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Redefining Economic Reason*

Despite of *Martin Heidegger's* warning not modern technology but modern economizing destroys the Being. With its exclusive focus on *profit-making* modern economizing endangers the integrity and diversity of natural ecosystems, autonomy and culture of local communities, and chances of future generations for a decent life.

This paper gives a critique of the profit principle and redefines economic rationality in a more holistic, substantive and humanistic form.

1 Problems with the profit-principle

The devastating effects of profit-centered corporate business organizations are rightly described by American social critique *David Korten*. In his influential book "When Corporations Rule the World" he argues that today's global economy has become like a malignant cancer, advancing the colonization of the planet's living spaces for the benefit of powerful corporations and financial institutions. It has turned these once useful institutions into instruments of a market tyranny that is destroying livelihoods, displacing people, and feeding on life in an insatiable quest for money. It forces us all to act in ways destructive of ourselves, our families, our communities, and nature. (Korten, D. 1995)

The economic and financial crisis of 2008-2009 deepened our understanding of the problems of mainstream businesses which base their activities on unlimited greed and the "enrich yourself" mentality.

There are two distinct but interrelated problems with the profit principle. One deals with profit as the sole measure of rightness of economic activities while the other deals with profit as the main motivation of economic activities. We will see that profit is neither a necessary nor a sufficient criterion of economic reason

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Problems with profit as measure

Profit is inadequate as the sole measure of the rightness of economic activities. Profit provides an incomplete and biased evaluation of economic activities. It reflects the values of the strongest stakeholders, favors preferences here and now, and presupposes the reducibility of all kind of values to monetary values.

The market as an evaluation mechanism has its inherent deficiencies. First of all, there are *stakeholders* that are simply *non-represented* in determining market values. Natural beings and future generations do not have any opportunity to vote on the marketplace. Secondly, the preferences of human individuals count rather unequally, that is, in proportion to their purchasing power; the interests of the poor and disadvantaged people are necessarily *underrepresented* in free market settings. Thirdly, the actual preferences of the market players are rather *self-centered* and *myopic*; that is, economic agents make their own decisions regarding short-term consequences only.

To use the profit as the sole criterion of judging economic activities implies *strong commensurability* which means that there exists a common measure of the different values based on cardinal scale of measurement. Mainstream economics suggests that values external to the market mechanism should be calculated by using shadow prices and other market-based evaluation techniques. In this way externalities can be “internalized” and full cost pricing of activities can be developed.

Ecological economists demonstrated that the strong comparability of values is not held in economics. The value of natural assets cannot adequately be expressed in monetary terms. (McDaniel C. & Gowdy J. 2000) Similar arguments can be developed for important human and social values such as health and safety, ethics and aesthetics.

Profit can be used as an indicator of the *financial viability* of economic projects but not as an exclusive criterion of the rightness of economic activities. To judge the overall values of economic activities we should use a number of non-financial value-criteria in addition to profit.

The following scheme is an illustration of such a multidimensional and holistic evaluation procedure.

The underlying idea of project evaluation is that a project is worthy of being undertaken if and only if the state of affairs with the project is better than the state of affairs without the project.

Let \mathbf{P} be a project whose *total monetary cost* is \mathbf{p}^* . Let \mathbf{Q} be the original state of affairs, that is, the state of affairs without the project. Let \mathbf{Q}^* be the new state of affairs, that is, the state of affairs with the project.

There are two alternative uses of the amount of money \mathbf{p}^* . One alternative is to undertake project \mathbf{P} by financing it with money \mathbf{p}^* . The other alternative is not to undertake project \mathbf{P} and use money \mathbf{p}^* for financing other projects, e.g. investing in treasury bonds.

Let $\mathbf{d}(\mathbf{P})$ be the discounted cash flow that project \mathbf{P} can produce for a given period of time. Let $\mathbf{d}(\mathbf{p}^*)$ be the discounted total earnings of the amount of money \mathbf{p}^* for the same period of time. So $\mathbf{d}(\mathbf{P})$ and $\mathbf{d}(\mathbf{p}^*)$ represent two alternative uses of the same amount of money.

Let $\mathbf{E}(\)$ be a value function by which the state of affairs can be evaluated on ordinal scale from the *ecological point of view*.

$$(I) \quad \mathbf{E}(\mathbf{Q}) = \begin{cases} 1 & \text{if the state of affairs } \mathbf{Q} \text{ is beneficial for the nature;} \\ 0 & \text{if the state of affairs } \mathbf{Q} \text{ is neutral for the nature;} \\ -2 & \text{if the state of affairs } \mathbf{Q} \text{ is harmful for the nature.} \end{cases}$$

Let $\mathbf{S}(\)$ be value functions by which the state of affairs can be evaluated on ordinal scale from the *social point of view*. $\mathbf{S}(\)$ is also a Tversky-Kahneman type value function.

$$(II) \quad \mathbf{S}(\mathbf{Q}) = \begin{cases} 1 & \text{if the state of affairs } \mathbf{Q} \text{ is good for the society;} \\ 0 & \text{if the state of affairs } \mathbf{Q} \text{ is neutral for the society;} \\ -2 & \text{if the state of affairs } \mathbf{Q} \text{ is bad for the society.} \end{cases}$$

Let $\mathbf{M}(\)$ be a monetary value function as follows:

$$(III) \quad \mathbf{M}(\mathbf{P}) = \begin{cases} 1 & \text{if the discounted cash flow } \mathbf{d}(\mathbf{P}) \text{ is positive;} \\ 0 & \text{if the discounted cash flow } \mathbf{d}(\mathbf{P}) \text{ is zero;} \\ -2 & \text{if the discounted cash flow } \mathbf{d}(\mathbf{P}) \text{ is negative.} \end{cases}$$

The following vector provides an overall evaluation of the *original state of affairs*.

$$(IV) \quad [\mathbf{E}(\mathbf{Q}), \mathbf{M}(\mathbf{p}^*), \mathbf{S}(\mathbf{Q})]$$

where $\mathbf{E}(\mathbf{Q})$ and $\mathbf{S}(\mathbf{Q})$ represent the environmental evaluation and the social evaluation of the original state of affairs and $\mathbf{M}(\mathbf{p}^*)$ represents the monetary evaluation of not undertaking the project.

An overall evaluation of the *new state of affairs* is provided by the following vector.

$$(V) \quad [E(Q^*), M(P), S(Q^*)]$$

where $E(Q^*)$ and $S(Q^*)$ represent the environmental evaluation and social evaluation of the new state of affairs and $M(P)$ represents the monetary evaluation of the project itself.

The *necessary and sufficient condition* for undertaking the project is that the following preference relation is held:

$$(VI) \quad [E(Q^*), M(P), S(Q^*)] \Rightarrow [E(Q), M(p^*), S(Q)]$$

It means that the state of affairs with the project is *better* than the state of affairs without the project considering environmental, monetary, and social values simultaneously.

Social choice theory may help us to make decisions in situation like (VI) where different components of the vectors are not necessarily comparable.

The multidimensional project evaluation outlined above can demonstrate that economic projects can be evaluated without accepting the strong commensurability assumption of mainstream economics. The crux of the matter is that we should extend the informational basis of analyses and broaden the *evaluative space* beyond monetary values to include ecological and social values that can not adequately be translated to money terms.

Problems with profit as motivation

Profit is dangerous as the main motivation for economic activities. It decreases intrinsic motivation of economic actors which leads to decreasing quality. Also, it cultivates self-centered value orientation which results in socially insensitive and ethically irresponsible behavior.

Bruno Frey's "crowding out" theory shows why profit motivation may be counter-productive. A monetary reward offered or expected tends to crowd out an agent's willingness to perform the task for its own sake (i.e. based on intrinsic motivation) if the agent's sense of recognition, fairness, or self-determination are thereby negatively affected. The *crowding-out effect* of pricing may also spill over into sectors where no pricing is applied (*spillover effect*) if the persons affected find it costly to distinguish their motivations according to sectors. Motivation crowding-out and spillover narrow the scope for successfully applying monetary rewards. (Frey, B. 1997)

The "crowding out" mechanism has important consequences for the famous statement of Adam Smith that we can expect our bread not from the benevolence of the baker but from his self-love. Certainly, profit expectations provide strong incentives for the baker but producing truly healthy and beautiful bread requires something different: the priority of intrinsic commitment over monetary reward. The dangerous and unsustainable practice of modern agribusiness is a learnfull illustration of the case. (Zsolnai, L. & Podmanicky, L. 2010)

Personality psychologist *Gian-Vittorio Caprara* and his colleagues show empirically that cultivating greed leads to manipulation of others and oneself. They start with the observation that a division between thought and action takes place when people break the rules or get involved in dirty business. What is most surprising in rule violation and misconduct is that people are not bothered by their conscience, do not fear any sanction and do not feel obliged to make reparations. (Caprara, G-V. & Campana C 2006)

World-renowned Stanford psychologist *Albert Bandura* discovered the *mechanisms* of *moral disengagement*, the psychosocial maneuvers by which moral self-sanctions become disengaged, giving free way to a variety of misbehaviors without carrying any moral concern. Self-sanctions can be disengaged by reconstructing the conduct, obscuring personal causal agency, misrepresenting or disregarding the injurious consequences of one's actions, and vilifying the recipients of maltreatment by blaming and devaluating them. (Bandura, A. 1990)

Caprara and his team developed a scale to assess civic moral disengagement (CMD). Their empirical findings suggest that the more people are concerned with *self-enhancement goals*, the more they are inclined to resort to mechanisms that permit them to *disengage* from the duties and obligations of civic life and to justify transgressions when their self-interest is at stake. (Camprara, G-V. & Campana C 2006)

This result has another important consequence for the naive belief of *Adam Smith* and his followers in the always beneficial impact of the “Invisible Hand” of the market. If economic agents become self-concerned then it is likely that - by employing moral disengagement mechanisms - their self-exonerative maneuvers will do *harm to others*.

In serving the common good we need agents who care about and pursue self and community interests.

Profit and economic reason

From the above analysis it follows that profit is *neither a necessary* nor a *sufficient criterion* of economic reason. An economic activity can be reasonable without satisfying the profit requirement. And inversely, the produced profit is not a guarantee that an economic activity is reasonable in a wider ecological and social context.

Economic reason should not be associated with economic rationality as defined and propagated by mainstream economics. (Zsolnai, L. 2008)

The standard model of rationality in economics is the well-known *rational choice model*. It states that the agent should maximize her or his utility function to be considered as rational. It requires that the agent's preferences are transitive and complete. (In circumstances of risk and uncertainty there are additional requirements such as continuity and independence concerning the agent's preferences.)

The rational choice model represents a formal theory that says nothing about what human agents prefer or should prefer. Having self-interested, altruistic or even sado-masochistic preferences, the agents may be equally rational in making their own choices. However, in economics we find

a much stronger version of rationality. Assumptions of self-interest and perfect knowledge are added to the rational choice model. This is the famous *Homo Oeconomicus* model according to which agents maximize their self-interest under perfect knowledge of the consequences. This model has a substantive claim about what people want or should want.

Both the weak and the strong forms of rationality have been heavily criticized by psychologists, sociologists, economists, political scientists, and philosophers on descriptive as well as on normative grounds.

Nobel Laureate economist *Herbert A. Simon* states that the rational choice model has very strong claims concerning the cognitive capacity of human beings. Real world people have rather poor cognitive capacity and the information available for them is quite limited in most cases. Real world agents are not capable of maximizing their utility functions (if they have any). Instead of maximizing, they make 'satisficing' decisions. According to Simon human *rationality* is essentially *bounded*.

Princeton University psychologist *Daniel Kahneman* criticizes the rational choice model on the basis of experimental research. It has been found that people are usually make *myopic choices*. They lack the skill in predicting utility of their chosen options. In addition, people have a *fallible memory* that leads to incorrect evaluation of their past experiences.

Behavioral decision researchers have discovered that people systematically violate the axioms of rationality, especially in circumstances of risk and uncertainty. The most famous cases are the *Allais' paradox*, the *Ellsberg's problem*, the *preference reversal effect*, and the *framing effect*. These violations of rationality are so fundamental that no hybrid, nearly rational model can possibly capture this type of behavior.

Nobel Laureate economist *Amartya Sen* criticizes both forms of rationality. He refers to the weak form as internal consistency of choice and to the strong form as maximization of self-interest. Sen shows that internal consistency cannot be a guarantee of a person's rationality. A person can always choose exactly the opposite of what enhance things she or he wants or values. Some *correspondence* between the choice and the aims and values of the agent is certainly required. Sen notices that selfishness as a universal pattern of human choice behavior may be false but *universal selfishness* as a requirement of rationality is patently *absurd*. The self-interest view of rationality does not reflect the complex motivation of agents in their economic affairs (duty, loyalty, and goodwill in addition to self-interest).

Cornell University economist *Robert Frank* emphasizes the strategic role of *emotions* in making choices. Frank shows that passions often serve our self-interest because we face important problems that are simply unsolvable by rational action. The modular brain theory seems to support Frank's arguments. According to this new theory, the brain is organized into a host of separate modules. Not all modules are equally well connected to the central language module of the brain that is viewed as the center of our rational consciousness. The rational choice model reflects only the working of the language module of the left hemisphere of the human brain. However, a lot of information is simply not accessible to the language module of our brain.

Sociologist *Jon Elster* contrasts rational action with *norm-guided* behavior. While rational action is outcome-oriented, social norms are not outcome-oriented. Social norms have a grip on the

mind that is due to the strong emotions that their violations can arouse. According to Elster human actions are determined jointly by self-interest and social norms. Social norms are only partly shaped by self-interest. They have an independent motivating power.

Communitarian philosophers like *Charles Taylor*, *Michael Sandel* and *Alasdair MacIntyre* forcefully criticize the liberal conception of the self that is the underlying assumption of the rational choice model. They consider this conception of the self as basically atomistic that denies the *relational, inter-subjective* nature of human agency. It also neglects the constitutive role of communities and moral traditions in the deliberation of choices of the individuals.

Sociologist *Amitai Etzioni* has developed the so-called “I & We” paradigm that sees individuals in perpetual dialogue with their communities. Etzioni describes human choice behavior as an attempt at finding a balance between pleasure and morality. He advances a *co-determination* model in which choice is affected by both pleasure and morality that are partly shaped by one another.

The rational choice model can also be criticized from an *environmental* point of view because the sustainability of natural systems cannot be assured on the basis of individual self-interested choices.

Feminist criticism says that the rational choice model presupposes a *male-biased* conception of the human person, that is, the so-called separative self.

Harvard University sociologist and political scientist *Jane Mansbridge* has developed a tripartite scheme of human motivation. She identifies *duty, self-interest, and love* as irreducible motives of human behavior. This model goes back to *David Hume* who acknowledged the rich variety of human behavior speaking about principle-driven, interest-driven, and affection-driven actions. Mansbridge favors the coincidence of duty and love with self-interest. She argues that in society some ‘ecological niche’ should be arranged for non self-interested behavior to be protected from self-interested behavior on the part of others.

Today’s theory of economic rationality is normatively inadequate and empirically misleading. *James March* rightly characterized it as the myth of rationality. (March, J. 2006)

The *reasonable action* is an action that is based on right motivation, executed by fair processes, and leads to desirable outcomes. Within this kind of meaning, rationality is intelligent by definition. (Sen, A. 2004) We should try to redefine economic reason in accordance with the general criteria of reasonable action.

2. Redefining economic reason

Economic activities should pass the test of *ecology, future generations* and *society* to be qualified for economic reason. This triple criteria require that economic activities may not destroy nature, violate the interests of future generations or pose negative impacts on society. Economic actions can be claimed “reasonable” only if they satisfy all of these criteria.

Ecology

From the perspective of nature *ecological integrity* is a central value. The notion of ecological integrity was introduced by American environmentalist *Aldo Leopold* in his classic "A Sand County Almanac". He writes: "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." (Leopold, A. 1948)

Economic activities might be evaluated against environmental indicators that operationalizes the notion of ecological integrity.

Let **A** be an economic activity. Let **E1, ..., Ej, ..., En** be environmental indicators. ($n > 1$)

Ei() is an ecological value function defined as follows:

$$(1) \quad E_j(A) = \begin{cases} 1 & \text{if economic activity } A \text{ is good regarding} \\ & \text{environmental indicator } E_j; \\ 0 & \text{if economic activity } A \text{ is neutral regarding} \\ & \text{environmental indicator } E_j; \\ -2 & \text{if economic activity } A \text{ is bad regarding} \\ & \text{environmental indicator } E_j. \end{cases}$$

Ei(A) reflects the ecological value of economic activity **A** regarding environmental indicator **Ej**.

The following vector represents the ecological value of economic activity **A** regarding all environmental indicators **E1, ..., Ej, ..., En**.

$$(2) \quad \underline{E}(A) = [E_1(A), \dots, E_j(A), \dots, E_n(A)]$$

To get an aggregate picture about the ecological value of the economic activity in question we should define weights that show the importance of environmental indicators. Let **a1, ..., aj, ..., an** be such importance weights.

It is required that

$$(3) \quad \sum a_j = 1$$

The aggregate ecological value of economic activity **A** can be calculated as follows:

$$(4) \quad E(A) = \sum a_j E_j(A)$$

E(A) shows the aggregate ecological value of economic activity **A**. ($-1 \geq E(A) \geq 1$)

An economic activity is considered *ecological* if and only if its aggregate ecological value is positive. That is

$$(5) \quad \mathbf{E}(\mathbf{A}) > \mathbf{0}$$

Future Generations

How can we evaluate economic activities from the perspective of future generations? We cannot know too much about the interests of future generations but *freedom* is a central value here.

According to *Edith Brown Weiss* the freedom of future generations is insured by satisfying the following principles: (i) conservation of options; (ii) conservation of quality; and (iii) conservation of access. (Brown Weiss, E. 1989)

Considering principles (i),(ii), and (iii) future generations indicators can be created. Let $\mathbf{F}_1, \dots, \mathbf{F}_j, \dots, \mathbf{F}_n$ be such indicators against which economic activity system can be evaluated. ($n > 1$)

Future generations value function $\mathbf{F}_j(\)$ is defined as follows:

$$(6) \quad \mathbf{F}_j(\mathbf{A}) = \begin{cases} \mathbf{1} & \text{if economic activity } \mathbf{A} \text{ is good regarding} \\ & \text{future generation indicator } \mathbf{F}_j; \\ \mathbf{0} & \text{if economic activity } \mathbf{A} \text{ is neutral regarding} \\ & \text{future generations indicator } \mathbf{F}_j; \\ -\mathbf{2} & \text{if economic activity } \mathbf{A} \text{ is bad regarding} \\ & \text{future generations indicator } \mathbf{F}_j. \end{cases}$$

$\mathbf{F}_j(\mathbf{A})$ reflects the future generations value of economic activity \mathbf{A} regarding indicator \mathbf{F}_j .

The following vector represents the future generations value of economic activity \mathbf{A} regarding future generations indicators $\mathbf{F}_1, \dots, \mathbf{F}_j, \dots, \mathbf{F}_n$.

$$(7) \quad \underline{\mathbf{F}}(\mathbf{A}) = [\mathbf{F}_1(\mathbf{A}), \dots, \mathbf{F}_j(\mathbf{A}), \dots, \mathbf{F}_n(\mathbf{A})]$$

To get an aggregate picture about the future generations value of economic activity \mathbf{A} we should introduce weights that show the importance of indicators $\mathbf{F}_1, \dots, \mathbf{F}_j, \dots, \mathbf{F}_n$. Let $\mathbf{b}_1, \dots, \mathbf{b}_j, \dots, \mathbf{b}_n$ be such importance weights.

It is required that

$$(8) \quad \sum \mathbf{b}_j = \mathbf{1}$$

The aggregate future generations value of economic activity **A** can be calculated as follows:

$$(9) \quad \sum b_j F_j(\mathbf{A})$$

F(A) shows the aggregate future generations value of economic activity **A**.

$$(1 \geq F(\mathbf{A}) \geq -2)$$

An economic activity can be considered *future respecting* if its aggregate future generations value is positive. That is

$$(10) \quad F(\mathbf{A}) > 0$$

Society

Economic activities should be pro-social, i.e. should contribute to the development of capabilities of people.

Amartya Sen proposed to understand people's well-being in the terms of *capabilities*. Capability is a reflection of the freedom of a person to achieve valuable functioning. Therefore capabilities can be interpreted as substantive freedom that people enjoy. (Sen, A. 1992)

Let **G1, ..., Gj, ..., Gn** be capability indicators against which the economic activities can be evaluated. ($n > 1$)

Let **Gj ()** social value function be defined as follows:

$$(11) \quad \mathbf{G_j}(\mathbf{A}) = \begin{cases} 1 & \text{if economic activity } \mathbf{A} \text{ is good regarding} \\ & \text{capability indicator } \mathbf{G_j}; \\ 0 & \text{if economic activity } \mathbf{A} \text{ is neutral regarding} \\ & \text{capability indicator } \mathbf{G_j}; \\ -2 & \text{if economic activity } \mathbf{A} \text{ is bad regarding} \\ & \text{capability indicator } \mathbf{G_j}. \end{cases}$$

Gj(A) shows the social value of economic activity **A** regarding capability indicator **Gj**.

The following vector represents the social value of economic activity system **A** regarding all the capability indicators **G1, ..., Gj, ..., Gn**.

$$(12) \quad \underline{\mathbf{G}}(\mathbf{A}) = [\mathbf{G_1}(\mathbf{A}), \dots, \mathbf{G_j}(\mathbf{A}), \dots, \mathbf{G_n}(\mathbf{A})]$$

To get an aggregate picture about the social value of economic activity **A** we should introduce weights that show the importance of the capability indicators. Let **c1, ..., cj, ..., cn** be such importance weights.

It is required that

$$(13) \quad \Sigma c_j = 1$$

The aggregate social value of economic activity **A** can be calculated as follows:

$$(14) \quad \mathbf{G(A)} = \Sigma c_j \mathbf{G_j(A)}$$

G(A) shows the aggregate social value of the economic activity **A**. ($1 \geq \mathbf{C(A)} \geq -2$)

An economic activity system is considered *pro-social* if its aggregate social value is positive. That is

$$(15) \quad \mathbf{G(A)} > 0$$

The Laws of Economizing

According to economic reason economic activities should be ecological, future respecting and pro-social. For them (5), (10) and (15) should be simultaneously hold. That is

$$(16) \quad \mathbf{E(A)} > 0, \quad \mathbf{F(A)} > 0, \quad \mathbf{G(A)} > 0$$

From (16) we can derive some basic laws of economizing.

The *First Law* says that

- (α) Economic activities may not harm nature or allow others to come to harm.

The *Second Law* says that

- (β) Economic activities must respect the freedom of future generations except where such respect would conflict with the First Law.

The *Third Law* says that

- (γ) Economic activities must serve the well-being of society as long as such service does not conflict with the First or Second Law.

3 Conclusion

The main goal of economic activities should not be profit-making but providing *right livelihood* for those who are involved. Economic reason requires that this is achieved in ecological, future respecting and pro-social ways. Intrinsically motivated economic agents who balance their attention and concerns across diverse value-dimensions are able to do this. Profit may or may not follow but the richness of Being and the quality of life can be attained. The Slow Food movement, ethical fashion, fair trade initiatives and ethical banking show the *viability* of *true economic reason* under the circumstances of present day “rationally foolish” economic world.

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