

EXPERIENCES & INTERPRETATIONS OF NATURE

Kaiyu Zheng

Introduction

In this essay, I intend to describe my own understanding and definition of nature, which has two layers of abstraction: *naturality* and *consistency*. I will illustrate each in detail (Section 1), and present my thoughts on their roles and connection with my personal experience and the human society as a whole (Section 2). Then, I intend to critically discuss how my own thoughts compare and contrast with ideas from researchers such as Kellert, Meyers, Cooper etc. (Section 3).

1 Nature: The Concept

When thinking about the meaning of the term *nature*, two intuitive thoughts came to my mind: naturality and consistency. Naturality means being natural, and consistency describes a property that does not change easily over time. These two aspects, or layers, though seem distinct, actually relate to one another – being natural is a representation of the consistent rules under the hood. Let me illustrate each of them and their relationship in detail.

The English word nature shares the root *nat*, meaning born, with the word natural [1]. This language-wise connection provides me the intuition to think about naturality when looking at nature. What does it mean to be natural? From my perspective, it means a phenomenon that simply occurs in our perceivable world. By “*our*“, I refer to not just us humans, but also other creatures that have the ability to sense and perceive. Despite the fact that dictionaries define *natural* as something whose existence is not caused by mankind, I would not exclude mankind from my own definition. We humans, just like plants and animals, are part of the world, in which entities influence each other and are influenced by each other. It might seem that humans are in a dominating position over other creatures because of the power that humans can alter their living environment. However, the *butterfly effect* [2] reminds us that small causes, by seemingly weak creatures, can have large effects. I consider all of such happenings as being natural. Certainly, in terms of urban design, incorporating such definition of naturality is almost useless because it permits human destruction. I

proposed how to properly accommodate this later when discussing the work by Kelert, and Clayton & Myers, which essentially is based on respect to other entities in the natural world, instead of viewing nature as a resource for humans to exploit.

Another intuitive definition of nature is that nature is some property that is consistent¹, i.e. hard to change over time and space, despite that all representations of that property might have changed. For example, physics is a study of the fundamental principles of our world; the principles (nature) do not change, but physics, a representation of those principles, actually evolves over time. As another example, the Mt. Rainier (nature) changes rarely in thousands of years, but people's bonding with it changes over time and varies over groups; for example, the shadow of Mt. Rainier on the clouds (Figure 1) has special role in the Puyallup tribal legend [3], but that phenomenon is basically a sight of seeing for urban citizens.



Figure 1: The shadow of Mt. Rainier on the clouds [3]

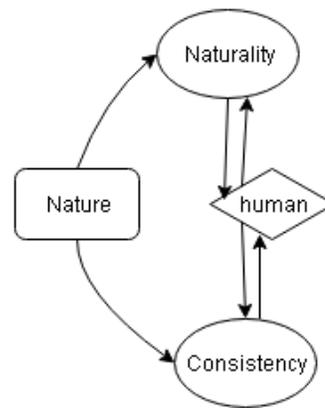


Figure 2: Relationship between *naturality* and *consistency*, connected through humans.

The above two layers of my definitions of nature are related to one another. One (any creature) can separate themselves from the natural world to look at the reciprocal impact between them and the nature. Because we are humans, we can imagine that we build a bridge between them (Figure 2). This actually makes sense as we shall discuss, in the next section, the role of the two layers of nature in our lives. Understanding this paradigm of our relationship with nature is crucial for the design that optimizes the benefit of nature to us.

¹To clarify my word choice, I chose the word “consistent“ instead of “constant“ because it is not true that nature never changes.

2 Roles of Nature & Connections with Us

As illustrated in the diagram (Figure 2), there is a reciprocal relationship between each of the two layers of nature, naturality and consistency and us humans, thereby connecting the two layers. How does that work exactly? Here I intend to discuss this on both the scale of myself and the human society as a whole.

For naturality², I personally find it relaxing to take a break and observe the plants and animals, especially squirrels, in the natural settings on campus. The variations of what actions the squirrels would take, for example, are infinite to me, and they intrigue me and help me clear my mind. Besides, sometimes I draw lessons from observing the surrounding nature, such as by looking at how crows collaborate to compete with the stronger seagulls for food, which gives me inspiration for my own undertakings. For the society, the benefit of naturality is much beyond a spark of inspiration or a period of relaxation. The natural elements in an environment is a sign of peace, and provides a positive image of that place, which has psychological effect on how people perceive that place and act in that place (e.g. less violence) . When people in the society realize that they can gain benefits individually from the natural surroundings, whether the benefit is stress reduction or health improvement etc., they would desire to preserve that natural surrounding. And conservation of our environment is significant for the people themselves in the long term. This is already a *back-and-forth* between naturality and humans.

The consistency aspect of nature relates to us mainly through showing us phenomena (representations) which confirm or change our understanding of the the natural world over time. This leads to evolution of our intelligence and beliefs towards the fundamentals of nature. For me personally, as an optimist, I believe that the nature is eventually beneficial to us all. When natural disasters happened, such as the tragic 2008 Sichuan earthquake, I believed in that the nature of humanity, captured by properties such as love, compassion, and tolerance, could eventually heal the mental wound of those who suffered with the help of of others. For the human society, as mentioned before, the consistency of nature can demonstrate to us phenomena, essentially the source of breakthrough of science and even religious beliefs.

Now that I have made clear the roles of nature and its connections to us, I will discuss how the

²Remember, we separated ourselves from the natural world in this discussion.

view of nature from the authors compare and contrast with mine, and how these views together help us make better design decisions for urban space planning.

3 Discussion

In the essay *Building for Life* [4], one key point that Kellert made is that society fails to recognize the important implications of natural systems in terms of sustaining the quality of people's lives, especially in urban areas. He then argues that the environmental crisis (loss of natural elements) is a design failure, and proposes the concept of *restorative environmental design*, which aims to minimize the loss, by emphasizing low environmental impact design, organic design and vernacular design. In my discussion of the role of naturalness, I indicated that the social awareness of the benefit of natural surroundings implies preservation of the environment. Compared to Kellert who explicitly said that there is a lack of awareness, my position, which has no certainty of the premise, shows my skepticism of the society having that awareness. We both agree that realizing the benefit of nature on the level of society is significant.

Kellert observed that the conflict between tendency of human dominance in modern world and the necessity of natural systems in human well-being. Similarly, Clayton and Myers pointed out, in their survey *Attitudes, Values and Perceptions* [5], that people have different values on nature; some believe that nature should be valued for its own sake, while others believe that nature is a resource that benefits people.

From my perspective, the presence of various value structures is a phenomenon, and by my definition of naturalness, this is also natural. To accommodate the fact that such definition of naturalness permits the kind of value structure that puts humans in the ruling position, as mentioned earlier, I promote the significance of respect from humans towards the natural world. As Clayton and Myers studied, indigenous people believe that they are part of the nature, and the western education encourages children to respect nature. The commonality of these two conceptions is that we should have a positive relationship with nature. This awareness (positive relationship with nature) at the education level is the basis of social awareness.

Clayton and Myers also mentions that there is negative emotions, e.g. disgust and fear, towards the natural world in some cases, but instead of showing a sign of indifference, these emotions

demonstrate people's engagement in those places. As the research by Cooper Marcus & Sachs shows [7], there is a shared preference for green plants over totally closed indoor environment (e.g. shopping mall), as well as preference for moving real creature in nature over still virtual nature such as painting. My own self-observation, as discussed previously on observing squirrel's motion as an example, agrees with these authors; I am intrigued by squirrels instead of feeling disgust because I feel no danger or stress when observing them, which is part of why it is relaxing and satisfying for me.

Paradox Van de Berg et. al. investigated the connection between nature, especially green space, and clinical and public health indicators (measurement of human health), and observed an increasingly strong correlation [6]. There is an interesting *paradox* here. When comparing this work by Van de Berg et. al. with the results of Clayton and Myers, we see that what we humans prefer unconsciously is what is healthy, at least in the matter of nature. If the intuition of most of individuals actually prefers an environment with natural elements, it is paradoxical that the society as a whole lacks recognition, as Kellert suggests. Then, there must be some other *force* in the nature of us humans that transforms the value structure when we go from individual level to collection level.

Although Clayton and Myers discussed the issue of individualist and collectivist, they did not address this paradox or investigate the "force"; they primarily suggested that people in countries that are traditionally regarded as having collectivist worldviews, such as China and Japan, are actually less concerned about the environmental crisis which affects each other negatively, compared to people in countries with individualistic worldviews, such as the United States. If Kellert's research was conducted on a world-wide scale, then he should have suggested similar issue.

So what is the *force*? To some extent, the consistency layer my own definition of nature has an explanation, and I intend to describe it honestly. For an urban space designer, one property that is hard to change over time is the spontaneousness of critically evaluate existing designs and form new, better designs. This is the nature of designers. Therefore, in my view, the force comes exactly from the probable *bias* in evaluating the existing designs, designs which Kellert regards as a failure, essentially because design with nature are intuitively more preferable (and confirmed by scientific research). This prompts Kellert to make (biased) observation that modern society has insufficient

recognition of naturality³. The way that Kellert interprets the existing design is a representation of his designer's nature; If I⁴ am a designer as well, I might not regard the existing design as poor and harmful to humans, since I consider the presence of such designs natural as well. I am not suggesting that I disagree with showing respect for nature and increase green space or other natural elements in urban planning, what I suggest is that there may be a bias in Kellert's observation, which leads to the paradox.

References

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- [2] E. H. Lorenz, *Does the Flap of a Butterfly's wings in Brazil Set Off a Tornado in Texas?* (1972).
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- [5] S. Clayton and G. Myers *Conservation Psychology: Understanding and Promoting Human Care for Nature*. pp. 93-101. NY: John Wiley & Sons (2015).
- [6] A. Van de Berg, Y. Joye, S.de Vries, L. Steg and J. de Groot. *Environmental Psychology: An Introduction*. pp. 48-55. Chichester, West Sussex: BPS Blackwell (2013).
- [7] C. Cooper Marcus and N. Sachs, *Therapeutic Landscapes: An Evidence-based Approach to to Designing Healing Gardens and Restorative Outdoor Spaces*. Hoboken, NJ: John Wiley & Sons (2014).

³Of course, this is my personal reasoning, which might not be the correct explanation of the force.

⁴Or someone else that uses my definition of nature.