexity and its puzzles can be found in a current extremely relevant and often brutally concrete debate: the issue of risk, which is getting so relevant to be taken as the qualifying feature of society as a whole. Our society is described today as »risk society« (Risikogesellschaft),<sup>14</sup> and the problem of risk is first of all a temporal matter, that expresses in compact form the sense of alarm in front of the difficulties of synchronization. Risk looks threatening because we lack a general frame allowing on the one hand the coordination of the times of different observers and on the other hand the coordination of different presents.

What is the temporal frame of risk? You risk when you have to take a decision today (in the present present), knowing that your choice will bind (for you and for the others) the possibilities and options of a future present that can be not synchronized—because maybe we will change our mind, or maybe the course of time will have modified the conditions of the decision. All these factors we cannot know today, because the future is open. And this is the problem: »For in the case of risks we are not dealing with a future for which we can in our present determine how others [or we, E. E.] are to behave in future situations.«<sup>15</sup> It is therefore a matter of double synchronization: of the present future with the future present, and of our perspectives of future and past with those of other observers (or of ourselves in different moments). It is a problem because we are aware of it today and still have to decide in this punctual present, in which there is no time to wait and see what happens, and there is no time even to act on other present events that happen contemporarily.

How do we get out of these difficulties? Presumably we don't get out at all, because they are the expression of the complex and articulated temporality of our society. We can, however, try to deal more adequately with them—while what can be observed today is mostly the social and political helplessness of generalized forms of refusal (for instance the »nimby« syndrome). The openness of the future appears only as darkness, as a threat that one tries to escape taking refuge in an illusory passivity—as if doing nothing one did not affect the future. Recognizing that it is a problem of synchronization can help to face the problems more constructively.

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<sup>14</sup> The author of the formula is notoriously Ulrich Beck: *Risk Society: Towards a New Modernity*, London 1992.

<sup>15</sup> Niklas Luhmann: *Risk: A Sociological Theory*, Berlin/New York 1993, p. 59.

A starting point, still to be developed, could be a drastically modalized concept of present (and of time), based on the interlacement of the two distinctions past/future and actual/inactual (*Aktualität/Inaktualität*).<sup>16</sup> They express distinct modal forms not reducible to one another. Past and future depend on the possibilities actualized in the present, and the current possibilities depend on the projected past and future.

More specifically: what I will be able to do and think in the future depends on what I do and think today, orienting to the future that I can imagine and to the past I know. If I do (or don't do) different things my future will be different. But precisely for this reason I can't know today the future possibilities: the future depends on the present in an open way, and this makes it unpredictable. Possibilities are not a range given in advance which time selects—according to the model of alternative possible worlds that exist, so to speak, one next to the other, with the real world as one among them.<sup>17</sup> Possibilities are produced over time depending on what is being actualized from time to time: not only what is real, but also its related horizon of possibilities. If reality is different also its horizon of possibilities is different—or in other words: also the possibility of the possible is contingent and depends on the course of time. And if the future is open there is no guarantee that the possibilities of different presents are synchronized.

The ones who have to deal with risk and with the attempt to manage it, experience this dramatically, for example in financial markets: the models of risk prediction and hedging always refer to future scenarios that can be imagined in the present, namely to present possibilities. But these scenarios change as a result of the very attempts to predict them and to get prepared: risk prevention produces new unpredictable risks—as the recent financial crisis showed in such a disruptive way<sup>18</sup>.

The weakness of financial models lies in the presupposed image of time and future, which is computationally very complicated but conceptually too simple, especially in a complex and self-referential society as the current one and in a nervous and reactive sector as finance. Even economists know very well that modern society is oriented to an ›open‹ future, i. e. a future that is not predetermined by an external instance, but is radically unknowable. Therefore they refer their models to a multiplicity of future courses (of possibilities), knowing that today no

<sup>16</sup> I start from a suggestion in Luhmann: *Gleichzeitigkeit und Synchronisation* (as note 7), p. 116.

<sup>17</sup> From Leibniz's classical model to Wittgenstein's truth tables and the possible worlds of modal logics and semantics, see: C. I. Lewis and C. H. Langford: *Symbolic Logic*, New York 1932; Saul Kripke: *Naming and Necessity*, Oxford 1980.

<sup>18</sup> Elena Esposito: *Die Zukunft der Futures. Die Zeit des Geldes in Finanzwelt und Gesellschaft*, Heidelberg 2010.

one can know what will happen tomorrow. The future, however, is not a repertoire of already given possibilities that the course of time can select, realizing some and discarding others—as implicitly assumed by risk management models that aim to consider all possibilities. Even if you could take into account all possibilities, you would still not be dealing with the future but only with the present and its projections: what we consider (and the models consider) is only the »present future«,<sup>19</sup> i. e. the image of the future and its opening as they appear from today's perspective and on the basis of the information available at the moment—maybe even in the form of a multiplicity of present futures, which consider all the possible combinations of options (but only those accessible to the present).

Risk management models orient to this future, which remains open because it is articulated in a multitude of present futures that remain undetermined, but is not the complex and self-referential future that plagues today's risk society: a society that knows that today the future does not exist as a given but not even as a possibility, because it will be built by present decisions and actions. The possibilities that will be processed and selected in the future depend on what we do or not do today, thinking about the future that we want to anticipate (but which usually surprises us). What will become real in the future is none of the present futures, but a »future present«<sup>20</sup> that is different from all of them, because it follows from our efforts to prepare it and reacts to them. The only future that the models are not able to consider is what actually happens: a future in which past there are the models that tried to predict it.

The models were not wrong (and even the crisis did not normally lead to discover mistakes), but paradoxically did not work precisely because they were correct and have been followed: they correctly predicted all possible future situations as they would have come about if models hadn't been formulated—and then falsify themselves. Or more precisely: If the unpredictable future confirms the predictions of the models it is just a coincidence. It may happen or not happen, but in any case this discrepancy constitutes a risk factor that cannot be considered by the models of risk management. With these risks the present is never synchronized.

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<sup>19</sup> Reinhart Koselleck: *Stetigkeit und Wandel aller Zeitgeschichten. Begriffsgeschichtliche Anmerkungen*, in: id. (ed.): *Zeitschichten. Studien zur Historik. Mit einem Beitrag von Hans-Georg Gadamer*, Frankfurt/M. 2003, pp. 246–264: 249.

<sup>20</sup> Luhmann: *Risk* (as note 15), 40ff.; *Esposito: Die Zukunft des Futures*, (as note 18), p. 37.

## 7. Non-statistical use of uncertainty

The problem of risk is a problem of synchronization—between the present future and the future presents (with their pasts and futures), and between the future of the observer and the way it is observed by other observers with their futures. Future possibilities depend on this: on how the future is observed in the present, and on how the future reacts to this observation. From this point of view synchronization is unattainable—it would mean destroying the openness of the future and the contingency of observers in a grid of predetermined options. The problem of synchronization, never solved, remains as an ongoing concern, which requires us to continuously revise our temporal horizon and our references, but also allows us to learn from what we did and to change orientation—because the time of modern society changes over time and is different for all observers. But it does not change randomly: it depends on what we do and don't do in the present—and this we can see. We discover a posteriori the sense of what we have done according to its effects and its consequences—we can learn, correct and project an always different (and always open) future.

In this view the darkness (i. e. the openness) of the future is not only a threat but primarily an opportunity: nobody can know the future because its design depends on us, on present actions and decisions. Once more we can find an example in financial markets. Paul Langley describes the transition of financial risk management from probabilistic calculations to non-statistical risk measures, which abandon any hypothesis of continuity with the past and »work within, rather than against, the idea that the future is unknown«.<sup>21</sup> The relationship with the future is completely different. These techniques don't try to prevent a future event from happening, but very pragmatically to »prepare« the system to deal with an unforeseen and unpredictable future. The specific example discussed by Langley is the SCAP (Supervisory Capital Assessment Program), the crisis management enacted by the US administration since 2009 and known as the bank stress test. This program uses the available historical data and quantified assumptions about economic data like GDP growth, unemployment rate and house pricing, not in order to project them forward, but rather to imagine »what if« forward-looking scenarios that include subjective assessments and identify a number of factors considered particularly relevant. Calculation and modeling are not rejected, but used to imagine in a controlled way alternative hypotheses (»severe but plausible«<sup>22</sup>). The vulnerability of banks is then tested referring to these factors and these scenarios,

<sup>21</sup> Paul Langley: Anticipating uncertainty, reviving risk? On the stress test of finance in crisis, in: *Economy and Society* 42/1 (2013), pp. 51–73: 69.

<sup>22</sup> *Ibid.*: p. 56.

largely independently from statistical probability: the imagined events are very little probable events, which however would have a substantial impact on the state of finance. A bank passes the test if it proves to be properly prepared to handle the possible appearance of these events.

This approach shows how it is possible to »govern by uncertainty«. <sup>23</sup> It does not reject formalization, but uses it to learn, not to predict—to get prepared for surprises, not for precise events. The very success of the project relies to a large extent on the management of the possible. It is based not on a real intervention on the situation of banks (a funding), but rather on an action designed to (performatively) activate the self-observation of markets. The aim was to restore confidence, and it worked. The program is considered the beginning of the end of the crisis in the USA. The return of confidence, i. e. of a positive image of the future, was not based on what is known in the present, but on the expectation that the unknown future will be addressed with competence, i. e. on the perception of the preparedness of banks to manage it and to the credibility of the Administration and its tests.

The future cannot be neutralized, but can be prepared: you can start initiatives to see how the market reacts, and decide afterwards on the basis of the reaction where you want to go—projects without determination, which increase future possibilities and prepare to learn from surprises. Uncertainty is not only a threat but can also be a great opportunity for decisions and for the construction of the future. <sup>24</sup> Shackle already said it a few decades ago: uncertainty is a resource, not a problem to be neutralized—if the future weren't unknowable there would be nothing to imagine and design. <sup>25</sup> Therefore the future is unpredictable but can be understandable, if we learn to observe dependencies and correlations—if we learn to observe synchronization and its problems.

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<sup>23</sup> Ibid.: p. 55.

<sup>24</sup> David Stark: *The Sense of Dissonance: Accounts of Worth in Economic Life*, Princeton/Oxford 2009, 16 ff.

<sup>25</sup> G.L.S. Shackle: *Imagination and the Nature of Choice*, Edinburgh 1979; Id.: *Time, Expectations and Uncertainty in Economics*, Aldershot 1990.