

Theory and Practice in the Field of Foresight

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Introduction

The practice of shaping future views and renewing them is of great importance. During our rapidly changing lives, future images and expectations have to be changed and future-forming decisions have to be made very frequently. Despite this we have yet to develop a well-based theoretical-methodological background to those activities. No past experience provides a sufficient basis to improve future shapes and to make good or better decisions concerning the future under circumstances of frequently changing situations, possibilities and limits. Everyone, from individuals to social organisations, needs to be oriented to change, opened to complex realities, both internally and externally, and to operate reflexively. The study of different practices of foresight and feedback of reflexive knowledge gained from research on futures theory could be a most valuable resource for the further development of futures theory and the renewal of its practical use.

During the 1990s a new futures theory was established with the appearance of critical futures studies (CFS) (Hideg, 2002). It has revolutionized the practice of futures studies giving rise to a wide range of foresight activities. Nevertheless there are different foresight practices that do not seem to be based on any theory of the future nor seem to have practical usefulness. As a consequence there is no feedback to futures theory either. For these reasons we can perceive a downturn in the development of futures theory, which can also lead to the rigidity of foresight activities.

In this paper practical foresight activities are analysed in order to show the gap between theory and practice in order to give some suggestions on how to link them. The analysis and the suggestions are based on a literature review, the author's own research and practice in the field of foresight and futures studies and her participation in the work of the European project, COST A22 (Advancing Foresight Methodology: Exploring new ways to explore the future).

The theory of foresight

Critical futures studies evolved during the 1990s, a key feature being that the future is interpreted as something that already exists in the present in the thoughts and emotions of people. These future thoughts and perceptions affect present occurrences and form an organic part of our 'life world'. Future thoughts are forming and reforming in the process of discourses, so the futures existing in the present are open and humanly constructed.

Thinking about the future and having a notion of the future can no longer be regarded as separate forms of thinking. All human perception and meaning are always characterized by an original future intention, which is invariably linked to experience, intentions rooted in the past. Furthermore not only certain distinguished individuals (fortune-tellers, prophets, sci-fi writers, futurists) can think about the future and develop future views but every human being has such ability. This ability is called foresight in critical futures studies.

Slaughter was the first to define foresight in the futures studies literature (Slaughter, 1995). He defined foresight as '...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 Critical futures studies and its practice use the notion of foresight basically in keeping with this concept. Slaughter's concept, however, is not without antecedents, since Dator (1979), Masini (1983), Galtung (1984), as well as the prospective concept of the French (de Jouvenel, 1964, Godet, 1993) stood for human futures being created by human beings well before the notion of foresight in futures studies emerged. They had already voiced their opinion regarding the forecasts of that time, namely that social and human future partly hinges on human choices and responsibility.

Based on Slaughter's concept, foresight in critical futures studies (FCFS) is conceived on the individual's level but can be extended to a community or to the whole of society (Major et al., 2001). An individual is able to envisage both his own and his community's future. The thoughts and ideas in relation to the future of the community are developed among the subjects of social discourse and are embedded in the process of social innovation until they reach the phase of shaping the future. Both anticipating individual and community futures and their future-shaping effect carry great weight in this process (Slaughter, 1995). The FCFS concept, however, attributes the decisive role to the individual in making foresights vis-à-vis their own and their community's future and in thus forming society. This is why critical futures studies is so wont to deal with the future orientation of individuals, with developing it, with the future orientation of young people, the future of education, the voluntary futures movements, shaping the vision of the future of social groups and the vision of the future of mankind; furthermore, it also considers participation in shaping politics important.

Critical futures studies prefer the use of subjective methods and tools to bring the future thoughts to the surface and strive to develop new tools (futures wheel, futures workshop techniques, causal layered analysis, etc.) for stimulation of discourse about the future at the same time.

Foresight activities in practice

The practice of FCFS began with research on the future orientation of everyday people (Nováky & Hideg & Kappéter, 1994) and followed with the study of future orientation and expectation of the youth generation (Gidley & Inayatullah, 2002). Thoughts about futures in the present stimulated thinking in future alternatives in a wide range of fields and at different social levels from the level of individuals to the level of humankind. The study of alternative future views has flourished by using hermeneutics, critiques and discourses about different futures topics, among them the human responsibility for the future, ethical issues of the future (for example see Sardar, 1998, Inayatullah, 2002, Karp, 2004 and Masini, 2006). Participatory workshop techniques were developed and used in futures training programmes and self-development courses for interested civil groups.² The aim of these practical foresight activities is to develop the future orientation of people and groups/organization and to stimulate them to shape their own future ideas and take responsibility for the future.

¹ See Slaughter's glossary, available at: <http://www.foresightinternational.com.az@glossary/dfgloss.htm>

² For example see homepages of www.tukkk.fi/tutu/tva/english/studies.htm, www.unmillenniumproject.org and www.infinitefutures.com.

In parallel with this approach, another type of foresight practice has also emerged responding to the needs of social practice, namely to the needs of decision making. Its starting point is similar to Slaughter's definition but its activity is defined in this way: 'Foresight is a systematic, participatory, future intelligence gathering and medium-to-long-term vision-building process aimed at present-day decisions and mobilising joint actions.... Foresight involves bringing together key agents of change and sources of knowledge, in order to develop strategic visions and anticipatory intelligence. Of equal importance, foresight is often explicitly intended to establish networks of knowledgeable agent, who can respond better to policy and other challenges' (Miles & Keenan, 2002, p3.).

This type of foresight practice was born as a participative, consensus-building process aimed at shaping subjective visions of the future on the communal or social level and disseminated in the fields of technological and regional development and organizational futures, especially in Europe. The aims of this kind of foresight activity are creating information about the future which helps the decision-making process, encouraging participants/stakeholders to be reflexive about the future, bringing participants/stakeholders together to form collective or shared future visions for the future, i.e. to develop consensus on the future at community level. Its principal objective is to influence political decision-making, so its only task is to shape the desired future on the communal or social level (Martin & Irvine 1989, Miles, 1997, Fuller, 1999, Miles & Keenan, 2002, Loveridge, 2003 and Havas, 2003). This type of foresight practice emphasizes that futures studies appear as no more than background information in the outer circle of this foresight activity (Miles & Keenan, 2002, Keenan & Miles & Kaivo-oja, 2003, Von Schomberger & Guimares Pereira & Funtowitz, 2005). Its theoretical bases are limited to the mere acceptance of the general conditions of socio-cultural constructivism. Yet its practical success urges it more and more forcefully to develop its own theory. 'As the concept of foresight is young and emerged from the practice/practical needs for improving the strategic planning process and participation in decision making, the very concept itself is theoretically rather poorly reflected.' (Fuller & Loogma, 2005, p1). As it distinguishes itself from the practice of FCFS and defines itself as if the notion of foresight belongs to it exclusively, let's name it Praxis Foresight (PF).

Gap between theory and practice of foresight

From the above short overview of the state of theory and practices of foresight it can be seen that the practice of FCFS is an application of the theory of critical futures studies, but PF is a practice without theory which is brought to life by practical needs. Concentrating on individuals' foresight, FCFS emphasises that everyone can shape the future. Concentrating on the community level the PF emphasises that social communities can shape the future by consensus future shaping. These two types of foresight practice could complement each other because they represent two different but equally important contexts of future shaping activities of individuals. This complementary characteristic does not appear at present since PF is stronger and more widespread and its practitioners seem to consider it to be the correct and only practice. This is one more reason for its break-away from the FCFS and its quest for its own theory. It can be reasoned that there is confusion in the relationship between foresight theory and practice that this confusion has resulted in a gap between theory and practice.

One signal of the gap is that PF distinguishes itself not only from futures studies broadly but also FCFS and its practice as well. Why do these two foresight concepts differ from each other so much and why does PF wish to distance itself from FCFS even more in the future? I

see two reasons: first, to break definitively with the notion of the prediction of the future and, second, to distance itself from the individualist-elitist overtone concealed in futures studies and FCFS.

The train of thought behind the desire to breakaway from the notion of prediction is as follows, according to PF. The human-social future is non-predictive, as social forecasts do not come true and prediction is philosophically unacceptable. Reference is made to Popper's argumentation (Popper, 1975), according to whom society has no laws because society consists of human acts and is man-made even though the way people live, think and act is culturally determined by social conditions and circumstances. Forecasts regarding the future of society are, therefore, either self-fulfilling or self-refuting prophecies depending on the course of action people choose to take. The future of society will be good, and this good future will materialise only if people consider it to be good and act in the interest of that desirable future. This is why PF undertakes to help and to bring to the light as well as to create the future(s) desirable for social communities, and to forward this to the sphere of policy-making.

One of the shortcomings of this extremely simplified train of thought is that, if the future of society is non-predictive, it does not necessarily entail that all types of imagined futures, including the desirable future, can actually materialise. The fact that social future is non-predictive means merely that we cannot take into account in advance all the factors that determine the future. That people's expectations and acts cannot be predicted in advance is but one of the reasons for this. The other, just as significant, reason is that the final outcome of intended human acts may not necessarily coincide with the original intentions, since factors independent of human intentions and will (e.g. natural and artificial environment and the activity of other social groups or societies) also have a bearing on the outcome of human acts. A third reason is that the future of society is shaped by a continuous interaction of factors in which chance also comes into play.

Formulating the desirable futures of social communities and societies in present-day societies, particularly in democracies, can in effect be achieved through consensus-building, and the vision of a desirable future becomes a success when it is articulated in a political will. Yet politics is a means of social construction available anyway, and it has functioned and can continue to function well even without foresight. There are innumerable examples, however, to illustrate that even politics cannot shape social reality according to its own will. On the one hand, even politics is unaware of all the factors shaping the future even though it has power over society and employs force to influence it. For another, politics is primarily about keeping power, because modern societies and social institutions are hierarchically structured. The idea of PF according to which a desirable vision of the future can be formulated and realized for all the social groups through consensus-building is, therefore, utopian and voluntary.

History has seen the failure of certain policies based on a desirable future. Communism was one such outstanding historical example, among others. Its failure was in no small measure due, however, to the absence of a social consensus behind it. Yet even if it had enjoyed the backing of a social consensus, it would have failed all the same because it was mistaken in sizing up and interpreting the impact of the outside world (the given technological, economic and natural environmental barriers) on society and on the different visions of the future. At the same time we must also realize that a social consensus can also hinder innovation, change and experimentation and the emergence of new creative futures if it leaves no manoeuvring space for ideas and actions diverging from the existing consensus. From this point of view it

is also worth recalling the thoughts of Funtowitz and Ravetz concerning emerging complex systems, namely social systems, whose principal peculiarity, differentiating them from other complex systems, is that their symbolic representations and objectives always take the shape of alternatives (Funtowicz & Ravetz, 1994).

While political consensus-building follows well-defined rules in the case of societies and social institutions, no rules whatsoever, only different procedures at best, exist in PF. Furthermore, the nature of consensus-building is not well-defined in PF. Unequivocal answers have yet to be provided to questions such as to what extent PF should be involved in the teaching, learning and, possibly, manipulating of its participants, or to what extent PF should be active in featuring and integrating into policy-making innovations by experts and concerned laymen. This is important because PF focuses on the consensus-building process, which is considered to be its principal characteristic, as well as the foundation of its endeavours to formulate theories. At the same time, professional literature rates PF according to the individual qualities its management possesses (Skumanich & Silbernagel, 1997, Salo & Könnöla & Hjelt, 2004).

Humans cannot have complete freedom even in the most democratic of societies. Not only is freedom is curtailed by others, but there are also other factors that amount to impediments, such as resources, infrastructure, the artificial world and the limitations arising out of the natural environment and its peculiar laws of functioning. PF may easily reach an impasse if it disregards these factors that may also form the future outcome even if a consensus future is reached in keeping with the tried and tested rules of the game. Unfortunately, no thorough case study has been conducted to date on experience gathered in the field of implementing PF or of their impacts.

The fact that PF overemphasizes the nature of consensus-building gives rise to yet another disadvantage from the point of view of theory. This is no other than the endeavour to eliminate the open character of the future. Reaching a consensus in relation to the future does daily politics a good turn indeed, as it leaves politics nothing but to carry out implementation. But this eliminates the openness of the future only seemingly, temporarily and dangerously, and also poses some risks. Seemingly, because every act and its new outcome constitute new conditions for the act next in line. These new conditions, however, do not necessarily support the further implementation of a consensus-based future. The follow-up activity, which constitutes a part of PF, ought to inform about this. Supposing the follow-up is going without a hitch, the consensus-based future might still cause a problem, as the new facts give rise to new and different interpretations, thus upsetting the consensus reached with hard work in any moment in the future. Consensus, therefore, always belongs to a given moment in time, and there is no guarantee whatsoever that it can serve daily politics for longer even if politics relies on its power to enforce the consensus-based future. It is, therefore, advisable, to distinguish desirable futures from the consensus-based future, or to interpret the consensus-based future, as does FCFS, as a consensus-based future province and, within that, in acceptable alternatives. This takes us back to the concept of the future embodied in FCFS, which would leave us with no sufficient grounds to think up differing theories. The advantage of conceiving the consensus-based future as a future province is that there can always be visions of the future that will provide the framework for the quest of yet another consensus-based future. In other words, if the future is open to start with, then PF ought to deal with it as open, as does FCFS. The risk of the consensus-based future of PF is that it focuses only on the desirable future, though it ought to consider and keep in mind wild cards as well. PF does not

undertake this at all, something that leaves a lot to be desired. FCFS and its practice, on the other hand, embrace these possible futures too.

The turn against the individualist-elitist overtone can be detected in two different aspects in PF concepts. One is apparent in the way of treating individual foresights, while the other emerges from the evaluation of the role of the individual futurist.

PF as a process building social consensus always endeavours to formulate the vision of a desirable future for a certain community. It considers the future orientation and vision of the future of the individual important only as much as it serves as a source for the formulation of visions of the desirable future of a community. FCFS, on the other hand, emphasizes the individual, as being only one who can contemplate their future and that of the community. FCFS also regards the implementation of desirable futures important both on the individual and the community level, but it does not expect the individual's future to be completely subjected to the community's future. After all, real societies make different courses of life possible; in fact, the more freedom there is in a given society, the greater the differences between the desirable futures. Community level common futures tend to be some kind of common denominators, common frameworks for interpretation which allow a wide variety of individual futures.

According to PF, futures studies and FCFS is elitist in as much as it continues to treat the futurist as a privileged individual who regularly deals with the futures of communities as well as the futures of individuals, with future theories and developing methodology instead of being limited to applying the mechanisms of consensus-building to shaping future images. According to PF, the futurist does not have to tell the future, for he cannot know it, nor forecast what kind of common future people are prepared to work for. All that is needed is a foresight manager, who knows how to bring individual foresight to the surface, how to merge them into community-level desirable futures or foresights. According to FCFS, however, a futurist can be a foresight manager, but must continue as a sociologist too, who deals with the possible futures, their degree of desirability and inherent risks. This is lacking in PF, since a foresight manager is not responsible for the elements of content, but only for producing a common and desirable vision of the future. Judging from the different foresight indices, PF employs the already used futures studies methods and methods developed within FCFS, the choice of which depends on the foresight manager. The applied methods are not subordinated systematically either to the subject of PF or to consensus-building. Subjective methods are excessively highlighted for the reason that a desirable future cannot be brought to the surface without a subject. PF is successful if it manages to involve in the foresight process the most number of people concerned, i.e. if it rests on democratic bases. Foresight managers do not reckon with or strive to diminish the errors arising from the unilateral use of subjective methods, as they believe that only the human mind is able to comprehend and feel the total reality and to interpret it when formulating a vision of the desirable future (Sanders, 1998).

Seeing that consensus-building and the one-sided application of subjective methods are becoming increasingly dominant in PF, we can certainly count on the enhanced presence of subjective errors if the thus formulated desirable future gets into the mechanism of enforcing and implementing political interests or of managing institutions. All the same, there is a forceful drive to make consensus-building PF the general European practice and characteristic. This is reflected in the different so-called practical guides to technology or to regional foresight, which have been compiled with common European research work. This is a grave error indeed because a certain kind of series of practical procedures is disseminated

without the adequate theoretical background in a way that allows no self-correction or further development.

Another sign of a gap is that PF narrows the construction space of futures. According to PF, construction of futures is subordinated to consensus-building and only the favourable futures belong to it.

There is no doubt about the importance of formulating a consensus-based future, since society as well as the interaction and communication between individuals make up our 'life world'. This interactive relation and communication, however, gains far better expression in social discourse, which is the sphere where interpretations emerge, are formulated, discussed and transformed. Reaching a consensus is one possible result or outcome, as the ongoing discourse embraces the interpretation, the clash and the coexistence of conflicting concepts as well. This is to say nothing new, but to make a reference to Habermas's concept. Besides, it is necessary to mention Habermas's concept regarding ideal communication too. He uses social discourse not only in the sense of consensus-building, as that would exclude criticism as the driving force behind social dynamism. By discourse he means ideal (free) communication characterized by equal and mutual participation, which is the only way to level constant criticism at the existing society (Habermas, 1981). The rules of discourse and consensus-building in politics, on the other hand, always hinge on the prevailing power and interest relations. That is why ongoing politics can constitute the subject of social discourse as seen by Habermas. Criticism, therefore, is a discourse-building and not consensus-building process by nature; though under certain circumstances it can become the latter as well.

Free discourse, just like democracy, is more than the prevalence of the will of the majority; it is also about defending the right of the minority to have its own opinion and interpretation of things. I believe this should hold true for visions of the future as well. For this it is necessary, however, that visions of the future should constitute not only the building blocks of community-level and desirable future images, but should also be the participants of equal rights in the flow of free discourse about the future. Continuous discourse expresses the essence of foresight better than consensus-building even in the field of social theory, as it embraces both the recognition and the acceptance of interpretative conflicts and conflicting interpretations. This leads us yet again to the theoretical questions of the openness of the future, a matter discussed also by FCFS. FCFS considers discourse as a developing, open-ended process of comprehension and interpretation in the course of which a community of different future interpretations that understand each other is formed. This community is characterized by the fact that they understand each other's concepts and outline a wide variety of alternative futures (Masini, 1994, Masini & Sasson, 1994, Inayatullah, 2000 and 2002, Stevenson, 2002).

Discourse is not only a more general concept than consensus-building for interpersonal communication in society, but it also provides a more useful and to-the-point framework to interpret the openness of the future. Consensus always contains, beyond understanding, different concessions, particularly ones that come about as a consequence of a majority view. Extending consensus-building infected with power politics and manipulation as well also endangers the openness of the future. Furthermore, it does not develop the individual's sense of responsibility for the future, nor any responsible acts by the individual. The only acceptable interpretation of discourse and even the process of consensus-building, therefore, can be one which leaves the individual their right to and responsibility for their own and their community's future and one which allows them to interpret their own future within the future

of their communities. (Masini, 1994, Bell, 1997). The consequence of forcing a consensus regarding the desirable future may be even more dangerous than accepting a forced consensus in a given matter of day-to-day politics, as there is no greater loss experienced by people than the loss of their future, apart from their life of course.

Individualisation is unstoppable in western civilisation, because individual knowledge grows and individual abilities and life situations become more varied. As a part of this the individual's future orientation and concerns about the future are increasingly becoming a natural attribute or characteristic of his or her 'life world'. The dwindling or transformation of the welfare state also demands that the individual constantly live in a future-oriented manner, as society takes less and less care of those who do not cater for their own future. Conceived as knowledge society, the future social model accepted for Europe also envisages individuals and communities responsible for their own future, which is why lifelong learning takes centre stage (EC, 2001). Even if we do not consider Europe's desirable social future to be implemented as the comprehensive updating of social philosophy, it nevertheless constitutes a practice which already exists and aims to shape the future and which makes it all more necessary to interpret precisely the content and theory of European PF in a way that fits to this view of society. PF with its consensus-building concept is more suited to the practice need of the welfare state's social model than to experiment with the practice of a future social model with a new practice yet to be shaped.

The discussion above shows that the theoretical consequences of PF cannot be adjusted to futures studies and FCFS in many respects. There are some theoretical consequences of PF which are against advanced futures studies and its theory of foresight or imply theoretical withdrawal in some respects. It does not mean that the theoretical basis and considerations of futures studies and FCFS constitute a perfect theoretical system at the same time. It means only that their future theory and theoretical considerations are better established and can be used better in an extended way than the considerations of PF. It has to be remarked that the futurists dealing with futures studies and FCFS do not exclude other foresight specialists. They believe in theoretical and methodological pluralism (Slaughter, 2004).

A third sign of a gap is that neither FCFS nor PF studies and evaluates its practice from the aspect of its theoretical and practical returns. Naturally, every foresight activity is evaluated but the evaluation of 'time series' of foresight activities concerning the same issues, the development path of future shapes and future-shaping activities is still to be done. Characteristically, specialists of both FCFS and PF get new ideas and new theoretical considerations by grasping action research and learning and communication theories instead of producing self-reflexive knowledge of foresight activities (Burke, 2002, Stevenson, 2002, Ramos & Inayatullah, 2006 and Inayatullah, 2006.) I do not want to say that this grasping is useless. I want to say that the lack of self-reflexive study of practical foresight activities and production of self-reflexive knowledge of foresight and their feedbacks to the theoretical basis can also contribute to the existence of this gap.

Reducing the gap

The gap between theory and practice of foresight shows that regular communication and discourse about the future of foresight is lacking between professionals of FCFS and PF. Foresight specialists are rowing on their own lines while they are in the same boat. It is time to renew joint discourse and research about unsolved issues of foresight using experiences

gained from different practical foresight activities as well. The issues mentioned below need joint discourse and further research at deeper and wider levels.

One group of issues worthy of research is the history of future ideas prepared by foresight activities in different fields. For example it should be worth answering the questions why and how desirable futures in the field of technology or regional foresight practices change. Do these future shapes and images fulfil themselves totally or only partially or do not at all? For which reasons do desirable and consensus futures need to be renewed? What is the experience of continuous foresight activities? How do the participants/stakeholders apply consensus futures or shared future views created collectively and earlier in shaping their own futures? Answering these or similar questions should generate new self-reflexive knowledge and give starting points to discourse hot theoretical and methodological foresight issues.

Other contexts of multiple analyses of foresight practices may be to focus on content issues of foresight. The greatest merit and achievement of both type of foresight lie in the fact that they focus their activities on bringing to the fore and on shaping the possible and/or desirable futures of human communities. These futures materialise in the course of inter-subjective interpretive discourse and consensus-building between those involved, constituting futures in the present, which compel people to act and take responsibility.

Besides these, neither foresight theory, nor different foresight practices, pay enough attention to the matter of content of human futures, including the desirable future. The fact that matters of content are pushed to the background is a consequence of foresight's socio-cultural constructivist concept and of the almost exclusively subjective methods foresight practices use.

By matters of content I mean that the future, even the future in the present, is not merely inter-subjective discourse, though it is born in the course of that. Although the process of discourse and interpretation is indeed interaction between people, we cannot disregard what the discourse is about and what constitutes its subject. Constructivism deals with this in the system of relations between semantics, syntax and context, as people associate a meaning with something in a given relation and environment. This system of relations is really important from the point of view of human discourse, but content and, thus, dynamic aspects of the interpreted, outer, not-human world are excluded from this even though foresight regards interpretation as a process too. The dynamic of the outer world interpreted during human discourse would be highly important in the interpretation process because of its orientation to the future, but not only in as much as interpretation has its own dynamic and development process but also in as much as the object of interpretation has its effect on the interpretation and interpreter, which can have its dynamic too, and, moreover, these dynamics have their own interaction. Making these complex dynamics manageable is a challenge for all types of foresight and for the whole discipline of futures studies.

From the point of view of practice it must be mentioned that it is precisely the achievements of science and technology which proved the relationship between interpretation and the outer world. That mankind has not become extinct may be an argument to support the view that human interpretation and construction of the outer world is not completely random, and depends not only on culture, etc., but on the outer world as well. Interpretation and construction are, therefore, not lines of division but a view that expresses an approach to the world: interpretation and construction can be conceived both as merely a human perception,

thought or emotion, but also in a manner where the perceived, conceived and emotion-provoking outer world also plays a role and is in dynamic interaction with the human world.

It is worth asking these questions in relation to the future as well, since expectations are inherent in all perception to begin with. Distinguishing and studying the process (conversation, discourse, dialogue and negotiations between people) in connection with human futures is worthwhile, but at the same time the content of the subject of the process (what we experience, think, perceive and feel, and why) cannot be ignored either. In other words, the outer world also influences how we interpret the outer world even if we consider it basically unfathomable or something constructed by humans alone. What is interesting in such a case is how the signals from the changing outer world are received, what kind of imaginary constructions can be built from them and how they can be used to modify the outer world or ourselves. Unless we are diehard agnostics, experience, science and the arts inform us about the outer world too, and not only about the mental state, system of interpretation, values and beliefs, etc. of people.

This can and must be recognised indirectly as well, because we are both biological beings and successful survivors. Every biological being is exposed to the influence of the outer world, to which it must also react. If it makes the wrong reaction, it perishes. Although societies have built many a defensive and risk-preventive system on the basis of knowledge and experience, these have been unable to pre-empt natural catastrophes or bring to a halt the dynamics of the outer world. What is more, these artificial systems even constitute danger for us. It is, therefore, vital that in interpreting the outer world there shall be continuous dialogue between deciphering and interpreting the meaning, i.e. between the subject and the object, of information obtainable about the outer world and human practice. The course of the foresight-making discourse is also about what the outer world could become, how we would like to see it and what we could do to make it to be so. Human discourse is, therefore, a complex phenomenon which always has complex points of reference, domains of meaning and interpretation as well as consequences as regards both its subject matter and participants. At least these two loops of discourse and their interaction should be the subject of research and experiments in connection with foresight.

I hope that, through such joint discourses and research on the above mentioned topics, self-reflexive and reflexive knowledge could be fed back to foresight theory. This feedback could also contribute to reduce the present gap between theory and practice of foresight and help further development of foresight practice as well.

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