

## EMERGENCE IN THE FORESIGHT

Éva Hideg\*

Futures Studies Department, Corvinus University of Budapest  
Budapest, Hungary

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### SUMMARY

The aim of this paper to present some items of emergence in the foresight that should be meant and handled scientifically. It highlights three resources of social emergence. One of them is originated from the development of shared future views at a community level from the individual future shapes. The second one is originated from the relations among the foresight and its social environment and the outer conditions. The third one is originated from the double loop of discourse between subjective – inter-subjective and human – non-human world. The paper reasons that a meta-theory and an extended participatory approach should be needed to research, study and give meaning complex social emergence in the foresight.

### KEY WORDS

futures studies, foresight, social emergence

### CLASSIFICATION

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\*Corresponding author, η: [eva.hideg@uni-corvinus.hu](mailto:eva.hideg@uni-corvinus.hu); +36 1482 5319;  
Corvinus University of Budapest, Fővám tér 8., H-1093 Budapest, Hungary

## FORESIGHT CONCEPTIONS

The word “foresight” has various definitions and interpretations. Some of the most frequently employed definitions are listed below. Foresight is:

- a human ability or capability like the ability to learn, to think or to love,
- a thought concerned with the individual’s own future,
- a subject of discourses among individuals and their communities, or among individuals, about the future of their communities,
- a segment of Futures Studies, which deals with the shaping process of community future-views,
- a special activity in the service of policy making.

Futures Studies literature quotes Slaughter’s definition as a starting point. *He emphasises the human ability aspect of foresight.* He says that foresight is, “...a universal human capacity which allows people to think ahead, consider, model, create and respond to future eventualities. Founded on the rich and inclusive environment of the human brain-mind system which, crudely put, has sufficiently complex neural ‘wiring’ to support an extended mode of perception whose main functions are proactive and facilitating.” [1]. Slaughter also extends both the concept and application of foresight to the community level and to a longer time-span than is needed to survive the immediate environmental effects [2, 3]. He says that, “...the foresight needs to be deployed at social and organisational levels ...” and, “... to extend from the here-and-now to a wider temporal span and from simple person-to-person interactions to systemic ones mediated by a range of powerful technologies. Hence we are challenged to exercise our foresight capabilities in new ways.” [2: p.44 and p.56].

*Foresight in Futures Studies* (FFS) began with the analysis of the future orientation of everyday people [4] and was followed with the analysis of the future orientation and the expectation of the youth generation [5]. Foresight activities in critical Futures Studies concentrate on the comparative analyses of community future-views using a hermeneutic approach. Through critical evaluation futurists strive to enrich social discourse about individual and community future views with the latest points of view. (For example see [6] [7] and [8].) Participative workshops techniques have become dominant in the present FFS. They are used in Futures training programmes (For examples see [9] and [10].) and self-developing courses for Future sensitive specialists and civil groups (For example see [11] and [10].). Giving comparative analyses of future ideas of different types and dealing with the foresight as a development of future views at a community and a personal level FFS stimulates people to explore their own future ideas and to pay attention them in their everyday activities.

There is another type of foresight concepts too, which is developed directly from the needs of social practice. This has emerged first in the technology foresight, then in the regional one, and it can be seen in the organisational or corporate or social foresight [12]. Let us name this type of foresight the *Praxis Foresight* (PF). PF is the effort to assess future conditions based on current conditions and trends, “... a process by which one comes to a fuller understanding of the forces shaping the long-term future which should be taken into account in policy formulation, planning and decision making.” [13: p.43]. The aims of PF are:

- creating social future information to support decision preparation process,
- encouraging participants to reflect the future,
- putting stakeholders together to form collective or shared vision of the future. i.e. to develop consensus future at community level.

Since the main aims of PF are to get shared futures views and to influence policy decisions, it also includes a number of normative assessments of how to reach a future state that is considered desirable at community level.

Both types of foresight conceptions emphasize that the future is essentially unpredictable, because the society has not laws as the nature has. *Human expectations, efforts and actions cause the changes of society*. For this reason the foresight process is as important as its outcome. Putting up participants as stakeholders of the future, to share their future visions and teaching participants how to think flexibly are as important as the specific findings derived from these efforts. Foresight managers focus mainly on the expectation of the participants' mental models so that they can better interpret any social future conditions arisen in the course of consensus building.

In spite of the similarities the distinction between the two foresight concepts is reasonable because of their different social functions [14]. The main difference appears in the answer for the following question: Does it associate with policy making or not? PF always associates with policy making, but FFS does not it frequently. The other difference between them is that FFS focuses on the foresight of individuals while PF focuses on the foresight at a community level.

Since foresight concepts are still under development, certain criticism hit them in the literature. Some of them are mentioned below to support the development of the theoretical basis of foresight concepts. We agree with the following criticism, because it concerns both two foresight concepts. „However, the vast majority of foresight literature focuses either on providing descriptions and critiques of various methodologies, or on reporting the „newsworthy” results derived from the use of a particular methodology. By contrast, very little information is available that details the actual experiences organisations have into conducting foresight activities. Clearly, the success of any foresighting program will rest not only on the specific method being used, but also on the details of how the program is conducted.” [15: p.3].

Additionally the human perception in foresighting has some limitation as follows

- participants judge future probabilities in the basis of their ad-hoc ideas, for example they overestimate the future impact of published trends against the no published ones,
- participants tend to overestimate the likelihood of low probability events and underestimate the probability of very likely events,
- participants may distort the representativeness of events, by focusing on details of their desirable futures.

Both foresight concepts often focus on one area and neglects important factors that can significantly affect the future outcomes. Foresighting often occurs in a vacuum and no attention is paid to the other associated factors that affect future. *Foresight sometimes fails testing desirable futures or shared future views by their chances of occurrence*. FFS believes that it is sufficient to develop the future sensitivity of participants' thinking. PF believes that it is sufficient to build the consensus future into the policy making to fulfil it.

There are also other limitations at group level. Since foresighting is a consensus building process, it tends toward the centre. Extreme views are often dropped, in order to get at a position that everyone can agree with. Participants often reflect the popular dominant opinion, „the spirit of times”, in other words. This limitation is not so firm in the case of FFS, because it does not strive to get one consensus future. It allows getting different future visions at subgroup levels. Contrary, the PF does strive to get consensus future. Consequently PF can be seen as a special case of FFS in this aspect.

Later we use foresight in Slaughter's view, because it involves wider range of topics potentially than FFS or PF. *To actualise this general definition and to avoid the imperfectness of FFS and PF we ad to it the preferred conditions and social environment in which the foresight can function in a contemporary society.* The preferred conditions and social environments of this special activity can be characterised by the specifications are as follows:

- Foresight has a greater chance to fulfil its aims in a democratic society where the critique of the status quo and the future perspectives is an everyday activity of the citizens and their communities. It is the best, when the discourse is „power free”.
- Individuals should not only passively bear the consequences of the foresight of others or the community foresight, but also actively participate in the social foresighting independently of its specific forms. Foresight can have organised and not organised forms.
- Foresight should include the ability and intention of fulfilment.
- Foresight should also include experience, knowledge, reflection and self-reflection.
- The creation and employment of foresight should serve the harmony between the individual and the individual and the world around him or her.
- Both individual and community foresight has also interconnections and -actions to the non-human worlds entities.

Applying Slaughter's foresight concept together with its social function and environment makes possible to give meaning a wide range of emergent phenomena.

## **TOPICS OF EMERGENCE BY FORESIGHT CONCEPTS**

Both FFS and PF and our foresight concept too give great importance to *the development of shared future view or views at community level from the individual future shapes.* This issue can be meant as one type of social emergence because it constitutes the interaction between the micro and the macro level of society. The discourse among individuals about the community future is the main form of the integration of individual and community foresight. Therefore a number of participation based foresight tools have been developed and successfully applied. These include the Delphi method, public Delphi, story telling and workshop techniques. Some of these focus on individuals and others on communities [16]. It is also obvious that foresight can be managed by participatory techniques. This time subjective – inter-subjective discourse among social stakeholders is emphasised in bringing to the fore and on shaping the desirable future of human communities. This future compels people to act and take responsibility.

This issue is well known in the recent foresight theories and practice. *But there are other issues which can be seen as sources of social emergence* but which are failed or overshadowed in the recent foresight theories and practice. These originate from *the relations and interactions among the foresight and its social environment and outer non-human conditions in which foresight develops and fulfils or does not fulfil after all.* The interactions can trigger social emergent events, for example new civil movements, changes in behavioural or organisational patterns. New ideas about them could be born in the process of foresight.

The forms of these relations and interactions are dialogue [17] or discourses within human spheres and between human and non-human world. In the development of a future idea not only desires, traditional values, moral consideration and fantasy *but experience and knowledge on the nature, the society and the technical world have significant role as well.* Recently these concerns are overshadowed because of failure and bias of forecasting. Namely, in forecasting every issue is approached as a fact or would-be fact of objective

reality, therefore there is no place for the human action and choice. This forecasting approach to the social future has proven one-sided and unsuccessful at the same time. Against this we can not state that the social future can be formed freely by own desire or human action. There are some constraints and possibilities coming from the environment or resulted from our earlier actions which influence the space of our future actions. The possible future alternatives on the experience and the knowledge – among them the results of science – concerning to the above mentioned constraints and possibilities should be also considered during the foresight both at a community and a personal level. These future issues should also be rehabilitated in the frame of foresight. Our recommended foresight conception makes it possible by paying attention social function and environmental concerns of foresight activity.

Beside the above mentioned there is another very interesting and slightly studied source of emergence. This can be developed from *the double loop of discourse between subjective – inter-subjective and human – non-human world*. The double loop means a continuously interweaving among human desire, will and critical and limited knowledge about the outer and the inner world concerning the future. The different meanings of this interweaving can be another resource of social emergence from which complex alternative future shapes can be formed out. Complex alternative futures and discourse about them are needed to make ripe the shifts of social and individual life. Foresight should also involve this type of future discourse. The recommended extended foresight concept gives space for building and discussion of complex alternative futures through its self-reflective characteristics and striving to get harmony between the inner and outer world.

At this stage I do not wish to enter into the philosophical debate whether there is such a thing as objective reality or there is only reality as interpreted by human being. Accepting the statement of modern science concerning of it that awareness and knowledge constitutes constantly changing human interpretation. The genuinely interesting question for science and foresight lies in how this knowledge is created or constructed, how much of it stems from human stimuli and impulses, how much from those coming from the outside world, what role do they each play, and how do the two sides intertwine in the process of interpretation or construction concerning the future. From the point of view of time *human perception* seizes not only the moment of right now as a point in time, but can still see what has just happened and is thus also aware of the moment that has just passed. It is aware, furthermore, of passing from now to a new now and, looking ahead, anticipates it. An attentive consciousness and an attentive life impressions and perceptions make for the anticipation of the new now. All human perception is always characterized by an original future intention passing from the past to now, which is invariably linked to experience intentions rooted in the past [18]. *Perception is total in as much as it happens not only within certain time limits, but is filled with content as well even when we recall something or apply it to the future. Content entails a mental state, but it must always have a trigger or a source as well.*

Husserl, the father of phenomenology, *studied perception as a process unfolding within human beings, i.e. always in relation to the way human being reacts to the outer world or to the inner reality*. This offers two conclusions. One is that perception is the starting point of all interpretation, discourse and human communication, while *it is reflexive and self-reflexive as well*. The other is that, given the nature of perception and interpretation, *it possesses an internal and external dynamic, which merge into complex dynamics*. To put it in simpler terms, he or she who perceives and interprets, what is perceived and interpreted and their end-product, the perception and the interpretation, are all present in the process of perceiving and interpreting, each one of them as well as their interaction being variable.

*The continuous dynamics of perception, awareness and interpretation can be the subject of philosophy, social and natural sciences and foresight alike. The link among them is human being, the active individual who is an integral part of an undertaking to create reality [19]. Human being, therefore, is an individual with relative independence and autonomy or, as the specialist literature describes him or her, someone with the characteristics of an agent. He or she realizes the individual and collective sources of his actions in local and partial activity within the field of his or her own agency. He or she activates some collection of the social sources of interpretations made available by the situation, and at the same time he himself or she herself becomes active within the interpretations, putting forth at least relating the interpretations to himself or herself and using new interpretations in his or her own and in his or her community's life, and thus contributes to increasing the social sources of interpretations [20, 21]. From the point of view of our subject this leads us to the conclusion that only human being can have foresight, even if it relates to the future of his or her community or the outer world. Our second conclusion is that the outer world as well as the relationship between the outer world and human being are also important for "an attentive consciousness and an attentive life".*

I think that socio-cultural constructionism and critical social sciences, among them the conceptions of FFS and PF as well, broke with the latter relation. Recurring to Habermas' train of thought, social constructionists often refer to society being "lifeworld", i.e. inter-subjective relations, which must be freed from the power of the world of the instrumental mind, i.e. the relationship of subject and object [22]. They tackle this freeing or liberation by transposing the subject-object relation (the relation between human being and the outer world, in our terminology) into a relation between subjects. This, however, does not follow from the logic of Habermas. What does follow from it is that the "instrumental rationality", knowledge of the outer world, serves lifeworld. Habermas, therefore, is no subjectivist and voluntarist in the absolute sense of the word, but someone who claims that man's inner and outer world can be shaped through the critique of what already exists. *Foresight may be one form of critique, to which both types of relations of them may belong if it builds on the foresight capacity at the community level (of both types of relations), the foresight capacity of the individual and if it considers as its subject, besides inter-subjective relations, subject-object relations as well as their interaction.*

The richness of human perception is valid together with the above mentioned limitation. During history experience was collected and science was developed to decrease the limitation of human perception. Consequently the foresight should also take the opportunity of them. I think that not even foresight can avoid the subject of complex dynamics. The question that arises is how foresight deals with this subject.

## **TOWARDS TO THE META-THEORY IN THE FORESIGHT**

Laszlo, Malaska, Mannermaa, Hideg thinks [23 – 26] that the general evolutionary theory (GET) can be the suitable theoretical and methodological background to study issues of emergence in Futures Studies and in the foresight process. The reason of it, that the subject of the GET is to extend meaning of evolution and to study the emergent characteristics of evolution. Despite the reasonability of GET the foresight is unwilling to use the evolutionary way of thinking, and methods and/or tools based on GET in a wide range. I think that GET plays a role in this reluctance, too.

Recently a new trend of GET was developed. This is the fully human meaning of evolution as it named by Loye [27, 28]. It means that the socio-cultural evolution or the human evolution has some characteristics which are very different from the characteristics of the evolution of

non-human systems. In the socio-cultural evolution the pattern of “survival of the fittest” is not exclusive. Other patterns as mutuality, cooperation, love, moral sensitivity, consciousness, creativity and capability for a choice of destiny in a world in which choice of destiny is an option are influencing the socio-cultural evolution and the future of evolution as a whole dominantly. The cause of that is the fact that humans and their societies have developed co-evolutionary with a brain and mind system [29]. Consequently, societies have their own specifically human evolutionary aims. Societies are more complex than other systems because their basic elements are individuals with their knowledge, intentions, wills, morals and foresights.

The statement that the society can be seen as a new level of evolution can be acceptable. *But the conclusion that the development of society can become independent of the world being out of society can not be acceptable.* This non acceptance is proved by rough damages of the natural environment and the biological background of society caused by environmental pollution, hunger and other so-called global problems. If the foresight disregards of them or handles them only on desire or moral consideration, it can not present realisable future solutions of these problems and the socials issues, too. Therefore *a new meta-theory is needed for foresight activity* to bring together human desire, morals and creativity and experience, knowledge about the outer and inner world of human being. It could be said that the complexity theory could be adapted to the meaning of foresight. *This adaptation can not be solved because of insufficient future contents of complexity theory at this time.* This paper does not also sign on the theory building but recommend an approach through which it can contribute to the further development of the theoretical and methodological basis of foresight.

For this propose *applying an extended participatory approach is recommended.* Participatory approach as a form of human communication has been developed and used in the foresight activity in a wide range. This approach is used to communicate social stakeholders about their desire futures and/or to get a consensus future world view. Using participatory approach in this way is pure subjective as it was pointed out above. The main weakness of it is that presumption according to which shaping desirable futures and/or consensus future explicate their fulfilment. Nevertheless, the participatory approach can be reform. Beside stakeholders of society we can interpret certain systems of the nature and the artificial world as “stakeholders” who have significant impacts to the future of society and the foresight of social stakeholders, as well. Inversely, the foresight of social stakeholders has also significant impact to “the foresight of stakeholders of nature and artificial world”. “The foresight of stakeholders of nature and artificial world” could consist of their dynamic characteristics as we understand, know or suppose about them. These interconnections and –actions can be imagined as a drama in which there are different characters and the drama constitutes a discourse among different characters. Playing a “future drama” the interactions and -corrections of foresight of different stakeholders could be carried out.

This “future drama” could be also loaded up with interactively used models on dynamic behaviour of system-models of different type and social scenarios. In these models the foresight of social stakeholders could be the one element and the others could be “the foresights of the nature and artificial world” i.e. the possible future states or time paths of non-human systems emerging from the interaction of “foresights of different stakeholders”. The future states or time paths of systems could be interpreted as possible futures which are also filtered by understanding, knowledge and desire of social stakeholders in this way. Construction of “future drama” should need transdisciplinary models in which applied models, their interconnections and -actions among the human perceptions, experience, scientific knowledge, future expectations, options and human actions concerning to actual foresight issues should be also mapped. Both moments of adaptations and goal-orientations

of social level of evolution could be also expressed in the foresight process as a “future drama” in this way.

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## REFERENCES

- [1] Slaughter, R.: *Glossary*.  
<http://www.foresightinternational.com.az@glossary/dfgloss.htm>,
- [2] Slaughter, R.: *The Foresight Principle*.  
Adamantine, London, 1995,
- [3] Slaughter, R.: *Futures Beyond Dystopia: Creating Social Foresight*.  
Routledge – Flamer, London, 2004,
- [4] Nováky, E.; Hideg, É. and Kappéter, I.: *Future Orientation in Hungarian Society*.  
*Futures* **26**(7), 759-770, 1994,
- [5] Gidley, J. and Inayatullah, S.: *Youth Futures*.  
Praeger, London, 2002,
- [6] Masini, E. ed.: *Visions of Desirable Societies*.  
Pergamon Press, London, 1983,
- [7] Nandy, A.: *Science, Hegemony and Violence*.  
Oxford Publishing Press, Oxford, 1993,
- [8] Sardar, Z.: *Postmodernism and the Other: The New Imperialism of Western Culture*.  
Pluto, London, 1998,
- [9] Nováky, E.; Gáspár, T. and Tyukodi, G., eds: *Youth for a Less Selfish Future. Budapest Futures Course – 2001*.  
Futures Studie Centre, BUESPA, Budapest, 2002,
- [10] –: *Training programmes*.  
<http://www.tukkk.fi/tutu/tva/english/studies.htm> and <http://www.infinitefutures.com>,
- [11] Henderson, H.: *Paradigm in Progress*.  
Knowledge Systems Inc., Indianapolis, 1991,
- [12] Miles, J.; Keenan, M. and Kaivo-Oja, J.: *Handbook of Knowledge Society Foresight*.  
PREST and FFRC for the European Foundation for the Improvement of Living and Working Conditions. 2002,  
<http://www.eurofound.eu.int/areas/industrialchange/foresight.htm>,
- [13] Martin, B.R. and Ervine, J.: *Research Foresight: Priority Setting in Science*.  
Pinter Publications, London, 1989,
- [14] Project FOR-LEARN: *Country Specific Practical Guides to Regional Foresight*.  
<http://www.cordis.lu/foresight/cgrf.htm>,
- [15] Skumanich, M. and Silbernagel, M.: *Foresighting Around the World: A Review of Seven Best-In-Kind Programs*. Chapter 2.  
Battelle Seattle Research Center, 1997,  
<http://www.seattle.battelle.org/Services/ES/foresite/ch02.htm>,
- [16] Karp, T.: *Building Foresight Abilities in Organizations. A Future Opportunity for Futures Studies*.  
*Futures Research Quarterly* **20**(2), 5-30, 2004,



- [17] Prigogine, I. and Stengers, I.: *Order out of Chaos*. Flamengo, Glasgow, 1985,
- [18] Husserl, E.: *Zur Phänomenologie des inneren Zeitbewusstseins*. In: *Jahrbuch für Philosophie und Phänomenologische Forschung IX.*, 1928. Husserliana, X. Martinus Nijhoff, Haga, "Előadások az időről", Atlantisz, 2002. In Hungarian.
- [19] Caputo, J.D.: *On Being Inside/Outside Truth*. In: Marsh, J.L.; Caputo, J.D. and Westphal, M., eds.: *Modernity and Its Discontents*. Fordham University Press, New York, pp. 45-64, 1992,
- [20] Jensen, K.B.: *When is Meaning? Communication Theory, Pragmatism and Mass Media Reception*. In: Anderson, J.A., ed.: *Communication Yearbook*. Vol 14, Sage, Newbury Park. pp. 3-32, 1991,
- [21] Anderson, J.A. and Meyer, T.P.: *Mediated Communication: A Social Action Perspective*. Sage, Newbury Park, CA, 1998,
- [22] Habermas, J.: *Theorie des Kommunikativen Handelns*. Suhrkamp, Frankfurt, 1981,
- [23] Laszlo, E., ed.: *The New Evolutionary Paradigm*. Gordon and Breach, New York, 1991,
- [24] Malaska, P.: *Economic and Social Evolution: The Transformational Dynamics Approach*. In: Laszlo, E., ed.: *The New Evolutionary Paradigm*. Gordon and Breach, New York, pp. 131-179, 1991,
- [25] Mannermaa, M.: *In Search of an Evolutionary Paradigm for Futures Research*. *Futures* 23(4), 349-372, 1991,
- [26] Hideg, É.: *General Evolutionary Theory and Futures Studies*. In Hungarian. In: Hideg, É., ed.: *Posztmodern és evolúció a jövő kutatásban*. Budapest University of Economic Sciences, Budapest. pp. 39-67, 1998, in Hungarian,
- [27] Loye, D., ed.: *The great Adventure: Toward a Fully Human Theory of Evolution*. State University of New York, 2004,
- [28] Loye, D.: *Darwin's Unfolding Revolution*. Franklin Press, New York, 2004,
- [29] Loye, D.: *The Evolutionary Outrider: The Impact of the Human Agent on Evolution*. Praeger Publisher, London, 1998.

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## IZVIRANJE U PREDVIĐANJU

É. Hideg

Centar za proučavanje budućnosti, Sveučilište za ekonomske znanosti i javnu upravu  
Budimpešta, Mađarska

### SAŽETAK

Članak prikazuje neke cjeline izviranja u predviđanju koje treba znanstveno razmatrati. Ističe tri podloge socijalnog izviranja. Jedna od njih se očituje u razvoju zajedničkih pogleda na budućnost zajednici na temelju individualnih oblika budućnosti. Druga se očituje u relacijama između predviđanja, njene socijalne okoline i vanjskih uvjeta. Treća se očituje u dvostrukoj petlji diskursa između subjektivnog i nesubjektivnog te svijeta ljudi i svijeta bez ljudi. U članku se zaključuje da su metateorija i prošireni pristup sudjelovanja potrebni za istraživanje, proučavanje i razumijevanje kompleksnog socijalnog izviranja u predviđanju.

### KLJUČNE RIJEČI

proučavanje budućnosti, predviđanje, socijalno izviranje