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# Rethinking Nature: Public Visions in the Netherlands

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## ABSTRACT

This study addresses two questions: (1) what visions of nature do lay people subscribe to? (2) to what extent do these visions reflect those of professional philosophers?

Four philosophical images of the human-nature relationship were discussed with respondents; *Master*, *Steward*, *Partner* and *Participant*. Respondents recognise these images, but prefer to construct their own. Elements of their images are (1) that humans are part of nature, but (2) that they are responsible for nature as well. This study indicates that empirical philosophy can contribute to the further development of environmental philosophy. Through an empirical turn we can discover people's own voice.

## KEYWORDS

Visions of nature, attitudes towards nature, values of nature, environmental philosophy, qualitative research, Netherlands

## 1. INTRODUCTION

That human beings have to distance themselves from nature and have to gain mastery over nature has been a key tenet of Western Enlightenment. It is a view that has been articulated by philosophers such as Descartes, Bacon, Kant and various others. This philosophy was articulated at a time when humans were still struggling to become less dependent upon the capriciousness of nature. Nowadays, in the Western world at least, the roles are reversed. Nature is regulated and subdued in the context of an ever-urbanising landscape, where humans are emphatically present. Wilderness, insofar as it still can be encountered, is embedded in an omnipresent human culture. In such an environment, birds have already begun imitating mobile phone ring tones. This development has changed academic philosophy. The most notable philosophical response to the denaturalisation of our environment was the birth of environmental philosophy and environmental ethics. In the words of Rolston (1989), philosophy has 'gone wild', and philosophers are 'rethinking nature' (Foltz and Frodeman, 2004). According to Stone (2005: 286), new conceptions of nature are needed 'in order to challenge the damaging attitudes and practices that stem from currently dominant conceptions'. The relevance of this work is that it may deliver new concepts for science and society to engage in and interact with nature in new, and possibly more appropriate ways. New conceptualisations of nature may also be developing, more or less autonomously, within science and society themselves. Within the life sciences, for instance, genomics and nanoscience are expected to produce sustainable technologies and contrivances that are more congenial to nature. And with regard to public ideas on nature, Van den Berg (1999) points out that the acceptance of ecocentric ideas is becoming so widespread that new, more fine-grained tools are needed to measure these ideas in an adequate manner. In this paper, the focus will be on the ideas that 'lay people' have with regard to nature. The practical importance of measuring these public 'visions of nature' is that it facilitates effective public involvement in nature and landscape planning and management. Moreover, studying public visions of nature may feed back into academic philosophy as well. This interaction between folk philosophy and academic philosophy could be called 'empirical philosophy'.

Visions of nature have been studied by Kahn (1999), Kellert (1989, 1993) and others. In a number of publications, our group at the Radboud University has added to these research efforts (e.g. De Groot, 1999; Van den Born et al., 2001; De Groot and Van den Born, 2003; Van den Born, 2006). Whereas previous studies by our group were mainly quantitative, this paper addresses the issue with qualitative methods. The leading questions are:

- 1) What, if elicited in a qualitative method, is the content and range of lay people's visions of nature (their 'folk philosophy' of nature)?

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- 2) How do these ideas relate to philosophical concepts as elaborated in professional philosophical discourse?

The interview respondents came from the Netherlands, hence living in a context of largely man-made landscapes and a culture of long engagement with nature conservation. In everyday language, 'nature' usually refers to more or less uncultivated landscapes (forests, dunes, wetlands), and these landscapes have been targeted for conservation ever since the early 1900s by large public associations such as 'Natuurmonumenten', that include 870.000 members of the 16 million population<sup>1</sup>. In the present paper, we will first discuss the concept of visions of nature as such, against the background of results of our previous studies.

## 2. CONCEPTS AND PREVIOUS FINDINGS

Although there have been many empirical studies focusing on people's behaviours and ideas concerning the environment (Dunlap et al., 2000; Schultz and Zelezny, 1999; Harrison et al., 1996), empirical research on people's notions of nature is scarce. As defined by Van den Born et al. (2001), the umbrella term 'visions of nature' consists of three elements (Van den Born et al., 2001). First, there are the *images of nature*; what do people consider 'nature' and what types of nature do people distinguish? Is a swamp, for example, considered more natural, more 'real' nature than a pine forest? A second element of visions of nature is *values of nature*; these are the reasons why nature is perceived to be important. A key discussion within this topic is whether nature has only an instrumental value or whether it also has intrinsic value. The third element consists of the *images of relationship*, which are the images that people hold about the appropriate relationship between humans and nature. The four basic 'images of relationship' are described below as *Master* over nature, *Steward* of nature, *Partner* with nature and *Participant* in nature (e.g. Zweers, 1995).

### 2.1 *Images of nature*

Quantitative research on images of nature is a research 'tradition' in the Netherlands, starting with Buijs and Volker (1997). Most studies present a number of descriptions to the respondents, such as 'the sea', 'a meadow' and 'a bird'. Subsequently, the respondents are asked to indicate to what extent they evaluate these images as nature (for example: 'real nature', 'somewhat nature' or 'not nature'). Data obtained in surveys are analysed statistically and clustered into types of nature, like 'Arcadian nature' or 'wild nature'. Respondents subscribe to a broad variety of images of nature, ranging from domesticated to autonomous nature (Buijs and Volker, 1997; Buijs, 2000) and from Arcadian to elementary nature (De Groot and Van den Born, 2003). Thus, the studies show that the definition of nature used by Dutch respondents is less strictly defined than

those used in science or nature policy. We decided to ask respondents about their specific criteria and definitions of nature and expected that the qualitative character of the study would allow us to probe deeper into the reasons people have to evaluate certain types of nature as 'real nature' or not.

## 2.2 *Values of nature*

Environmental values are studied in sociology, psychology, anthropology, economics and environmental philosophy. Psychologists, sociologists and (cognitive) anthropologists have developed value or attitudinal typologies, the main intention of which is to predict behaviour. One example is the VBN model (Value-Belief-Norm) of Stern and colleagues (Stern et al., 1999; Stern, 2000). 'The VBN theory postulates a causal chain of variables that leads to behaviour: values, worldview, awareness of adverse consequences for valued objects, perceived ability to reduce threat, and personal norms for pro-environmental behaviour' (Schultz et al., 2004: 32). Another well-known approach in social sciences is the NEP (New Ecological Paradigm) scale of Dunlap et al. (2000), which does not focus on specific values but rather on assessing worldviews. Economists distinguish between use and non-use values, between functional and existence values and they use techniques such as 'willingness to pay' and 'willingness to accept' to assess these values (Widegren, 1998; Brouwer and Van Ek, 2004). Such value-assignment tools are often criticised for being insufficient when comprehending the different meanings of nature, because they force the respondent to reduce the human-nature relationship to a merely economic good (Campos, 2002). This criticism is one reason for the growing interest in alternative methods for eliciting these values. Satterfield (2001: 335) emphasises that people's value articulations are contextual; they are 'embedded in, and suited to narratives, to our everyday impassioned and storied talk about nature and meaning'.

Values can be considered on two different levels. The first level concerns qualities of nature that are important to the evaluator (e.g. Satterfield, 2001; Buijs and Filius, 1998). The second level concerns moral guidelines (e.g. Satterfield, 2001; Kempton et al., 1995). In this study, we focus on the values of the first level.

In the philosophical field, Rolston (1981) argues that 'values are actualised in human relationships with nature'. Rolston distinguishes between ten different types of values that are associated with nature: (1) economic value, (2) life support value, (3) recreational value, (4) scientific value, (5) aesthetic value, and (6) life value. Then four more complex values are described, two of which are pairs of complementary values; (7) diversity and unity values, and (8) stability and spontaneity values. The last two values are (9) dialectical values and (10) sacramental values. Of these, 'life support values' refer to ecological values that are essential to the health of the ecosystem and thus to human welfare. 'Life value' is the idea that all life is precious; it is about reverence for life. Rolston

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does not refer to intrinsic value. Yet, his concept of life value at least resembles the idea of intrinsic value. ‘Dialectical value’ is the significance of nature as being different from culture, which makes it impossible to entirely reduce nature to culture, or make it identical with it (cf. Zweers, 1995: 106); the encounter with alien nature creates the ability for humans to grow. ‘Sacramental value’ is about the contemplation of nature, or in the words of Rolston ‘thoughts about who and where we are, about the life and death that nature hands us, and our appropriate conduct in this environment’.

There has been significant philosophical thought and discussion about whether or not nature has intrinsic value (over and above its instrumental value), and this discussion still continues (Hailwood, 2000; Stephens, 2000; Morito, 2003). A widely used definition of intrinsic value is the value someone or something has in and for itself, irrespective of its use or function for others (Achterberg, 1994; Zweers, 1995; Lockwood, 1999). Philosophical opinions differ on whether intrinsic value exists independently from a human observer. ‘Objectivists’ such as Taylor (1981) and Zweers (1995) hold that an entity may have intrinsic value regardless of whether this is recognised by humans. Nature may even have intrinsic value if human subjects are not present at all (although a valuing entity is, of course, necessary in order to *discern* or appreciate that value). Subjectivists such as Callicott (2002), on the other hand, claim that intrinsic value only exists if valuing entities are present who are able to discern this value. If human beings are absent, intrinsic value ceases to exist.

In European countries, where the public perceptions of intrinsic value have been investigated<sup>2</sup>, the majority of the population appears to recognise the intrinsic value of nature. These results were confirmed by Van den Born et al. (2001). Respondents (N=200) could indicate agreement or disagreement on a list of reasons of ‘why nature is important’. Human health (65%) and future generations (40%) occupied first and second place. Intrinsic value<sup>3</sup> ended in third place, with 38% of the respondents indicating this reason, followed by reasons such as beauty, relaxation and recreation. Qualitative empirical research about intrinsic value, however, is virtually non-existent<sup>4</sup>.

### 2.3 Images of relationship

Images of relationship, also called environmental worldviews, are the views that people hold about their appropriate relation with nature. ‘A worldview (...) refers to the constellation of beliefs, values and concepts that give shape and meaning to the world that a person experiences and acts within’ (Norton, 1991: 75). There is some similarity between these images of relationships and what is called ‘attitudes towards nature’. In social psychology, the concept of attitude usually refers to either a *tendency to perceive*, or a *disposition to act*. According to Zweers (1995), images of relationship are ‘basic attitudes’ of the former type; they are ‘a way of perceiving, conceiving reality’. Achterberg (1994) agrees

with this; an image of relationship is a view or perspective on the place of the human in nature. He calls it 'a disposition' to experience and appreciate nature in a particular way and to have contact with nature in a particular way.

The articulation and classification of environmental worldviews is an Anglo-Saxon philosophical tradition (White, 1967; Passmore, 1974; Barbour, 1980; Rodman, 1983), carried on later by Dutch philosophers (De Groot, 1992; Kockelkoren, 1993; Zweers, 1995; Achterberg, 1994). In Van den Born's (2006), overview four basic images of relationship are distinguished:

- The *Master* over nature stands above nature. In his interactions with nature he is not restricted by moral constraints or knowledge about nature's fragility. Economic growth and technology are expected to provide answers to his problems.
- The *Steward* of nature also stands above nature, but manages nature. Nature is not *owned* by the Steward, but entrusted to him. The steward owes responsibility to God or future generations.
- The *Partner* with nature stands side by side with nature. Humans and nature are considered to be of equal value. Humans should work together with nature with the aim that this interaction will benefit both.
- The *Participant* in nature is part of nature, not just biologically, but also on the spiritual level. Although humans are a (small) part of nature, they are active participants. For the Participant, the bond between self and nature is very important; it co-constitutes the self.

Two main conclusions can be drawn from the quantitative studies reviewed in Van de Born (2006). (1) Lay people reproduce the four images of relationship to a significant extent; most uncertainty has to do with partnership with nature. (2) In terms of which images people adhere to, respondents go beyond mastery over nature. Stewardship is relatively popular, and even the two more eco-centric images of relationship are widely supported. In other words, the images articulated by the environmental philosophers do seem to capture ideas of the lay public. Philosophers seem to be on the wrong track when they claim that mastery over nature is still dominant in Western culture.

### 3. METHODS

Three basic approaches to study visions of nature exist. First of all, one may analyse and propose self-articulated visions. This is basically what environmental philosophers do. Secondly, one may use quantitative survey methods to question the views of respondents with the help of pre-styled items that may generate overall clusters, levels of adherence and explanations using respondents' background variables such as age, gender and level of urbanisation. Thirdly, one may use

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qualitative methods in order to give respondents more freedom to describe and explain visions in their own words, thus allowing a deeper insight into underlying thoughts and arguments. This is the approach of the present paper.

In line with the general distinction between open, semi-structured and structured interviews ('t Hart et al., 2005; Emans, 2003), three methods for the qualitative study of visions of nature may be distinguished. First, we may trigger a process of free associations on the part of the respondents with a single term or concept, for example by asking 'what is nature?'. In the second, semi-structured method we already fill in part of the puzzle: we explain a term or concept to the respondent and ask for his or her response. For instance, 'nature is often seen as an environment untouched by humans. What is your opinion on that?'. In a third fully structured method, respondents are asked for a response on a number of items representing a particular concept. We can ask to indicate (on a scale from 'agree entirely' to 'don't agree at all') 'do you agree with the idea that the interests of humans are more important than the interests of animals? And why (not)?'.

The first method will shed some light on images and values of nature in general, but cannot be used when it comes to testing more specific notions and concepts such as for example 'intrinsic value'. For instance, the question 'what is intrinsic value and what is your opinion on that?' is problematic because it is quite unlikely that the majority of the respondents will have a clear idea about the notion of intrinsic value. In that case, more structured methods are to be used. In the present study, we used the first and second method, which gives us the opportunity to validate some of the results from previous surveys. Images of nature were explored by means of the first method. Questions like 'what is nature, and why' and 'do you think humans are part of nature', enabled respondents to puzzle freely on the different concepts. The concepts of intrinsic value and the different images of relationship were explored with the second method.

### 3.1 Sample

For the interviews, 31 respondents were recruited through personal contacts (cf. Gustafson, 2001), but the interviewer was not personally acquainted with any of them. All respondents were born in and are still living in the Netherlands. To be included in the sample, three criteria had to be met; respondents had to be of an age between 40 and 55 years old<sup>5</sup>, should not have moved during the first 15 years of their lives<sup>6</sup> and had to be non-experts (e.g. not working in a nature conservation or environment sector). In order to obtain a broad perspective, a non-representative stratified sampling was used (Troost, 1986). An equal distribution was aimed at with respect to gender (the sample consists of 15 male and 16 female respondents), having grown up in an urban or rural area, and level of education. The male respondents group consists of seven people raised in an urban area and eight people in a rural area. For the females, there were



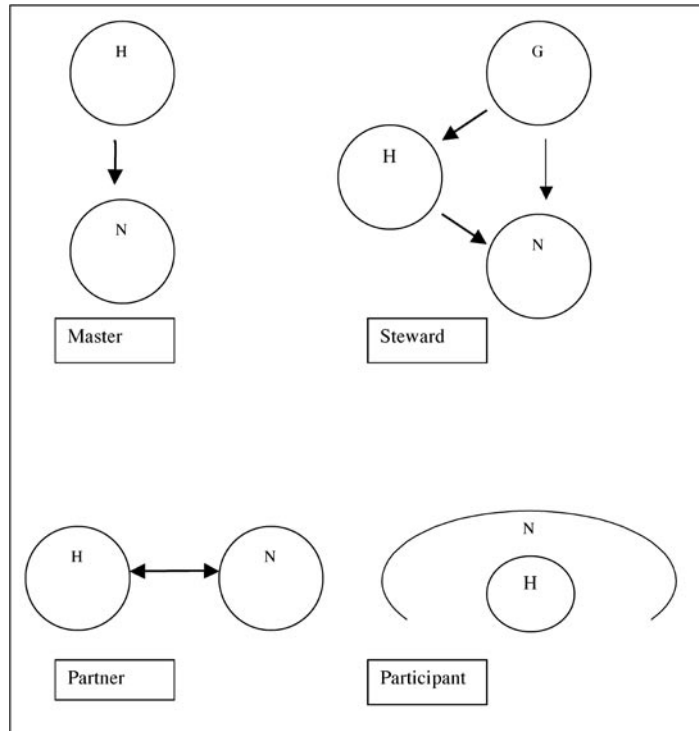
six urban and ten rural respondents. We failed to achieve an equal distribution concerning education for men and women. It turned out to be difficult to find more women with a higher education and between 40-55 years who had also not moved during the first 15 years. As a result, higher educated women were underrepresented in the sample<sup>7</sup>.

### 3.2 Interview structure

The interviews were held at the respondent's home address and took approximately one and a half hours. All respondents were interviewed by the author. In the interview, all elements of the 'visions of nature umbrella', as explained above, were dealt with.

- For the *Images of Nature*, the interviewer showed the respondents a set of ten photos<sup>8</sup>: a park; the sea; a pavement with grass between the tiles; a bare field; pine forest; a house with a neat garden; cows in the meadow; a deciduous forest; a wild roadside; and landscape with small-scale alternation of meadows and tree rows. Respondents were asked to rank the photographs in terms of the degree to which they considered them to be natural. Moreover, we asked the respondents to explain their choices and express the criteria used when arranging the photos. In addition, they were asked whether they thought humans belong to nature or not. The first part of the interview ended with the request to the respondents to give their own definition of nature.
- *Value of nature*: two questions were used to elicit reflections on the value of nature. The first question 'Do you think nature is important?' was followed by 'For what reasons?'. After the respondents had stated their reasons for finding nature important or not, the interviewer explained the concept of intrinsic value. The idea that nature has intrinsic value implies that nature has a value on its own, irrespective of its usefulness to humans. The interviewer tried to discuss this idea with the respondents; tried to make out to what extent they understood this concept and how far they could work out the various implications of this idea.
- *Image of relationship*: the interviewer described the four images of relationship (the Master, the Steward, the Partner and the Participant). In order to assist the respondents in understanding these images of relationship, we visualised them using simple drawings (see Box 1). We asked the respondents for a reaction to each image, in terms of their understanding and appreciation. After discussing all four images, we asked the respondents to choose the image of relationship that approximated their own idea concerning the ideal relationship between humans and nature, or to construct his/her own favourite image. This part of the interview provided an opportunity to talk more associatively about the human/nature relationship and offered respondents room to come up with their own ideas.

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BOX 1. Drawings of the images of nature

*3.3 Analysis*

All interviews were recorded and transcribed for the purpose of analysing the data. The interview transcriptions were entered into Kwalitan (Wester and Peters, 2004). This program is a tool for assessing qualitative textual data. The research material is first ordered: the text is provided with codes that refer to the relevant analytical entries. An initial reduction is made by labelling the different interview topics, and a second reduction involves labelling aspects within these topics. The next step is the structuring phase, in which patterns or relations are searched for. In this process, many tables and profile memos are made to order answers or opinions per respondent and per topic.

### *3.4 Reliability, validity and interview context*

A semi-structured data collection method contributes to internal validity. The distance between the researcher and the obtained data is small. The researcher is involved with the participants in the study or the topic, and this allows him/her to find out what kind of visions the respondents adhere to. Besides these benefits, there are some methodological drawbacks as well. Reliability is limited. The researcher can be more or less 'directive'. The data collection and data interpretation is difficult to verify by others ('t Hart et al., 2005). Besides, the involvement may lead to socially desirable answers on the part of the respondents, either in the direction of what the respondent thinks the researcher wants to hear, or in the direction of political correctness. For topics like nature or environmental behaviour, this is something that has to be taken into account. In order to address these weaknesses, the interview was embedded in a larger discussion concerning nature in childhood, which provided a narrative context that is probably more realistic than visions on nature without such a context, or with every respondent creating his or her own implicit context. In addition, we also talked about negative nature experiences and experiences of fear, again in order to make the context more realistic. Furthermore, insofar as the verification of the data collection and interpretation is concerned, we worked with a semi-structured interview guide and categorised and quantified the answers as much as possible. Finally, we tried to reduce the influence of involvement by standardising the description of the images of relationship.

## 4. RESULTS

### *4.1 Images of Nature*

What determines whether respondents regard something as 'real nature' or not? People are very clear about this<sup>9</sup>: the extent to which nature is cultivated<sup>10</sup> (the more cultivated, the less nature it is). Some respondents also mention space and tranquillity as necessary requirements. When we link these answers to the photos that were selected as representing real nature, the pictures that most respondents refer to as 'real' nature, namely the sea (30 out of 31 respondents) and the deciduous forest, meet their criterion in terms of the level of cultivation. The pine forest comes in third place, although this photograph clearly shows a planted forest, with the trees in neat rows. Respondents may not have noticed this, but some argued that: 'It's a forest, therefore it is real nature'. Photos that are classified as the least natural include a house with a garden, a pavement and a roadside, all of which are indeed cultivated or urbanised sites. Some respondents, however, had ambiguous feelings about the pavement. Although it is very cultivated, it shows the power of nature – the grass is able to grow

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between the tiles, against the will of humans – and therefore it can be regarded as an example of nature taking its own course.

When the respondents were asked whether or not they think humans belong to nature, there were two different reactions. Half of the respondents (as many men as women), consider humans part of nature, but a second group, mainly men, has strong doubts about this. These doubts are nicely illustrated in the line of thought of one respondent. When thinking about whether humans are part of nature or not, the respondent first says yes, then has doubts, because humans do not really grow up in nature. She does not know whether to say yes or no, but tends towards a no, because *'it has something to do with nature and culture'*. When asked for her own definition of nature, this respondent answered: *'nature is everything that grows and flourishes. ....So, that would include humans.... But I am thinking more of plants and animals'*, (W5)<sup>11</sup>. Others have doubts because they think it depends on human behaviour; *'it is only possible to stay in contact with nature when there is respect for nature. If we are not careful, we deny our place in nature'* (M1). Others point out that the place of humans in nature has changed in the course of time: *'We cannot be untouched anymore; for that you must be in the inlands of Brazil, then you are one with nature.'* (W12) and *'(..) when I see what people are doing, it does not have much to do with nature anymore'* (M14). One last question concerning nature images involved the issue of whether or not respondents were able to formulate their own definition of nature. This proved to be a difficult task for most respondents. But in the end, many respondents, both from an urban and from a rural background, formulated definitions that are rather common and uncomplicated: *'Nature is everything that grows and flourishes'*.

#### 4.2 Values of nature

Is nature perceived to be important and why? Without exception, every respondent states that nature *is* important, although for different reasons. The reason most often mentioned<sup>12</sup> is that nature is *indispensable*: *'It's just a part of life. I cannot bear to think about living in a block of apartment buildings, when you have no contact with nature'* (W5). Another frequently mentioned reason for valuing nature is the *beauty* of nature. People give three different explanations for the indispensability of nature: 1) for oxygen/to breathe<sup>13</sup>: *'We need fresh air, everything have to stay liveable'* (M28); *'We need [nature] for our oxygen production'* (W8); 2) tranquillity and 3) recreation/to be outside. Almost all respondents in this category oppose nature to the city. *'I do not want to live in the city (...), I couldn't live without nature'* (W23). One respondent remembered living in Amsterdam for a few months but *'seeing only houses, it drove me crazy'* (M17) and *'we live in the town centre (...), you just need green places'* (W24).

What is remarkable is that only one of all of the reasons mentioned is ecocentric; that is *space for animals and plants*. All of the other reasons<sup>14</sup> are instrumental in the sense that they are functional for humans, like recreation, enjoyment etc. When comparing these outcomes to the values identified by Rolston, it seems that both the recreational value and the aesthetic value are recognised by the respondents. Rolston's life support value shows similarities with the respondents' category oxygen/to breathe. And finally, when interpreting the dialectical value freely, we can recognise some aspects of this in the respondents' *'counter-position'* value; nature as being totally different compared to culture, especially the city, and therefore providing a counterbalance for daily life. Some aspects were not mentioned at all by the respondents: scientific, ecological and sacramental values. Except for *space for animals and plants*, the respondents did not spontaneously mention the intrinsic value of nature. However, they were *asked* to think about it in the interview. The interviewer explained the concept of intrinsic value to the respondents and discussed it with them. In practice, this turned out to be a very difficult concept for many of them. Their answers were often rather vague and therefore hard to interpret. What becomes clear is that almost all respondents reject the idea that nature is only valuable in a functional or instrumental sense. After interpreting the arguments used by the respondents, we can distinguish four groups. A first, mixed group of respondents (n =11) can be identified as advocates of intrinsic value. They understand the idea that nature has a value of its own, irrespective of its use for humans. They are aware that humans are always the ones to recognise that value, but they believe that nature is not just *'in service of humans'* (W27) and that nature *'also has value without the presence of human beings'* (M1). They even mention that it is possible that nature would survive mankind, only then it wouldn't be called nature anymore (W3). The types of arguments that were put forward by this group are: *'Why should nature only have value for humans? I enjoy seeing the birds fly, but these birds also fly there without me'* (M10); *'I am always surprised about people who say that a protected area has no value if recreation is not allowed'* (M13) and one respondent refers to the Maya culture, where everything has a soul; *'everything has a being. So, you have to ask permission of the earth to plant maize and to harvest it, or to cut down a tree'* (W22). In this last quote, we can clearly recognise Taylor's ideas of respect for nature. The people in the second group, of the same size as the first one and consisting mainly of women, could also be classified as advocates of intrinsic value, but these respondents give the impression that they do not completely understand the meaning of the concept. They keep on reasoning in terms of functions of nature. Two illustrative statements are: *'I think [intrinsic value] is a good idea, because if we kill nature, then humans do not have the possibility to live anymore'* (M14) and *'For me [nature] is always allowed to be there, even if I wouldn't be there anymore. (...) We need nature for food and for our life'* (W15).

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The respondents in the third group feel that nature is above all functional for humans; *'I wish all the best for every plant and animal, but actually, I want to enjoy it myself too. That concept [intrinsic value] doesn't mean anything to me (M28)'*. On examining their arguments more closely, it seems that the respondents most of all reject their *own* concept of intrinsic value as they understood it, namely as a value that excludes instrumental value of nature (*'I want to enjoy it myself too'*). Then there is a fourth and smaller group of only male respondents who indicate that they are not positive about the notion of intrinsic value; that it is not workable for them. These respondents say that they cannot see nature apart from humans; *'According to me, intrinsic value doesn't exist; who made that up? (...) Value is a human concept (...) only humans think in terms of values' (M25)*. They understand the difficulty of the concept (*value is a human concept*). The idea that intrinsic value in this traditional meaning is too dogmatic because nature may also be valuable when someone enjoys it, and therefore values it, can be recognised in the argumentation of Callicott (1993). An intrinsically valuable thing in Callicott's reading *'is valuable for its own sake, for itself, but is not valuable in itself, i.e. completely independent of any consciousness'*<sup>15</sup>. Is it possible to discover whether respondents tend to the objectivistic or subjectivistic view? Only in the first group—those who advocate and understand the concept of intrinsic value—a more or less objectivistic view of intrinsic value was articulated; *'nature has also value without the presence of human beings' (M1)* and *'everything has a being' (W22)*.

#### 4.3 Images of relationship

This section describes the general reactions and thoughts of the respondents on the four images of relationship, as well as the way respondents judge the different images as being an ideal relationship between humans and nature<sup>16</sup>. We start with the two images that the respondents reject, namely the Master over nature and the Partner with nature.

All respondents reject the idea of mastery over nature for moral reasons. They think that *'humans should not stand above nature'*. It should be the other way around: *'nature should stand above humans'*, *'humans are part of nature'* and humans *'are not superior to nature'*. A frequently mentioned reason for rejecting mastership is that *'humans should treat nature with respect'*. This standpoint is taken by those who argue that *'humans do not have the right to control nature'*. Other respondents also use moral arguments, but argue more from nature's standpoint: *'nature should go her own way'*. A few respondents give reasons referring to *hubris* to reject this image. These respondents think that such an attitude of *'arrogance'* is not appropriate; humans *'overrate their possibilities'*. Respondents are convinced that *'to control nature is to destroy it'*. Hardly any respondent addresses the technology aspect in the master image. After probing, some respondents, mostly women, are very outspoken in stress-

ing the negative role they see for technology in our society; it has not led us to something good; humans always want more and better, which is perceived as dangerous; and nature is the victim of technology. A few others, mostly men, see it more positively; technology can play a role in the solution of some major environmental problems, but they feel that it should not tip the scale in favour of mastery.

Partnership with nature is a totally different view on the human/nature relationship than mastery, but is also not very popular among the respondents. When discussing the relation between humans and nature represented in the drawings (see Box 1), they state that we are not separate from nature but *are part of nature*. For most respondents, the rejection of the partnership image does not rest on moral grounds. Instead, people feel that this way of relating to nature is not realistic and not practicable; humans and nature are not and cannot be equivalent. *'Nature gives us a lot, that we can use, medicines, oil...But are we equal with nature? (...) What do we give back? A lot of filth and dirt.'* (M20). It is remarkable that this respondent appears to consider the idea of nature as partner (why else bother about what we give back?), but rejects the image as unattainable. For the other respondents, the majority, two types of arguments for rejecting the idea of partnership can be distinguished. A first type of argument refers to nature's inability to speak or humans' inability to understand what nature wants: *'It is a bit like smiling; an animal cannot smile. It is the human emotion that is put in it. I can also put my emotion in nature and say what nature would want, but I do not believe in that'* (W24). A second type of argument (endorsed by a relatively large group) has to do with the impossibility of equality between man and nature because of a fundamental characteristic of mankind; people regret that *'humans will keep interfering in nature'* and *'humans will always dominate over nature'*. Respondents are concerned that humans will always take more and more from nature. *'This [partner] is much better than the master, but still I am hesitant whether humans will not take too much from nature. Humans could not cope with that much freedom'* (W26). One respondent said: *'There are so many people who are not capable of treating other people with respect'* (W24), suggesting: let alone nature...

The two other images of relationship, the Steward of nature and the Participant in nature, are more often favoured by the respondents. The Steward also stands above nature, but is at the same time responsible for nature. The idea of responsibility is strongly subscribed to by almost all respondents; they mention the *responsibility to take care* of nature; to *manage and preserve* nature, because humans have the *ability* to do that. *'Because humans have more possibilities than nature, we can destroy things. I think that brings along responsibility (...) that you should handle consciously'* (W3). However, some respondents critically note that it depends on the interpretation of the concept of responsibility; how far may our interferences go on a scale ranging from controlling everything to letting nature go its own way? Another critical respondent makes the observa-

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tion that the justification of the Steward is still being passed on to someone else; *'I think it is silly to drag in a third authority that justifies everything you do'* (W24). Another aspect of stewardship is the idea that we should preserve nature for future generations. For almost everyone this is very true *'we have to take care of [nature] so our children and our children's children can benefit from it'* (W19). *'When the functioning of future generations is being made impossible, then it's a matter of exhaustion. You cannot do that to the next generation'* (M10). When introducing this image, the respondents were told that there is a religious variant of this image, (where God, as the creator, stands above humans); as well as a secular, sustainable variant (in which God is replaced by future generations). In this first case, God entrusted nature to humans, in the second, nature has to be passed on to future generations. On the religious claim that nature is God's creation and humans are responsible for taking care of it, four different reactions were found. 1) People express their doubts about what they believe. Some were brought up religiously, but no longer practice their religion. *'My image of God has changed. I've not yet solved whether there is a responsibility towards God, but I feel good about the way I was raised with it'* (M1). 2) Some people hold strong views about religion, especially their belief in Creation. *'God created earth and everything of nature, (...) That's what I think; He gave it to us, because he created mankind too'* (W12). 3) A group of respondents give a personal interpretation of the image of God; *'I am firmly convinced that there is a God, not as a person, but maybe it is nature itself'* (M18). A number of respondents subscribes to the pantheistic view that nature is God. 4) A last group explicitly rejects the religious component in the Steward because they do not believe in the existence of a God. *'Stewardship doesn't appeal to me, because it means that you see yourself as the crowning glory of the Creation'* (M13). After a general positive response to the element of responsibility, the relevance of future generations and caring for nature, many respondents express their doubts about the position of mankind in relation to nature as represented in this steward image as a whole. They are of the opinion that mankind does not stand above nature, but is part of nature. More than half of the respondents come to the conclusion that, although they subscribe to a number of elements of the steward image, they reject the idea of humans standing above nature.

The idea of humans as Participants, in other words the view that humans are part of nature, is a viewpoint that two thirds of the respondents subscribe to. Half of this group, mainly women, even goes a step further; they believe that humans are just a *small* part of nature, and that humans are insignificant creatures. Respondents speak about nature's power and find that humans do not amount to anything in comparison; *'When you walk through nature you think what little idiots we are. When you see the mountains or a waterfall, then you feel the power of nature. We cannot do anything against it'* (M4). Following this line of thought, the majority of the respondents have positive feelings toward the participant image. Those who are negative find the idea unrealistic and not



feasible, or they do not agree with humans being a *small* part of nature, e.g. when referring to the climate and the ozone layer. *'We are beyond that point of humans as a small part of nature; too much is destroyed already (..)'* (W7).

It becomes clear when we examine the answers of the respondents more closely that most respondents talk about being part of nature in a physical and biological sense. It is remarkable that respondents react very positively to descriptions of images that contain elements like sense of belonging and spiritual connectedness, but that their reactions are actually about ecological chains rather than spiritual ties. The following remarks are indicative for this biological interpretation of the participant: *'We are a part of nature (..) we are at the top of the [food]chain, but nature keeps embracing us'* (M1); *'We are just a link in the ecological chain'* (M10), *'humans are part of nature, because [nature] contains the living and the non-living entities'* (M31). Recognising that nature has intrinsic value is one of the most important foundations of the Participant position as articulated in scholarly philosophical discourse. As described above, the majority of the respondents reject the idea of nature only having instrumental value, but not all respondents truly seem to understand or endorse the idea of intrinsic value. The Participant may also have a spiritual dimension. No definition of spirituality was given in the interviews; but it was only mentioned to the respondents that many participants believe in a spiritual connection between humans and nature, after which respondents were invited to explain what *they* meant by spirituality and whether it plays a role in their relationship with nature. It turned out that most respondents do not have a clear view on spirituality with regard to nature. They refer to tranquillity and feeling good in nature, but although they think that spirituality is more than that, they find it difficult to grasp or articulate what that 'more' is exactly. *'When I am in nature, it doesn't matter whether it is by the sea or in the woods, I have the feeling that it does something to me. It gives me a certain peace of mind. I cannot describe it, and I do not know whether it is really spiritual'* (M6). Others think it is too vague; *'I could follow you [the interviewer] perfectly until you brought up spirituality, but spirituality doesn't mean anything to me. Spirituality is woolly stuff; I am too sober-minded for that'* (M29). The few respondents that do have an idea of spirituality are positive about it and are all female; *'In nature, things occur that you cannot totally understand, that also gives you amazement about nature. In this, trust between nature and myself plays a major role (...) which gives me an immediate connectedness in nature (...) then you come in an area between nature and God, for me, that is spirituality'* (W11).

After discussing their reactions to these images, the respondents were asked which image they *preferred*. The images that most respondents endorsed were the Steward and the Participant. Many respondents were aware that the image they choose as the best way to relate to nature is not the most attainable or realistic image. *'It is a nice ideal, but my picture of the future is not that positive if we go on like this. People have to learn to restrict themselves and to better*

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*divide their needs'* (M1), and a respondent who choose convincingly for the Participant says: *'you actually go back to prehistoric times (..) yes, that would be impossible now'* (M10).

We also asked the respondents what they thought other people in the Netherlands would choose as their ideal image of relationship. People are not very optimistic about what their fellow Dutch men and women see as the appropriate relationship with nature. While no respondent opted for mastery over nature as their own ideal image, they suspected that most others would do so. The great majority of the respondents thought other people would choose a more anthropocentric image compared to their own vision. None of the respondents supposed that other people in the Netherlands would have a more ecocentric view on the relationship between humans and nature than they have themselves.

Some relations between choices for preferred image and background variables were found. Men and women are almost equally divided over the different images of relationship. When considering the level of education the higher, medium and lower educated respondents are also fairly well divided over the various images of relationships. Urban or rural background might play a minor role; almost all Stewards grew up in a rural area. For all other images of relationship, respondents with a rural or urban background are almost equally divided. Concerning religious background, one might expect religion to correlate with adherence to the Steward image, propagated by religious movements. This was not confirmed. A large majority of the respondents who consider themselves religious rather tended to choose the Participant (often combined with the element of responsibility). After stating their preference for one or more images, most respondents engaged in constructing an image of their own making. The results of this part of the interview are reported in the next section.

## 5. DISCUSSION

We start with an overview of the results of this study by answering the leading questions. What are people's visions of nature? And how do these ideas relate to philosophical concepts? Next, we give a reflection on the methodological choices. Finally, we will go into the theoretical conclusions.

### 5.1 Basic results of this study

What are people's basic ideas concerning the different aspects of the visions of nature umbrella? People appeared to have a rather clear view of what 'real' nature is; the less it is cultivated, the more it is real nature. Spaciousness and tranquility are other important ingredients of 'real nature'. Matters became more ambiguous when respondents are asked whether they consider human beings part of nature. We are a part of nature from a biological, ecological and

evolutionary perspective, but the place of humans in nature has changed drastically in the course of time. Respondents felt that we have lost contact with nature, that we deny our place in nature and that we should have more respect for nature. All respondents stated that nature is important. They regard nature as part of life and as indispensable. The salient and interconnected values of tranquility, health and recreation are also mentioned. What is remarkable is that an overwhelming majority of the values mentioned by the respondents are instrumental. In quantitative studies, people often agree to statements that nature has intrinsic value. In this study, we noticed that people did not tend to come up with ecocentric values spontaneously. Moreover, this study shows that many respondents found the idea of intrinsic value of nature difficult to understand, although the majority of the respondents indicated initially that they are positive about the concept.

What do people regard as the appropriate relationship between humans and nature? In line with previous quantitative research, people reject mastery over nature, mainly because of the lack of respect for nature and the human arrogance inherent in this image. They are convinced that humans do not stand above nature. Respondents are more positive about stewardship of nature. Although they reject the idea that people stand above nature, they subscribe to the idea that humans are responsible for nature and that we should preserve nature for future generations. Respondents tended to reject the more ecocentric image of partnership with nature because it implies that humans and nature are equal and that humans can somehow know what nature wants. Respondents think that even though partnership might be morally attractive, this way of relating to nature is not realistic or practicable. They are convinced that it is a fundamental characteristic of humans to constantly interfere with nature; humans will always take more and more from nature. This is reinforced by the fact that humans cannot know what nature wants, and therefore, cooperation with nature will always rely on a human interpretation of what is good for nature. Most respondents prefer the Participant as the most appropriate relationship with nature. The idea of being part of nature (or even a small part) is a viewpoint that many respondents subscribe to. It is clear, however, that respondents adhere to a version of the Participant that has strong biological (i.e. non-spiritual) overtones. Only a small minority of the respondents agreed with the characteristics of a Participant as described in environmental philosophy, with intrinsic value and spirituality as important foundations.

This leads to the conclusion that people respond strongly to certain elements of the images of relationship rather than to the images as a whole. Humans should not stand above nature as they are part of nature (an element of the Participant image) and yet they are responsible for nature (as in the Steward image). This issue will be further discussed in the next two subsections.

### *5.2 Methodological discussion*

In the methods section, we already described how visions of nature can be measured on three different levels. For free associations concerning images of nature, we used the first method. Open questions, like 'what is nature', worked well for this topic. Respondents were able to puzzle freely and they did, although they experienced some difficulty when asked to formulate their own definition of nature. With regard to the value of nature and the images of relationship, we chose another methodological approach, in which we first explained the concept or philosophical idea to the respondent, and then asked the respondent for a reaction.

Concerning intrinsic value, we concluded that at least half of the respondents found it difficult to understand this concept and to discuss it with the interviewer. Did we choose the right method? We are convinced that the first method, to ask an open question, would not have worked here. The idea of intrinsic value is apparently not well known among the respondents, and therefore, an open question cannot be expected to yield useful answers. The reactions of the respondents to our explanation<sup>17</sup> of the concept of intrinsic value confirmed this expectation. Respondents indicate that they are not familiar with this idea and many respondents find it a difficult topic. Surveys on this topic, in which the third, more structured, method is used, seem to work well at first sight. Respondents indicate the extent to which they agree that, for instance, nature has a value for its own sake. The problem here is that we cannot know for sure that people really understand the meaning of the question. And when there is a possibility to discuss the item with the respondents, probably the same problem arises when respondents indicate that they do not fully understand the question. Moreover, socially desirable answers are more likely to be given when one is only asked his/her opinion on such an item. It is hard to say what method is best when a topic seems to be difficult for respondents. The problem of (a lack of) understanding would apply to every method, and it seems best to give the respondent the opportunity to express their doubts and questions. And also, to give the interviewer the opportunity to either try to repair the situation, or to conclude that certain topics raise such doubts and questions, which is a result in itself.

With regard to the images of relationship, another methodological issue must be addressed. The semi-structured approach worked well insofar that the respondents seemed to understand most of the images of relationship after the explanation (and the illustrations). We tried to elicit a general reaction at first, and then continued to ask more specific questions, like the role of technology in the Master, or the future generations in the Steward. After analysing the reactions of the respondents to the images of relationship, it appears that people often reacted to only one element of the image (that dominated the other elements and the image as a whole). Mastery over nature was immediately rejected on the idea of humans standing above nature. Respondents did not pay much attention to the idea that technology could solve environmental problems. The same pattern

can be seen for partnership with nature; people immediately react negatively to the idea that humans and nature are equal, and although they reacted positively on the aspect of cooperation with nature, they did not change or nuance the first and main impression. When respondents were positive about a specific image of relationship, as was the case for the Steward and the Participant, they also were mainly triggered by one element of that image. Although, they rejected the fact that humans stand above nature in the Steward, they were strongly – and positively – triggered by the element of responsibility. The same goes for the Participant; people express a clear ‘yes’ about being part of nature, and later on, they choose the Participant as being their ideal relationship. Yet, the other characteristics of the Participant, like intrinsic value and spirituality, are almost ignored. It seems that their choice is determined almost entirely on that one element of humans being part of nature.

### *5.3 Theoretical discussion*

For a worldview to work, it should be both practically attainable (i.e. workable) and morally productive. This is clearly visible in the respondent’s responses to the images of the human/nature relationship. The Master is rejected purely on moral grounds. The Partner, on the other hand, may be morally attractive but is rejected on practical grounds; ‘it cannot work’, e.g. because we cannot know what nature wants.

We will now return to the discussion on the images of relationship and to the question whether we can recognise ‘people’s own’ vision of nature? In other words, are the images of relationships of environmental philosophy reproduced by the respondents and is there a clear support for one of the images? Or can we construct, from the respondents’ own implicit philosophies, an alternative worldview?

Two images of relationship were endorsed by the respondents, but certainly not unequivocally. The Steward idea of standing above nature is rejected. And the Participant is interpreted much more biologically compared to how philosophers tend to use this idea. Therefore, it appears warranted to try to find out if respondents might in fact respond from an alternative basis. In order to construct this possible ‘own image’ of the respondents, we may again turn to the elements out of the four images that respondents selected for strong endorsement. They are:

1. humans should not stand above nature
2. humans should respect nature
3. humans are responsible for nature
4. humans are part of nature

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When people strongly feel that we should not stand above nature, and they reject the image of partnership with nature because of its impracticability, only one image of relationship remains; the Participant in nature. However, being part of nature and being responsible at the same time seems incompatible with the classification of images of relationship as developed by environmental philosophers. In this classification, being responsible for nature means standing above nature. The theoretical question now is how we can be responsible for nature and at the same time be part of it. This is not an issue for the respondents. The following quotes are clear expressions of this argumentation: *'We are not outside of nature, but part of nature. We can take care of nature. We are nature, but we can also take care of nature'* (W30); *'I think that we are part of nature and we have to deal with that in a responsible way (...)* You are part of a bigger unity and besides have to take responsibility' (M1); *'(..) just because you are a small part of this world it is just a task of your life; you just take care of that'* (W7); *'The participant would be ideal, and from that you have to treat it with responsibility'* (W24). For some respondents the logic is even stronger; we are responsible because we are humans: *'Humans are part of nature but we are responsible for one another because humans have got consciousness'* (W21).

It is a paradox, but not an opposition. Actually, respondents seem to reproduce the dual nature of human beings, a 'classic theme' in philosophical discourse throughout the ages. The human being is seen as an 'ethical animal', a being that has both a physical (or biological) dimension as well as an intellectual (or moral) dimension. As a natural entity, we are part of nature. As a moral agent, we are responsible for nature. This idea, that human beings exist in two realms, in two worlds so to speak (a physical and a moral world) seems to be reproduced to some extent by our respondents. Rather than identifying the human condition with one of four positions, human beings tend to adhere to a dual view, a view with good credentials in philosophy. We could perhaps say that the everyday or folk philosophy of anonymous respondents reminds the established discourse of environmental philosophy of this ancient truth.

To understand the reasoning of the respondents, and to solve the theoretical paradox, we may begin to distinguish different system levels. Take for instance the case of a father or mother and a child. The parent stands above the child in the sense that he or she is responsible for its safety and protection; the parent guides the child and gives it direction. But if we consider the situation on the level of the family, then the parent is part of the family and at the same time responsible for it. In order to transpose this phenomenon to the human/nature relationship, we may distinguish different levels of nature. There is nature as the earth and the cosmos, nature as ecosystems<sup>18</sup>, and there are natural beings; plants and animals. Humans are part of the earth and the cosmos, they respect its power (no *hubris*) but do not feel responsible (on a practical level) for this grand and

powerful nature. Humans are also part of a bigger ecosystem, and hence, they are responsible for its protection and conservation. Nature as natural beings is found on a smaller system level. Here, responsibility means to give space to flourish and respect nature's autonomy. Humans feel that natural beings are dependent on them, and therefore humans are responsible for their well-being.

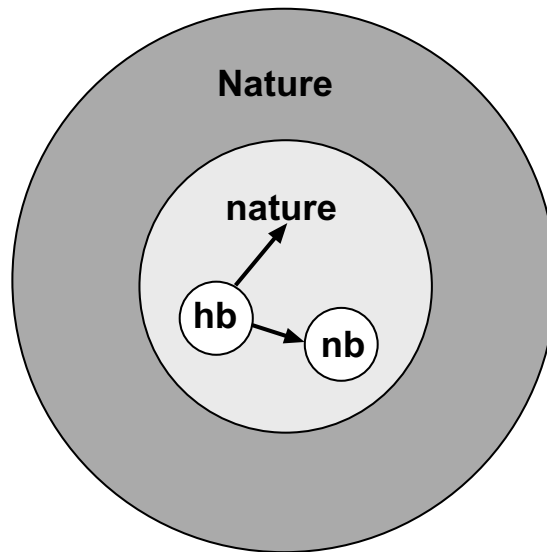


FIGURE 1. Visualisation of the relationship between humans and nature, with different 'levels of nature'. The arrows indicate a relationship of responsibility. Overlapping circles indicate a relationship of 'being part of'. Nature = nature as earth, cosmos; nature = nature as ecosystem; hb = human beings; nb = nature as natural beings.

This study indicates that empirical philosophy not only analyses the extent to which professional philosophical ideas are endorsed by broader 'publics'. It can also contribute to environmental philosophy, for example, by showing that the distinction of the four images of relationship is too rigorous and that some of the elements entailed in these images can be built into a more comprehensive view.

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## NOTES

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<sup>1</sup> Since Dutch landscapes, culture and language fit well within the general Western-European patterns, we trust that cross-cultural differences in conceptualisations of nature, although clearly existing, do not threaten the validity of our findings.

<sup>2</sup> In Norway (Grendstad and Wollebaek, 1998) respondents (n=965) had to choose which of the following statements were closest to their own point of view: (A) 'pristine nature must be saved if it is in the interest of humankind' or (B) 'pristine nature must be saved even if it is not in the interest of humankind'; 76% of the respondents choose B. In The Netherlands (Buijs and Volker, 1997) 92% of the respondents (n=1999) agreed with the statement 'nature is important for itself, independent of its functions for mankind'. In Sweden (Widegren, 1998), 79% of the respondents (n=978) agreed with the statement 'plants and animals do not exist primarily for human use'.

<sup>3</sup> Described in the questionnaire as: because plants and animals have the right to be on earth too.

<sup>4</sup> Two studies in the Netherlands we know of are those of De Vries (2006) with regard to genetic engineering, and De Cock Buning et al. (2005) regarding images of relationship and biotechnology. De Vries interviewed 35 persons; the group of respondents encompassed (a) scientists who design or perform GE experiments, (b) biotechnicians and animal caretakers performing or otherwise involved in GE experiments and (c) laboratory animal scientists who monitor the welfare of the modified animals. De Cock Buning et al. worked with focus groups and dialogue sessions with lay people, scientists and farmers.

<sup>5</sup> The main reason for this age criterion is that all respondents are born after the Second World War, to prevent the possibility that childhood memories are overshadowed by war experiences. We did not choose respondents older than 55 because of possible problems with memory. The minimum age of 40 was chosen with the intention that respondents are in more or less comparable life stages.

<sup>6</sup> The interview closely examines the place of growing up (this topic is not included in this paper); to interview people who moved once or more times during their childhood would simply take too much time. Besides, if people moved to a different urbanised area, analyses are hard to make.

<sup>7</sup> Men: 2 lower; 2 medium; and 11 higher educated. Women: 8 lower; 4 medium; and 4 higher educated.

<sup>8</sup> The ten photos are a selection from photos used in the study of Buijs and Filius (1998).

<sup>9</sup> All of the answers on the part of the respondents were spontaneous and they could mention more than one criterion.

<sup>10</sup> Four different answers are grouped under the category 'cultivation'; some respondents find that nature must not be cultivated to be real nature; others refer to the extent to which humans influence nature; a third group finds that nature must be able to go its own way; and there is a group that is of the opinion that nature must be wild and powerful.



<sup>11</sup> The respondents' personal code is shown between brackets; M stands for Man, and W for Woman.

<sup>12</sup> All reasons were mentioned spontaneously, no examples were given

<sup>13</sup> This argument has much to do with human health, but almost none of the respondents explicitly make that connection.

<sup>14</sup> Except beauty, which is neither purely instrumental nor purely intrinsic

<sup>15</sup> Callicott calls this an 'anthropogenic' theory of value.

<sup>16</sup> Initially, the images of relationship were presented to the respondents in the order of master, steward, partner, participant; the images are alternated later on.

<sup>17</sup> One can wonder whether our explanation was good enough; did we for example use the right words?

<sup>18</sup> The concept of 'ecosystem' lacks a notion of scale in empirical ecology. For normative theory, it may therefore better to refer to 'ecotopes'; the 'primary units' of a landscape. Typical ecotopes are, for instance, brackish creeks, alpine meadows and ancient oak forests (De Groot, 1992: 216).

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