

Ecological Reasoning Revisited

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Abstract: Ecological reasoning has been a subject of discussion for some time now. The earliest references to it dates back to 1983 when John S. Dryzek wrote his article on ‘ecological rationality’.³ In this article, Dryzek discussed the problem of collective decision making and argued that ‘ecological rationality’ is a more fundamental form of reason than all other forms of rationality - political, economic, technical, legal and social⁴ - and hence should take precedence over them when making collective decisions or public policies.⁵ Dryzek gave the utmost importance to ‘ecological rationality’ because he claimed that “the preservation of the life-support systems upon which human beings depend is a precondition to the continued existence of society.”⁶ Although, he argued that ecological reasoning should set the standard of reasoning, he didn’t make it clear what ecological reasoning entails. This paper aims to explore the incurrent patterns of ‘ecological reasoning’ through observations of instances of reasoning by self-claimed ecological reasoners in an ethnographic research. In our in depth interviews (48 owners and managers of greentech and consultancy firms in Portugal and Turkey) some of our interlocutors, self claimed ecological reasoners, said that they need to translate their ecological reasoning into economical reasoning in order to appeal to their customers. In other words, in order to make sense, they need to frame their ecological concerns in economic terms. However, contrary to the clarity of economic reasoning, ecological reasoning manifests in a foggy terrain. What are the characteristics of reasoning pattern that make it ecological? Economic reasoning manifests itself in profit maximization, interest seeking etc. However ecological reasoning is a camelon, the colours oscillates between attributing intrinsic value to nature on the one hand; and it gains the colour of means-end rationality on the other.

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³ John S. Dryzek, (1983), “Ecological Rationality”, *International Journal of Environmental Studies*, 21:1, 5-10.

⁴ Check the following for further discussion on five forms of rationality. Paul Diesing, Reason in Society, (University of Illinois Press, Urbana, 1962).

⁵ John S. Dryzek, (1983), “Ecological Rationality”, *International Journal of Environmental Studies*, 21:1, 5.

⁶ John S. Dryzek, (1983), “Ecological Rationality”, *International Journal of Environmental Studies*, 21:1, 8.

What is Ecological Reasoning?

Humanity strives to find economically feasible solutions for its livelihood in this planet. Under the current circumstances ecological solutions are hardly economic says some of our interlocutors. Yet another group contests this understanding suggest that economical solutions that are stripped off its ecological repercussions are not solutions at all. The current paper examines the oscillation of reasoning between two eco sciences: Ecology and economy. The paper first discusses the relevant literature on the subject matter. After talking about the methodological details of our field study in Turkey and Portugal, paper examines three reasoning positions with respect informed by the tension between economy and ecology.

Ecological reasoning has been a subject of discussion for some time now.⁷ The earliest references to it dates back to 1983 when John S. Dryzek wrote his article one 'ecological rationality'.⁸ In this article, Dryzek discussed the problem of collective decision making and argued that 'ecological rationality' is a more fundamental form of reason than all other forms of rationality - political, economic, technical, legal and social - and hence should take precedence over them when making collective decisions or public policies.⁹ Dryzek gave the utmost importance to 'ecological rationality' because he claimed that "the preservation of the life-support systems upon which human beings depend is a precondition to the continued existence of society."¹⁰ Dryzek suggests that 'ecological rationality' "can be conceived of as a form of what Mannheim¹¹ calls functional rationality."¹² 'Functional rationality' means that an organization is "structured as to produce, or increase, or preserve, some good in a consistent, dependable fashion."¹³ In this sense, "an ecologically rational structure is one which consistently produces the good of life-support for its

⁷ Although in this article, we use 'ecological reasoning', there are also other terms that have been used in the literature to refer to a particular way of thinking and acting about the current environmental or ecological crisis. John Clark, for instance, distinguishes between 'environmental thinking' and 'ecological thinking'. According to Clark while 'environmental thinking' reflects the old way of thinking which remains rather on the abstract intellectual level, 'ecological thinking' goes beyond this, and includes the practical dimension as well. Clark argues that the latter is a more appropriate way to follow in dealing with the climate change and the danger of the collapse of the ecological system. The reason for this is that ecological thinking emphasizes the practical dimension of the issue, that is, rather than only talking and thinking about the subject, it suggests change our behaviors and lifestyles as well. John P. Clark, "Ecological Thinking and the Crisis of the Earth", <http://www.pmpress.org/content/article.php/20170809001113242>, Accessed 10.05.2018.

⁸ John S. Dryzek, (1983), "Ecological Rationality", *International Journal of Environmental Studies*, 21:1, 5-10.

⁹ John S. Dryzek, (1983), "Ecological Rationality", *International Journal of Environmental Studies*, 21:1, 5.

¹⁰ John S. Dryzek, (1983), "Ecological Rationality", *International Journal of Environmental Studies*, 21:1, 8.

¹¹ K. Mannheim, *Man and Society in an Age of Reconstruction* (Kegan Paul, London, 1940).

¹² John S. Dryzek, (1983), "Ecological Rationality", *International Journal of Environmental Studies*, 21:1, 6.

¹³ Paul Diesing, *Reason in Society*, (University of Illinois Press, Urbana, 1962), p. 3.

components.”¹⁴ Accordingly, Dryzek adds, “ecologically rational behaviour on the part of an agent (such as a human being) may be defined as behaviour which promotes or protects the functional rationality of ecosystems—their stability or homeostasis.”¹⁵

Similarly to Dryzek, Robert V. Bartlett also discussed ‘ecological rationality’ as a form of practical reason in addition to the five analyzed by Diesing. Bartlett defined ‘ecological rationality’ “as a rationality of living systems, an order of relationships among living systems and their environments.”¹⁶ As a practical form of reasoning, ‘ecological rationality’ “is a way of thinking about actions, about organizations, and about ultimate ends or values.”¹⁷ In another article, Bartlett and Walter F. Baber criticized the common understanding of rationality only as instrumental rationality, and suggested that ‘the administrative state’ which “is situated in a physical and ecological context [...] requires a conceptualization of rationality broader than the instrumental rationality.”¹⁸ Although Bartlett used ‘ecological rationality’ and ‘ecological reasoning’ interchangeably in his 1986 article, in their 1999 article Bartlett and Faber suggested a distinction between ‘rationality’ and ‘reasonableness’. Taking their cue from John Rawls, they suggest that “in knowing that people are rational, we do not know what ends they will pursue, only that they will pursue them intelligently. But when we know that people are reasonable where others are concerned, we know that they are willing to govern their conduct by some principle from which they and others may reason in common.”¹⁹ In other words, “reasonable people take into account the consequences of their actions for others.”²⁰ Considering the inescapability of environmental problems facing the humanity today, Bartlett and Faber argue that re-integration of reasonableness and rationality is very crucial.²¹

Salvador Giner and David Tabara discuss how different aspects of modern culture, such as ‘ecoreligions’, ‘cosmic piety’, are related to ecological rationality. In other words, they analyze how ecological concerns are being incorporated into the world

¹⁴ John S. Dryzek, (1983), “Ecological Rationality”, *International Journal of Environmental Studies*, 21:1, 6.

¹⁵ John S. Dryzek, (1983), “Ecological Rationality”, *International Journal of Environmental Studies*, 21:1, 6.

¹⁶ Robert V. Bartlett, (1986), “Ecological Rationality: Reason and Environmental Policy”, *Environmental Ethics*, 8:3, p. 229.

¹⁷ Robert V. Bartlett, (1986), “Ecological Rationality: Reason and Environmental Policy”, *Environmental Ethics*, 8:3, p. 229.

¹⁸ Robert V. Bartlett and Walter F. Baber, (1999), “From rationality to reasonableness in environmental administration: Moving beyond proverbs”, *Journal of Management History*, Vol. 5, Iss. 2, p. 55.

¹⁹ Robert V. Bartlett and Walter F. Baber, (1999), “From rationality to reasonableness in environmental administration: Moving beyond proverbs”, *Journal of Management History*, Vol. 5, Iss. 2, p. 61.

²⁰ Robert V. Bartlett and Walter F. Baber, (1999), “From rationality to reasonableness in environmental administration: Moving beyond proverbs”, *Journal of Management History*, Vol. 5, Iss. 2, p. 61.

²¹ Robert V. Bartlett and Walter F. Baber, (1999), “From rationality to reasonableness in environmental administration: Moving beyond proverbs”, *Journal of Management History*, Vol. 5, Iss. 2, p. 61.

of religious faith, and how this works together with rationality.²² While for Dryzek 'ecological rationality' had to be prior to all other forms of rationalities, Giner and Tabara point to religious beliefs and ideas that shape and prefigure how we understand rational action, what rationality is, and what a rational social order is. In other words, they argue that even before one can define what 'ecological rationality' is, there needs to be some kind of an appreciation of the ecosystem.²³ Distinguishing between 'traditional religions' and 'ecoreligions', they argue that this appreciation is found in newly emerging 'ecoreligions' where the focus of the sense of awe and piety have shifted "from God, the gods, the supernatural forces and human beings towards the cosmos itself, or the creation."²⁴ They call this specific form of veneration as 'cosmic piety', and argue that "'cosmic piety' (a component of ecoreligion) is a necessary (though obviously not sufficient) condition for the popular implementation of ecologically rational behaviour when humankind is confronted with the pernicious consequences of a destructive process of global environmental change."²⁵

Data and Analysis

In this paper, we understand 'ecological reasoning' as a form of practical reason that strives to achieve certain goals or ends through certain means by trying to find its way through the tension between ecology and economy. In our in depth interviews (48 owners and managers of greentech and consultancy firms in Portugal and Turkey) some of our interlocutors, self claimed ecological reasoners, said that they need to translate their ecological reasoning into economical reasoning in order to appeal to their customers. In other words, in order to make sense, they need to frame their ecological concerns in economic terms. However, contrary to the clarity of economic reasoning, ecological reasoning manifests in a foggy terrain. What are the characteristics of reasoning pattern that make it ecological? Economic reasoning manifests itself in profit maximization, interest seeking etc. However ecological reasoning is a camelon, the colours oscillates between attributing intrinsic value to nature on the one hand; and it gains the colour of means-end rationality on the other. From our preliminary analysis of the data, we were able to find the following patterns of 'ecological reasoning': 1) Seeing economy and ecology as mutually exclusive, or as a trade-off, as a zero-sum game; 2) Seeing economy and ecology as working in unison, hand-in-glove, no trade-offs; 3) Seeing economy as a means to a goal, to a better ecological future.

²² Giner, Salvador, and David Tábara. "Cosmic Piety and Ecological Rationality." *International Sociology*, 14.1, (1999): 59-82.

²³ Giner, Salvador, and David Tábara. "Cosmic Piety and Ecological Rationality." *International Sociology*, 14.1, (1999): 60.

²⁴ Giner, Salvador, and David Tábara. "Cosmic Piety and Ecological Rationality." *International Sociology*, 14.1, (1999): 64.

²⁵ Giner, Salvador, and David Tábara. "Cosmic Piety and Ecological Rationality." *International Sociology*, 14.1, (1999): 60.

I. Seeing economy and ecology as mutually exclusive

Here, our interlocutors see the tension between economy and ecology as mutually exclusive. In other words, for our interviewees, it is like a trade-off, or a zero-sum game that is at play between economy and ecology. This mutual exclusiveness demonstrates itself in three ways.

1) Firstly, trade-offs may mean sacrifices, and this requires moral arguments if ecology is preferred.

“And, at a certain stage, I think, we should, we should, and we are doing, huh... because also the technologies are, are, are improving, and now we are, we have more efficient and, technologies, or the technology are more efficiency, and... huh... I think with, at least with solar and with wind we are able to produce energy at market price.”

2) Secondly, if economy preferred, then this promotes the existing form of capitalist economy. We call this ‘the *status quo* argument’.

“I1: Just want to compare this, because we have the same kind of question also in Istanbul, which has already two big airports, I think both of them are bigger than Humberto Delgado, and they are now in the construction process of a third one. So, this comes towards this question of developing and developed countries, which country is more developed I don't even know, Turkey is also pretty much an industrialised country. So, when, and this refers to your, what you mentioned about the left government at the moment, I think, becoming cautious or becoming, not cautious, but they are trying to be attentive to the price but not attentive to the environment. So this East-West or North-South conflict, so, Portugal is trying to become very environment-friendly, 50% of renewables in the energy budget. Turkey is burning coal like crazy, and trying to build / make / put a third airport on the city, so economic-wise, the turning back to our economics there, or the industrialist shoes, can Portugal cope with the world economy, when Turkey is just one of them, there is China, India, and you're saying there are really big actors running full speed on coal and oil, and we are trying to make a little bit here with sun and stuff. Do you think it's competitive? Is it going to be able to survive economic[ally]?”

P8: Hm, yeah, yeah um (4 sec pause). Yeah, that's the concern, for that you need super / supernational organisations that can balance this, ok? This is a problem that we have already, uh ... with / with electricity and energy. Uh, as you said, produce electricity with coal is more competitive in terms of economics than producing electricity with uh wind farm or uh solar plant, ok? So, we have to have some kind of

compensations to balance / to balance this. Um and we have to have some kind of supernational, either European Commission or something like that, that puts some pressure and compensates uh the countries, ok? (inhales sharply) Uh, what I'm seeing is, and that's, in terms of economics, there's no way to hide it, ok, it's more competitive to produce electricity with fuel and with coal. That's / that's the situation. Um ... but uh ... what can we do, China is doing that, and the / the, have you gone to Beijing? It's impossible! It's impossible to breathe, almost impossible, and you see, in your own life, in your own body, the problems that they have there. And the citizens are already putting pressure in the government, and that's why Chi (pronounced pt) / China is leading the environmental change and the / the energy production / paradigm that they have now, because they are really facing these problems. Um but as I said, if you don't have a supernational uh organisation that is going to put pressure on Turkey, for instance, in order for them to pay some kind of uh ... of compensation for the / for the general good, which is the atmosphere, that we are using, uh I don't know how we'll do it. Because, economically speaking, it's a no-brainer, ok? You produce with coal."

3) Thirdly, there might be a radical system change, and the emergence of a new paradigm or a system.

" So, we have a planet, with a global view of itself, playing with rules that are not religious, that are not social, they are economic. 2:30:01 SO, the rules are different from the game, that's even stranger, ok? Because the rules of the game are not about... our global well being, or... a projects that we have for the future, or the idea that we only have this planet - which are all true - but the rules are economic."

II. Seeing economy and ecology as working in unison, hand-in-glove, no trade-offs

Here, our interviewees think that economy and ecology work in unison, hand-in-glove, and there are no trade-offs between them. This work in unison demonstrates itself in two ways. 1) Firstly, this is already happening now, and it is an inevitable trend. No intervention is needed to make them work together. It means that 1a) a pure instrumental rationality is possible here, and 1b) a choice is made based on ecological concerns if the economic options are roughly equivalent. We call this 'the tie-breaker' argument.

1) Firstly, this is already happening now, and it is an inevitable trend. No intervention is needed to make them work together. It means that 1a) a pure instrumental rationality is possible here.

"I2: Huhuh. A lot of things I want to pick out from that. But maybe the first would be, okay, so you think companies don't have such a weight in winning elections, but if their products will be more expensive, then it will affect people, and the whole problem here is if ecological measures will not hinder, will not stop economic growth, and (loud paper shuffling noise) if there will be unpleasant results in people's lives. I mean, if you invest in ecology, at least for a while, shouldn't you expect bad effects in the economy?"

P24: (short pause) My vision is that economy is going to change. We are going to consume ... uh, not / we not / we not going to consume so much in the future, but we are going to consume better products and we are going to valorise the kind of quality in the products. It's like, uh, you have in Portugal and in Europe, with the, um, biology agriculture or organic agriculture. We / people don't understand why they are growing, uh, I don't know, for 40%, I think, in the period of crisis, the consume of, uh, biologic agriculture grows 40%, I think, in Europe. Why? That's simple. Because people see that they pay more, but they have more quality, they more healthy, they have another benefits they start to valorise and it's growing. No one need to tax agriculture to grow biological. It was the / the consumer that start to see the benefits, tried, there's a ... it's similar to the other components for me of the environment. People start to valorise, they change they habits of consume and the economy go after that. For me (makes a clapping sound) ..."

1b) a choice is made based on ecological concerns if the economic options are roughly equivalent. We call this 'the tie-breaker' argument.

"it's not in his power. He can sign whatever, the US continues to draw its hum... I mean, the big change in US was when they found they had reserves of shale gas it would be economically feasible to capture. When they started doing that they reduced their greenhouse emissions, without signing any agreement, by 2% per year, every year. Just because they found shale gas was economically viable to..."

2) Secondly, our interviewees think that economy and ecology work in unison only when we include some hypothetical future conditions, such as new technologies, new legal framework (subsidies, etc.). In this case, further human intervention is needed to make them work together. This means that 2a) again, a pure instrumental rationality is possible here.

"How can you make people do that, it's a question to you, how can you make people do that? [Crosstalk (not all words can be made out): I2: (laughs apologetically) I don't know ...; P13: No, no, what you ...; I2: i have no clue, because, I ...] I think it's quite simple. If you get people discounts, or an added value, or for some other people, maybe like yourself or myself, an ecological way to see things. So, I know that

tomorrow, well, I can already hire 100%, some utilities do it, um... I will be broader talking about this: So, if you hire service from EDP, um, you typically will have a chart of the amount of electricity that is coming from wind, solar, whatever. If you, um... contract the service from Endesa, for instance, um, the graph will be totally different. It will be because each utility decides where it is buying the electricity from. Acciona for instance, is 100% green. Our blade plant has a contract with Acciona, it's 100% green, so, in principle, all the electrons that we are paying, they're all green. So that you can already do, thinking on, um, thinking on this level, on the green thinking. But, uh, transposing this, what will make people choose something, so, if / putting the people that look to the environmental issues and so, a part it will be the price. If you have a more competitive price even though you just push the risk to the people. So, if I tell you "ok, you are depending on the meteorological conditions, on / our / on the fluctuations of the prices, the risk is totally on you, so you are deciding when you are connecting or not, and you can be lucky to save some more money, if you are choosing the best days of the week to wash your clothes", for instance. But if you see some economical benefit, then things will start happening"

2b) and again, a choice is made based on ecological concerns if the economic options are roughly equivalent - hence, 'the tie-breaker' argument.

"P13: Okay. So, well, I'm an electrical engineer. Um ... and I've been working in the wind industry for roughly 12 years now. Um ... from my past and how did I came in the / in the wind industry. So I've been always, myself, have been always passionate about ecology. (an interviewer clears throat) To give a context, the first events that Greenpeace did in Portugal, for instance, were / were under my direct management. So I've been very early involved in ecologic movements and things related with environment, nature. Um, this just as a context, I was very young, then I was having my engineering degree, I started working, um, in / in the industry, uh, more related with the ... assembly industry, for a big multinational. But at the moment, that's when the wind started to be strong in Portugal and started hiring a lot of people, and I saw the opportunity to getting into a business which is, well, different from the others in many perspectives. Not only because you really think, when you are working, you really think that you are working towards a better world."

III. Seeing economy as a means to a goal, to a better ecological future

Here, our interviewees see a path dependency between economy and ecology. They consider economy as a means to a goal, that is, to a better ecological future.

"the idea is to put a value on the tree when it's a live, so then the problem is in a way, eh you know, like everything, the mountain and the river and the tejo (54:56) the sand, everything starts to become countable, everything starts to become like a

kind of equation, a kind of an entity in a technical equation. I would like to know what you think about this process. Are you fond of it, or do you think it can deliver some help, or it's dangerous? What do you think?

P02: Ehmm... Yes, well, I think it's, it's very interesting that the part that economists can take on this all, on this eeh... yea on this matter, and they can, I think, they can have a huge impact. Ehm. And yea, like, eh don't know the concept that well, but yea, yea I would say that I believe that eeh economics and economy, now that it's a system that only looks at the part of the problem. So, things only have money/ only have value once they are turned into money, which, which that seems to a bit to counteract, and I think I would say that it's something good, because things/ a tree is staying there, it's only has a benefit. And maybe the benefit is is eeh is bigger than putting it down. Ehm... But... Yeah, it's a... My take on that, it's hopefully it's eh economists can make a big contribution to this, and they can come up with eeh... or variable to interpret all these things, and look at it in a way, on a on a sustainable way."

Conclusion

'Ecological reasoning' manifests itself as a form of practical reasoning, that is our interlocutors strive to come up with a viable solutions to remedy the environmental crisis. They feel the urgency to act; this urgency is manifested in their language. However the possible repertoire of actions include on the one side market based economic instruments, on the the other value based moral arguments. The later focused on changing of mindsets or more radical solutions that envisage systemic change. For some of our interlocutors acting ecologically clashes with the economic concerns. Yet for another group the ecology and economy can not be separated, simply put ecological is economic however this needs improvement in both political structural ground and technology. In the the future ecological solutions will prove to be economically superior too; humanity will adopt it self to live in harmony with nature. Those who are supportive of ecological solutions despite their short term economic shortcomings tend to attribute intrinsic value to nature. The first group is mostly motivated by the prudential reasons.