

# Public Visions of the Human/Nature Relationship and their Implications for Environmental Ethics

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A social scientific survey on visions of human/nature relationships in western Europe shows that the public clearly distinguishes not only between anthropocentrism and ecocentrism, but also between two nonanthropocentric types of thought, which may be called “partnership with nature” and “participation in nature.” In addition, the respondents distinguish a form of human/nature relationship that is allied to traditional stewardship but has a more ecocentric content, labeled here as “guardianship of nature.” Further analysis shows that the general public does not subscribe to an ethic of “mastery over nature.” Instead, practically all respondents embrace the image of guardianship, while the more radical relationships of partnership and participation also received significant levels of adherence. The results imply that ethicists should no longer assume that the ethics of the public are merely anthropocentric. Finally, they call into question the idea of a single form of ecocentrism and favor a hermeneutic virtue ethics approach to the study of the interface between ethics and action.

## INTRODUCTION

In 1967, Lynn White, Jr. published his “The Historical Roots of Our Ecological Crisis,” which made a strong case for pinpointing Christian beliefs as the root cause of the despotic attitude of Western humans toward nature. The ensuing discussions focused on the contributions of other sources of Western culture to this attitude, such as Greek philosophy and the Enlightenment. Several ecophilosophies, such as ecofeminism and deep ecology, took the all-pervading world view of “mastery over nature” as their starting point.<sup>1</sup>

All the while, the prevailing world view in the West was regarded as a given. Nobody really questioned to what extent the image of mastery over nature as the predominant Western world view would actually be *true*. Does the public in Western societies really adhere to that image? That is one of the questions we address here, based on a survey in western Europe. As it shows, the primary answer is that in people’s own “folk philosophy,” mastery over nature is strongly rejected and that other, much more ecocentric visions in fact predominate—visions that show a remarkable congruence with notions from academic environmental ethics.

We regard these outcomes as highly relevant for environmental philosophy. First, insight in the prevailing Western world views would prevent (further) unnecessary speculation on this issue. Further, it may be good for environmental philosophers to know how their concepts and debates relate to those held in society. Are we flogging an empirically dead horse, or reworking a generally held mainstream image? Are we exploring issues that are quite new compared to prevailing public visions, or the reverse, do we fail to pay attention to ethically relevant concepts that live in the public mind? To take one example, empirical studies showed that public opinion massively subscribes to the idea of the intrinsic value of nature.<sup>2</sup> What should environmental philosophy now think of its own tendency to view intrinsic value as an inherently problematic concept? We are far from suggesting that philosophical issues can be democratically decided upon, but we do contend that awareness of public visions is good for philosophy.

Ours is not the first empirical study on people’s perceptions of the relationship with nature. In the next section, we therefore start out by discussing some influential previous studies. Second, we summarize some classifications of human/nature relationships that constitute the backbone of our empirical work. These classifications may cover a wide spectrum, consisting of dominion over nature, stewardship of nature, and oneness with nature. Third, we describe the method and content of the survey, based on one such classification, which contains four relationships: mastery over nature, stewardship of nature, partnership with nature, and participation in nature. The outcomes of the survey are then presented and discussed, focusing especially on their implications for environmental ethics.

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<sup>1</sup> Lynn White, Jr., “The Historical Roots of Our Ecological Crisis,” *Science* 155 (1967): 1203–07. See Karen J. Warren and Jim Cheney, “Ecological Feminism and Ecosystem Ecology,” *Hypatia* 6 (1991): 179–97; Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (New York: State University of New York Press, 1995).

<sup>2</sup> Gunnar Grendstad and Dag Wollebaek, “Greener Still? An Empirical Examination of Eckersley’s Ecocentric Approach,” *Environmental Values* 30 (1998): 653–75; Suzanne C. Gagnon Thompson and Michelle A. Barton, “Ecocentric and Anthropocentric Attitudes toward the Environment,” *Journal of Environmental Psychology* 14 (1994): 149–57; Örjan Widegren, “The New Environmental Paradigm and Personal Norms,” *Environmental Values* 30 (1998): 75–100.

## STUDIES ON PUBLIC VIEWS OF THE HUMAN/NATURE RELATIONSHIP

A subject such as human/nature relationships lends itself well to open or semistructured interviews as the core research method. Indeed, several examples of this approach can be found in the literature. One example is a study by Willett Kempton, James Boster, and Jennifer Hartley, who carried out extensive interviews in the U.S. and found three prevailing beliefs about nature: “nature as limited resource upon which humans rely,” “nature as balanced and interdependent,” and lastly “society and nature,” including the alienation of nature and idealization of the environmentalism of primitive peoples.<sup>3</sup> In a recent issue of *Environmental Ethics*, another example reports on a study carried out in South Chile in which various types of relationship were identified, spread out over the quite distinct population groups in the area. One was an “embedded relationship with nature” with strong overtones of connectedness. Another was a “cultivating relationship with nature,” in which many elements of stewardship were found. Only two of the sixty-seven respondents had a purely “resource-use relationship” with nature, resembling the despot or mastery image discussed earlier.<sup>4</sup>

Studies such as these are well suited to uncover the qualitative richness of people’s visions at specific locations. Survey research, on the other hand, with written questionnaires and high numbers of respondents, usually generates stronger quantitative results. Although it is often thought that surveys cannot yield qualitative insights, that is untrue; if well designed and analyzed, surveys are able to generate empirically grounded classifications as well, as we show below.

Survey studies on the public visions of the human/nature relationships are not very common because these visions are only poorly represented in the most commonly used type of questionnaires, which are based on the New Environmental Paradigm (NEP) scale of Dunlap and Van Liere.<sup>5</sup> This popular instrument consists of fifteen statements (“items”) on which the respondents are requested to indicate their degree of agreement. Dunlap et al. designed the NEP scale arguing that environmentalism holds a challenge to our fundamental views about nature and our relationship to it.<sup>6</sup> Yet, most NEP statements do not measure a human/nature relationship, but rather people’s cognitive awareness of the consequences of harming the natural environment.<sup>7</sup> Only three NEP statements capture aspects of the human/nature relationship on the world view level. They are “Humans have the right to modify the natural environment to suit their needs,” “Plants and animals have as much right as humans to exist,” and “Humans were meant to rule over nature.” The problem that remains here is that ecocentric people can only answer to agree or disagree with these statements. Any type of differentiation between *kinds of* ecocentrism is beyond the NEP scale.<sup>8</sup> This problem is not a marginal issue because, as mentioned in the previous section, the vast majority of people in Europe and the U.S. are ecocentric, acknowledging as they do that nature has intrinsic value, which is often seen as the watershed between pure anthropocentrism and (degrees of) ecocentrism.

A more recent instrument designed for use in written questionnaires is the “Connectedness to Nature Scale” (CNS) which consists of fourteen statements.<sup>9</sup> The statements all measure the affective bonding between humans and nature that often form the core of ecocentric human/nature relationships. With statements such as “I often feel a sense of oneness with the natural world around me,” the CNS fills much of the affective and ecocentric gap left by the NEP scale. This choice makes CNS vulnerable to a new criticism that mirrors the problems with NEP: all its statements are affective, and its sole focus on connectedness with nature precludes differentiation with other ecocentric views, e.g., those of people who do not feel very connected with, yet very responsible for, nature (stewardship).

The present study is based on a third measuring instrument for written questionnaires, the Human and Nature (HaN) scale. This scale attempts to capture a full range of human/nature relationships, expressing a philosophically based classification developed in the Netherlands in the early 1990s. A number of previous studies<sup>10</sup>, mainly carried out in the Netherlands, have led to the development of some twenty-one statements in

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<sup>3</sup> Willett M. Kempton, James S. Boster, and Jennifer A. Hartley, *Environmental Values in American Culture* (Cambridge: MIT Press, 1995).

<sup>4</sup> Uta Berghöfer, Ricardo Rozzi, and Kurt Jax, “Local versus Global Knowledge: Diverse Perspectives on Nature in the Cape Horn Biosphere Reserve,” *Environmental Ethics* 30 (2008): 273–94.

<sup>5</sup> Riley E. Dunlap and Kent D. Van Liere, “The ‘New Environmental Paradigm,’” *Journal of Environmental Education* 9 (1978): 10–9; Riley E. Dunlap, Kent D. Van Liere, Angela G. Mertig, and Robert E. Jones, “Measuring Endorsement of the New Ecological Paradigm: A Revised NEP Scale,” *Journal of Social Issues* 56 (2000): 425–42.

<sup>6</sup> Dunlap et al., “Measuring Endorsement of the New Ecological Paradigm,” p. 427.

<sup>7</sup> Wesley P. Schultz, “The Structure of Environmental Concern: Concern for Self, Other People, and the Biosphere,” *Journal of Environmental Psychology* 21 (2001): 331.

<sup>8</sup> Mirjam de Groot, “Humans and Nature: Public Visions and Their Interrelationship” (Ph.d. diss., Radboud University, Nijmegen, 2010).

<sup>9</sup> F. Stephen Mayer and Cynthia McPherson Frantz, “The Connectedness to Nature Scale: A Measure of Individuals’ Feeling in Community with Nature,” *Journal of Environmental Psychology* 24 (2004): 503.

<sup>10</sup> Agnieszka D. Hunka, Wouter T. de Groot, and Adam Biela, “Visions of Nature in Eastern Europe: A Polish Example,” *Environmental Values* 18 (2009): 429–52; Mirjam de Groot and Wouter T. de Groot, “‘Room for River’ Measures and Public Visions in the Netherlands: A Survey on River Perceptions among Riverside Residents,” *Water Resources Research* 45 (2009); Wouter T. de Groot and Rian J. G. van den Born, “Visions of Nature and Landscape Type Preferences: An Exploration in the Netherlands,” *Landscape and Urban Planning* 63 (2003): 127–38; Rian J. G. van den Born, “Implicit Philosophy: Images of the People-Nature Relationship in the

this scale, with four to six statements together designed to represent one type of relationship.<sup>11</sup> In the next section, we take a look at the philosophical roots of the HaN classification.

## CLASSIFICATIONS OF HUMAN/NATURE RELATIONSHIPS

The HaN scale is based on a four-tiered classification—mastery over nature, stewardship of nature, partnership with nature, and participation in nature—because these relationships were considered to cover the basic philosophies and to be distinctive enough for the respondents to understand them. The articulation of this type of classification started out with a number of Anglo-Saxon scholars desiring to offer an alternative to White's one-dimensional analysis of Western people as masters over nature. White describes how the ancient relation between humans and their land changed due to the introduction of the plow and the Judeo-Christian belief system. Humans no longer considered themselves as a part of nature, but rather as masters over nature, who had the right to exploit nature to their own ends.<sup>12</sup> In *Man's Responsibility for Nature*, John Passmore acknowledged that "Christianity has encouraged man to think of himself as nature's absolute master, for whom everything that exists was designed."<sup>13</sup> According to Passmore, this post-Platonic idea can barely be recognized in original Christian teachings, but can be traced back to Greek-Christian arrogance. Ian Barbour follows this same line of thought, stressing the influence of the Age of Reason and the importance of the frontier experience in the U.S. as roots for the dominion attitude. The American experience especially reinforced faith in technological progress and science as solutions to (ecological) problems.

Both Passmore and Barbour also pointed at some minor traditions, such as stewardship. Passmore describes the steward of nature as a "farm-manager, actively responsible as God's deputy for the care of the world." Mankind is situated between God and the angels above and nature below. The steward does not possess nature, but he has the responsibility to care for creation in God's name. Barbour's stewardship forms a middle ground in a continuum that runs from domination to unity with nature. The broad stewardship category includes both a rational efficient planner and a caretaker that recognizes the intrinsic value of nature.<sup>14</sup> In a secular version of stewardship, humans have a responsibility to care for nature for future generations. Unity with nature, on the other hand, is characterized as "a strong sense of interdependence of humankind with other living things."<sup>15</sup>

The Dutch contribution to this field was the articulation of partnership with nature as a second image of the human/nature relationship at the ecocentric side of the continuum. Two preceding publications in *Environmental Ethics* played a key role here, Sara Ebenreck's "A Partnership Farmland Ethic" and Jim Cheney's "The Neo-Stoicism of Radical Environmentalism."<sup>16</sup> Both authors find inspiration in ecofeminist writing and use a rejection of rights-based thinking on intrinsic value as one of the steps to carve out their own ethics. Ebenreck reacts mainly to the stewardship notion that she regards as much too weak and un-relational to act as a foundation for a balanced relationship between humans and the land. Cheney on the other hand seeks a position against the other side of Barbour's continuum, the oneness-with-nature deep ecology that is seen by Cheney as just a neo-stoic response to male alienation from the world and just the second prong of the masculine reflex to either conquer (mastery) or fuse (deep ecology) with the lost Other. In the Netherlands, De Groot capitalized on this view when he added sources from field biology and medieval mysticism to Cheney's account and articulated partnership with nature as a "triple ethic," containing the intrinsic values of humans, of nature, and of the intensity and harmony of their relationship.<sup>17</sup> Partnership with nature may be regarded as an image particularly suited to the interactive "middle landscape" that Europe basically is, and making a step beyond the more typically American dichotomies of farms versus wilderness, humans versus nature.<sup>18</sup>

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Dutch Population," in Riyan J. G. van den Born, Rob H. J. Lenders, and Wouter T. de Groot, eds., *Visions of Nature: A Scientific Exploration of People's Implicit Philosophies* (Berlin: LIT Verlag, 2006), pp. 61–84.

<sup>11</sup> Other studies that (partly) cover the subject of human/nature relationship and that were subject to consideration while developing the HaN scale are Arjen E. Buijs, "Lay People's Images of Nature: Frameworks of Values, Beliefs and Value Orientations" *Society and Natural Resources* 22 (2009): 417–32; Pernille Kaltoft, "Values about Nature in Organic Farming Practice and Knowledge," *Sociologia Ruralis* 39 (1999): 39–53.; Stephen R. Kellert, "Perceptions of Animals in America," in R. J. Hoage, ed., *Perceptions of Animals in American Culture* (Washington, D.C.: Smithsonian Institution Press, 1989), pp. 5–24; Henny J. van der Windt, Jac. A. A. Swart, and Jozef Keulartz, "Nature and Landscape Planning: Exploring the Dynamics of Valuation, the Case of the Netherlands," *Landscape and Urban Planning* 79 (2007): 218–46; Ben A. Minteer and Robert E. Manning, "Pragmatism in Environmental Ethics: Democracy, Pluralism, and the Management of Nature," *Environmental Ethics* 21 (1999): 191–208.

<sup>12</sup> White, "The Historical Roots of Our Ecological Crisis."

<sup>13</sup> John Passmore, *Man's Responsibility for Nature: Ecological Problems and Western Traditions* (London: Duckworth, 1974), p. 13.

<sup>14</sup> *Ibid.*, p. 29.

<sup>15</sup> Ian G. Barbour, *Technology, Environment, and Human Values* (New York: Praeger, 1980), p. 20.

<sup>16</sup> Sara Ebenreck, "A Partnership Farmland Ethic," *Environmental Ethics* 5 (1983): 33–45, and Jim Cheney, "The Neo-Stoicism of Radical Environmentalism," *Environmental Ethics* 11 (1989): 293–325.

<sup>17</sup> Wouter T. de Groot, *Environmental Science Theory* (Amsterdam: Elsevier, 1992), p. 583 ([https://openaccess.leidenuniv.nl/dspace/bitstream/1887/11548/1/11\\_511\\_207.pdf](https://openaccess.leidenuniv.nl/dspace/bitstream/1887/11548/1/11_511_207.pdf)).

<sup>18</sup> Ben A. Minteer, "Biocentric Farming? Liberty Hyde Bailey and Environmental Ethics," *Environmental Ethics* 30 (2008): 341–60.

Since its first inception, partnership has been present in all Dutch overviews of the humans/nature relationship.<sup>19</sup> One example is the classification of Wim Zweers, in which partnership between humans serves as a metaphor for an egalitarian and relatively dynamic and voluntaristic relationship with nature, in line with Ebenreck's vision and all other Dutch authors. Like Cheney, Zweers takes great care to distinguish his next (and favorite) image, participation in nature, from "*Unio Mystica*" (oneness with nature), in which human identity is fused and annihilated in the great whole of nature. In the participation vision, nature is indeed the great Whole rather than the system of relatively concrete entities of partnership, and spiritual connectedness with this whole is the key sentiment of participation, but the human identity is maintained in this connection. Finally in this overview, it is noteworthy that partnership articulators such as Cheney and De Groot reject the unidimensionality of the (often implicit) continuum suggested in any from-mastery-to-unity classification.<sup>20</sup> Partnership with nature and participation in nature may rather be seen as two *different* ethics—one more feminine and one more masculine, as Cheney would add—of being with nature in this world.

## FROM PHILOSOPHICAL TO EMPIRICAL ARTICULATION

A survey was designed to investigate the content and distribution of images of the appropriate human/nature relationship in France, the Netherlands, and Germany. Because this survey required a large number of respondents, it was decided to distribute a written questionnaire. One of the consequences of this method is that the questions or statements should be short and clear because the respondents have to complete them without the assistance of the researcher. To avoid high costs, survey statements have multiple-choice answers (in our case, a five-point scale of "strongly disagree/disagree/neutral/agree/strongly agree"), leaving no room for the respondents to differentiate or explain their choice. This approach necessitates great care in the exact formulation of the statements that make up the scale.

<p><b>Mastery over Nature</b></p> <ol style="list-style-type: none"> <li>1. Human beings have the right to alter nature radically</li> <li>2. Technological progress will enable us to solve environmental problems in the future</li> <li>3. Human beings have more value than nature</li> <li>4. Because I can think, I am more important than nature</li> <li>5. We must especially protect animals that are useful for human beings</li> </ol> <p><b>Stewardship of Nature</b></p> <ol style="list-style-type: none"> <li>6. Human beings have a responsibility to conserve the natural environment</li> <li>7. We have to ensure that we leave enough nature intact for future generations</li> <li>8. Although we stand above nature, we do need to take good care of it</li> <li>9. Human beings are part of nature and are also responsible for it</li> </ol> <p><b>Partnership with Nature</b></p> <ol style="list-style-type: none"> <li>10. People and nature are of equal value</li> <li>11. Nature wants to grow, prosper and develop, just like humans do</li> <li>12. We must not set ourselves above nature, but must work together with it</li> <li>13. I would like to have a relationship with nature just like I have with my friends</li> <li>14. I can have a relationship with nature just like I have with my friends</li> </ol> <p><b>Participation in Nature</b></p> <ol style="list-style-type: none"> <li>15. When I am surrounded by nature I experience something greater than mankind</li> <li>16. I often feel an intense connection with nature</li> <li>17. I would like to spend a week entirely alone in the forest, in order to feel one with nature</li> <li>18. Human beings are part of nature</li> <li>19. I sometimes feel one with the universe</li> <li>20. It would be wonderful to join the wild geese on their yearly journey</li> <li>21. Natural sites are important, even if they are not useful to us human beings</li> </ol>
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Table 1: The 2008 HaN Scale Statements per Human/Nature Relationship.

In order to develop the HaN scale version to be used for the survey, twentyseven Dutch statements were translated into German and French with assistance of native speakers. Then, in each country, an interviewer discussed the statements with fifteen lay people separately. For each statement, the interviewer asked which human/nature relationship it appeared to represent, whether the statement was clear and what associations the respondent had while hearing it. These interviews showed which statements appeared to have lost or changed their meaning in the translation, or whether they were too vague for the respondent, or too difficult to classify into one of the four relationships. For instance, the statement "we have to treat nature with much care" was not specific enough and was classified as stewardship, partnership, and participation. Other statements met

<sup>19</sup> For a summary of Dutch classifications, see Riyan J. G. van den Born, "Implicit Philosophy: Images of the People-Nature Relationship in the Dutch Population," in Van den Born et al., *Visions of Nature*, pp. 61–84.

<sup>20</sup> Ibid.

incomprehension in only one of the three countries, i.e., in France where many respondents objected to the opposition of economy and ecology in the statement that “*nature cannot be allowed to stand in the way of economic progress.*” After an analysis of the interviews and a discussion with co-developers of the HaN scale, fourteen statements were selected for the international survey. In order to ensure a full representation of each relationship, seven more statements were developed, resulting in the “2008 HaN scale” presented in Table 1. The core of each relationship is represented by its first three statements. The others were designed to test hypotheses that were derived from previous studies or to give more insight in the way respondents tend to distinguish between the relationships.

The first three items of mastery highlight the right to mold nature to human needs (item 1), technological optimism (item 2), and the higher value of human beings (item 3). The next mastery item (item 4) is roughly derived from Cartesian thinking and from previous interviews with Dutch and Canadian respondents. During these interviews many ran into conceptual difficulties when asked whether humans are part of nature and then often concluded that humans are most fundamentally different from nature due to their intellectual capacities. Finally, mastery item 5 expresses the concept of instrumental value. Although we placed this statement under mastery in the scale, it could also be part of an anthropocentric variant of stewardship.

Of stewardship, the first three statements represent a traditional steward who takes care of nature (item 6), takes the next generations into account (item 7) and is positioned above nature (item 8). The last (item 9) tests a hypothesis based upon previous findings in the Netherlands, namely, that respondents prefer a steward who is part of nature to the hierarchy as expressed in the traditional notion of stewardship. This item integrates responsibility for nature with a positioning of humans within nature, analogous to a parent who is at the same time part of and responsible for the family. Although the position of God above humans is also an important element in many stewardship images, we decided to keep religious concepts out of the HaN scale because earlier studies showed that such statements measure the general level of religiosity of the respondents rather than their opinion on stewardship.

The first three partnership statements reflect an equal value of both partners in the interaction (item 10), in which both humans and nature desire to grow (item 11), and are supporting each other (item 12). This item also emphasizes the rejection of a hierarchical relation between humans and nature. The last two partnership statements (items 13 and 14) originate from interviews in which respondents make a sharp distinction between the ideal of partnership versus its practical possibility.<sup>21</sup>

The first three statements that present the participant focus on experiencing nature as a great whole (item 15), the feeling of connectedness (item 16) and the desire to be in nature (item 17). The next item (item 18) also expresses the inclusion of humans in nature but this item could also be interpreted in a narrow biological sense, i.e., humans as just one species among others. Item 19 lies closest to unity with nature and was taken up for two reasons, (i) to see if respondents would tend to group this statement together with participation and not with, for instance, partnership, and (ii) to measure the level of agreement of respondents with this radical (neo-stoic, as Cheney would have it) deep ecology.

The final two statements stand apart from the basic classification. Item 20, expressing a desire to join the wild geese, is primarily meant to measure the respondent’s “romanticizing capacity” and also to see whether this statement would link up with partnership (because nature here is a concrete entity rather than an overarching system) or with participation (because of its connotation with losing one’s regular Self). Item 21 is a simple expression of the intrinsic value of nature. The fraction of respondents who agree with this statement is interesting. Another reason to add this statement was to see if it would become associated with stewardship or with the two more ecocentric images of relationship.

The questionnaire presented all statements in a random order. In addition to the HaN scale, the questionnaire contained questions on background characteristics like age, sex, educational level, and the frequency of visits to natural areas. A total of 7,100 written questionnaires were distributed in France, Germany, and the Netherlands,<sup>22</sup> resulting in 483, 614, and 714 returned questionnaires in these countries, respectively. Gender distribution was representative for the population at large, while in France and the Netherlands the younger generation (between eighteen and forty-years old) was somewhat underrepresented.

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<sup>21</sup> De Groot and De Groot, “‘Room for River’ Measures and Public Visions”; Riyan J. G. van den Born, “Rethinking Nature: Visions of Nature of a Dutch Public,” *Environmental Values* 17 (2008): 83–110.

<sup>22</sup> The survey was part of a larger mail-back questionnaire on flood protection measures, which was distributed among river landscape residents. In each country, two rural areas (existing of villages below 5,000 citizens) and one medium-sized city were selected (between 100,000 and 150,000 inhabitants). In France, the city of Tours and the villages La Chappelle-sur-Loire, Chouzé-sur-Loire, and Varennes-sur-Loire were selected along the Loire and along the Rhine, the villages Lauterbourg, Mothern, and Münchhausen. In Germany, all selected locations were along the Rhine; the villages of Kalkar and Au am Rhein and the city of Koblenz. The Dutch municipalities Neerijnen and Rijnwaarden and the city of Nijmegen are all along the (lower) Rhine.

## RESULTS

The questionnaires have been analyzed to yield a qualitative result and, on that basis, a quantitative result. The qualitative result is an empirically grounded classification of images of the human/nature relationships that the respondents distinguish, and the quantitative result is the degree to which respondents adhere to (agree with) these images. The classifications are generated with a statistical “factor analysis.” This method identifies which statements are “kept together” in the answers of the respondents. If, for instance, many respondents who agree with statement A, also agree with statements X and Z and vice versa, these three statements form one group, or one “factor” as the statistical tool calls it. In our terminology, these statements form a single image of the people/nature relationship in the minds of the respondents. Jointly, the images emerging from the factor analysis form an empirically grounded classification of relationships—one that may well be different from the philosophically grounded classification that generated the statements in Table 1. If the empirically grounded classification differs substantially from the original one, the researchers should express this difference by giving the empirical image(s) a new label.

In this section, we focus first on the classification findings and subsequently on the levels to which respondents adhere to these images of relationships.

### THE EMPIRICALLY GROUNDED CLASSIFICATION

The factor analysis showed that a classification with four images was the best fit for the data.<sup>23</sup> The first image distinguished by the respondents was composed of most mastery statements (items 3, 4, and 5) of Table 1. All three statements express strong anthropocentrism. This empirical image, however, also includes an item 8 designed to express stewardship (“Although we stand above nature, we do need to take good care of it”). This connection did not lead to giving a new label to this image; we maintained the name mastery but it should be noted that this mastery is slightly more caring for nature than the more radical mastery from the philosophical classification (see Figure 1).<sup>24</sup>

The second image distinguished by the respondents contains all other original stewardship items (items 6, 7, and 9). Especially items 6 and 7 represent indisputable stewardship elements such as responsibility and future generations. Yet, this image does not present stewardship as traditionally known because it also contains statements that were designed to represent partnership and participation (items 12 and 18) in the original classification. Here, the respondents indicate that in their minds, stewardship values such as responsibility and care are narrowly linked to a more human-inclusive ecology. Item 9 captures this link in one sentence, that “human beings are part of nature and also responsible for it.” It makes the image much more ecocentric than traditional stewardship. Moreover, the respondents also found the statement on intrinsic value (item 21) most in line with stewardship. Although we cannot expect the respondents to fully understand the concept and its implications based upon this single statement, it does show the initial reaction to the idea. The coherence with stewardship did not reach the threshold to include it in Figure 1, but it is high enough<sup>25</sup> to indicate that empirical stewardship represents a preservationist rather than a conservationist ethic. Largely in line with the classification of De Groot,<sup>26</sup> we chose to call the image guardianship of nature, the “ecovariant” of stewardship as opposed to the anthropocentric “man the caretaker.”

The third image is composed solely of original partnership statements. Clearly the respondents regard the statements on a horizontal relationship with nature as a coherent group. Nevertheless, of all four relationships, partnership is the most difficult to recognize as a coherent concept for the respondents. For instance, partnership item 13 also correlates with the image of participation and is not regarded as expressing exclusively a partnership notion.<sup>27</sup>

The last image contains all items that were intended to represent participation. This image is dominated by affective statements that focus on the greatness of the holistic interdependent system of Being. Item 20 (“It would be wonderful to join the geese. . .”), also emerged as part of this image, suggesting that, in the minds of

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<sup>23</sup> The best fit model was determined based on a scree plot and Kaiser’s rule of thumb. We selected the loadings with a minimum of 0.400. All factors are reliable when taking into consideration the small number of items per factor. The Cronbach’s alphas were as follows: mastery 0.70, guardianship 0.73, partnership 0.68, participation 0.73. The factor loadings had the following ranges: mastery 0.421–0.743, guardianship 0.486–0.634, partnership 0.508–0.552, and participation 0.421–0.623. For further information on the statistics, see Mirjam de Groot, “Visions of Nature and River Management: Exploring the Relation between Ethics and River Policies in Northwestern Europe,” typescript. For a copy, contact the author at mirjam.degroot@wur.nl.

<sup>24</sup> In the subclassification of mastery in De Groot, *Environmental Science Theory*, pp. 481–83, the least radical master is called the caretaker. The inclusion of item 8 in mastery gives this image a caretaker hue.

<sup>25</sup> The factor loading of 0.358 did not reach the threshold of 0.400, but can be considered as a moderate correlation.

<sup>26</sup> De Groot, *Environmental Science Theory*, pp. 481–83.

<sup>27</sup> The loading of item (11) is 0.552 on the partnership factor and 0.421 on the participation factor.

the respondents, the association with *experiencing* nature dominates over the more cognitive association of participation in nature as a great system.

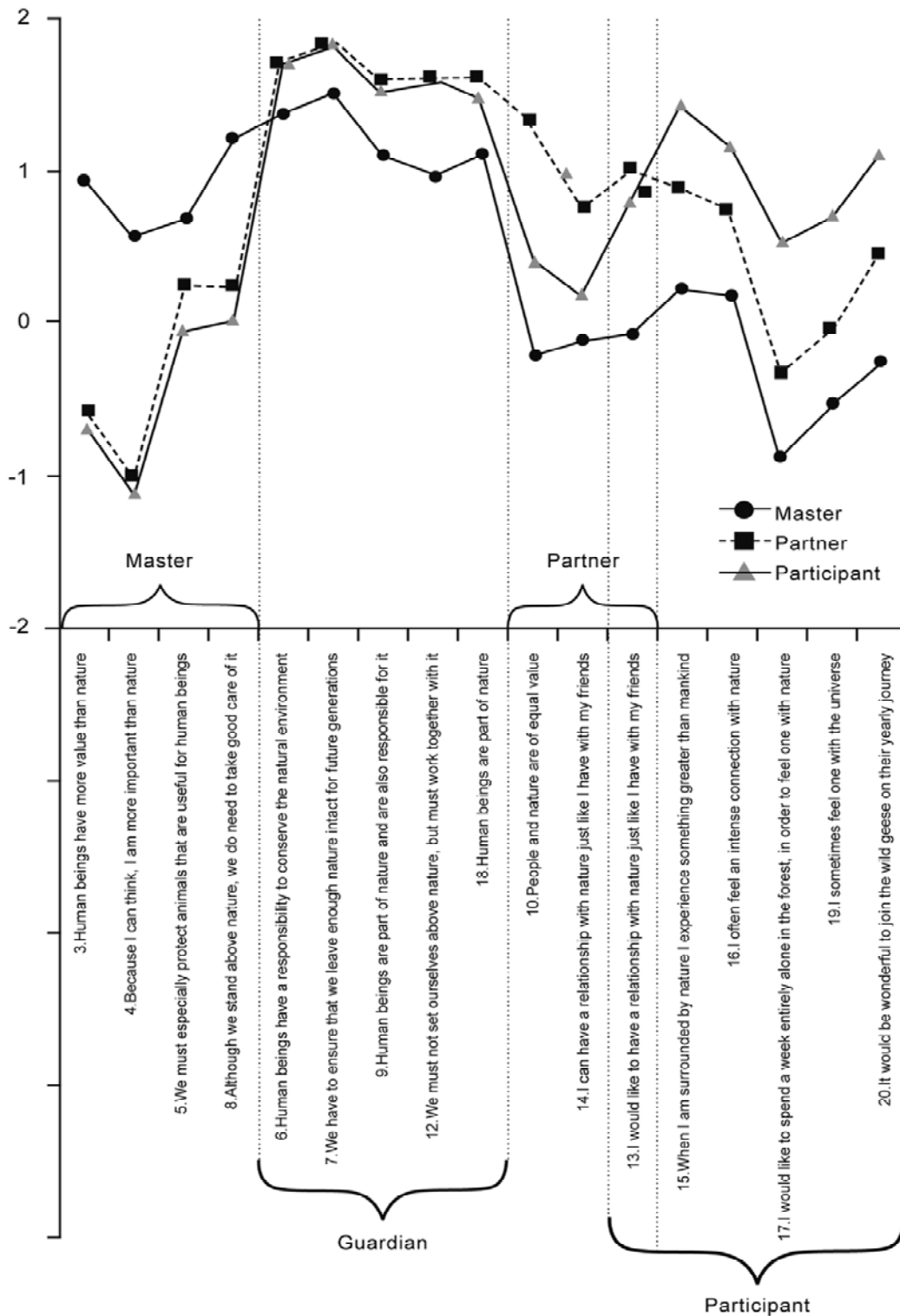


Fig. 1: Levels of adherences of three groups of respondents having either mastery, partnership or participation as their favorite non-guardianship image. The answers on the five-point scale were coded as -2 for “strongly disagree,” -1 for “disagree,” 0 for “neutral,” +1 for “agree” and +2 for “strongly agree.”

Overall then, it appears that the respondents clearly reproduce the philosophically grounded classification that was used as the point of departure. Their doing so implies, *inter alia*, that respondents clearly distinguish between two types of ecocentrism (partnership and participation). Within the classification, the empirically grounded image of mastery is somewhat less anthropocentric than the philosophical one, and the “middle ground” is more ecocentric than classic stewardship (hence, guardianship).

## LEVELS OF ADHERENCE TO THE TYPES OF RELATIONSHIP

The fact that respondents distinguish between various relationships does not imply that they *adhere to* these relationships. If all respondents were to say “strongly disagree” to all mastery items, for instance, mastery would become identified as a coherent image in the factor analysis, but at the same time it would be shown to be rejected by all, with an overall level of adherence of -2. In this subsection, we report on these levels of adherence.

In line with previous empirical studies mainly carried out in the U.S. and the Netherlands,<sup>28</sup> mastery over nature was strongly rejected. Guardianship was massively adhered to, and yet the two more ecocentric images, though less popular than guardianship, were adhered to overall. This finding is based on taking simple means of the items belonging to each empirically grounded image, resulting in the following distribution: mastery -0.48, guardianship +1.58, partnership +0.71 and participation +0.40. This result can also be expressed by allocating images of relationship to respondents.<sup>29</sup> With this approach only 15 percent of the respondents adhere to mastery over nature. Guardianship of nature again proved to be immensely popular, with 91 percent of the respondents adhering. The second most popular relationship was partnership with nature, adhered to by 52 percent of the respondents, followed by participation in nature with 28 percent. Please note that the sum of all percentages exceeds 100 percent, indicating that people are found to adhere to more than one image of relationship. For example, the specific statement on intrinsic value of nature was adhered to by 90 percent of the respondents.<sup>30</sup>

Since practically all respondents adhere to guardianship, it was difficult to arrive at more distinctive findings. It was therefore decided to differentiate respondents by their most popular *non-guardianship* image of relationship, i.e., mastery, partnership, or participation. This method results in 14 percent masters, 64 percent partners, and 29 percent participants.<sup>31</sup> The lines in Figure 1 represent the three groups and indicate how respondents thus classified as master, partner, or participant respond to all HaN statements. The graph confirms that all respondents agree on the guardianship statements. It also shows which themes are especially appealing to masters in relation to partners and participants. The masters score much higher on the valuation (item 3) and positioning (item 4) of humans above nature than the other two groups. The partners also distinguish themselves mostly by the valuation of humans (item 10) and their stronger belief in the practicability of this relationship (item 14). The participants stand out in their agreement to reside alone in nature (item 17), the ultimate form of participation in nature.

Finally, we analyzed to what extent some images of relationship might be more appealing to certain respondents. A regression analysis shows that women are relatively more in favor of guardianship, partnership, and participation. Because the empirically based guardian leans toward ecocentrism, the answers of women can be regarded as relatively more ecocentric. The same answering pattern appears with respondents who frequently visit nature; they also tend to give more ecocentric answers. This pattern is in line with the results of Mayer and Frantz,<sup>32</sup> who reported that frequent nature visitors have a stronger connection with nature. Further, religious respondents are relatively more negative on all relationships except guardianship. When comparing nationalities, respondents living in the Netherlands are the most moderate in their opinion on all images of relationship. Respondents living in Germany are more ecocentric than the Dutch; they adhere more to participation and partnership and are fiercer in their rejection of mastery. The French are also more negative about mastery than the Dutch, but do not share the German enthusiasm for partnership and participation because their adherence is relatively low on this image.<sup>33</sup>

We have seen here that the general public in Germany, France, and the Netherlands hold world views concerning the human/nature relationship that link up well with articulations in environmental philosophy.

<sup>28</sup> Van den Born, “Implicit Philosophy,” pp. 61–84; Kempton et al., *Environmental Values in American Culture*.

<sup>29</sup> The defining rule was that “adhering to A” (e.g., mastery over nature) is anybody who agreed or strongly agreed on all items comprising the A image.

<sup>30</sup> This number corresponds to previous studies. In Norway 83 percent and in Sweden 78 percent of the general public adhered to a statement on intrinsic value (Grendstad and Wollibaek, “Greener Still?”; Widegren, “The New Environmental Paradigm and Personal Norms”). In the U.S. 80 percent of a student group adhered to intrinsic value (Thompson and Barton, “Ecocentric and Anthropocentric Attitudes toward the Environment”).

<sup>31</sup> Although the objective was to allocate one image per respondent, the percentages add up to 107 percent due to sometimes equal average scores on two images. In other words, seven percent of the respondents are classified into two images.

<sup>32</sup> Mayer and Frantz, “The Connectedness to Nature Scale.”

<sup>33</sup> All correlations are statistically significant to a  $p < 0.05$  level. For a somewhat similar analysis, based on a survey in the Netherlands, see De Groot and De Groot, “‘Room for River’ Measures and Public Visions in the Netherlands.”



Mastery over nature stands apart from guardianship of nature, which in turn is distinct from a relational image of partnership with nature and a holistic image of participation in nature. Guardianship of nature is allied to traditional stewardship, but with more ecocentric content. Guardianship of nature represents a massive mainstream concept to which 91 percent of the respondents agree. Contrary to many philosophical and popular convictions, mastery over nature is rejected in all three countries, while participation and partnership have intermediate but still positive mean levels of adherence.

Two methodological caveats apply. First, while the applied statistical tool is able to assess whether respondents indeed classify world views in the same manner as does environmental philosophy (which turned out to be the case), the survey method cannot go outside the bounds of the philosophical classification that was used as starting point. Images of relationship that are different from the ones in the “mother classification” cannot be found, e.g., nature as enemy, or nature as a capricious god, or nature that should be our steward rather than the reverse.<sup>34</sup> Second, what we have measured here are world views of *individuals*, not of institutions. We pick up this theme in the discussion.

## DISCUSSION

The results of this survey have a number of implications for the agenda of environmental philosophy. In this section, we explore some of these. Our first two points follow directly from the preceding sections. The last two points are more speculative, and focused on the difference between individuals and institutions.

### (1) *Fighting Straw Men*

The first and most obvious conclusion would be that environmental philosophers should be more aware that using mastery over nature as the anvil to hammer out an argument may amount to fighting a straw man. Mastery over nature has all but disappeared as anything desirable in the minds of most people in Western societies. Virtually all respondents believe that humans are morally responsible for nature and recognize the intrinsic value of nature. Environmental ethics is not an elite endeavor, but a commonly shared ideal in the Western world. It is interesting to note here that Arne Naess believed that most statements of his deep ecology platform would in fact be acceptable to the vast majority of people<sup>35</sup> and would not (contrary to what many other deep ecologists claim) require a radical paradigm shift.<sup>36</sup> In fact, most western Europeans are sympathetic to even more radical forms of nonanthropocentrism. This does not mean, of course, that the environmental crisis will be solved automatically. We return to this issue later on.

### (2) *Articulating Nonanthropocentric Visions*

A second issue emerging from this survey concerns the articulation of nonanthropocentric ethics. Our survey shows that most respondents not only distinguish between anthropocentrism and nonanthropocentrism, but also between two distinct modes of nonanthropocentric thought. Most people recognize a clear difference between the image that we should live and work with nature on a footing of equality, and the image that humans should somehow attune themselves to nature as the greater whole. We feel that this recognition should stimulate philosophical efforts to ground and articulate both of these “partnership” and “participation” visions, distinct from both stewardship and oneness-with-nature ethics. It should be noted in this context that, as the present survey and other empirical work<sup>37</sup> have shown, lay people have a tendency to freely mix positions that may appear incommensurable in more theoretical terms, e.g., to adhere to both stewardship and partnership, or both partnership and participation. Environmental ethics should, of course, not see this tendency as an excuse to develop sloppy theory or excessively pragmatic pantheons, but articulations that allow for gliding scales and

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<sup>34</sup> This is African. See, for instance, Natascha Zwaal, *Narratives for Nature, Storytelling as a Vehicle for Improving the Intercultural Dialogue on Environmental Conservation in Cameroon* (Leiden: Leiden University, 2003), p. 325, and Monique Borgerhoff Mulder and Peter Coppolillo, *Conservation: Linking Ecology, Economics and Culture* (Princeton: Princeton University Press, 2004).

<sup>35</sup> Arne Naess: “The Shallow and the Deep, Long-Range Ecology Movement,” *Inquiry* 16 (1973): 11: “It is clear, though, that vast numbers of people of all countries, and even a considerable number of people in power, accept as valid the wider norms and values of the Deep Ecology movement.” In a keynote lecture (“Intrinsic Value: Will the Defenders of Nature Please Rise?” given at conference of International Society on Conservation Biology, University of Michigan, Ann Harbor, May 1985), Naess claimed to have conducted an empirical study on ordinary people’s normative views on nature that confirms the results of our survey. According to Naess, “a great majority” of interviewees reported feeling a moral obligation to the natural world, held that some natural entities other than human beings had “rights,” and claimed that one could speak meaningfully about the inherent value of nature. Cited in Benjamin Howe, “The History of Arne Naess’ Environmental Philosophy and Its Reception” (diss., Catholic University of Leuven, 2008), pp. 95–97.

<sup>36</sup> Howe argues that the statements in the deep ecology platform are meant to solely reflect shared articulations of fundamental ideas and convictions, not shared underlying concepts or ideologies. Thus, Naess neither believed that such a shift was necessary nor that philosophy could lead to such a paradigm shift. Cf. Howe, “The History of Arne Naess’s Environmental Philosophy and Its Reception.”

<sup>37</sup> Mirjam De Groot and Riyan J. G. van den Born, “Humans, Nature and God: Exploring Images of Their Interrelationships in Victoria, Canada,” *World Views: Environment, Culture, Religion* 11 (2007): 324–51; Van den Born, “Rethinking Nature.”

intermediate positions *do* have a high “public utility.” If environmental ethics is to have a productive function in public moral debate, it should be common enough to help people articulate their moral beliefs and intuitions, and yet creative and analytically sharp enough to be able to lead to new critical insights into the meaning of these intuitions.

### (3) *The Role of Institutions*

Environmental ethicists tend to take an idealist position, assuming that societal processes are merely a reflection of underlying ideas and ideologies. Our survey shows that this assumption is untenable. The images and ideologies of individual people are not congruent at all with the current, very weak responses of societies to the environmental crisis. One line of thought that addresses this discrepancy remains on the level of individual people, indicating the well-known gap between attitude and behavior, or weakness of will. This argument does hold water and we will pay some attention to it later. The first thing to be aware of, however, is the crucial role of *institutions* (organizations, rules, and structures) in environmental issues. Individual people can choose to buy energy-saving lamps (if affordable), eat organic food (if available), or make the garden (if present) more natural, but beyond these, what can they really accomplish? From waste management to climate change alleviation, from pesticides to national parks, the environmental business that makes a real difference is institutional business.

Once we start looking at institutions, the picture that emerges is strikingly different from the picture emerging from our and others’ surveys of individual people. People’s moral ideas may be green, but institutions often obstruct their attempts to lead their lives accordingly. Physical infrastructures force people into private cars; tax rules put a levy on labor instead of pollution, institutions fail to lift farmers out of the rat race they find themselves in.<sup>38</sup> Even the incentive structures of the academic discipline of philosophy stimulate practicing philosophy in a way that is only relevant to fellow philosophers.<sup>39</sup> The programs of mainstream political parties usually reflect variations on the traditional idea that humans can be a master over nature.<sup>40</sup> Claudio Campagna and Teresita Fernández looked at the mission statements of international environmental organizations, and W. F. Butler and T. G. Acott compared the acknowledgement of nature’s intrinsic value in the policies versus the employees of land-owning organizations in England, and both found the same answer: irrespective of what people—even their own employees—may think, institutions only reflect the economic utility of nature. Everyone appears to be caught in an *idée fixe* that other people are not nature-friendly and interested only in *Homo economicus* arguments.<sup>41</sup>

To a large degree, the tapestry of our daily life is woven by institutions and many of these fail to recognize and exploit the public basis for nature-friendly institutional action. Yet, many of them could do so very well. The concepts of intrinsic value and stewardship could form a massive public basis for institutions to work on, once these institutions would recognize the gap between their current mission statements and the environmental ethics of the public.

In the current situation, however, individuals can express their good intentions only in those few areas that they can control themselves. For individuals, effectively working for nature often amounts to struggling with institutions against the institutional grain, which requires strong motivation. It is doubtful, however, whether intrinsic value recognition and the notion of stewardship can provide motivational power that is strong enough. John Nolt states that intrinsic value recognition (as any value recognition) *as such* does not yet motivate for action.<sup>42</sup> The step from good to ought requires a feeling of connectedness with the valued object. In this context, it may be noted that stewardship remains a relatively abstract, detached relationship with nature. There is something “out there” that has value and for which “we” are somehow “responsible.” In motivational terms, however, this is still a far cry from a value to which I am really connected. The concepts of intrinsic value and stewardship may be too weak for an individual to start working against the institutional grain.

### (4) *A Proposal for Environmental Ethics*

It is outside our reach to give a systematic account of possible responses of environmental philosophy to this situation. One line of reasoning certainly would follow Frodeman’s plea for environmental ethics to become more strongly embedded in institutions and interdisciplinary work.<sup>43</sup> In largely the same vein, Andrew Light and others have proposed to make a “political turn” in environmental ethics.<sup>44</sup> Philosophers could help change the institutional rules and arrangements in ways that are more in tune with publicly held environmental values.

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<sup>38</sup> Minter, “Biocentric Farming?”

<sup>39</sup> Robert Frodeman, “Philosophy Unbound: Environmental Ethics at the End of the Earth,” *Environmental Ethics* 30 (2008): 313–24.

<sup>40</sup> De Groot, *Environmental Science Theory*, p. 495.

<sup>41</sup> Claudio Campagna and Teresita Fernández, “A Comparative Analysis of the Vision and Mission Statements of International Environmental Organisations,” *Environmental Values* 16 (2007): 369–98; W. F. Butler and T. G. Acott, “An Inquiry Concerning the Acceptance of Intrinsic Value Theories of Nature,” *Environmental Values* 16 (2007): 149–68.

<sup>42</sup> John Nolt, “The Move from Good to Ought,” *Environmental Ethics* 28 (2006): 355–74.

<sup>43</sup> Frodeman, “Philosophy Unbound.”

<sup>44</sup> Andrew Light and Eric Katz, eds., *Environmental Pragmatism* (New York: Routledge, 1996).

A second line of reasoning would focus more on the articulation of visions of nature that go beyond stewardship and intrinsic value to focus on issues of partnership, connectedness, and (bioregional) place attachment. This philosophical work should, to a high degree, be a public affair, which is developing close to the “empirical philosophy” of what lay people really think, and which is well represented in the media and institutions where people meet. As one example, philosophers could play a special part in helping communities to articulate and promote their specific perspective in the public debate.

A third line of reasoning would be to develop a more hermeneutic style of doing environmental ethics, and it is this proposal that we focus on below. Environmental hermeneutics is concerned with the question of how interpretation theory can contribute to environmental theory and practice. Environmental hermeneuticists explore what it means to interpret environments, how environments can become meaningful to us, and how certain interpretations of the environment support certain self-interpretations.<sup>45</sup>

Hermeneutical ethics does not start with a reflection and articulation of abstract values that people (should) adhere to. Rather, it starts out from the assumption that we know the world only through interpretations, and that these understandings of the world cannot be separated from the articulations in a specific cultural context. The attention for the cultural context of environmental values as stressed by hermeneutics is not a novel idea to environmental ethics.<sup>46</sup> However, hermeneutics regards the particular historic-cultural background not just as the context for value articulation, but as the very fabric of meaning in which these environmental values can exist. That is why hermeneuticists prefer to talk about environmental *meanings* rather than values: they stress that the way the world presents itself to us as meaningful is not only highly dependent on cultural-historical contexts, but also indistinguishably intertwined with ideas and interpretations of self and the world.

The type of moral ideas that people usually refer to when asked about their views on how humans and nature should relate could be called “good intentions,” because they refer to their ideas about what a morally ideal world would look like. The problem is that many of these ideas remain isolated, without an outlet in actual moral practices. On that practical level, however, people’s lives are always already embedded in meanings (moral and otherwise, environmental and otherwise). Only, these meanings are often poorly understood, and it is here that environmental ethicists could play a role.

In a similar way psychotherapists can enlighten people about their deeper reasons for doing certain things, environmental ethicists could reinterpret environmental practices to reveal how certain moral meanings are at stake in environmental practices, in ways that most people usually are not fully aware of, or that are illreflected in the way they go about certain practices. By articulating and explicating the moral meanings and intuitions that are part of collectively shared notions and values, hermeneutics can help strengthen the sociocultural fabric that not only enables individuals to form their moral intuitions, but also helps them to live out these ideas in their practices. Instead of starting with abstract moral ideas, which are the result of often poorly understood theoretical discourses, hermeneutical ethics aims to reinterpret the meanings that, to some degree and often implicitly, already structure our actual practices. By rearticulating the original intuitions that people voiced in terms of the broad images of relationship that we clarified in our survey, ethicists can help reconnect these moral intuitions to environmental practices: what does it morally mean to see oneself as a steward, or a participant of nature? Is the meaning of being a steward really compatible with taking a utilitarian stance toward resource management? What would being a partner of nature mean in terms of flying to one’s holiday location, or in terms of driving a car?

Let’s have a look at driving a car. In Western societies, cars have become associated with freedom, forcefully strengthened and exploited in car commercials, and articulated powerfully in road movies, a genre that connects the desire of freedom with being on the road. A hermeneutical interpretation of road movies such as *Easy Rider* might try to reveal the deeper meaning of the type of freedom that is somehow at play in these modern practices. What is it in riding a motorbike (or driving a car) that apparently has such an appeal to us? What does the bike really stand for? Is it the power of the engine, the design of the vehicle, the feeling of control over nature? If so, then we should at least admit that in some sense we are masters over nature, at least in these practices. But closer interpretation of the narrative of such freedom tales and their appeal might also reveal that a key element of the freedom that these narratives articulate is the experience of the spacious landscape. In that case, the desire underneath the popularity of cars would turn out to be a badly understood desire for free nature. We are born to be wild, but under the great sky, the imagery has been hijacked by the automobile industry. If true, it might explain why drivers stuck in traffic jams in inner cities do not feel in place, despite their positive connotations with driving. Their reason to take the car instead of a train could then turn out to be based on a misinterpretation of their own desire for freedom, a mistaken understanding of the relation between the freedom they seek and the

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<sup>45</sup> E.g., Robert Mugerauer: *Interpreting Environments. Tradition, Deconstruction, Hermeneutics* (Austin: University of Texas Press, 1995); John Van Buren, “Critical Environmental Hermeneutics,” *Environmental Ethics* 17 (1995): 259–75; Martin Drenthen, “The Paradox of Environmental Ethics: Nietzsche’s View of Nature and the Wild,” *Environmental Ethics* 21 (1999): 163–75; Forrest Clingerman, “Beyond the Flowers and the Stones: ‘Emplacement’ and the Modeling of Nature,” *Philosophy in the Contemporary World* 11, no. 2 (2004): 17–24.

<sup>46</sup> E.g., Hargrove’s argument that we should teach the historical context of environmental values within particular societies so that they can be promoted without translation into weak economic terms. Cf. Eugene Hargrove, *Foundations of Environmental Ethics* (Englewood Cliffs, N.J.: Prentice-Hall, 1989), pp. 206–15.

way they try to fulfill this desire. Thus, by providing a hermeneutical reinterpretation of central self-testimonies of our contemporary culture, environmental ethics could counteract the power of certain notions that have cast a spell over our culture. Eventually, such work would lead to a retrieval of our moral desires and an increased awareness of the tensions and paradoxes in modern lives, which in turn could motivate a cultural transition towards life styles more in tune with our true desires. On a bicycle, the sky is even greater.

Hermeneutical environmental ethics could even help to articulate and cultivate an environmental virtue ethics. Virtue ethicists believe that moral behavior does not amount to following abstract principles or recognizing rationally justified values, but rather that morality has to be cultivated, that virtues can (only) be acquired by being introduced *within* a culture of established practices, in which certain moral meanings play a part as the presupposed (but often unconscious) purpose of much of what we do.<sup>47</sup> A *hermeneutical* approach to environmental virtue ethics would seek to reinterpret these practices—using novels, movies, and other cultural genres<sup>48</sup> that are generally recognized as successful articulations of moral standards—in order to explicate the moral meanings that apparently appeal to us. The purpose of such a retrieval of implicit morality is to make people more aware of the sought-after meaning that motivate and structure their practices and to know better what moral meanings are at stake in them. Thus, environmental ethicists can help strengthen the sociocultural frames that may counterweight the narrow utilitarian rationale that governs so many of our institutions.

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<sup>47</sup> Cf. Alisdair MacIntyre, *After Virtue* (London: Duckworth, 1985).

<sup>48</sup> For a hermeneutical attempt to utilize movies to explicate and articulate the existing moral meanings at work in our relation with wildness, see Martin Drenthen, "Fatal Attraction: Wildness in Contemporary Film," *Environmental Ethics* 31 (2009): 297–315.