

Chapter 5

Languages of Valuation



Christos Zografos

5.1 Introduction

In this chapter, I look at the analytical concept of languages of valuation and specifically at the work of the Barcelona School of environmental social science, which uses it to study environmental conflicts and governance. The genealogy of the concept goes back to the claim advanced by Joan Martínez-Alier that many environmental conflicts are conflicts over different languages used to place a value on the environment, which are regularly expressed in the context of unequal distributions of material costs and benefits generated by environmental transformations. Beyond being a ‘real life’ issue, I understand the languages of valuation concept as an analytical device for examining environmental conflicts, one distinctively advanced by Martínez-Alier and subsequently by researchers and scholars connected to the Barcelona School.

I follow the concept as it passes through the Barcelona School in the roughly 30-year period to 2020. I trace this trajectory in a selected number of doctoral and postdoctoral work of researchers connected with the Barcelona School and some of their collaborations with scholars outside it. The starting point for that work is the ecological economics criticism of monetary valuation of the environment for its reductionism and exclusion of certain sets of environmental values and the ecological economics espousal of value diversity, incommensurability and plurality in environmental decision-making.

I classify into themes and present contributions from the Barcelona School that are informed by this framework of analysis and which have discussed and employed the concept of languages of valuation to advance understanding of environmental conflicts, justice, movements and decision-making. I conclude by drawing some lessons from that literature and present my reflections on promising research

C. Zografos (✉)

Universitat Pompeu Fabra, Barcelona, Spain

© The Author(s) 2023

S. Villamayor-Tomas, R. Muradian (eds.), *The Barcelona School of Ecological Economics and Political Ecology*, Studies in Ecological Economics 8,
https://doi.org/10.1007/978-3-031-22566-6_5

47

avenues. I believe that future research should seek to expand links between languages of valuation and the pluriverse project in an effort to both advance knowledge about decoloniality and contribute to much-needed radical socio-ecological transformations, particularly in the face of the climate crisis.

5.2 Languages of Valuation

In 1995, economists Clive Spash and Nick Hanley published an article in *Ecological Economics* that reported the results of a Willingness-to-Pay (WTP) survey for biodiversity preservation. The study found that almost a quarter of the general public sample refused giving a WTP amount, on the grounds “that animals/ecosystems/plants should be protected irrespective of the costs” (Spash & Hanley, 1995, p. 203). The authors explained refusal to trade off nature for money as an expression of what neo-classical economic theory terms as lexicographic preferences. As with dictionary (lexicon) entries where a word that starts with a letter earlier in the alphabet (e.g. ‘a’) is *always* given priority (comes first in the dictionary) over one that starts with a letter that follows (e.g. ‘c’), an agent holding lexicographic preferences will always prioritise one good over another and reject making trade-offs between two different goods. When one of those goods is money, as in the case of monetary valuation of the environment, without such trade-offs one cannot produce a utility curve and hence meaningfully arrive at a money value for that good (e.g. biodiversity). Spash and Hanley concluded that the existence of lexicographic preferences towards biodiversity in a considerable part of the general population raised significant concerns about the acceptability of using contingent valuation to value biodiversity protection and decision-making. One of those concerns is that the use of monetary valuations as input to decision-making could leave out some people’s values from that process, implying that monetary valuations can become instruments of exclusion (Zografos, 2015a, b).

The lexicographic preferences argument came to add to a battery of arguments advanced around that time in ecological economics in the context of an ardent criticism of monetary valuation. This is not the space to explain those arguments in detail, but it’s worth briefly mentioning some of them: value incommensurability, emphasising that environmental values are not always commensurable and that they cannot be measured in the same unit (Martinez-Alier et al., 1997); value pluralism, claiming that there is a plurality of beliefs about what is of value (O’Neill & Spash, 2000), which in concert with incommensurability calls for multiple means of valuation to be brought into the resolution of environmental conflicts and decision-making (Martinez-Alier et al., 1997); value articulating institutions, referring to frames (such as, but not limited, to cost-benefit analysis) invoked in the process of expressing values and which regulate and influence which values come forward and which are excluded (Vatn, 2005); multiple rationalities, that beyond homo economicus, i.e. the model of rationality upon which monetary valuation of the

environment is premised, human rationality can also be consequentialist, deontological and procedural in its outlook (Zografos & Paavola, 2008).

All that work and, overall, the field of ecological economics were establishing a case for diversity, inclusion and plurality, which claimed that multiple rationalities, values and ethics are relevant when valuing the environment and ‘resolving’ or understanding environmental conflicts. What is more, some scholars in ecological economics were working towards finding ways to operationalise those principles, such as Munda’s development of a model of social multi-criteria analysis that permits operationalising ‘weak comparability’ of environmental values expressed in different units through his NAIADE model (Munda, 1995); or adopting non-positivist, mixed-methods and interpretive approaches such as Q methodology for analysing environmental policy (Barry & Proops, 1999) and values (Zografos, 2007). Additionally, post-normal science (Funtowicz & Ravetz, 1994) with its emphasis on the importance of extended peer review communities for democratising both expertise and public decision-making exerted influence over ecological economists who sought to apply such tools for improving environmental decisions. Those trends also combined with increased calls in the field for considering the relevance of democratic deliberation in environmental policy-making (O’Neill & Spash, 2000).

The concept of languages of valuation appears in that climate of intellectual ebullition in ecological economics. For Martínez-Alier, environmental conflicts are ecological distribution conflicts, that is conflicts concerning the unequal distribution of ‘goods’ and ‘bads’ from environmental change (Martínez-Alier, 2002). Ecological distribution conflicts involve unequal cost-shifts (Kapp, 1975) (Aguilera-Klink & Alcántara, 1994) of the harmful impacts that result from expanding the social metabolism of materially abundant societies and economies. In economies that seek to grow, this expansion is inevitable because the second law of thermodynamics, which establishes that energy is dissipated and cannot be recovered, implies that circular notions of the economy are in practice unrealistic (Martínez Alier, 2020). Such unequal distributions often occur in the context of an expansion of commodity frontiers, that is the arrival in certain locations, communities and ecosystems of contaminating activities that result from the quest to reduce production costs (e.g. by developing mining activity in places where it is poorly regulated) or generate new opportunities for profits (e.g. via the mining of materials necessary for the production of new, profitable commodities, such as lithium for the green economy). In those situations, local communities or environmental justice organisations seek to confront inequality by recurring to ways of valuing nature and their relation to nature that cannot always be captured or directly compared to the language of monetary value. Some examples of those languages are the sacredness of nature, the rights of nature, national or local sovereignty, territorial rights, environmental and social justice and livelihoods – languages that cannot be readily translated into a price tag. In that context, it becomes impossible to internalise externalities and so offer money compensation for the loss of certain values to either prevent conflict from happening (Temper et al., 2018) or arrive at a fair conflict settlement. What is more, imposing either monetary valuation as the single procedure or monetary value

as the single language of valuation amounts to a questionable exercise of ‘procedural power’, i.e. the power to determine the bottom line in deciding over ecological distribution conflicts in the face of complexity (Martinez-Alier, 2002).

This ‘clash’ between the expression of environmental value in monetary terms versus its expression in non-monetary terms came to define the approach taken by the Barcelona School in its research and scholarship on environmental conflict, environmental justice and inequality, environmental policy and decision-making.

5.3 Languages of Valuation and the Barcelona School

5.3.1 *The Clash*

A key outlet of Martinez-Alier’s work since 2012 has been the Environmental Justice Atlas. Together with a dedicated core team of younger researchers at ICTA-UAB and the help of several ICTA-UAB postgraduate students and numerous volunteers and environmental NGOs around the world, they have created an online map of more than 3000 ecological distribution conflicts across the globe. Among other data, the EJAtlas records hundreds of cases of different languages of valuation used in those conflicts, trying to capture how local communities and protest groups frame their claims and languages of valuation (EJOLT, n.d.).

The Atlas is a project of comparative environmentalism that records commonalities and differences of environmentalism across locations and the characteristics of an incipient global movement for environmental justice (Temper et al., 2018). This includes ways in which different languages of valuation, such as livelihood, sacredness, ecological values, territorial rights or economic compensation, are deployed in ecological distribution conflicts (Temper et al., 2018). A 2018 special issue in the journal *Sustainability Science* analysed several instances of value system contests in ecological distribution conflicts, where the assumption that externalities can have a price tag is questioned (Temper et al., 2018).

The idea that non-monetary valuation languages stand *in opposition* to monetary valuation, is probably the most common focus of published studies whose analysis inter alia looks at languages of valuation. Numerous examples of that opposition have been presented by the Barcelona School. Those include: the case of the conservation movement that has favoured monetary valuation of ecosystems in contrast to the environmentalism of the poor which appeals more to non-economic values (Rodríguez-Labajos & Martínez-Alier, 2013); cases of urban community gardens advancing languages of valuation that combine historic and cultural preservation, the repair of fragmented communities, community cohesion and defence of traditional land and territory, in contrast to languages of green consumption or compact cities (Anguelovski & Martínez Alier, 2014); the case of commercial logging in Cameroon, where defence of livelihood, customary institutions and sacredness are mobilised against economic growth and the language of monetary valuation

(Veuthy & Gerber, 2011); ‘energy sovereignty’ used by anti-dam resistance movements in India, which deploy the vocabulary of environmental justice to reclaim popular control over territories and energy models (Del Bene, 2018); the idioms of ‘ecological balance’ and ‘environmental quality’ used by communities in Turkey to oppose gold-mining projects, where monetary and technical compensatory schemes fail resolving disagreements (Avcı et al., 2010); and the use of civil and human rights language in mining (Urkidi & Walter, 2011) or oil palm and sugarcane plantation conflicts (Mingorria Martinez, 2017) in Latin America.

In some cases, the mobilisation of non-monetary valuation languages can be relatively *successful*. In Mexico, indigenous groups’ use of languages of valuation that diverged from those employed by state and corporations in Mexico opened up spaces of political organisation that enabled the creation of resistance networks (Avila-Calero, 2017). Still, others have questioned the effectiveness of plural and multiple valuation languages, precisely on the grounds that their diversity makes it difficult to establish paths for alliances among social actors (Cardoso, 2018).

In all cases, and although the economic language of valuation does not always carry the day (Martinez-Alier et al., 2010), most published studies present situations where monetary valuation is *imposed* and non-monetary valuation languages are excluded through either legal or illegal exercise of power (Martinez-Alier et al., 2010), including the murdering of environmental activists. States, municipalities and companies regularly try to impose a single valuation language (money) and emphasise the benefits of economic growth that will eventually ‘trickle down’ and compensate for any losses (Anguelovski & Martínez Alier, 2014). The Indian Supreme Court 2006 controversy over the dismantling of the ocean liner ‘Blue Lady’ is a typical case in which sustainability expressed as monetary benefit at the national scale prevailed over non-monetary languages of valuation expressed by contending social groups, allowing to shift the costs of development to poorer, disenfranchised communities and accumulation by contamination (Demaria, 2010).

But such clashes between languages of valuation do not always have to happen. The Barcelona School acknowledges that non-monetary valuation languages can – and are indeed – often used *in combination* with monetary valuation. Although they prefer remaining within other valuation standards, especially those concerning the environmental conditions of their productive activities, human and customary rights and infrastructure needs, rural communities in the global South may use monetary reparation as a language (Gerber et al., 2009). Grassroots organisations, indigenous communities, citizen groups and women activists may request monetary compensation for damages and simultaneously demand respect for human rights (e.g. to health), indigenous territorial rights and sacredness (Martinez-Alier et al., 2010; Anguelovski & Martínez Alier, 2014). And the climate justice movement has supported the monetary calculation of the so-called ecological debt (Rodríguez-Labajos & Martínez-Alier, 2013). It looks likely that social movements employ the technical language of Western environmentalism for strategic reasons but also combine it with arguments about identity and culture (Temper et al., 2018). And in some cases, monetary-based policy tools such as PES-like schemes (e.g. the Yasuni ITT initiative) have managed to integrate diverse valuation languages (Kallis et al., 2013).

5.3.2 *Resolving the Clash*

One can probably identify two classes of attempts at resolving the clash between monetary and non-monetary languages of valuation in which Barcelona School researchers have been involved.

The first involves resolving the clash by entering into *the debate* about the relative merits of employing monetary and non-monetary valuation in ecological distribution conflicts.

A characteristic example of this is a debate between Barcelona School researchers that took place in the journal *Ecological Economics* on the occasion of the publication of an article titled ‘To Value or Not to Value?’ That article pondered that environmentalists regularly find themselves trapped in a dilemma when trying to defend the environment: Concede that money is a language understood by policymakers and the general public – the language that speaks to dominant economic and political views (Brondízio et al., 2012) – and value monetarily nature in order to protect it; or maintain deeply held and incommensurable values but risk irrelevance in nature protection struggles?

With the ‘To Value or Not to Value?’ article, Kallis et al. (2013) attempted to go past this conundrum by reformulating the ‘should we value’ question into ‘when and how to value with money?’ and “under what conditions?”. To do so, the authors mobilised an analytical approach that brought political ecology in conversation with ecological economics. The conclusion was that monetary valuation is acceptable if it forms part of processes that improve the environment while bringing more equality, including maintaining the relevance of plural valuation languages. In those cases where monetary valuation could suppress other languages and value-articulating institutions, it should be rejected. When monetary valuation expands its domain, colonises and displaces other values by becoming the dominant language through which values are expressed, value reductionism occurs and should be avoided.

A response to that paper was published (Gsottbauer et al., 2015), criticising Kallis et al. for approaching monetary valuation in a much more critical way than other languages. Gsottbauer et al. claimed that in real life, non-monetary considerations such as rights, safety and ethics overrule or preclude monetary assessments and advocated a more mixed approach, where monetary valuation helps strengthen the case of other valuation languages. Climate policy goals were presented as an example where economic values of climate damages can convince politicians, corporations and citizens that it is important to establish policies to halt climate change and be used in complementarity with non-monetary languages.

That interchange gave some new impetus to the old ‘nature valuation debate’ in ecological economics by establishing certain conditions or criteria for considering the use of monetary vs. non-monetary languages of valuation in ecological distribution conflicts and by nuancing arguments about the potential for complementarity between different languages.

Deliberative ecological economics represents a different approach to resolving ‘the clash’ by attempting to accommodate both monetary and non-monetary languages of valuation (value pluralism) through a formal procedure of deliberation integrated in environmental decision-making processes.

There are two main lines of work in deliberative ecological economics (Zografos & Howarth, 2008a, b). The first combines deliberation with either monetary (e.g. via choice experiments and group-based valuation) or non-monetary (e.g. multi-criteria analysis) decision-making tools in an effort to integrate multiple valuation languages and reach group decisions, either through monetising (deliberative monetary valuation) or by keeping with the incommensurability principle (deliberative multi-criteria analysis). This work shows that in order to achieve consensus, value plurality does not need to diminish (Lo, 2013), and that through deliberation, preferences can also converge in making ecosystem services obtain incommensurable values. Social learning through deliberation may even induce decision-makers to consider ecosystems as priceless and become unwilling to trade off ecosystem services for money (Kenter et al., 2011).

A second, more critical line of work investigates obstacles to the expression of plural perspectives and multiple valuation languages in environmental decision-making with a view to specifying conditions for inclusive sustainability politics (Zografos & Howarth, 2008a, b). It has shown how distributional inequalities may combine with informal elements of the decision-making process and technocratic planning tools to encourage instrumental rationalities and create procedural environmental injustice where multiple languages of valuation cannot be expressed and negotiated (Zografos & Martínez-Alier, 2009). Similarly, the idioms of ‘common good’ or ‘public benefit’ can silence certain voices in climate adaptation policy, which express their value claims in idioms that emphasise personal experience (e.g. land connections with ancestors) (Zografos, 2017).

Deliberation for integrating multiple valuation languages has been marred by criticisms. A main criticism is that deliberative monetary valuation pretends that two models with radically different ontological presuppositions such as deliberation (with its collectivist outlook) and monetary valuation (with its individualist outlook) can be combined or held in conjunction, which is not possible (Spash, 2008). A second criticism holds that the normative emphasis on deliberation ignores the practical context of power surrounding and pervading environmental decision-making. The deliberative emphasis on consensus reached via communicative reason can end up silencing the importance of conflict for democracy and privilege certain voices, in particular the voice of reason, as relevant for decision-making at the expense of emotional aspects of human experience (Zografos & Howarth, 2010). The underrepresentation of emotional aspects in deliberative processes has been linked to a Kantian view of enlightenment that stands at the origins of the deliberative approach and is very problematic as the appeal to emotions can significantly motivate public action (O’Neill, 2007) for radical socio-ecological change (Nelson, 2011).

Admittedly, deliberative ecological economics has not taken deep root with the Barcelona School. Nevertheless, partly in response to those criticisms, some work in this sub-field has been re-oriented towards examining the challenges that direct democracy (a process that involves deliberation between plural values via, e.g., assembly-based decision-making) faces as a vehicle for inclusive, radical socio-ecological change, such as degrowth (Zografos, 2015a, b) and post-development (Zografos, 2019).

5.4 Conclusions

At a fundamental level, the concept of languages of valuation is about diversity and exclusion. The intense ecological economics criticism raged against the methodological individualism and reductionism of monetary valuation which sits at the origin of the term, hinges upon the argument that there are multiple ways of not only valuing nature but also of expressing that value. And the normative implication that ecological economists conferred to that criticism, namely value pluralism in environmental decision-making, is an argument for inclusion and voice equality. It involves inclusion of various ways of understanding, expressing and valuing nature when it comes to deciding about human affairs that entangle nature, but also when it comes to studying why and how ecological distribution conflicts appear.

The Barcelona School has significantly advanced our knowledge concerning languages of valuation. It has taken what used to be a debate confined to disagreements between environmentally-minded economists about the capacity of money to ‘capture’ ‘real’ preferences and design environmental policy, to an ample and varied scholarship that connects discussions between environmental policy, social movements, sustainability governance, environmental philosophy and ethics, institutional economics, environmental history and political ecology-minded scholars. What is more, the wealth of cases around valuation language clashes documented with the EJ Atlas project and its related publications are a promising indication for future development in the field.

What the Barcelona School has considered less are connections between valuation languages’ exclusions and ideology. For example, some scholars have pointed out that favouring instrumental environmental values while ignoring, relational, non-western languages perpetuates the historical, forced assimilation to settler narratives (Himes & Muraca, 2018). In a somehow flip side to that situation, researchers record cases where western notions and representations of ‘harmonious’ indigenous life within nature and corresponding environmental values may successfully advance the political causes of nature advocates but at the same time add to a long history of denying indigenous agency (Tanasescu, 2015). In both those cases, the language of valuation clashes have implications that go beyond the purely functional effect that marginalising certain languages produces in terms of resource dispossession. Indeed, environmental conflicts where different valuation languages clash can be conflicts about ‘how one is allowed to feel, what one is allowed to

enjoy (doing), how is one supposed to live (spend time)’ (Velicu, 2015, p. 857). In the course of those struggles, subjects struggle to create visibilities for new things, objects and languages that have been downplayed by dominant political contexts, and in effect strive to advance democracy and equality by attempting what Ranciere calls a ‘redistribution of the sensible’ (Velicu, 2015).

Recently, Martínez-Alier has placed languages of valuation within the project of the pluriverse, a ‘process of intellectual, emotional, ethical, and spiritual decolonization ...[that seeks deconstructing]...the idea of “development as progress”...to open a way for cultural alternatives that nurture and respect life on Earth’ (Kothari et al., 2019, p. xvii). He asserts that the coining and use of terms such as biopiracy, sacrifice zones, green deserts, etc., permits environmental movements to push for alternative social transformation by deploying new vocabularies in the course of environmental justice struggles (Martínez-Alier, 2019).

Decoloniality, which sits at the basis of the pluriverse project, is certainly a relevant and promising context for future discussions of languages of valuation and their political significance. Yet, not all languages of valuation hold the potential, or indeed have the aspiration to help ‘learning to unlearn’ ‘what imperial/colonial designs have naturalized as the only way to know and the only way to be’ (Tlostanova & Mignolo, 2012, p. 22) which is the hallmark of decolonial pedagogy. How do different languages of valuation contribute to learning to unlearn colonial ways of knowing and registering nature? What histories, actors, contingencies, politics and power configurations play out when it comes to such contributions to decolonial pedagogy? What alternative ‘buried epistemologies’ (Willems–Braun, 1997) do different languages of valuation bring to light and how might these contribute to radical socio-ecological transformations? Research asking such questions related to decoloniality of knowledge, while linking those inquiries to contemporary capacities for transformation could channel the wealth of the School’s work on languages of valuation in a way that advances theory and our understanding of the politics of socio-ecological transformations.

References

- Aguilera-Klink, F., & Alcántara, V. (1994). *De la economía ambiental a la economía ecológica*. Universidad Privada del Norte.
- Anguelovski, I., & Martínez Alier, J. (2014). The ‘Environmentalism of the poor’ revisited: Territory and place in disconnected glocal struggles. *Ecological Economics*, 102, 167–176. <https://doi.org/10.1016/j.ecolecon.2014.04.005>
- Avcı, D., Adaman, F., & Özkaynak, B. (2010). Valuation languages in environmental conflicts: How stakeholders oppose or support gold mining at Mount Ida, Turkey. *Ecological Economics, Special Section: Ecological Distribution Conflicts*, 70, 228–238. <https://doi.org/10.1016/j.ecolecon.2010.05.009>
- Avila-Calero, S. (2017). Contesting energy transitions: Wind power and conflicts in the Isthmus of Tehuantepec. *Journal of Political Ecology*, 24, 992–1012. <https://doi.org/10.2458/v24i1.20979>
- Barry, J., & Proops, J. (1999). Seeking sustainability discourses with Q methodology. *Ecological Economics*, 28, 337–345.

- Brondízio, E. S., Gatzweiler, F. W., Zografos, C., Kumar, M., Kadekodi, G. K., McNeely, J. A., Xu, J., & Martínez-Alier, J. (2012). The socio-cultural context of ecosystem and biodiversity valuation. In *The economics of ecosystems and biodiversity: Ecological and economic foundations* (pp. 149–182).
- Cardoso, A. (2018). Valuation languages along the coal chain from Colombia to the Netherlands and to Turkey. *Ecological Economics*, 146, 44–59. <https://doi.org/10.1016/j.ecolecon.2017.09.012>
- Del Bene, D. (2018). *Hydropower and ecological conflicts. From resistance to transformations*. PhD thesis. Universitat Autònoma de Barcelona.
- Demaria, F. (2010). Shipbreaking at Alang–Sosiya (India): An ecological distribution conflict. *Ecological Economics, Special Section: Ecological Distribution Conflicts*, 70, 250–260. <https://doi.org/10.1016/j.ecolecon.2010.09.006>
- EJOLT. (n.d.). *EJAtlas* [WWW document]. <https://ejatlas.org>. Accessed 5.13.20.
- Funtowicz, S. O., & Ravetz, J. R. (1994). The worth of a songbird: Ecological economics as a post-normal science. *Ecological Economics*, 10, 197–207.
- Gerber, J.-F., Veuthey, S., & Martínez-Alier, J. (2009). Linking political ecology with ecological economics in tree plantation conflicts in Cameroon and Ecuador. *Ecological Economics*, 68, 2885–2889. <https://doi.org/10.1016/j.ecolecon.2009.06.029>
- Gsottbauer, E., Logar, I., & van den Bergh, J. (2015). Towards a fair, constructive and consistent criticism of all valuation languages: Comment on Kallis et al. (2013). *Ecological Economics*, 112, 164–169. <https://doi.org/10.1016/j.ecolecon.2014.12.014>
- Himes, A., & Muraca, B. (2018). Relational values: The key to pluralistic valuation of ecosystem services. *Current Opinion in Environmental Sustainability, Sustainability Challenges: Relational Values*, 35, 1–7. <https://doi.org/10.1016/j.cosust.2018.09.005>
- Kallis, G., Gómez-Baggethun, E., & Zografos, C. (2013). To value or not to value? That is not the question. *Ecological Economics*, 94, 97–105. <https://doi.org/10.1016/j.ecolecon.2013.07.002>
- Kapp, K. W. (1975). *The social costs of private enterprise* (2nd printing ed.). Schocken Books.
- Kenter, J. O., Hyde, T., Christie, M., & Fazey, I. (2011). The importance of deliberation in valuing ecosystem services in developing countries—Evidence from the Solomon Islands. *Global Environmental Change*, 21, 505–521. <https://doi.org/10.1016/j.gloenvcha.2011.01.001>
- Kothari, A., Salleh, A., Escobar, A., Demaria, F., & Acosta, A. (2019). *Pluriverse: A post-development dictionary*. Tulika Books and Authorsupfront.
- Lo, A. Y. (2013). Agreeing to pay under value disagreement: Reconceptualizing preference transformation in terms of pluralism with evidence from small-group deliberations on climate change. *Ecological Economics*, 87, 84–94. <https://doi.org/10.1016/j.ecolecon.2012.12.014>
- Martínez Alier, J. (2020). A global environmental justice movement: Mapping ecological distribution conflicts. *Disjuntiva*, 1, 81. <https://doi.org/10.14198/DISJUNTIVA2020.1.2.6>
- Martínez-Alier, J. (2002). *The environmentalism of the poor*. Edward Elgar Publishing.
- Martínez-Alier, J. (2019). Environmental justice. In A. Kothari, A. Salleh, A. Escobar, F. Demaria, & A. Acosta (Eds.), *Pluriverse: A post-development dictionary* (pp. 182–185). Tulika Books and Authorsupfront.
- Martínez-Alier, J., Munda, G., & O'Neill, J. (1997). Incommensurability of values in ecological economics. In M. O'Connor & C. Spash (Eds.), *Valuation and the environment—theory, method and practice*. Edward Elgar.
- Martínez-Alier, J., Kallis, G., Veuthey, S., Walter, M., & Temper, L. (2010). Social metabolism, ecological distribution conflicts, and valuation languages. *Ecological Economics*, 70, 153–158. <https://doi.org/10.1016/j.ecolecon.2010.09.024>
- Mingorria Martínez, S. (2017). *The nadies waving resistance: Oil palm and sugarcane conflicts in the territory, communities and households of the Q'epchil', Polochic Valley, Guatemala*. PhD thesis. Universitat Autònoma de Barcelona.
- Munda, G. (1995). *Multicriteria evaluation in a fuzzy environment* (Contributions to economics series). Physica-Verlag.

- Nelson, J. A. (2011). *Ethics and the economist: What climate change demands of us*. Ecological Economics.
- O'Neill, J. (2007). *Markets, deliberation and environment*. Routledge.
- O'Neill, J., & Spash, C. L. (2000). Conceptions of value in environmental decision-making. *Environmental Values*, 9, 521–536. <https://doi.org/10.3197/096327100129342191>
- Rodríguez-Labajos, B., & Martínez-Alier, J. (2013). The economics of ecosystems and biodiversity: Recent instances for debate. *Conservation and Society*, 11, 326–342.
- Spash, C. L. (2008). Deliberative monetary valuation: Literature, limitations and perspectives. In C. Zografos & R. B. Howarth (Eds.), *Deliberative Ecological Economics* (pp. 21–49). Oxford University Press.
- Spash, C. L., & Hanley, N. (1995). Preferences, information and biodiversity preservation. *Ecological Economics*, 12, 191–208.
- Tanasescu, M. (2015). Nature advocacy and the indigenous symbol. *Environmental Values*, 24, 105–122.
- Temper, L., Demaria, F., Scheidel, A., Del Bene, D., & Martinez-Alier, J. (2018). The global environmental justice atlas (EJAtlas): Ecological distribution conflicts as forces for sustainability. *Sustainability Science*, 13, 573–584. <https://doi.org/10.1007/s11625-018-0563-4>
- Tlostanova, M. V., & Mignolo, W. (2012). *Learning to unlearn: Decolonial reflections from Eurasia and the Americas*. The Ohio State University Press.
- Urkidi, L., & Walter, M. (2011). Dimensions of environmental justice in anti-gold mining movements in Latin America. *Geoforum*, 42, 683–695. <https://doi.org/10.1016/j.geoforum.2011.06.003>
- Vatn, A. (2005). *Institutions and the environment*. Edward Elgar Publishing.
- Velicu, I. (2015). Demonizing the sensible and the 'Revolution of our generation' in Rosia Montana. *Globalizations*, 12, 846–858. <https://doi.org/10.1080/14747731.2015.1100858>
- Veuthey, S., & Gerber, J.-F. (2011). *Valuation contests over the commoditisation of the Moabi Tree in South-Eastern Cameroon* [WWW document]. <https://doi.org/10.3197/096327111X12997574391805>
- Willems-Braun, B. (1997). Buried epistemologies: The politics of nature in (post) colonial British Columbia. *Annals of the Association of American Geographers*, 87, 3–31.
- Zografos, C. (2007). Rurality discourses and the role of the social enterprise in regenerating rural Scotland. *Journal of Rural Studies*, 23, 38–51.
- Zografos, C. (2015a). Value deliberation in ecological economics. In *Handbook of ecological economics*. <https://doi.org/10.4337/9781783471416.00008>
- Zografos, C. (2015b). *Démocratie directe* [Direct Democracy]. D'Alisa, G. Demaria, F., Kallis, G. Décroissance. Vocabulaire pour une nouvelle ère (pp. 187–194).
- Zografos, C. (2017). Flows of sediment, flows of insecurity: Climate change adaptation and the social contract in the Ebro Delta, Catalonia. *Geoforum*, 80, 49–60. <https://doi.org/10.1016/j.geoforum.2017.01.004>
- Zografos, C. (2019). Direct democracy. In A. Kothari, A. Salleh, A. Escobar, F. Demaria, & A. Acosta (Eds.), *Pluriverse: A post-development dictionary* (pp. 154–157). Tulika Books and Authorsupfront.
- Zografos, C., & Howarth, R. (2008a). *Deliberative ecological economics*. Oxford University Press.
- Zografos, C., & Howarth, R. B. (2008b). Towards a deliberative ecological economics. In *Deliberative ecological economics* (pp. 1–20). Oxford University Press.
- Zografos, C., & Howarth, R. B. (2010). Deliberative ecological economics for sustainability governance. *Sustainability*, 2, 3399–3417.
- Zografos, C., & Martínez-Alier, J. (2009). The politics of landscape value: A case study of wind farm conflict in rural Catalonia. *Environment and Planning A*, 41, 1726–1744.
- Zografos, C., & Paavola, J. (2008). Critical perspectives on human action and deliberative ecological economics. In C. Zografos & R. B. Howarth (Eds.), *Deliberative Ecological Economics* (pp. 146–166). Oxford University Press.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

