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The Rationale of Crisis Management – On the Handling of Coincidence in Economic Situations

The subject of this essay is too complex a problem as to cover all details in depth and, thus, draws its attention only to core aspects of the handling of coincidence leaving out sophisticated studies and analytic findings as well as detailed reference to economic literature though there is not very much. On the other hand, for a lot of actual as well as general reasons, the subject is too important a matter as to ignore the serious methodological problems of crisis management, which are rooted in some politically still active bias hidden in orthodox neo-classical economics (Stiglitz 2010).

If crisis management continues to follow traditional rationales, it will fail realizing the increasing dynamic of crises within the globalising economies of the world. No existing economy can be considered as an isolated system of its own embedded in a stable composition of societal surroundings. Obviously, many a critical situation has its origin in the sphere of civilization, of political discrepancies, and of administrative inflexibilities. On the other hand, any grave amplitude of markets would touch the entire social surrounding. The belief in the markets' strength of self-regulation is a dangerous construction of orthodox economics (Bendixen 2009b, 2010).

The view on crises suggested here is that of a holistic approach to understand a critical situation. Any interpretation of a situation includes empirical dates and figures based on analytic research, but solving a problem is not an act of logical derivation from findings, as if a solution can be excavated in the mud of reality by empirical studies only. Empirical figures report events of the past; the future does not reveal any empiricism. This would be a contradiction in itself. The end of a crisis as well as the search for solutions to fight the problems revealed is unavoidably a view into the future. Therefore, the rationale of crisis management cannot be made of pure empiricism but should include a far reaching vision of the future emerging from holistic understanding of the situation as a whole.

Key Words

Business circle, rationale, culture, creativity, coincidence, intelligence of the unconscious

What is Crisis Management like and what is its Rationale?

A crisis of the business cycle differs from a lunar eclipse by the fact that it cannot be forecasted. Any attempt to alert the public and expert at an early stage about an emerging crisis is a sort of prophecy more than a safe projection. The reason is simply the impossibility of fixing a definite beginning of a critical situation and of analyzing it by presupposing a clear causality of its courses. 1 Historical developments are not connected by logic but by series of countless tiny little and some grave events, which can coincidentally culminate in a crisis. Each single decision of acting individuals challenged by problematic situation contains choices. Individuals make their choice according to their principles and cultural patterns of living and their intentions, which are as unique as the fingerprint.

The past, which is often taken as an empirically

The discrepancy between historical reality and traditional economic methodologies based on the rationality of pure logic operations reveals the core problem of crisis management, the rationale of which is mainly rooted in orthodox (neo-classical) economic theories. This is the subject of this article under the specific experience that, in the moment of a small or grave challenge to make a choice, most real situations are threatened by coincidences. At present, we are witnessing the big market break of the international finance system including its radiation into the industrial production sectors. This current crisis can – ironically, of course – be welcomed as a perfect case study to demonstrate the real and the didactical problem

¹ To be clear: Even the orbit of the moon is not absolutely determined, other than Isaac Newton once claimed. But, the aberration is so imperceptibly small that unforeseeable irregularities of the entire planetary system will happen only within probably billions of years time. There is no determination in the world, either in nature or in the world of human culture.



backed collection of facts, is nothing but a construction of realized choices, which reveals no rational logic other than that of a certain continuity of human behaviour. Therefore, mathematically constructed models such as the famous neo-classical market mechanics presented in textbooks to explain market processes towards a computable equilibrium are worthless. They are didactically risky, because they might lead students to believe in economic appearances as something principally manageable by the logic of rational methodologies.

of crisis management based on pure economic rationality.²

Any crisis contains some instruction, which can easily be ignored or rebounded from the surface of frozen convictions. The unexpected market break of the international finance sector has by many an expert and economist been taken as an affront to the holy belief of the self-regulating forces of a free market economy. This belief is one of the highlight examples of historically frozen convictions based on the postulate of rationality and determination.

The typical reaction has been a call for crisis management and a hasty grip into the arsenal of urgent measures to set countervailing forces going. Another typical reaction, which is even more problematic, is the insisting on the traditional belief in the healing effect of the "invisible hand of the market".³ A more sophisticated reaction could have been the idea that there might be something basically wrong with the rational conception of traditional crisis management.⁴ However, there are still scientific initiatives to come that would strive for learning the lesson from the financial crisis of our days.

Crisis management is part of the basics, which each economist in training has got to acquire, in order to react in a rational way, whenever and wherever a critical development is arising. Rationalism, which is the fundament of crisis management, goes far back to the early philosophy of René Descartes (1596 – 1650) and the long and deep channel of implementing and unfolding the tradition of rational approach in rather every academic field. Economics is not an exception in this. But, philosophical rationalism á la Descartes has created a methodological strand within sciences. It should not be crossed or intermingled with economic rationality based on the principal of calculated use of scarce resources.

The concept of crisis management consists in principle of the following elements: Perception and interpretation of a critical situation or phenomenon,

2 It should also be absolutely clear that arguing against economic rationality does not mean banishing rationality out of the real economy and of economics as such but criticize its sole reign in the methodologies and didactics of economics. Moreover, the criticism on pure economic rationality suggested here is mainly focussed on the neoclassical mainstream. It should be mentioned that, besides the mainstream, there are many opposing or even contradicting theoretical positions in economics as well as in business administration theories.

developing a strategy to tackle the case, and finally to implement counteraction. The methodological alignment is based on the clarifying power of rational thinking and the scientifically underpinned application of research instruments proved and tested through generations of scientists and experts. Empirical studies on facts and situations of the economic reality, for instance in decision making processes, usually end up with a set of alternatives, which have to be evaluated according to the purposes of the acting individual or system. The final decision, then, is nothing but a logic deduction.

The methodological dilemma of this rationale is twofold. On the one hand, crisis management starts to operate only when the crisis is already on its way and has become obvious. The problem here is that the time for sophisticated reactions is soon becoming limited and is increasingly narrowing the margin for creative interventions. Especially excluded is any endeavour to transform the acting system itself to a new path of development by a sophisticated strategy of system navigation.⁶ This would be the rationale of long-term crisis management, which avoids a mere grip into the archive of orthodox measures.

On the other hand, the traditional rationale of crisis managements turns the view away from the existence of coincidences in the outside world. Coincidences can by definition – not be forecasted and not excluded. They are essentials of life and their appearances do not obey any causality. Coincidences are undoubtedly a reality in the economy. Their real existence can be inferred from the large sector of insurance businesses. An insurance company can, of course, not avoid the appearance of coincidences, but can absorb damages and losses in cases of deviation of normal occurrences. Insurance companies are ready to balance accidents only within a certain margin of expectations. But, they would exclude quite unusual occurrences. Countability remains the nucleus of the rationale of insurance businesses.

The big crisis of the international finance markets, which dramatically proceeded its influence to the real economy⁷, did definitely meet no insurance service of any company in the world. Occurrences such as market breaks are considered to be quite normal risks of every company involved in businesses. Governmental aid is, seen from the strict platform of the free market economy, a sin against the principles of the free market, which cannot but leave normal risks to the



³ Adam Smith is said to have introduced this metaphor into economic discourses. But, the truth is that Smith never used it connected to the market and he did not invent this metaphor. Those, who claim Adam Smith as the author, have never read the only passage, wherein he used these words in his famous book on *The Wealth of Nations*. More details can be found Bendixen (2009b).

⁴ For more details see: Norman et al. (2000). For German readers also see Hutzschenreuter, Griess-Nega, Hrs. (2006).

⁵ See Fink (2000); Mitroff;Anagnos (2005); Harvard Business School Press (Compiler) (2004).

⁶ See Laszlo (2001, 2006).

⁷ The term "real economy" is a curious idea, as it says in the opposite that the finance sector is not real, as if the real economy could work without its services or as if the finance sector could exist without any material production on the bottom of the economy.

participants in market decisions. Those who are not armed to cope with the uncertainties of market processes should leave the play ground.

The big crisis of the international finance markets is, indeed, dramatic and destructive, but it is an event caused by internal discrepancies within the markets, not by external interventions from a non-economic part. Reckless greed of gain, veiling of the true character of financial products, and finally unpardonable mismanagement are clearly no external factors.

But, the fact that governments all over the world have started aid according to the possibilities given by the fiscal budgets and the specific social situation of the respective country reveals another, mostly not reflected fact: the market is not isolated from the rest of the society. Orthodox economics claims that social aspects do not have anything to do with rationality and, therefore, are subject on sociologists only. Erich Streissler, an Austrian economist, wrote: Es ist keineswegs nur ein Bonmot, sondern eine erhellende Aussage, dass der Ökonom rationales Handeln untersucht, der Soziologe dagegen irrationales⁸ [It is not simply a witticism, but an illuminative statement that the economist would research rational acting, while the sociologist's subject is irrationality].

The elimination of the existence of abstract entities such as *society* or *market* is a problematic reduction of spiritual or mental processes down to the sheer facts of physical objects and constellations such as resources, money, products, real estates, technical equipments, and assets. It has cemented the conviction that economic phenomena can be managed by rational approach analogue to the construction of machines and that any mental or ideological influence can be and has to be excluded.⁹

The truth, however, is different: What happens physically on the bottom of the economy belongs to the material world of production along the chain from extracting resources from the nature to the deposits at the end of consumption. This process has, of course, to be managed, which is in each single unit involved the sense and business of the enterprise and on the macro-level a matter of economic policy. But, how can these processes be administered without the mental, imaginative power of one's brain, in which ideas and perspectives are generated under the command of norms, aims, and cultural patterns of living and acting? What ever human beings start to do, has its motivating origin always in the specific organ called the

human brain. Humans are probably the only beings equipped with a brain to think beyond the physical world and to construct ideas, how to shape the given nature.

This is the heart of culture, and it should be rather clear that any economic actions are always rooted in the sphere of spirituality and creativity and that the outcome of it, the material world of factories and products¹⁰, is subordinate. Is it acceptable to consider economics as a science, which is focussed on something subordinate? As thinking always goes ahead and as the individual architecture of one's mind is shaped by the internalization of impressive experience the individual mind is a living carrier of the ruling cultural patterns of the respective society or finally of the world civilization. This fact creates the hierarchy of mental operations over physical operations. Economics without reflecting the dimension of culture is a real problem.

Within the sphere of thinking and imagination, there is no causality, even no pure rational logic, except perhaps the organic processes of the brain. Creativity is not rooted in reason, but in the power of the unconscious and the vitality of intuition. It is not bound to necessities, but to the contingency of brainwaves, which can be caught by a vivid reason like fish in a lake. Coincidence of that kind, not necessities of logic thinking, is the ground of creativity. We are now turning to the problem of coincidence, which is the great antagonist of crisis management.

The Coincidence lurks in the Future

The basic problem we are facing in any actions challenging situation is connected to the fact that we cannot change the past, while we are given a broad horizon of options in the future none of them being safe. This is, indeed, a simple statement. But, is the past due to its irreversibility really a safe platform to manage the future including the management of crises? In other words, can we learn from the past? The brief answer is: yes, but not in the simple way of studying historical facts. Historical facts are frozen futures; they are the result of decisions among choices under the command of uncertainty in perceiving a world horizon and within it in recognizing perspectives captured on specific platform.

Another point here is that the objectification of a cultural idea is in two aspects a reaction on the forces



⁸ Streissler (2004, 165).

⁹ This is empiricism on the bottom of individualism, which reminds of a dictum of the former British Prime Minister Margaret Thatcher: There is no such thing as society. Criticism on orthodox economic though is not quite new, but usually happens outside economics, for example from philosophical perspectives. See Brodbeck (2009); Bendixen (2010).

¹⁰ In this, producing a commodity is analogue to producing a piece of art. Both carry an idea or a mission rooted in the mind of the producer. A piece of art, however, carries a highly sophisticated, sometimes even enigmatic mission, while the material object as such is nothing but a physical medium. The mission of a commodity is its cultural meaning and social function including its role as a carrier of profit.

¹¹ See Gigerenzer (2008a); Murphy (2010); Vedantam (2010).

¹² See Zeilinger (2008).

of coincidence: One of them is the influence of unfore-seeable forces during the phase of creating a shape in one's mind. The other one is the permanent influence of physical forces during the phase of physical realization and the follow-up existence of such objectifications. Physical objects, be they of natural or cultural origin, are permanently exposed, for instance, to the laws of thermodynamics and the growth of entropy. Nothing exists forever. Therefore, nobody can be safe about his perception of the presence and his expectations of the future. But, due to the capability of learning lessons from experience and accumulating knowledge about the outside reality, human beings are not defencelessly exposed to the tyranny of nature and coincidence.

The function of reason and the role of the ratio is that of a clarifier, which may not in any case guarantee a perfect success, but helps to cope with the problem of coincidence. The obvious proof of success is the fact that many a cultural object turns out to survive for a long period of existence without being destroyed and that often cultural objects traced back even to hundreds of years are still in use in the presence. Seen from this point of view, we can declare culture as the triumph over the forces of coincidence or as a lasting revolt of human creativity against the forces of coincidence. But, as the appearance of crises demonstrates, success would be no good reason to believe in human capability of mastering the world.

With respect to the rationale of crisis management, the interpretation of culture just described can be taken as a first approach to cope with crises. Creating culture is not simply producing a physical world on an industrialized level of technical produces, it is rather the prime phase of thinking and perceiving the future as an open field of uncertainty and a chance of discovering and installing norms and structures ahead, although the future cannot be perfectly controlled. Crisis management, therefore, can neither be based only on empirical facts of the past¹³ nor can it be designed on the base of sophisticated mathematical models to determine a fixed strategy. Managing a crisis may be supported by models, but at the end, it is a kind of navigation in a coincidental world, which needs the power of intuition.¹⁴

This statement is a serious argument against the idea that in principle the past would deliver safe patterns of behaviour in the future and against the optimism of orthodox economics to rationally control economic developments especially business cycles

shattering the financial markets. To underline these arguments, it may be helpful to realize that steps towards the future in looking at the past is very similar to a driver, who would permanently look into the driving mirror when being on his way ahead.

Believing in the rationale of sophisticated mathematical models is among economists the main road of crisis management, as it reveals some crucial advantages. The most important one is the concept that a model, which has been proved to be successful in applying to situations of slight marginal deviations from the standards, would allow a very fast solution when being fed with empirical facts about the situation. A tested model is in itself a kind of rationalization of refined analyses and of producing solutions. The methodological problem is twofold: working with a mathematical, computer-aided model (the so-called econometrics) depends on a correct copying of the main structural components of an economic situation and it depends on the stability of the real economic world to be close to itself in not producing accidental deviations from the standards.

Both cannot be guaranteed, because the basic structures of a living economic system is permanently chancing. Referring to the simple concept that the equilibrium of the market reveals automatically from the free balance of market powers is too weak a specification as to be adequate for sophisticated calculations. The core problem here is the fact that the structures of the markets are not of physical nature – counting the annual general domestic production in term of money is a naïve approach in this case - , but of mental substance and finally of cultural norms and patterns, which cannot be fixed for ever like the construction of a bridge according to the law of gravitation.

Undoubtedly, neither the nature nor the basic structures of culture, once organically emerged from long lasting historical practice, would make abrupt leaps in their developments. But, the reality within these structures – quite apart from grave forces to even change these structures by the time – is oscillating within broad margins, and it is these realities that would make the future unclear and unpredictable and that creates coincidental appearances containing the power of crisis.

Therefore, the rationale of crisis management demands a concept and instrumental design that does not insist in empirical facts only as a safe platform to start from and does not rely on the axiom of pure rationalism, which dominated economics for generations originated in the time of enlightenment in the 18th century, when the philosophy of René Descartes and the scientific mighty deeds of Isaac Newton in mechanical physics ruled the spirit of the time. Instead, crisis management (here focussed on economic affairs) should be based on the philosophy that un-

¹³ Present facts ascertained by empirical investigation are part of the past. The presence has no real existence other than the infinitesimal border between the future and the past.

¹⁴ See Gigerenzer (2008b). German Edition: Gigerenzer, Gerd. 2008. Bauchentscheidungen – Die Intelligenz des Unbewussten und die Macht der Intuition, 3.ed. München.

derstanding the world of the markets and economies is an act of mental construction, not an act of empirical research in the physical world and that the coincidence is undeniably in the world influencing if not dominating the fate of the society or civilization.

If pure ratio and logic systems of modelling the world are no promising approaches to cope with crises, because a crisis it defined as a dangerous deviation from the standards and threatens in a concrete situation the existence of a firm, a national economy or a state, crisis management must be rooted in higher levels of intelligent approach to the real world. This is what I am now going to deal with.

The Intelligence of the Unconscious

The majority of everyday situations challenge answers and reactions based on routine, experience, spontaneity, and intuition with only few, if that, rational analysis. The methodological traditions of academic scientific research would deny the wisdom of such approaches as irrational. Especially economists would claim the priority of rational decision making as the silver bullet of finding an optimum of success in the business world. No doubt, it depends on what we are striving for when inventing a theory, whether we accept a growing distance to the reality, in order to discover the inner logic of a social system, or we approach the reality, in order to learn operating successfully in it. Economics, as is presumed in this article, has a strongly pragmatic character based on philosophical, especially cultural interpretations of the world of economic phenomena. Part of this is its methodological approach towards the cultural dimension of economic activities.

The pragmatic realism just described does not oppose the necessity of rational logic conclusions, but realizes the fact that practicing logic argumentation you need before substantial material to apply on. Why discussing about a hammer, if there is nothing to be fixed with nails? All the many tools elaborated and tested in business administration do not make much sense, if nobody knows the complex substantial challenges emerging from its uncertainties and the incomplete knowledge about the horizon of its impacts in the future.

Therefore, the perception of the reality, the estimation of its potential of creative challenges, the holistic grasping of its profiles without perfect information, and many more approaches to understand a situation has to be the first step, before the ability of our ratio can start bringing the intuitive and mostly unsystematic cognitions into a logic order. The latter is, as was mentioned before, the necessary bridge into the world of real constructions under the command of natural laws and social limits.

The unconscious is a kind of intelligence of its own, and it may be worth looking at its usefulness in con-

crete situations. It may be recommendable listening to one's intuition and discovering a quick solution instead of initiating a complicated analysis, in order to feel safe enough in underpinning one's decision. In many cases the real situation may have changed its profile in the meantime with the effect that the result of the analysis does not fit any more. But, this is not typical in the pragmatic world of business and real management. As we can observe, a well-experienced manager normally has a safe feeling for the time limits to react adequately in a concrete situation. His intuition would tell him, when it is time to stop further investigation and to act.

The stock-exchanges are an interesting field of observing the actions and reactions of brokers on the very quick movements of the stock-market prices. It may also put a light on the power of intuition by interviewing one of the speculators, who would certainly confess that they prefer intuition based on lifelong experience in the very field instead of relying on detailed analyzes. We also could fill books in telling stories about stock-exchange analysts disseminating recommendations to their clients about sales or purchases of shares and producing a lot of failures and losses. Why? They operate with computer aided analysis programmes based on the logic of economic or econometric rational models that exclude intuition and holistic views. But, the economic reality does not care models, but gambles with coincidences.

The intelligence of the unconscious¹⁵ and the power of intuition are obvious when observing, for instance, a football match. None of the football players could be successful, if he tries to back up each step by a detailed analysis of each current situation of the match. Each of his steps and movements is an intuitive act following a high-speed survey of the situation, which stimulates corresponding experience laid down in his memory. Success in scoring a goal is never based on rational analysis.

This statement may provoke some counter-arguments referring to the fact that it would be a waste of good chances, if someone reacts on a concrete situation in a spontaneous way although time may be given for underpinning one's decision by a solid research of details. Furthermore, there are highly complicated situations in the reality, which cannot be efficiently handled by a primitive set of rules of thumb. Such objections are serious and reveal another truth saying that the decision, whether or not there is time given for solid empirical research, is in itself not a mere rational decision. The mega level of deciding about the intensity of rational clarifying a situation is in itself not rationally calculable.

Underlining this once again as the crucial point: in reality or, precisely speaking, in a concrete situation



 $^{15\,}$ The term refers to Gigerenzer (2008a).

we are not confronted to deciding between, on the one hand, pure rationality and on the other hand, the total surrender to the tyranny of the unconscious. The truth lies in balancing both, while the real point of good balance depends on the concrete elements und forces of a given situation. Rationality may be an abstract ideal expressing human beings' will to command the world, but it is a wrong ethic, if it is meant as the silver bullet in a complex, non-determined, coincidental reality.

The problem of decision making in most cases of the reality, especially in an unexpected market break that we are witnessing these days in the international financial sector, is neither that of simply applying refined models and instruments of economic rationality nor that of vague prophecy rooted in pure intuition. It is, instead, the task to pave the way and to find a balance in between, which could lead in the long run to a sustainable, though not ever lasting, state of the respective field or, if you want, the human civilization a such. This decision is not a simple choice between two alternatives, but is a prospect based on experience and inspired by the power of intuition. It is a modus operandi, which is focussed on discovering the whole instead of disassembling the situation in its elements and then to classify and aggregate them, as it is common in microeconomics.

Culture as a Produce of Coincidence and Creativity

Understanding the reality as a mental construction based on incomplete knowledge, unsolved problems, and unexpected appearances means demanding adequate reactions. It is the openness of situations that challenges creativity and pushes innovation, not the notion of social, including economic phenomena as a system the mechanisms of which can be managed by rational tools of problem solving. There is a fundamental connection between creativity and coincidence. I am now turning to this query.

If a situation is unclear and if there exists a serious challenge to find a solution how to react on it, one of the most important abilities of human beings comes to the forefront: the spirit of invention or creativity to discover a viable path. There is obviously a logic relation between a situation of unknown outcome and the threat of failure, on the one hand, and the psychological stimulation of creativity to find acceptable solutions, on the other hand.

Wherever pure determination prevails in a given system, everything happens under the command of logic and rational conclusion. Economic models of the market equilibrium are of that kind – but they are rather unrealistic. It is the fact that the reality we are living in is composed of some sustainable structures, some unchangeable objects and constellations mainly those of the nature, and a majority

of unknown or uncertain factors, forces, conditions, and movements.

This is the realm of coincidence, and it is the specific mental equipment of human beings to feel challenged to fight the destructive work of coincidences by creating walls of defence. A building is a defence against bad weather conditions; a dam is a defence against the flood; a palace is a defence against the coarseness of the primitive, a cathedral is a defence against the unbelief, a painting is a defence of imagination against the superficial of the obvious, and so on. We can conclude that culture is the defence of mankind against the undeniable work of the powerful work of coincidence lurking in the future of natural appearances as well as of human goals and deeds. The power of human culture or, in other word: of human civilization is rooted in the intelligence of creativity.

Unclear situations, in which we suppose coincidences to appear, which may influence the objective constellations and stimulate the creativity of human intelligence, demand mental, emotional and finally physical actions to find a way out. In case of a situation that extends far into the future, human creativity does not have the character of solving a current problem but of thinking ahead about generalized prevention against unwelcome influences of the nature or of social deviations from common convictions and beliefs. Prevention is a nucleus element of human culture, and it is an intelligent augmentation of what animals do instinctively by nature, for instance, constructing a nest or building a swarm as an intelligent defence against robbers.

The cultural achievements of mankind are based in mental perception and imaginative contemplation. Not all of them would end up in physical objects, but remain on the level of thoughts, convictions, moral norms, aesthetical preferences, and patterns of living. Spirituality includes the individuals' mental imprinting of their memory based on life-long experiences with the natural and social surrounding and it embraces as well the cultural spirit. Even if a material object emanates from human creativity, for example the grand palace constructed by a famous architect, its origin is rooted in the mental capacity of the creator to reflect the situation he is confronted with and to suggest that building as his solution of the task. Individual imprints of the brain mirror social cultural patterns. This is the abstract reality of social culture, and it is the only way to ascribe social culture the quality of real existence.

We can conclude now as a core statement that coincidence is undeniable in the world and that is does not make sense to eliminate its real existence but to positively create culture as an attempt to repel the effects of unexpected, destructive coincidences or power of natural forces including that of entropy. But, it would be disastrous, if the coincidence will be considered only as something negative and destructive. Coincidences can be a chance for something positive. If it happens, we would call it happiness, as everybody knows from games of hazard, which, in the case of a lottery, is an organized provocation of the coincidence. However, why not consider the future as an open field of non-fixed appearances containing a broad range of creativity challenging stimulations?

Crisis Management to handle the Coincidence

At the heart of crisis management, stand-by capacities prevail, which would be activated only in case of upcoming events of some existential relevance. The characteristics of crises are the fact that nobody knows the crucial details of its appearance; neither its date nor its locality; neither its profile nor its substantial qualities. The coincidence is defined as an event that cannot be forecasted, because its unexpected appearance cannot be derived from any causality based on determination.

This is the general view upon coincidences. But they are not all the same. An earthquake cannot be predicted due to a lack of knowledge about geological strain constellations and the real trigger of a stroke. A traffic jam cannot be predicted due to the unpredictability of human behaviour in a specific situation. The formation of a growing internal pressure of the market may, at an unknown point, lead to a destructive blast or may in the contrary ebb away by the time without leaving any damage behind. But, nobody knows exactly, what will when and where and with which characteristics really happen.

The core problem of crisis management, therefore, is the risky decision, whether or not an intervention into the critical development is recommended and, even more fatal than that: which combination of instruments for intervention and what dosage would be effective. The typical rationale of crisis management is a combination of two fundamental basics: On the one hand, the crisis manager is braced for standardizes cases, the upcoming of which may be unclear, while the specific profile and appearance is known from experience. On the other hand, the crisis manager or the complete management system focussed on handling crises are profoundly trained in mental flexibility, which embraces a broad horizon of experience and knowledge combined with creativity and intuition.

The second version is usually not part of academic training in economics and business management, as it is not even included in scientific research and theories of this scientific field. Case studies, which are very often included in the curricula of academic studies especially in business administration, are usually computer aided models that represent pure economic rationalism. They are not quite worthless, but do not

mirror the true reality of managing critical situations on whatever pragmatic level.

Mental flexibility is a problem of its own, because normally academic as well as non-academic education is a permanent training in applying instruments, models and principles of rationality on situations, which do not contain very much surprise by coincidences. Have a look at typical economic models: the only set of flexible reactions is based on logic operations to solve the problem of deviations of variables or dislocations of constants within a defined margin. This means that those models try to standardize coincidences. The hidden educational problem, which by the way could be observed widely during the first phases of the international financial market breaks of the year 2007 to 2009 and ongoing, is a lack of encouragement in trusting one's intellectual power of intuition and creativity and of self-confidence of feeling encouraged to acting as an experienced pathfinder in unclear situations.

Undoubtedly, the mental capacities of being aware of meeting the absolutely unexpected coincidence and of trusting one's own wisdom through experience would be the true profile of crisis management or, to say it in other words: intellectual flexibility based on experience is the real rationale of crisis management apart from all standardized reaction on phenomena in the real world.

Lessons to learn from the International Finance Market Crisis

In principle, there are two different aspects in observing the current international finance market crisis under the perspective of learning for a better understanding of the economic world. The first one puts its fingers on the genesis of that crisis; the second one is focussed on observing the political struggle for solutions and on possible lessons of reconsidering some crucial principles and cemented convictions in economics.

As to the first aspect, the emergence of the crisis can be – in parts –reconstructed as a historical fact. But, imagined from the past, when its appearance was unclear, it has had at that time the characteristics of a future offering a broad range of tackling paths or strategies of intelligent navigation. Obviously, grave mistakes have been made in governmental economic policy (mainly but not only in the US) and in the art of business management due to immoral behaviour and reckless profit maximizing.

The main lesson to learn here is the realization that the past should be understood as a "frozen future" telling the story that the economic reality is far away from the ideal of rationality and that it leads to careless failures in interpreting complex situations, if the open, coincidental character of the future is reduced to rational reconstruction and can mastered by mod-



els and tools of planning and strategic methods of problem solving. Experience based creativity and, to a certain extent, the trust in intuition is a necessary complement, if not in some cases the nucleus of navigating in unclear situations of far reaching horizons.

It may not be possible to include intuition in academic educational curricula. Academic education is usually conceived as a kind of transfer of theoretical truth and perception to individuals attending academic lessons and colloquia. This approach does not and probably cannot take up queries of individual encouragement to believe in the power and intelligence of intuition. But, academic teaching can at least train the capability of imagination (in economic affairs) and underline the specific conditions of scientific creativity followed finally by pragmatic productivity. Training the capability of imagination is not an exercise isolated from the main topics of economics and business administration, but is an integrated part of lessons on economic subjects. Leading a company as well as programming economic policy is not a matter of the pure logic of system control, but of understanding situations as a whole, of creating visions about its future horizons, and, in full consciousness of risks, of deciding strategies to cope with the challenges of the future – be they jeopardizing or be they promising chances.

This is nothing new to business practitioners, but it is rarely involved in academic teaching in the field of business administration. The didactic problem here is the fact that solving problems in business affairs is usually wrapped in sophisticated models based on mathematic and logic algorithms, which claim to mirror the reality and would lead to rational solutions. But in truth, these models cloud the fact that the economic reality as well as any other reality never can be controlled totally by the rationale of mathematic models. Believing the businesses to be a world of logic structures, which can be rationalized by human intelligence, is nothing but a construction.¹⁶

As to the second aspect, observing the political and scientific reaction on a grave crisis such as the market break of the international finance sector and its radiation to the sector of industrial production can be taken as a lesson to understand the enormous difficulties in reviewing cemented programmes based on orthodox theories and models both on the level of academic economics and of political programmes.

The core problem here is the question, how far we will have to step down to the bottom of civilized societies, in order to make a start-up for a reconstruc-

16 The position suggested here is based on the philosophy of constructivism as has been developed by Paul Watzlawick and many others. See: Watzlawick (1977); Heinz von Foerster (2002); Fosnot (2005). From a neurologys point of view see also: Engel, Singer (2008).

tion of the fundaments of social values, practices, and governing institutions, which are able to consider the conditions of promising cultural responses to the big changes of the biosphere of the earth. The crisis of the international finance markets is, indeed, a grave experience. But, does it really challenge a principal review of the cultural ground, on which prosperity could grow? The answer is not easy and cannot be derived from the logic of empirical facts of the past.

To illustrate this philosophical view, we may consider the role of individual freedom in an open, dynamic society. On the one hand, there will be no efficient creativity in the society, where there is no individual drive to create something of relevance or importance. This is not only a matter of economic dynamics, but also a matter of other parts of social life, for instance politics, the science itself, and the arts. On the other hand, if anything goes, if there are no limits and no normative structures at all, which can prevent individuals from unacceptable behaviour, we will soon experience a sort of egoism and reckless fights for one's own advantages at the expense of others. Chaos would be the end, and Thomas Hobbes's Leviathan would appear on the stage. How could we find the point of balance between a high level of individual freedom, which is an ethical value of its own? How could we or those, who are responsible for governing and administering our common affairs, navigate our society including the economy through the future without loosing stability?

Descriptions and even some academic interpretations of the current crisis of the international finance markets including the grave interferences into the real economy have already been elaborated widely. ¹⁷ The core questions in the case are addressed to whether or not this critical development could have been foreshadowed or even concretely predicted.

It is not very difficult to discover that *The Crisis* is rooted in the structures, instrumental equipments, economic principles, and specific business conditions of the international markets of financial products. It is also rather obvious that nobody was able or willing to suspect at an early stage, what kind of dangerous internal pressure of the financial markets had started much earlier than 2007. There have been signals, and there have been warnings, but no significant reaction, either from within the markets or from governments and other supervisory bodies. They all were, as it seems, mentally nailed up by the deep and fixed believes in the orthodox economic models.

This point may be the last lesson to be mentioned here: There has been, still is and probably will be an enormous lack of business ethics and of entrepreneur-



¹⁷ Some examples: Mishkin (2009); Downs (2009); Soros (2008). For German readers also: Fischer (2009); Candeias, Rilling (2009).

ial responsibility, which stretches far beyond the limits of the narrow market activities onto the social responsibility. This, however, does not mean to curtail the liberties of the market, which could easily cause an irresponsible paralysis of economic dynamics. It does not make sense to cut economic power, but to civilise its responsible use. The idea is to cultivate business governance according to long-term perspectives of human civilization. The great theme of our days is neither to leave the traces of success due to the dynamics of the market economy achieved through

18 See Peter Bendixen (2009a, 2009b).

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hundreds of years of practice in history nor get corporate management nor entrepreneurship as such under a specific governmental control or command.

The moral of economic behaviour, which would include political policy and programming on the macro level of economic developments, can and should be integrated in academic education. Putting courses in business ethics will certainly not suffice, because ethics is nothing to be added only, but is a substantial dimension of any economic practice and should become a nucleus of theoretical endeavours in economics and business administration. This would be the right academic response to or lesson from *The Crisis* of our days.

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