

## **Philosophical Approach on Crisis**

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**Abstract:** The notion of crisis was first used in medicine to describe a near death state of a patient where drastic and immediate procedures are needed for survival. Later this concept was extended to other fields as well. At the same time the meaning of crisis was diluted (i.e. serious problem) and modified (i.e. recession or depression in economics). It is an important question whether a social situation can be labelled a crisis in the original sense of the word; and whether this crisis is due to external or internal causes. In this latter case the system is unsustainable and is moving towards extinction. These situations call for immediate and drastic measures in order to secure a sustainable state.

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### **1. Introduction**

Contemporary societies are afflicted by different crises. This tendency is also suggested by the newspaper headlines, which are continuously about different crises. In the English version of the Wikipedia there are 660 entries, which contain the word crisis: subprime mortgage crisis, credit crisis, constitutional crisis, 1973 oil crisis, California electricity crisis, Cuban missile crisis, existential crisis, midlife crisis, crisis pregnancy centres, Iran hostage crisis, oxygen crisis (around 2.4 billion years ago). There are several crises which do not include in their names the concept of crisis: global climate change, Permian–Triassic extinction (251 million years ago), tragedy of the commons. The opposite is true as well, e.g. when a problem is exaggerated and considered to be a crisis.

Sometimes the name of the crisis refers clearly to the system which is in the state of crisis e.g. in the case of California electricity crisis, the electrical service of California State has collapsed. In other cases the name does not contain any reference to the system coming to a crisis e.g. in the case of the Cuban missile crisis the system of nuclear power balance between the two super powers (USA, USSR) shifted. Often not the system itself but its certain state comes to a crisis. For instance, the environmental crisis does not threaten with the destruction of the environment, but with the destruction of its certain *state*.

In connection with crises several philosophical questions arise. The most important of them is whether the different concrete crises have common features or

not. Philosophy has been debating about the existence of common features (problem of universals) for a long time. *Nominalists* assert that only individuals or particulars exist and deny that universals or commons are real (i.e. that they exist as entities or beings). According to the nominalist interpretation, it is not possible to speak about crisis in general, only about the different particular cases of crises such as environmental crisis, financial crisis, economic crisis. There is no environmental crisis at all but there are only individual environmental crises such as global climate change, ozone hole, deforestation and this list could be made even longer. On the other hand, *Aristotelian realism* is the view that universals are real entities, but their existence is dependent on the particulars that exemplify them: *universalia in rebus* (universals in thing). According to this interpretation, it is possible to speak about crisis in general. I think that the different crises have common – universal and particular – features and I try to point them out in this essay.

In this paper I study crisis from an exterior or objective viewpoint, however crisis can also be considered from an internal viewpoint or subjectively. A conscious system in crisis (be it a person or community) can be aware of the threat to its existence. The possibility of death causes fear and anxiety in a person. The analysis of these feelings is the main challenge of existential philosophy. Forceful death as the *summum malum* (the supreme evil) is a central element in Hobbesian social philosophy. Extinction threatens not only individuals but also bigger collective entities such as families, communities and nations. Unsurprisingly the possibility of extinctions of these collective entities generates an emotional reaction. Certain (Potter<sup>1</sup>, Jonas<sup>2</sup>) bioethicists realized that mankind is threatened by the possibility of extinction. Therefore they placed the survival of humankind as the central paradigm of their ethics. “*Act so that the effects of your action are compatible with the permanence of genuine human life.*” Or expressed negatively: “*Act so that the effects of your action are not destructive of the future possibility of such*”<sup>3</sup>

## 2. Term of crisis

In Hungarian the word for ‘crisis’ (válság) is etymologically connected with the term of ‘become’ (vállik). The word ‘become’ (vállik) is connected to the word ‘change’ (vált and változás).<sup>4</sup> Several Hungarian authors discuss the relation between ‘crisis’ and ‘change’.<sup>5</sup> This suggests that crises are inevitable.

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<sup>1</sup> Van Rensselaer Potter, *Bioethics, Bridge to the Future* (Englewood Cliffs, NJ: Prentice-Hall Inc., 1971).

<sup>2</sup> Hans Jonas, *The Imperative of Responsibility. In Search of an Ethics for the Technological Age* (London: The University of Chicago Press, 1984).

<sup>3</sup> *Ibid.*, p.11.

<sup>4</sup> Tótfalusi István, *Magyar Etimológiai Nagyszótár* (Hungarian Dictionary of Etymology) <http://www.szokincshalo.hu/szotar/?>

<sup>5</sup> Kapócs Gábor, “Világ, válság, változás” (World, crisis, change), *LAM (Lege Artis Medicinae)* 12 (2008): 838–839.

The Chinese word for ‘crisis’ (*wēiji* simplified Chinese: 危机) consists of the characters for *wēi* (危) and *jī* (机). So ‘crisis’ (*wēiji*) is composed of elements that signify ‘danger’ (*wēi*) and ‘opportunity’ (*jī*). “When written in Chinese the word crisis is composed of two characters. One represents danger, and the other represents opportunity.”<sup>1</sup>

Mair has called the popular interpretation of *wēijī* in the English-speaking world a “widespread public misperception.” In fact, *wēi* (危) does roughly mean ‘danger’, but the polysemic *jī* (机) does not necessarily mean ‘opportunity’. Mair suggests that *jī* in *wēijī* is closer to ‘crucial point’ than to ‘opportunity.’<sup>2</sup> Zimmer has traced the history of *weiji* in English as far back as an anonymous editorial in a journal for missionaries in China.<sup>3</sup> According to him, it can be accepted that crisis = danger + opportunity.

In the English language the word ‘crisis’ means “crucial or decisive point or situation; a turning point”. This concept was used originally in medical science: “a sudden change in the course of a disease or fever, toward either improvement or deterioration.”<sup>4</sup> The word ‘crisis’ enters the English language around 1425 with the meaning of “turning point in a disease,” in a translation of Chauliac’s *Grande Chirurgie* (Major Surgery).<sup>5</sup> It was borrowed from Latin, where *crisis* signified: 1. a (literary) judgement, 2. a critical stage in one’s life; climacteric. The Latin crisis in turn comes from Greek *krisis* (“separating, distinguishing, discrimination, decision, judgement”), from *krinein* (“separate, decide, judge”). In the Hippocratic-Galenic medical literature, ‘crisis’ signified “a turning point in a disease; sudden change for better or worse.”<sup>6</sup> What is the connection between the turning point in a disease and a judgement? Obviously the doctor should be able to judge the turning point in a disease, where the patient’s life becomes endangered.

Later this concept is extensively used figuratively, as well: “turning-point in illness, life, history etc; time of difficulty, danger or anxiety about the future.”<sup>7</sup> The sense of ‘decisive moment’ is first recorded in English in 1627 as a figurative

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<sup>1</sup> Remarks by President Kennedy at the Convocation of the United Negro College Fund. <http://www.jfklibrary.org/Research/Ready-Reference/JFK-Speeches.aspx>

<sup>2</sup> Victor H. Mair, “danger + opportunity ≠ crisis: How a misunderstanding about Chinese characters has led many astray” PinyinInfo.com. Retrieved 15 January 2009. <http://pinyin.info/chinese/crisis.html>

<sup>3</sup> Benjamin Zimmer, “Crisis = danger + opportunity: The plot thickens,” *Language Log* Retrieved 19 January 2009. <http://itre.cis.upenn.edu/~myl/language-log/archives/004343.html>

<sup>4</sup> American Heritage Talking Dictionary, “crisis” entry.

<sup>5</sup> Guy de Chauliac (ca. 1300 – 1368) was a French physician and surgeon who wrote a large and influential treatise on surgery, titled in Latin *Chirurgia Magna*. It was translated into many other languages and widely read by physicians in late medieval Europe.

<sup>6</sup> Victor H. Mair, “How a misunderstanding about Chinese characters has led many astray”, <http://www.pinyin.info/chinese/crisis.html>

<sup>7</sup> Oxford Értelmező Kéziszótár (Oxford Interpretive Dictionary) (Budapest, 1989), “Crisis” entry

extension of the original medical meaning. Clearly not only individuals but also entire communities can shift towards a state of non-existence. Thus crisis has to be diagnosed and managed in both cases. Therefore the concept of crisis can be appropriately used when discussing social systems. At the same time analogies regarding this concept are bounded.

(i) In a doctor–patient relationship it is the doctor’s responsibility to identify the critical state of a patient and start the therapy on the essentially passive patient. In the case of social systems however, there is no outside actor to help, so the community has to diagnose and heal itself.

(ii) As I have already mentioned, the term of crisis comes from medicine where unambiguous difference can be made among health, disease, crisis and death. In the same way, sharp distinction can be made among victory, crisis and defeat in a battle. Such procession of crises are called discrete. Differences are less sharp in other domains, e.g. among different psychological states: health, diseases, crises and collapse. It is not obvious what state of macroeconomics can be called normal, problematic, crisis and collapse. Such procession of crises are called continuous. For this reason the original meaning of crisis is modified when regarding social systems.



**Irina Dumitrașcu, *Confused 2***  
Photography print, 50x50 cm, 2010  
Webite: [www.bavardestudio.ro](http://www.bavardestudio.ro)

According to the American Heritage Dictionary the definition of crisis is “an unstable condition, as in political, social, or economic affairs, involving an impending abrupt or decisive change.”<sup>1</sup> According to Stegaroiu the concept of crisis can be defined as a situation which threatens the priorities of the organization being an element of surprise for managers, reducing the reaction period and generating stress.<sup>2</sup>

Forgues emphasizes the element of surprise in the meaning of the crisis.<sup>3</sup> The uncertainty and the unknown are other two elements which should be taken into consideration when defining the term crisis, meaning that it can appear within an organization without planning the circumstances when it occurs.<sup>4</sup> Other specialists introduce new element such as frequency and consequences. According to Reilly, crisis is defined as an event with a reduced probability of appearance, but which has important consequences for the surviving of the organization.<sup>5</sup>

Seeger, Sellnow and Ulmer explain that crises are “specific, unexpected, and non-routine events or series of events that [create] high levels of uncertainty and threat or perceived threat to an organization's high priority goals.”<sup>6</sup> Thus the three characteristics are that the event is 1. unexpected (i.e., a surprise), 2. creates uncertainty, and 3. is seen as a threat to important goals. However, in my opinion, there are crises which do not take place by chance but naturally so the accidental occurrence does not characterize each crisis. Every unsustainable system or community will necessarily undergo crisis sooner or later. On the other hand, when the society realizes its critical state then the most important step is performed towards the solution of the crisis. Moreover, it is not clear if the crisis increases uncertainty because it offers possibilities to solve the problem, too.

Venette argues that “crisis is a process of transformation where the old system can no longer be maintained.”<sup>7</sup> Therefore the next defining quality of crisis is the need for change. According to Slaikeu, crisis is in a generally accepted definition: a temporary state of upset and disorganization, characterized by an inability to cope with a particular situation using customary methods of problem

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<sup>1</sup> American Heritage Talking Dictionary, “crisis” entry.

<sup>2</sup> Ion Stegaroiu, “The Concept of Crisis”. *Annals of the University of Petroșani, Economics*, 5 (2005): 261–266, 261. <http://www.upet.ro/annals/pdf/Annals-2005.pdf>

<sup>3</sup> Bernard Forgues, *Processus de décision en situation de crise*, Thèse de doctorat en Sciences de Gestion (Université Paris Dauphine, 1993), p. 9.

<sup>4</sup> Patrick Lagadec, *La gestion des crises: outils de décision à l'usage des décideurs* (Paris: McGraw-Hill, 1991).

<sup>5</sup> A. H. Reilly, “Preparing for the worst: the process of effective crisis management,” *Industrial and Environment Crisis Quarterly* 2 (1993): 115–143 and

I. Mitroff, T. C. Pauchant, and P. Shrivastava, “Conceptual and empirical issues in the development of a general theory of crisis management,” *Technological Forecasting and Social Change* 33 (1988): 83–107.

<sup>6</sup> M. W. Seeger, T. L. Sellnow, and R. R. Ulmer, “Communication, organization, and crisis,” *Communication Yearbook* 21 (1998): 231–275.

<sup>7</sup> S. J. Venette, *Risk communication in a High Reliability Organization: APHIS PPQ's inclusion of risk in decision making* (Ann Arbor, MI: UMI Proquest Information and Learning, 2003).

solving, and by the potential for a radically positive or negative outcome.<sup>1</sup> In accordance with this viewpoint, I use the original medical meaning of the word crisis in my essay:

CRISIS = DISPLACEMENT TOWARDS NON-EXISTENCE

Consequently, only that entity is in crisis which (a) goes towards destruction but (b) which is not annihilated yet. In other words, non-existence is threatening in the case of crisis, but has not appeared yet, moreover it is avoidable.

It is possible to save a system in crisis only with quick and radical intervention so there is no time for further investigations, analyses and time-consuming democratic steps. This is true for patients in crisis and societies in crisis, as well. The latter is justified by the fact that in war situations even the democratic societies suspend the democratic institutions and human rights, they introduce the state of war; and in every society there are such organizations (e.g. military) or structural units (e.g. airplane or ship), where one-man command is achieved.

A system in crisis has to mobilize its resources and creativity to solve the problem. Thus a crisis is a good opportunity for the out-of-date practices or status quo to change. Therefore the successful crisis management may result in rebirth and consolidation of the system. That is why they often say that crisis is a chance for renewal, as well, being a turning point which brings basic changes into the life of the system: collapse or rebirth.

## **2. Deficiency, disease, crisis and anomie**

The concepts of the article are *deficiency*, *disease*, *crisis*, and *anomie*, which all refer somehow to an organism in bad and abnormal state. Three of these concepts (deficiency, disease, and crisis) are closely connected to the problems of health and cure.

A *deficiency* is a lack of something. In medicine there are a variety of nutrient deficiencies, for example A vitaminosis. However, although this concept is used in architecture or in law, its usage is not general in social sciences.

A *disease* is an abnormal condition affecting the body of an organism. Referring to humans, “disease” is often used more broadly to refer to any condition that causes pain, dysfunction and distress. The opposite concept of the disease is health or the normal function of the human body. Health means “the state of being free from illness or injury” or “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity”.<sup>2</sup> The concepts of health and disease are not practically used in social science. Instead of them normal and abnormal states are introduced.

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<sup>1</sup> Karl A. Slaikeu, *Crisis intervention: A handbook for practice and research* (Boston: Allyn and Bacon, 1984).

<sup>2</sup> Constitution of the World Health Organization, *Basic Documents*, Forty-fifth edition, Supplement, October 2006.

In my opinion, the next relation exists among the three concepts in question. Deficiency can lead to disease, which can result in a crisis in a more serious case. This state threatens the patient and can lead to death. This relation can be represented by the next scheme in which the arrow ( $\rightarrow$ ) refers not to the inevitable but the possible consequence:

HEALTH  $\rightarrow$  DEFICIENCY  $\rightarrow$  DISEASE  $\rightarrow$  CRISIS  $\rightarrow$  DEATH

It is quite obvious that the difference between life and the lifeless is the striving of each living being to keep itself in existence. Living material tries hard to avoid falling into neutral equilibrium, which is the basic characteristic of lifeless material (Schrödinger<sup>1</sup>, Prigogine<sup>2</sup>, Lovelock<sup>3</sup>). The outer 'chaos', tending and drawing towards disorder, is in opposition with the inner 'cosmos', which builds and recreates itself. The basic natural law of life is therefore the Spinozian conatus.  
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In every organic system normal (good) and abnormal (bad) states can be differentiated. An organism in its normal state has influence and power over its own functionality as well as the environment on some level. The influence of an organism in an abnormal state (i.e. deficiency or disease) will diminish and the functionality and organization of the system will decline. Crisis is a critical abnormal state of the organism, where the survival of the organism is in peril. The crisis of a system is basically the possibility of losing the aforementioned influence, which can be referred to as 'too little influence crisis'.

It is worth noting that much influence can also lead to crisis ( 'too much influence crisis'). For example too much influence of the community on the environment can hinder the normal functionality of the ecosystem which can lead to an environmental crisis that negatively effects the community at hand. The technooptimistic, modern conception that has identified technology as the tool of development and advance must be reviewed. Similarly, it should be noted that technology is an ambiguous implement and its use may eventually summon the ultimate 'good' and the ultimate 'evil'. As a result of the rise of the affective potential of human action nature and man himself have become destroyable entities. Accordingly, every acting agent has to consider the consequences of his deeds from this respect, too. Technology based on natural sciences is not capable of self-

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<sup>1</sup> Erwin Schrödinger, *What is life?* First Published 1944  
[http://whatislife.stanford.edu/LoCo\\_files/What-is-Life.pdf](http://whatislife.stanford.edu/LoCo_files/What-is-Life.pdf) p. 24

<sup>2</sup> Ilya Prigogine and Isabelle Stengers, *Az új szövetség. A tudomány metamorfozisa* (The new Alliance. The Metamorphosis of Science) (Budapest: Akadémiai Kiadó, 1995), pp. 159–166.

<sup>3</sup> James E. Lovelock, *Gaia. A földi élet egy új nézőpontból* (Gaia. Earthly life from a new perspective) (Budapest: Göncöl, 1990), p. 165.

<sup>4</sup> Lehel Balogh, "An attempt to give Existential Foundation to Bioethics," *Philobiblon* 14 (2009): 119–136, 117.

restriction; it can only be forced by an ontologically committed ethics which Jonas terms third-degree-power.<sup>1</sup>

Concepts such as crisis management, diagnosis and therapy are closely related to the concept of the crisis and derive also from medical science. It is obvious that immediate action and intervention are needed in case of a patient in crisis. In case of emergency, when the patient is dying, there is no time to wait – *periculum in mora* (delays are dangerous) in Latin.

If the patient is examined by several doctors, it can easily happen that opinions are different in the question of crisis management (or therapy). The solution requires further analysis and democratic discussion, however in a critical state – according to definition – there is no possibility because immediate intervention is needed. In the medical society the way of crisis management is determined by the hierarchy. Afterwards it can turn out that the leading doctor misjudged and the subordinate doctor was right in some cases. Nevertheless, it does not influence the fact that the solution of a critical state requires unambiguous procedural authority.

The concepts of normal and abnormal states can also refer to social systems. In this paper when considering social systems the expression ‘problem’ is used in the case of minor or major errors and deficiency while the expression ‘crisis’ is only used in the case of fatal malfunctions. A social system is in crisis if the system collapses without immediate intervention. The crisis is often preceded by some kind of problem, which is getting more and more serious. Finally, it comes to a crisis and the destruction of the system:

NORMAL STATE → PROBLEM → SERIOUS PROBLEM → CRISIS → COLLAPSE  
(NON-EXISTENCE)

Public opinion often labels a serious social problem a crisis. According to the original meaning, crisis is not equivalent to a serious problem. In my opinion the notion of crisis should be reserved for the cases where the possibility of collapse is present.

In social systems one of the most important questions is whether the system considers itself in crisis. Ideally a community perceives itself in crisis (crisis-consciousness) only if it is truly in a state of crisis. Two mistakes can be made regarding crisis-consciousness by the community. (i) The community is in a state of crisis but is not crisis-conscious and (ii) the community is not in a state of crisis but is crisis-conscious. The former error results in the non-acknowledgement of the crisis by the community, while the latter error results in mobilizing unnecessary resources for solving a social problem. This latter case is dangerous because it keeps the systems from handling an eventual crisis present. It seems that mainstream modernity makes the first error concerning the economical issues and the second error concerning the environmental issues.

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<sup>1</sup> Hans Jonas, *Das Prinzip Verantwortung: Versuch einer Ethik für die technologische Zivilisation* (Frankfurt am Main Insel-Verlag, 1979), p. 254.



It is obvious that in democratic societies, where the freedom of speech and opinion is achieved, there are very different points of view in terms of any difficulty or malfunction. However, if a society considers itself in a critical state, it has to take quick and determined decisions to solve the crisis. The situation is further complicated by the fact that the „social system” in crisis has to cure itself, so –contrary to the dichotomy of the patient and the doctor – the outer observer, the objective viewpoint is *ab ovo* missing. So in the case of social systems it is particularly important to aim the appearance of the viewpoint of the objective observer.

Anomie in common parlance is thought to mean something like ‘at loose ends’. Anomie is a sociological term meaning personal feeling of a lack of social norms; normlessness that is an absence of accepted social standards or values. It means social instability caused by steady erosion of standards and values. If the sense of crisis gains more and more ground in a community, while the decision makers are unable to face and solve the crisis, then the phenomenon of anomie can form easily. In this case people do not rely on traditional values and rules so they cannot live according to the old rules, but the new values and rules do not function yet. Besides, different crises can be followed by the phenomenon of anomie because in extreme cases the current individual values can lead to anomie themselves. According to Hankiss there is a strong connection between anomie and social crisis.<sup>1</sup>

### **3. Interpretation of the economic crisis**

Although all media talk about the economic crisis nowadays, the meaning of the concept is not clear-cut. In everyday understanding, the meaning of the ‘economic crisis’ practically corresponds to the concept of the ‘economic decline’. In economics there is a distinction between short-time recession and long-time depression. To connect the concept of the economic crisis with the general concept of the crisis, the economic meaning of the key concepts has to be determined (normal state, crisis, collapse/destruction). To achieve this objective, two types of language – emphasizing qualitative or quantitative relations – can be used. Due to the philosophical nature of the essay, it prefers the qualitative language, while economists preferably use the quantitative language.

In case of each firm, that is, *microeconomically*, the economic meaning of the above mentioned concepts can be relatively simply determined. In case of a particular firm, the normal state means balance in economic and financial points of view or it means increase of the firm; as a result of lacking this state, different problems arise. A firm comes to a crisis if its existence is in danger; the bankruptcy of the firm leads to its collapse or non-existence. Accordingly, there is a clear-cut difference between the crisis and the collapse. Obviously, a firm in crisis exists even if it proceeds towards non-existence as opposed to the collapsed firm which does not exist. By using the terminology of production and output, in normal state

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<sup>1</sup> Elemér Hankiss, *Proletár reneszánsz* (Proletarian renaissance) (Budapest: Helikon, 1999), p. 19.

the output of the firm does not decrease. The firm comes to a crisis if its output decreases; the firm dies if its output irreversibly turns to zero.

*Macroeconomically*, so in case of the multitude of firms, the basic concepts of the crisis can be defined in various ways. It is especially vague what the destruction (non-existence) of the economy means macroeconomically. Logically there are two distinct answers: destruction means the collapse of the economic system in a particular state or the destruction of the whole economic system.

– In the first case destruction means the end of the growing economy so in this case the least recession has to be considered economic destruction (the destruction of the economic state). It is obvious that this viewpoint is not in accord with the everyday approach which considers recession as crisis and not as destruction.

– In the second case the whole macroeconomy perishes (non-existence). It necessarily occurs if all firms go bankrupt, so when the total output of the macroeconomy is zero. It is clear that the destruction of the macroeconomy happens earlier. The human being as an organic unity also dies earlier than all of his or her cells. It is another question that a clear-cut answer cannot be given to the connection of the two factors (the destruction of the macrosystem and the proportion of collapsed microsystems) because of many reasons. At the same time, it is obvious from this analogy if firms collapse or go bankrupt permanently and in large proportion then sooner or later the macroeconomy also perishes. Consequently, a very long depression can lead to the destruction of the macroeconomy. The depression itself does not mean economic destruction as it can be seen from the great depression between 1930 and 1939. Therefore, economic depression is in the category of existence and not in the category of economic destruction (non-existence). In the following part some coherent explanations will be given to the connections between the concepts of the normal state of the macroeconomy, the economic crisis and the economic destruction.

(i) According to the prevailing attitude, the normal state of the macroeconomy is steady growth which can be seen on one hand from the extent of the increasing output and on the other hand from the number of firms. On the basis of this approach, problems arise in the functioning of the economy if the growth discontinues; in economic crisis the economic parameters (the number of firms, output, the number of jobs) start decreasing and recession is formed which changes into depression after a certain time. Naturally, long-time depression can lead to the destruction of the macroeconomy theoretically, but there is no example for it in economic history.

(ii) According to several economists (Sismondi, Marx, Schumpeter), there is a natural cycle in the expansion and contraction periods of the economy. Austrian economist Joseph Schumpeter argued that an economic or business cycle has four stages: (i) *expansion* (increase in production and prices, low interest rates); (ii) *crisis* (stock exchanges crash and multiple bankruptcies of firms occur); (iii) *recession* (drops in prices and in output, high interest rates); (iv) *recovery* (stocks recover because of the fall in prices and incomes). Although the concept of the crisis also appears in this notion, it is no crisis in its original meaning, because

the existence of the economic system is not in danger. Consequently, it is important to make a distinction between the economical sense of the word crisis and its original meaning. If the cyclic function of the economy is accepted and if contraction is followed by expansion then recession or depression cannot be considered crisis in its original meaning.

In the mid-20<sup>th</sup> century, Schumpeter and others proposed a typology of business cycles according to their periodicity, so that a number of particular cycles were named after their discoverers or proposers<sup>1</sup> – the Kitchin inventory cycle of 3–5 years (after Joseph Kitchin);<sup>2</sup> – the Juglar fixed investment cycle of 7–11 years (often identified as ‘the’ business cycle); – the Kuznets infrastructural investment cycle of 15–25 years (after Simon Kuznets); – the Kondratieff wave or long technological cycle of 45–60 years (after Nikolai Kondratieff).<sup>3</sup>

Permanent contraction and depression are also natural parts of the economic cycles with longer periods (Kuznets and Kondratiev). According to these approaches, not even depression can be identified with the concept of the crisis in the original sense of the word. Consequently, the concept of the crisis is used improperly by economists because destruction does not threaten economy even in case of recession or depression. In fact, a paradox situation is formed in which modern societies overestimate the problems of recession and depression. On the other hand, these societies underestimate the real dangers threatening their existence (the extinction of species, global climate change, senescence etc.).

(iii) The above picture is blurred by the viewpoints of the environmental protection. Environmentalists generally emphasize that continuous growth is not possible in finite space. According to the principles of sustainable development the normal state of the economy is stationary state. The economic-social system cannot grow further in its extensive parameters (population, GDP, consumption, energy use, standard of living, inhabited lands etc.) At the same time, the human system is not hindered developing in its intensive parameters (effectiveness, organization, quality of life, know how etc.) Consequently, a sharp contrast should be drawn between the extensive and the intensive forms of the economic growth. It is crucial to recognize that the extensive economic growth is not possible *ab ovo*. On one hand, several failures can be avoided by applying this attitude and on the other hand, much more real objectives can be aimed in connection with the possible normal state of the economy.

So, the mainstream of late modernity labels the present undoubtedly grave economic situation a crisis, while it is not a crisis in the original sense of the word. In contrast, the deterioration of the environment is not considered conventionally a crisis although it gravely affects the survival of modern civilization. This poses a problem not only because we expend too much resources on solving the “economic

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<sup>1</sup> Joseph A. Schumpeter, *History of Economic Analysis* (London: George Allen & Unwin, 1954).

<sup>2</sup> Joseph Kitchin, “Cycles and Trends in Economic Factors,” *Review of Economics and Statistics* 1 (1923): 10–16. <http://www.jstor.org/stable/1927031>

<sup>3</sup> N. D. Kondratieff and W. F. Stolper, “The Long Waves in Economic Life,” *Review of Economics and Statistics* 6 (1935): 105–115. <http://www.jstor.org/stable/1928486>

crisis”, while using too few for the environmental issue, but also because both problems are connected to economic growth. According to the mainstream the normal state of the economy is continuous growth, including extensive parameters, which has to be maintained. Environmentalists argue that the cause of the environmental crisis is exactly the aforementioned economic growth. That is to say that the solution of the environmental crisis is to impede economic growth in extensive parameters and establish a stationary economic state. The economic development of this steady state society can only concern intensive parameters.

#### **4. Basic concept of system theory and crisis**

As we have already mentioned, crisis can be defined as serious malfunction of the system which endangers its existence and operation. The difference we encounter between crises stems from the differences between systems.

System is a set of interacting or interdependent entities forming an integrated whole. Evidently, there are many types of systems that can be analyzed both quantitatively and qualitatively. Bailey defines systems in terms of *conceptual*, *concrete* (physical) and *abstract* systems; either *isolated*, *closed*, or *open*.<sup>1</sup> Klir maintains that no “classification is complete and perfect for all purposes” and defines systems in terms of abstract, real, and conceptual physical systems, simple and complex systems, bounded and unbounded systems, discrete to continuous, pulse to hybrid systems etc.<sup>2</sup> In my opinion, the concept of crisis can only describe those organic and human systems which can take action against collapsing, that is the teleological systems. For example simple physical system such as a fire can become extinct (non-existence), however we cannot talk about a crisis because the fire cannot actively counteract its extinction. On the other hand, bacteria can actively counteract destruction and fight for survival (existence).

Jonas ascribes great importance to the inherent teleology of all living beings. As he writes, the fulfilling of any real goal is welcome, and its frustration is bad. All living things approve their own being in contrast to not being. This primer “yes”, namely the setting of life in opposition to death is the basic source of value as such. Goal-bearing organisms have intrinsic values, too; that is, they are superior to any other aimless forms of being. It is worth reminding that two decades later biocentrism, a branch of American eco-philosophy came to similar conclusions. Paul Taylor (in 1981<sup>3</sup> and in 1986<sup>4</sup>) also stressed that every living being is an equally teleological centre of life, and as such it bears intrinsic values.

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<sup>1</sup> Kenneth D. Bailey, *Sociology and the New Systems Theory: Toward a Theoretical Synthesis* (New York: State of New York Press, 1994).

<sup>2</sup> George J. Klir, *An Approach to General Systems Theory* (New York: Van Nostrand Reinhold, 1969), pp. 69–72.

<sup>3</sup> P. W. Taylor, “The Ethics of Respect for Nature,” *Environmental Ethics* 3 (1981): 197–218.

<sup>4</sup> P. W. Taylor, *Respect for Nature* (Princeton: Princeton University Press, 1986).

*Complex systems* exhibit one or more properties not obvious from the properties of the individual parts.<sup>1</sup> Examples of complex systems include ant colonies, climate, human economies and social structures, as well as modern energy or telecommunication infrastructures. All biological and social systems are complex systems. Complex systems do not evolve smoothly, they are highly nonlinear. They evolve step by step up to a point, then they reach a threshold of stability and either collapse or develop. This means that the path of development of a complex system will encounter a rapid, previously unforeseen change.<sup>2</sup>

A *subsystem* is a set of elements, which is a system itself, and a part of a larger system. In other words a subsystem is a coherent and somewhat independent component of a larger system. Here is an example of some subsystems of a human body: circulatory system, digestive system, nervous system, skeletal system. The notion of subsystems is especially important in the case of social systems. First of all, the human race and every human community is a subsystem of the Biosphere. Secondly, the different economical and financial systems in society can all be regarded as subsystems inside a larger system: sovereign state or multinational firm, for example.

In the category of organic systems a distinction has to be made between individual (organism) and collective (population, species, ecosystem) organic systems. Individual organisms – including biological and human systems – exist in the continuous cycle of birth, growth, decay and death. These lifecycles are more or less genetically coded in the case of individual organisms, while there can be quite big differences even among the same species. There are people for example who die during childhood while others can live up to a hundred years. The lifespan of social systems (cultures, nations, states and institutions) can show even bigger differences than the lifespan of individuals. The lifespan of these social beings is gravely affected by their ability to handle the inevitable changes and the resulting crises.

A *conceptual system* is composed of non-physical objects, i.e. ideas or thoughts. If there is an experimentally verified correspondence between a conceptual system and a physical system then that conceptual system models the physical system. Crises exist not only in the case of concrete systems but also in conceptual ones. Thomas Kuhn showed that scientific theories are built on paradigms, in some cases new theories require new paradigms which means that scientific advancement implies paradigm shifts.<sup>3</sup> As a paradigm is stretched to its limits, anomalies – the failures of the current paradigm taking into account the observed phenomena – accumulate. This can be considered as a conceptual crisis of the paradigm which generally leads to the establishment of a new paradigm.

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<sup>1</sup> Cliff Joslyn and Luis M. Rocha, "Towards semiotic agent-based models of socio-technical organizations," *Proc. AI, Simulation and Planning in High Autonomy Systems* (AIS 2000) Conference, Tucson, Arizona, ed. H. S. Sarjoughian et al., pp. 70–79.

<sup>2</sup> Ervin László, *Quantum Shift in the Global Brain* (Rochester: Inner Traditions, 2008), p. 2.

<sup>3</sup> Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 1<sup>st</sup> ed. (Chicago: Univ. of Chicago Press, 1962).

*Social systems* are composed of several physical and conceptual systems. A faulty conceptual system can contribute to the crisis of a concrete system. For example monetarists, including Milton Friedman and current Federal Reserve System chairman Ben Bernanke, argue that the Great Depression was mainly caused by monetary contraction and poor policymaking by the American Federal Reserve System.<sup>1</sup> These poor decisions resulted from faulty conceptional system which led to the failure of the actual physical system.

The *society* is a complex system in which different subsystems are present from economic units to ideological movements. In respect of the continuity of society, it is important which subsystems or units are endangered by crisis. It is worth making a difference between people as basic beings at the different structures created by people. If people disappear they cannot create any social structures while surviving a crisis they might produce a new social system. For example the Polynesian society in Easter Island which is world-famous for the large stone statues (*moai*) carved between 1100–1680 CE. This culture declined around the 17<sup>th</sup> and 18<sup>th</sup> century due to the ecological crisis (deforestation) and it led to civil war and cannibalism. However, some people survived on the island who built a new social structure, called the Bird Man cult.

It is clear that the more dangerous a crisis is, the more basic entity it threatens. The crisis endangering the existence of first entities, that is of people, can be called *total* while the crisis threatening the less basic entities might be called *partial*. From a historical point of view, the total crisis of a community is not rare. These total crises can be traced back to several causes like natural disaster, military defeat, or demographic, social, political and environmental ones.

Opposite to the above mentioned facts, the effect of partial crises is much more limited and it threatens a subsystem or a certain state of it with annihilation. The economic regression or the financial crisis which destroys a certain state of the subsystem (e.g. prosperity) may be considered as such. This can be easily reorganized with the help of the existent basics.

## **5. Classification of crises**

Crises can be grouped on the basis of different viewpoints. Firstly, crises can be grouped according to what sectors they affect. There is a fundamental difference between the crises in biological (oxygen crisis, great dying) and human systems. In non-human systems only material and physical processes take place, while in human systems mental and spiritual processes happen too. The crises of human systems can also have many types, for example it can affect a person (e.g. ill person), a whole community (e.g. environmental crisis on Easter Island) or any subsystem of the society (e.g. economy, monetary system, culture).

Considering the course of a crisis and its possible solution, there might also be a difference between biological (or non-human) and human systems. Biological

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<sup>1</sup> Ben Bernanke, "Federal Reserve Caused Great Depression," WorldNetDaily. <http://www.worldnetdaily.com/index.php?fa=PAGE.view&pageId=59405>. Retrieved 2008-03-21.

systems can react to crisis only by evolution and selection. That is, systems in crisis are altered randomly and only the best versions survive due to selection. Obviously this crisis management (selection) is valid for human systems as well, because the successful solutions quickly spread in the case of human systems too. At the same time human systems have other forms of crisis management, like tradition and rationality.

Crises can be grouped on the basis of general or non-sector specific features too. So, a difference can be made between *individual* (e.g. Iran hostage crisis) and *typical* (e.g. ageing crisis in Eastern Europe) crises. Furthermore there are *short local* crises (e.g. Cuban missile crisis) and *long extended global crises* (e.g. environmental crisis). Consequently, crises can be grouped on the basis of their spatiality and temporality. Crises can emerge quickly and at random or slowly. Essential differences exist in the solution of crises. There are "physically" unmanageable crises (e.g. midlife crisis) when the solution is only the spiritual reconciliation and there are "physically" manageable crises which can be solved relatively easily (subprime mortgage crisis) or by means of significant innovation (oil peak and oil crisis).

The reason for the crisis of a system may be external, internal or mixed. In the case of the external reasons, the crisis of the respective system is caused by reasons totally independent from its operation. Several – but not all – natural effects like earthquake, volcanic eruption, meteor impact may be considered such external reasons. External reasons might exist even in social systems, but interactions appear much more frequently. An economical entity might get into crisis if its debtors do not pay in time for an unexpected and particular reason. At the same time, an enterprise could have such uncertain business transactions where non-payment was predictable. In this case the enterprise itself contributed to its own crisis. In the case of external reasons the crisis management means that the system tries to eliminate the threatening external reasons, that is, it transforms its environment. If this is not possible, it tries to minimize the damage, thus it transforms itself.

In the case of situations where the crisis is basically the result of interior reasons, the solution could only be the interior transformation of the system. If the crisis has interior reasons the system will function in an unsustainable way for a long time. As a result the system has to be transformed into a sustainable one by the appearance of a crisis. The creation of sustainability is a general challenge for the modern social systems considering environmental, financial and economic problems of today. From this point of view, the environmental crisis may be considered a special problem. That is, the final reason of the environmental crisis is the wrong economical practice of the society which means that it has interior reasons. The environmental damages primarily result in the decay of nature and they effect human society in a negative way. So it may occur that the society simply but erroneously interprets these catastrophes as natural ones. It is very important to make a sharp distinction between a natural catastrophe and environmental damage, as the system has to guard against the interior and exterior reasons of crisis in different ways.