

Impacting Emotions for Pro-environmental Consumption: Literature Analysis and Empirical Evidence

Joosung Lee¹

¹ Division of Convergence and Entrepreneurship, Soonchunhyang University, Asan, Korea

Correspondence: Joosung Lee, Division of Convergence and Entrepreneurship, Soonchunhyang University, Asan, 31538, Korea. Tel: 82-41-530-4914. E-mail: jsl@sch.ac.kr

Received: November 11, 2019

Accepted: December 5, 2019

Online Published: January 16, 2020

doi:10.5430/bmr.v8n4p1

URL: <https://doi.org/10.5430/bmr.v8n4p1>

Abstract

For environmental innovation, people's knowledge is necessary to protect the environment. However, just knowing the importance of environmental protection does not lead to effective actions for environmental innovation (Kong & Lee, 2016). For knowledge to become action, it is important for people to be emotionally motivated. To study the emotional factor for environmental innovation, this study analyzes the literature on how emotions influence people's purchase actions and proposes the idea of using arts to influence consumer's emotion and induce pro-environmental consumption (Kong & Lee, 2016). This research first reviews literature on the role of emotion for pro-environmental consumption. Then it explores if arts can induce consumer's emotion to make decisions to buy green products or to participate in environmental protection. To seek empirical evidence, this research measures the willingness of a group of consumers to participate in a tree planting program before and after the participants are exposed to a piece of artwork. The preliminary findings of this study are valuable for understanding how to increase the adoption of certain innovative products or services of social value (Kong & Lee, 2016).

Keywords: pro-environmental consumption, emotion, arts and sustainability

1. Introduction

Consumers in today's global marketplace have become increasingly aware of environmental issues, demonstrating high levels of environmental concern (Murray, 2013). Just knowing the importance of environmental protection, however, has not led to effective actions for environmental innovation (Kong & Lee, 2016). In addition to knowledge, it is an emerging area of public art as advertisers, designers and artists use emotional appeals without a clear theoretical basis because using arts works to touch people's feelings and subsequent actions (Tanner & Kast, 2003).

To study the emotional factor for environmental innovation, a few innovation studies including this research have proposed the idea of using arts to influence consumer's emotion and induce pro-environmental consumption (Kong & Lee, 2016). Arts practice aimed at bringing environmental issues to the public's attention is significant (Jackson, 2005), and art sociologists are increasingly interested in the link between the arts and sustainability (Kagan & Kirchberg, 2008). Previous case studies show that arts affect pro-environmental beliefs, values and attitudes. They increase an awareness of certain environmental actions such as recycling or waste reduction and help unfreeze ingrained habits and form pro-environmental social norms (Jackson, 2005). Arts also help communities to be involved in more activities that protect the environment. They could reduce some physical and situational barriers to adopting pro-environmental behavior (Coleman et al., 2011).

Against this backdrop, this research seeks to understand how emotional experiences affect pro-environmental consumption and their presence motivated by arts influence consumer's intention towards the consumption of greener products. Emotion, touched by art, acts as a key factor in formation of attitude in the empirical analysis of this study (Kong & Lee, 2016). Within pro-environmental consumption, emotion is believed to perform two distinct functions: to encourage voluntary reaction to relevant environmental issues, and to stimulate the consumer in identification and selection of best green products (Kong & Lee, 2016). Arts that raise consumer's level of emotion and awareness, which in turn instigates social responsibility, is crucial in formation of pro-environmental consumption behavior (Kong & Lee, 2016). While this can be a long-term research agenda, this article delineates the theoretical findings regarding emotions and pro-environmental consumption based on the analysis of the literature and a pilot study we have conducted with visual elements and an art drawing.

2. Literature Findings on Emotion and Pro-Environmental Consumption

Damásio (2005) explains the influence of emotion in consumption behavior. By focusing on appropriate human emotions, therefore, the message of sustainability marketing could be delivered effectively. In this context, we present a literature review on the influential role of emotions and use of visual elements for pro-environmental consumption.

2.1 Emotional Aspect of Pro-Environmental Consumption

In an effort to examine potential factors outside knowledge-driven rational appeals that might alter the effectiveness of pro-environmental marketing, emotional appeals have been widely used to increase attention and help the messages stand out in a media environment (Dickinson & Holmes, 2008). The significant factor motivating consumers to change actual purchase behavior to buy eco-friendly products is related to different types of emotional benefits such as a feeling of well-being and auto-expression effects through the socially visible consumption and nature-related benefits (Hartmann & Apaolaza-Ibáñez, 2008).

The feeling of well-being from acting in an altruistic way (“warm glow”), and self-expressive benefits are the two kinds of emotional experiences related to pro-environmental consumption (Hartmann & Apaolaza-Ibáñez, 2008). According to an empirical research about the individual willingness to pay for green energy, people pay premium prices for green energy brands not because they are primarily concerned in the environmental impact of their energy use but because they feel better by the fact that they use green energy (Hartmann & Apaolaza-Ibáñez, 2008). Kahneman and Knetsch (1992) also showed that individual willingness to contribute to public goods is exhibited by the moral satisfaction induced by the purchasing decision. This individual motivation with an intrinsic value gain is driven by a “warm glow of giving” (Hartmann & Apaolaza-Ibáñez, 2008). “Environmentally conscious consumers may experience a feeling of well-being from acting in an altruistic way, that is, personal satisfaction by contributing to the improvement of the common good environment (Ritov & Kahneman, 1997).” Thus, consumers may perceive individual benefits as a consequence of pro-environmental behaviors. Note, however, that these benefits are not directly related to an objective measure of environmental improvement but constitute emotional benefits as above (Hartmann & Apaolaza-Ibáñez, 2008). Social factors may also constitute emotional benefits in pro-environmental consumption. Belz and Dyllik (1996) stated that consumers gain self-expressive benefits when their consumption of eco-friendly products is socially visible by others. That is, the consumption of green brands in public may deliver an individual benefit because it shows their environmental consciousness to others (Hartmann & Apaolaza-Ibáñez, 2008).

2.2 Framing of Responsibility, Guilt Emotion and Pro-Environmental Campaign

Guilt appeals have been particularly popular for both marketers and academics alike. Feelings of guilt have been found to be one of the key drivers of ethical and environmentally friendly behaviors (Harth et al., 2013). Guilt appeals are typically utilized to trigger consumers’ desires to neutralize the negative emotion, in particular via a pro-environmental behavior. In an unsuccessful guilt appeal, consumers wish only to control the felt emotion without addressing the underlying problem. Such maladaptive defensive mechanisms include denial of the existence of the threat and projection of responsibility to someone else (Grothmann & Patt, 2005). In all, guilt appeals have become a powerful tool in advertising because they can influence consumer attention, attitudes toward the product, and purchase intentions (Chang, 2012). While quantitative evidence is yet limited, we have observed cases where the personal responsibility framing leads to negative reactions (not willing to participate) to the carbon offsetting copy. The company responsibility framing leads to more positive reactions to participating in carbon offsetting in response to climate change. These cases coincide with the in-group and out-of-group behaviors in Jang (2013). Further work is ongoing to explore the role of guilt feelings and framing of responsibility.

2.3 Use of Arts/Visual Elements in Pro-Environmental Messages

According to Coleman et al. (2011), “the visual and the performing arts are able to synthesize complex ideas and present them to a lay audience in an engaging form. Well-designed images can articulate a vision for an ecologically sustainable landscape that encapsulates best-practice land management. Some art forms or works of art are good at prompting new ways of looking at problems.”

Hartmann & Apaolaza-Ibáñez (2008) suggests that consumer exposure to green product advertising in nature's media representation may develop emotional experiences when people consume products, which are similar to what they would experience in “real” nature. These “virtual nature experiences” may comprise emotional value in consumer's perception. As Levi & Kocher (1999) suggested, consumers may increasingly experience virtual nature via commercial media’s representation of beautiful nature scenes in simulated environments. It is possible that various forms of virtual nature scenes can give emotional experiences analogous to those experienced in contact with “real” nature (Hartmann & Apaolaza-Ibáñez, 2008). By applying appropriate communication and persuasion techniques, the

experiences in “virtual nature” could influence consumer’s emotion and lead to the consumption of green products. While this type of emotional consumption benefit has received little academic research attention so far, green marketing practice has commonly associated the use of nature with a brand image. Recent efforts such as the Toyota “Aim: Zero Emissions” campaign or the “Energía Verde” (Green Energy) campaign of the Spanish utility company Iberdrola embed the brands in pleasant imagery of natural environments, aiming to evoke emotional feelings related to nature consumption experiences (Hartmann & Apaolaza-Ibáñez, 2008).

2.4 Implications for Pro-Environmental Marketing

It is necessary to identify first the consumer’s attitude about the proposed environmental campaign and then utilize appropriate emotional experiences. Guilt feelings work most effectively when the consumer believes that environmental conservation is the out-group’s responsibility, not his or her own responsibility. To evoke positive emotional experiences by the consumer, visual elements can be employed to give virtual nature experiences or pleasant feelings with nature. Note that virtual nature experiences have been found to impact people’s emotions most positively, regardless of their degree of environmental attitudes. Therefore, emerging advanced technologies such as virtual reality or augmented reality are an effective means to create persuasive emotional experiences that would be available in natural environments.

3. Empirical Evidence and Discussion

We implement arts as a driving factor that leads knowledge into action (Kong & Lee, 2016). That is, we assume that consumers possess general knowledge of environmental protection and what ignites the knowledge in the consumer’s mind to act in an environmentally friendly way (e.g., as simple as reducing use of new paper for printing) is emotion. We then capture the role of arts to influence consumer’s emotion for environmental innovation with our social demand articulation framework. In previous studies, the role of knowledge (Lee et al., 2006) and socio-technical approaches (Yun & Lee, 2015) for environmental innovation was mostly explained, but our added study explains how art-induced emotion can make consumers put knowledge into action. We observe how consumers with and without art-induced emotion differ when choosing to participate in pro-environmental consumption.

3.1 Study Design

To test our hypothesis, we conducted an experiment for a group of male and female citizens residing in the U.S. and Korea. The group spun over different ages, academic and professional backgrounds, income levels, religions and cultures. We surveyed a total of 80 people whose ages ranged from 10 to 59. One of the unique aspects of this study is that we made an artwork for the experiment. Based on a wide range of review on artists’ work for the environment, we selected inspiring photos and painting works for saving and planting more trees. We then had several discussions to come up with our own idea for an artwork (showing a large tree with affectionate, full branches and leaves under which children play) that can effectively touch the viewer’s emotion. The survey consisted of three parts: knowledge, attitude, and emotion. There were 30 questions in the survey with answer choices in 5 scales: very likely, likely, neutral, unlikely, very unlikely. A week later, we invited these people again to show and explain the art and offer them to answer the same questions. The respondents would be able to look at the art while they are answering the questions.

We selected an environmental innovation program in operation to plant more trees. Among various organizations running such programs, we chose Create Your Forest (CYF) to inspire people with our art to donate money to plant trees. CYF is a program where people can donate 1.99 dollars to plant trees. When they donate, they will be able to find their tree on the website with their name and message. They can also donate money and name the tree after someone they like. After their tree is planted, they can invite the person to visit the website and find the tree to read their message.

By showing the group of citizens the artwork and give them information about the program, we measured their willingness to participate in the program. Before showing the art, the initial willingness to participate in the tree planting program was measured, and any change in their willingness was observed one week after once the art was shown to them. The research model and hypothesized patterns would be empirically tested using regression modeling on the results of over 100 consumers who have heard of the plant-a-tree program as a form of pro-environmental consumption (Kong & Lee, 2016). Any differences in the responses were examined before and after the exposure to the art. We anticipated that art could touch the viewers’ emotions to bring them to a more concrete action for environmental protection. We controlled other factors and checked the effect of arts on pro-environmental consumption.

Among the surveyed participants, over 50% of them make no donations or only 2 to 3 times a year. The rest of the people make donations every month or two resulting in 6 to 12 or more donations per year. Regarding the experience to

participate in tree planting programs, most of them have no such experience in the past. On the other hand, the survey results show that more than 50% of them have heard about tree planting programs. About one third of the participants say that they have attended an educational course about climate change. Note, however, that prior knowledge attained through such education does not seem to motivate them to participate in tree planting programs as shown by our data (i.e. no strong correlation between prior knowledge and willingness to participate in pro-environmental consumption). This goes back to the point why people don't exercise what they already know.

3.2 Results and Discussion

The results show some significant insights. First, people changed their mind to participate in tree planting to protect the environment after they looked at the art. Before exposure to the art, 23 people didn't desire to participate in tree planting and only some people desired to participate in tree planting for environmental protection. After exposure to the art, most people desired to participate in tree planting and no one answered they didn't desire to participate in tree planting as in Figure 1. This shows that art could influence people's emotions and behaviors as in our hypothesis.

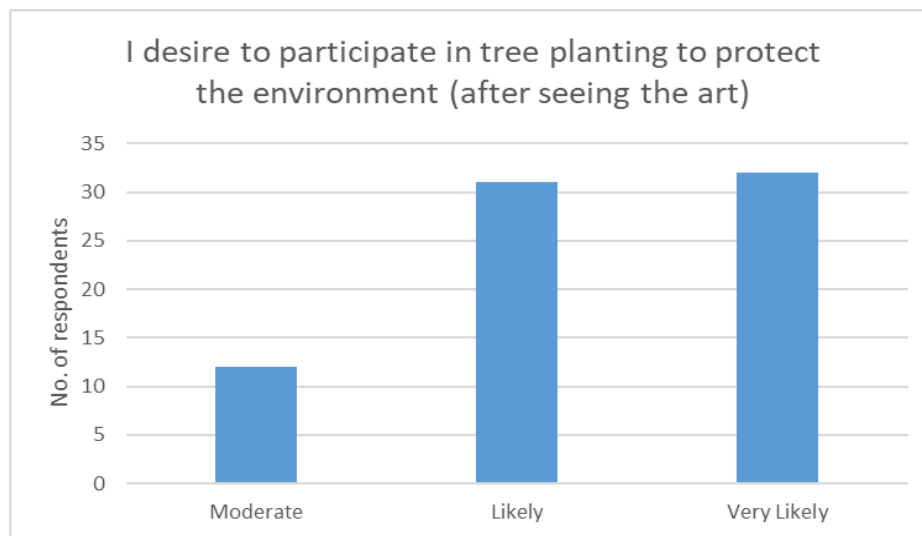


Figure 1. Intention to participate in tree planting after exposure to art

Second, negative emotions seem to cause environmental protection actions more than positive emotions do. When people were asked, "If my tree planting did not achieve the environmental protection objective, I would feel disappointed," their intention to participate in tree planting programs went up. This is where guilt feelings work to cause people to act proactively in preventing worsened environmental problems. As previously discussed, guilt emotions coupled with an out-group responsibility framing or a positive attitude toward the given environmental campaign influence consumer actions most positively. In this experimentation, the surveyed participants were found to be generally in favor of planting trees so that guilt emotions caused them to consider donating to CYF favorably. The art approach could have made them feel at ease and positively disposed toward tree planting, which is to be investigated further.

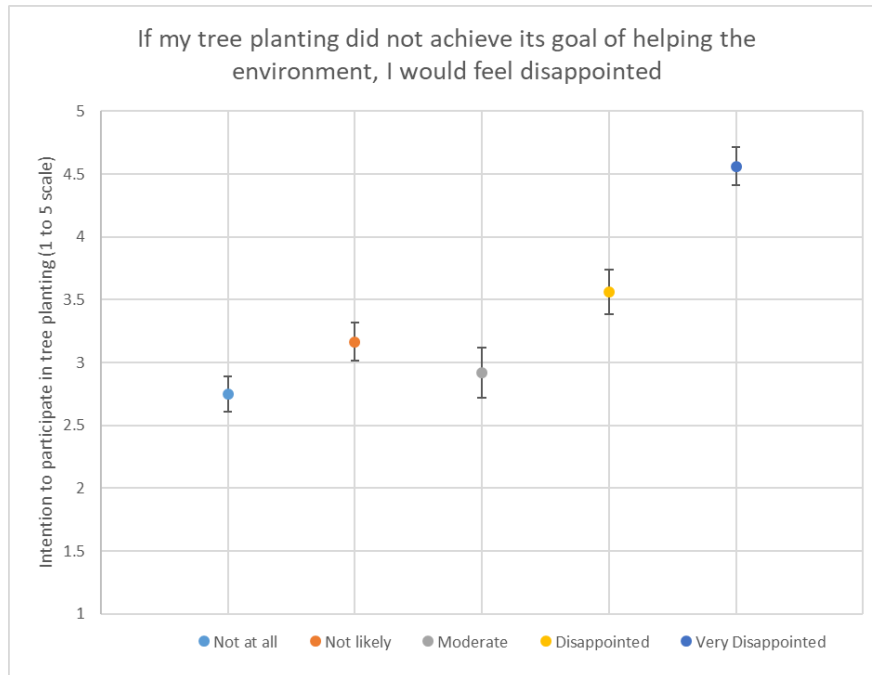


Figure 2. Negative emotions and intention to participate in tree planting

Third, the elements of art could positively affect people’s perception about an environmental program. That is, before seeing the art, some people thought participating in tree planting is neither valuable to society nor beneficial to humankind. When the people were exposed to the art that had human and nature elements (i.e. vibrant children and trees), the responses changed. After seeing the art, none of the people thought participating in tree planting is not valuable to society. No one thought it was not beneficial to humankind, either.

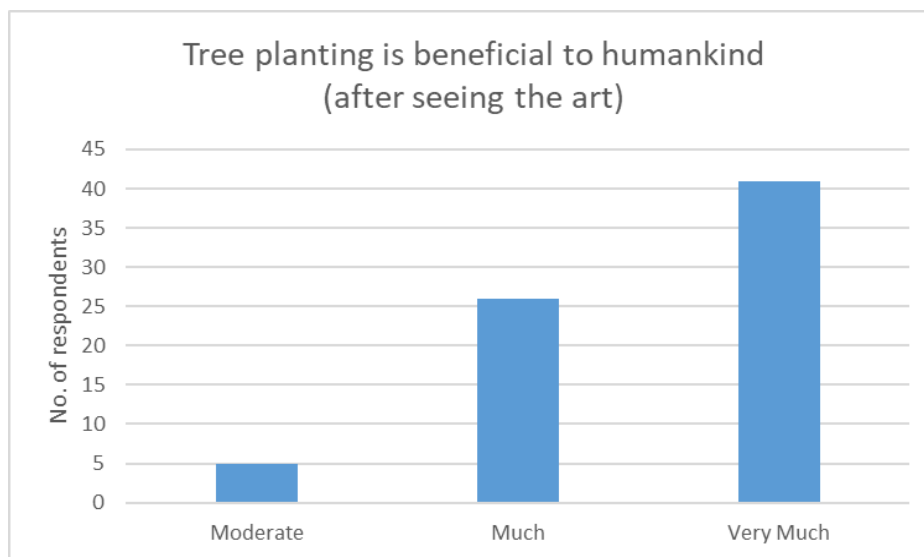


Figure 3. Feelings about the value of tree planting after exposure to art

While this study is still preliminary, it gives a unique insight on environmental innovation and consumer participation. In particular, future environmental programs can be designed along with an introduction of arts so that participants or general public can feel more emotionally involved in discussions and responsible actions for environmental protection. As mentioned above and in Curtis et al. (2014), art can make viewers feel at ease and positively disposed and therefore communicate rather sensitive environmental messages. From the perspective of green marketing, marketers can gain practical insight from this study in order to develop effective environmental programs with use of arts and visual components to evoke a sense of emotion and to make greener products appeal to buyers.

4. Conclusion and Future Research

This article presented a literature analysis regarding the role of emotion for green marketing, followed by a preliminary study to examine how arts impact people's feelings and behavior toward pro-environmental consumption. The results showed that arts influence people's emotions and perception about environmental protection and increase their willingness to participate in environmental conservation programs. Note that emotions are principally a very wide field of research but there is little definition yet for a quantitative study. Thus a substantial literature review and discussion of the meaning of emotions in the context of this research is necessary.

The hypothesis in this paper should be further tested to examine the interaction between arts and human emotions and its influence on pro-environmental consumption via a detailed empirical analysis. Both theory and experimental design of our study can be enriched by incorporating the previous work from behavioral economics and innovation studies. For example, a hypothesis testing of human need for contact with nature and the role of arts to influence emotions to be more positively disposed toward pro-environmental messages may provide an added insight to green marketing research. In addition, more qualitative case studies on how different organizations use arts to improve their environmental performance are being conducted. We would like to test the possibility of generalizing our study with more participants from various other regions and seek ideas on using different types of arts and broader collaboration with artists.

Acknowledgements

This work was supported by Soonchunhyang University Research Grant No. 20180408.

References

- Kong, H. K., & Lee, J. J. (2016, March 13-16). *Do Arts Influence Consumer's Emotion for Environmental Innovation?* The ISPIM Innovation Forum, Boston, MA, USA.
- Murray, P. N. (2013). *How Emotions Influence What We Buy*, *Psychology Today*, February 26. Retrieved from <https://www.psychologytoday.com/blog/inside-the-consumer-mind/201302/how-emotions-influence-what-we-buy>
- Tanner, C., & Kast, S. W. (2003). Promoting Sustainable Consumption: Determinants of Green Purchases by Swiss Consumers. *Psychology & Marketing*, 20(10), 883-902. <https://doi.org/10.1002/mar.10101>
- Jackson, T. (2005). Motivating sustainable consumption: a review of evidence on consumer behaviour and behavioural change. Surrey: Sustainable Development Research Network, Centre for Environmental Strategies.
- Kagan, S., & Kirchberg, V. (eds.). (2008). Sustainability : a new frontier for the arts and cultures. Frankfurt am Main, Germany.
- Coleman, L. J., Bahnan, N., Kelkar, M., & Curry, N. (2011). Walking the walk: How the theory of reasoned action explains adult and student intentions to go green. *Journal of Applied Business Research*, 27(3), 107-116. <https://doi.org/10.19030/jabr.v27i3.4217>
- Damásio, A. R. (2005). *Descartes' Error: Emotion, Reason and the Human Brain*. Penguin Books Ltd.
- Dickinson, S., & Holmes, M. (2008). Understanding the emotional and coping responses of adolescent individuals exposed to threat appeals. *International Journal of Advertising*, 27(2), 251-278. <https://doi.org/10.1080/02650487.2008.11073054>
- Hartmann, P., & Apaolaza-Ibáñez, V. (2008, November). Virtual Nature Experiences as Emotional Benefits in Green Product Consumption The Moderating Role of Environmental Attitudes. *Environment and Behavior*, 40(6), 818-842. <https://doi.org/10.1177/0013916507309870>
- Kahneman, D., & Knetsch, J. (1992). Valuing public goods: The purchase of moral satisfaction, *Journal of Environmental Economics and Management*, 22(1), 57-70. [https://doi.org/10.1016/0095-0696\(92\)90019-S](https://doi.org/10.1016/0095-0696(92)90019-S)

- Ritov, I., & Kahneman, D. (1997). How people value the environment: Attitudes versus economic values. In Bazerman, M., Messick, D., Tenbrunsel, A., and Wade-Benzoni, K. (Eds.). *Psychological Perspectives to Environmental and Ethical Issues* (pp. 33-51). The New Lexington Press.
- Belz, F., & Dyllik, T. (1996). Ökologische Positionierungsstrategien. In Tomczak, T. R., Roosdorp, A. (Eds.). *Positionierung - Kernentscheidung des Marketing*. St Gallen.
- Harth, N. S., Leach, C. W., & Kessler, T. (2013). Guilt, anger, and pride about in-group environmental behaviour: Different emotions predict distinct intentions. *Journal of Environmental Psychology*, 34, 18-26. <https://doi.org/10.1016/j.jenvp.2012.12.005>
- Grothmann, T., & Patt, A. (2005). Adaptive Capacity and Human Cognition The Process of Individual Adaptation to Climate Change. *Global Environmental Change*, 15, 199-213. <https://doi.org/10.1016/j.gloenvcha.2005.01.002>
- Chang, C.-T. (2012). Are guilt appeals a panacea in green advertising? The right formula of issue proximity and environmental consciousness. *International Journal of Advertising*, 31(4), 741-771. <https://doi.org/10.2501/IJA-31-4-741-771>
- Jang, S.M. (2013). Framing responsibility in climate change discourse: Ethnocentric attribution bias, perceived causes, and policy attitudes, *Journal of Environmental Psychology*, 36, 27-36. <https://doi.org/10.1016/j.jenvp.2013.07.003>
- Levi, D., & Kocher, S. (1999). Virtual nature: The future effects of information technology on our relationship to nature. *Environment and Behavior*, 31, 203-226. <https://doi.org/10.1177/00139169921972065>
- Lee, J. J., Gemba, K., & Kodama, F. (2006). Analyzing the innovation process for environmental performance improvement. *Technological forecasting and social change*, 73(3), 290-301. <https://doi.org/10.1016/j.techfore.2004.03.008>
- Yun, S. & Lee, J. (2015). Advancing social acceptance towards renewable energy systems adoption with a socio-technical perspective, *Technological forecasting and social change*, 95, 170-181. <https://doi.org/10.1016/j.techfore.2015.01.016>
- Curtis, D. J., Reid, N., & Reeve, I. (2014). Towards Ecological Sustainability: Observations on the Role of the Arts. *Surveys And Perspectives Integrating Environment & Society*, 7(1).