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# Modelling a Pattern for Responsibility: Science and Theory of Sustainable Development

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The article explores the complex relation between theory, research and real institutional policy with regard to environmental issues. The basic assumption is that the myriad of empirical scientific research has to be related to a fruitful theory which could continually challenge official definitions of sustainability and sustainable development as the main conceptual shortcomings of the present social order in its attempts to solve the problems it creates. It implies that a potential “ecological” society could be achieved only through radical social change – a theme that has to stay as a reminder in the multitude of environmentally sound research and institutional programs.

## Oblikovanje obrasca za odgovornost: znanost i teorija održivog razvoja

Izvorno znanstveni članak

Članak istražuje kompleksan odnos između teorije, istraživanja i stvarne institucionalne prakse na planu okoliša. Osnovna pretpostavka ukazuje da brojna empirijska znanstvena istraživanja treba dovesti u vezu s plodnim teorijskim generalizacijama koje bi omogućile kontinuirano propitivanje službenih definicija održivosti i održivog razvoja kao glavnih konceptualnih ograničenja postojećeg društvenog poretka u nastojanjima da riješi probleme koje sam proizvodi. To znači da bi se moguće “ekološko društvo” moglo dosegnuti jedino radikalnom društvenom promjenom – i ta tema treba stajati kao podsjetnik u mnoštvu ekološki senzibiliziranih istraživanja i institucionalnih programa.

## 1. Introduction

The world has been struggling with a global financial crisis for more than a year. This once again points to a deep inner contradiction of capitalism and manifests itself not as a mere financial crisis, but also an ecological and a social one. Many economic and social analysts argued that it is also the crisis of neoliberalism, a socio-economic model imposed in the West since the 1970s, which became a leading economic model of the global economy, incorporated in the developmental programs of the major world institutions, such as the World Bank, the IMF or the EU. Even though the crisis always presents an opportunity for new, innovative solutions and breakthroughs, it seems that current anti-recession measures taken on by leading politicians and economists are bound by the old paradigm of economic growth, measured only in the increasing number of produced

goods, and moreover increasing profit, regardless of the price humans and nature have to pay for it. Instead of opening millions of jobs in the new ‘green’ economy, as president Obama had promised, we are witnessing large investments in the automobile industry central to the old industrial paradigm. Even worse, the solution for the crisis, especially in the so-called ‘developing’ countries, such as Croatia, is sought in the cutting of established social rights; rights which should be part of socially responsible business.

Given all these facts it is important to remind ourselves of the basic premise regarding the role of science and theory in modelling a possible ecological future of our world, by which we do not think only of nature-friendly development, but of ecological society where domination as the basic relationship between men and between man and nature will be dismantled. Consideration of these issues was presented at a separate

session on MOTSP 2009 scientific conference, while the present elaboration is directed at opening a broader space for the interdisciplinary agenda with regard to social contextualization of theoretical problems included in the concept of sustainable development and its expanded manifestation in present practices of corporate social responsibility.

## 2. Interdisciplinarity and its contextualization

Regarding contemporary complexity of research phenomena, interdisciplinarity has established itself as the *order of the day* in current scientific advancements and theoretical generalizations. This is the starting point in the understanding of the potential sociological contribution to the topics of technology and sustainability considered mainly in the field of technical scientific disciplines. However, this also creates a somewhat ambiguous situation considering opportunities for obviously different epistemologies and discourses to meet in everyday practices. This is nothing new regarding the interdisciplinary dialogue even among social sciences and humanities [11]. The situation is even more complicated as it is important to recognize that there is no uniform professional or disciplinary judgment or position considering any research problem – and this is why we are used to expressing ourselves in terms of theoretical perspectives thus acknowledging a reality of ideological content, implications and premise of science as such.

Whether it could be considered as a barrier, or as stimulation toward real interdisciplinary, research cooperation depends on the researcher's abilities to cross beyond institutionally separated scientific and disciplinary framework and to involve the principle of mutuality in the process of sharing scientific knowledge.

In addition, intellectual and working space for sharpening the context of interdisciplinary manifests itself also in cooperation with the non-academic research sector. Although it is - in the context of the engineering research practice - relatively simple to understand this as a need for research interchange with the world of business, namely industrial science, including many of its evident ethical disputes [13], there is also good reason to broaden this issue to the field of scientifically relevant knowledge that stems from different strains of social activism concentrated on phenomena that have traditionally been taken as "matter" of academic science. Rapprochement of these two worlds is maybe impossible due to the social differences in the actor's power and status allocations in a broader society, or maybe it is some sort of imperative when the actors closer to reality face the problem they are concerned with - from global warming to the

pollution of small site in one quarter of the city. There, interdisciplinarity, as it is officially integrated in academic community, transforms from usual, everyday circulation of scientific papers among academic professionals into interaction that involves mutuality of theory and practice with respect to numerous types of knowledge. In that context both technical and social solutions are included. Considering the character of establishing conflicting positions with regard to the issue of sustainability and environment in some, but very active discussions [7], the opposition between academically-hard-technical and alternative-soft-civil preoccupations and approaches exists more as a barrier than as a stimulus to a fertile theoretical synthesis. In that context it is useful to recall Beck's reflections on reflexive modernization in which pretensions toward "public knowledge" are resulting in de-centering, of structure that rests on traditional divisions between expertise and laical knowledge [3].

## 3. Theory needed - indeed

Two aspects of scientific concern with sustainability are examined in some detail with regard to prolific interdisciplinary dialogue. The issues that arise from social theory and which are considered in the following text could help to clear at least some basic terms outside of social sciences' audience.

First, it is necessary to recall Mills' remarks on interdependency of theory and empirical research, which remind us that fruitful theoretical intervention in reality can be achieved through continual intellectual flow between the former and the latter. Considering the issue of sustainable development, it is possible to ascertain that myriad of respectable recent empirical research on sustainable development and its derivatives, has not been followed by corresponding theoretical generalizations. In other words – as it is confirmed in history of social research in other fields [13] – important results of empirical research often had no appropriate relevance for theory and practice.

Second, and this stems from the first, we refuse to follow quasi-theoretical patterns enshrined in official definitions of sustainable development, so immanent to numerous empirical research. In fact, we consider them as mere abstractions with no real theoretical content, because they avoid putting environmental issues into a proper social context – and consequently can be assumed as the main weakness of recent, mostly academic, science and, to a certain extent, of its inability to legitimise the longevity of theoretical efforts that have been continually raised throughout the past century.

Although the famous Kant's sentence - "nothing is as practical as a good theory" - confirmed its validity during the twentieth century exactly in the field of technical

and natural sciences [13], the prevalent objection is that social sciences and philosophy tend to be preoccupied with theory with no practical use. However, from the midst of the twentieth century, a positivistic approach acquired its impetus within the social sciences that had manifested itself in mass application of quantitative research techniques in the service of industrial growth. The illusion was created that growth was unlimited and that everything that belongs to the scope of knowledge could be subjected to measuring – the consequence visible in “the fetishism of operative techniques” [13], an approach that should have been implemented even in the most subtle terms. In the context of environment and related issues, the question of theory manifested itself in two general scenarios.

First, the promise of the modern epoch rested on an image of science as a fundamental criterion of truth and it had established itself in the infinite number of discoveries and advances. Simultaneously, with unintended consequences and more frequent disastrous outcomes of technological development “science as a promise has turned into the position of the ambiguous subject that has to be theoretically challenged” [3]. Due to the parallel establishment of environmental problems on the world scale, during the last three decades it is possible to recognize a turn in (social) theoretical discourse that started to form itself with regard to future prospects of society, humanity and the very possibility of life on Earth in terms of “crisis” (of resources, growth, perception), “limits”, “breakdown”, “ambiguity” etc.

Recently, among academics, a more prominent conceptualization has been that of *the risk society* by Ulrich Beck, aimed at the society of advanced modernity as dominated by the omnipresence and “ubiquity” of risks, “not only at the level of dominant consciousness but also as the challenge that threatens to disrupt societies in general” [3]. With regard to the research-theory issue, it is useful to recall Beck’s claim that in the risk society, science - the principal institution for identifying and analyzing risks - is drawn into an untenable, Janus-like position: “By engaging in its traditional role of generating new discoveries and new technologies, science inevitably *creates* and *adds* to existing risks. At the same time, science is the principal institution for detecting and analyzing risks, especially those that are subtle” [3]. Science, now as a potential subject of critique is set out by the risk society’s “individualized” and in social movements active actors: “What it signals is no longer change *in* society, but change *of* society, of the whole of society - or, to be more precise, change affecting the foundations of whole modern societies” [2]. In that sense, the process is reflexive because we increasingly have to face unintended and unwanted consequences of our own (scientific and industrial) success, and just one example of broken boundaries in the traditional framing

of “the hierarchy of credibility” in society lies in the fact that the experience of global risks to civilization calls into question the traditional rule by experts in economics, politics and science [2].

Additionally, limitations of efforts to solve environmental degradation by addressing only the consequences and improving the measures of control (and control in general), legitimised the issue of the roots of ecological crisis and, consequently, established a specific question which modernity has repressed and put aside as unimportant, vague and out of reach of the dominant scientific approach – the question of society. Accordingly, this paved the way not only to the understanding that ecological crisis had its origins in social crisis, i.e., that the domination of nature stems from the same phenomenon in society, but also added to the development of the new philosophy that considers nature and its evolution in terms of freedom as the main attribute of its spontaneous self-direction that can outgrow into a social principle [6]. In other words, to be critical of the notion of nature as blind, mute, competitive, stingy and cruel – the argument that has been continuously used to justify social domination as a natural extension – allows us to point out toward a significant gap contained in the European scientific and philosophical tradition which established the prospect of human emancipation along the lines of the conquest of nature.

These considerations are obviously gruelling to a mind accustomed to instant solutions. They have no practical use in an era dominated by short-term (corporate) visions and applications. But, they are socially and epistemologically subversive – pointing to the radicalization in our understandings of nature by questioning the prevailing marketplace image of nature formed by capitalism as a social system that rest on domination, hierarchy and competitiveness as unquestionable “natural” common ground of humanity. Theoretical implications are thus redirected toward the ideology of (post)industrial capitalism – a social system that identifies growth with progress and the domination over nature with civilization.

#### 4. Sustainable development - conceptual problems

Sustainable development – a concept that has been defined and conceptualized in a infinite number of scientific articles and books – promulgated itself through all pores of contemporary society: from the UN to the national level of economic development, from the smallest radical and alternative ecological group to the biggest corporate polluters with global impact, from recent programs in kindergarten to academic curriculum. It has strange power to transmute itself by assigning the

adjective “sustainable” to almost everything: economy, production, tourism, agriculture, education, architecture, design, world, knowledge, management, logistics etc. – in short, every aspect of *society*. After, at least, two decades of its prominent role in official political discourse we are still witnessing the environmental problems exacerbation of.

Nevertheless, the concept – that in itself integrates notions of sustainability and development which modernity in its triumphant self-legitimation internalized as opposed – still serves as the only imaginable panacea for society faced with deep crisis. In fact, the function of the current capitalism’s insistence on sustainable development is to alternate the discourse of crisis and to legitimise the present economical, political and cultural order as capable of solving the problems it generated and that are imposed as a price for its own “success”.

The aforementioned remarks are just vaguely sensed in official definitions of sustainable development. Most of them are trying to reconcile the prospect of (economic and industrial) growth with limits of the entire ecosystem, denoting social context in terms of *responsibility* suggesting that existing social economic formation can be treated as a frame of reference. It is specified in maybe the most popular definition: “Sustainable development is the ability of humanity to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional changes are made consistent with future as well as present needs” [17]. It seems acceptable both to scientific research and even to spokesmen of capital’s vested interests which absorb and adapt sustainability in their own terms: “The government espouses the concept of *sustainable* economic development. Stable prosperity can be achieved throughout the world provided the environment is nurtured and safeguarded” [16].

So far, all international governmental conferences on environment and sustainable development confirmed that its institutional implementation across the World has failed, and that world economic development did not stop deterioration of the environment, but in fact degradation of the global environment continued. While the principles and the prescriptions of the famous *Agenda 21*, can be concerned as referential, “the time for action on some major world’s environmental problems (water, climate change, waste disposal, biodiversity preservation, and some others) is running out” [14]. Additionally, implementation confirmed “sustainable development” as a tool for widening the social inequalities both on the world and national scale. “The ideas of ‘cleaner production’ have benefited the technically and technologically

advanced countries. The less developed world, notably Africa, has seen investments by which polluting and energy excessive industries have been transferred from the developed world into the poor regions. In all, the poor have remained poor, the hungry have received meager help in food or in production technologies, and the governments of the rich and developed countries continue their miserly efforts to help the needy, far below the critical threshold limits. Most significantly the Johannesburg Summit has been termed a ‘Summit of sustainable disappointments’ “[14].

It allows us to recall Becker’s remarks that the problem of how a phenomenon is defined becomes a problem in the social organization in which that activity takes place. The State as the only, often arbitrary, actor powerful enough to exercise ultimate control over these definitions is designing a believable rationale for its actions through a combination of science and morality: “certain scientifically ascertainable conditions must be satisfied if it is to merit this or that label and the corresponding governmental treatment. These matters are decided in a combination of administrative and political considerations, most often understood to be a realm of official government policy” [4]. To paraphrase Becker – the differences between countries with respect to “environmental policy” make clear how little any of these definitional processes have to do with the characteristics of sustainability itself.

## 5. Socially responsible behaviour and its discontents

Social responsibility is a notion very closely connected to the term sustainable development, and like its co-ordinate suffers from similar conceptual issues of ambiguities. Critics believe that the term is a mere form emptied out of consistent semantic content, which makes it particularly pliable to a wide array of economic actions [5-10]. Most often it is termed as a kind of strategy used by corporate bodies to achieve a certain edge over their competitors. Basically, no one disputes the fact that corporate social responsibility is an elaborately developed business ideology, which enables corporations to balance their activities with the demands and regulations coming from various social structures. It is a relatively new way of conducting the profit-making activities of a business association, which entails taking into account the social and ecological consequences of these activities. *Business for Social Responsibility (BSR)* defines corporate social responsibility as “operating a business in a manner that meets or exceeds the ethical, legal, commercial and public expectations that society has of business” [13]. Social responsibility is often seen as an instrument for establishing a PR platform to tackle the delicate relationship between the general

public and the corporation. The media have always had a crucial role in exposing many suspect activities done by large corporations. A substantial amount of examples of corporate misbehaviour, human rights violations in third world countries, financial support of illegitimate and authoritarian political forces, would probably never have been discovered and resolved had it not been for the power of media and public pressures. The modern form of corporate social responsibility probably developed due to several instances of these kinds of pressures which in turn produced a public stigma that many companies had trouble discarding. For example, during the 1990s there were reported scandals involving Nike and Nestle. Nike was accused of exploitation of Indonesian female workers who practically slaved in inhuman working conditions for low salaries. Nestle, on the other hand, aggressively promoted the use of powdered milk as a substitute for mother's milk in underdeveloped countries. British Petrol for instance supported and financed the Columbian military regime in order to ensure its own profit margin [16]. These reports stirred a deep distrust in these corporations; their reputations plummeted as they suffered long-term losses. In response to these pressures many companies have started to formulate their own guidelines for reporting their levels of social responsibility.

The basic question lies in the two ways in which one can understand CSR. Is corporate social responsibility a business ideology designed to enable the corporations to evade more serious responsibility and reform, and to simply uphold the *status quo* or is it a development of a corporate culture in the context of modern post-industrial society where the wider community has significant expectations of ethical nature when it comes to economic behaviour in general? Today, one cannot deny the fact that corporations use the principles and guidelines of social responsibility to eliminate competition while advertising their own social philanthropy. Transparency has an important function in informing potential investors on the level of CSR in particular companies they may choose to invest in. However dubious these practices may seem, it cannot be completely disputed that they are not without positive consequences. For example, foreign corporations in South Africa played a significant role in abolishing the Apartheid, albeit these companies were pressed to do so by the media and the public [9]. Apparently, there are cases where CSR does instigate positive change (and those changes are widely advertised) and in those cases it is seen as something more than a marketing strategy which builds up a positive image of philanthropy.

When it comes to corporate social responsibility one can hardly fail to mention the inherent paradoxes that are associated with the preoccupation of a corporate entity to make profit on the one hand, and its responsibility towards social and environmental issues on the other. At the very

centre of an existing business enterprise is the need to make profit. Moreover, some CSR critics claim that this is the only function and the sole responsibility of a company. Milton Friedman [11], contends that "business" cannot be held responsible for anything since it is not a person and even if a chief executive, a person, would follow patterns of social responsibility he or she would encounter numerous paradoxes and irresolvable issues. Every action that is considered socially responsible but which is at odds with the company's immediate interests could result in the downfall of this company ultimately causing damage to all the stakeholders who economically benefited from this business enterprise. Friedman concludes any kind of corporate social responsibility that would not be hypocrisy; a PR invention or a strategy devised to protect profit-making decisions would be misguided, economically unsustainable and ultimately irresponsible [11]. Friedman's stance, however, goes a long way to justify the detrimental consequences of business, corporations, or chief executives' activities. If the goal of economic prosperity is to make real flesh-and-blood people have better and safer lives, then this goal is severely compromised in the framework of the contemporary capitalist society which finds its justification in flaunting the inalienable freedom of markets while leaving a large number of affected people with little or no choices. Slavoj Žižek [22] for example describes CSR as a tool for making the so-called liberal communists feel useful and humanitarian while using the same old capitalist exploitive methods. He uses this oxymoron phrase to accentuate the inherent contradiction between socially responsible ways of doing business and ruthless unscrupulous corporative practices. The paradox lies in the fact that businessmen or corporations cannot give something to the community which they have not previously taken away. For Žižek the ethics of liberal communists, makes their "desire for profit hindered by philanthropy: philanthropy is a humanitarian mask which hides economic exploitation" [22]. If Friedman and Žižek, each in his own way, discredit CSR as claptrap hypocrisy which is in many ways dangerous to society, Joel Bakan [1] sees it as a strategy which is not in fact effective in its social intentions, but is a mere plan of long term advertisement aimed at generating profit. However, companies are incorporated into the whole social system and have to communicate and negotiate with different social forces besides only economic ones, such as for example the government, non-profit organizations, the state, unions, etc. Among these forces which make up the wider social context, business social responsibility is formed as a kind of "middle ground" which allows economic subjects to pursue their primary goal – which in the framework of modern capitalism is still the turnover of profit – while at the same time creating a milder front to soften the effect of a negative reputation.

## 6. Conclusion

Schizoid character of the contemporary world manifests itself in the process which has been taking place during the last few decades. On the one hand there is the establishment of environmental problems on the global scale, inducing a theoretical discourse formed around terms like *crisis*, *breakdown*, *limits*, and appealing on personal and collective responsibility. On the other hand, there is the implementation of the neoliberal doctrine, which rests on the idea of the market as the sole regulator of major societal relations (including environmental as well). Instead of broadening the scope of interdisciplinarity to include more 'subversive' approaches developed by 'lay' agents, e.g. alternative social movements, academic science as well as other global power structures have tried to reconcile the present contradiction with concepts such as sustainable development or corporate social responsibility. Even though there is no doubt that recently, especially under strong public pressures, many companies introduced significant changes in their business behavior; the aim of this article was to point out the importance of defining the problem. As it is stated already the problem of how a phenomenon is defined becomes a problem in the social organization in which that activity takes place.

Accordingly, eventual environmental breakdown stems from the social crisis. The concept of sustainable development so far represents an ambiguous and contradictory attempt of the late capitalism to sustain itself in terms of its own premises – hierarchy, domination, inequality and marketplace-like image of humanity, society and nature. This creates an institutional frame in which brave scientific efforts with valid and relevant findings are captured in discourse that fosters sensibility of technological and social control. The official conceptualization of sustainable development offers no more concreteness than a multitude of longstanding generalizations that have been summarized in Fletcher's claim that the prospect of progress seems like addressing the emergency-brake in a fast-running train. However, the official conceptualization of sustainable development lacks their social content. Ecological future means ecological society - both, social and natural emancipation; maybe, too abstract, but in Manheim's terms – as utopian – too real.

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