

## Cultural Capital and Environmental Behaviors (Sanandaj City)<sup>1</sup>

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### ABSTRACT

Various environmental problems pose a threat to environmental sustainability, among which global warming, urban air pollution, water shortages, environmental noise, and loss of biodiversity. Many of these problems are rooted in human behavior. So, Environmental quality strongly depends on human behavior patterns. This paper investigates the cultural factors that affect on people's Environmental Behaviors on Sanandaj City. This paper is a survey study by control of terms, is a broaden study by extended and is a cutting study by time (in the first half of 2015). The population is the entire person that has citizens in Sanandaj city. The sample size based on kockran formula is 320. The questionnaires with suitable structures validity (based on Kronbach's coefficient of Alfa) in the ratio of age, sex in deferent areas have been distributed. Results indicate that the most effective variable on Environmental Behaviors of citizens is Cultural Capital.

**Keywords:** Environment; Cultural Capital; belief; Citizen; Behavior

### 1. INTRODUCTION

Most cases of environmental behavior can be, based on the knowledge of environmental science or ecology, judged according to their impact on the environment, and labeled as environmentally friendly or unfriendly. Some cases can be judged easily, e.g. a bicycle ride is more positive than the ride in a car, holiday located near home are more favorable than travelling to another continent. Nevertheless, evaluation of certain cases is doubtful (is the attendance on a political meeting about climate change in South Africa where travelling by

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plane is necessary environmentally positive?) or scientifically demanding (buying a new hybrid car instead of ten year old one?).

These factors have to be taken into consideration in the following definition: Proenvironmental behavior is such behavior which is generally (or according to knowledge of environmental science) judged in the context of the considered society as a protective way of environmental behavior or a tribute to the healthy environment.

Environmentally protective option is to write a letter by handwriting instead of using a computer, vegetarian lunch instead of a pork steak originated from mass breeding; a tribute to the healthy environment is e.g. a disposal of illegal dumping.

The following terms can be used as equivalents for proenvironmental behavior “environment-protective behavior”<sup>2</sup>, “environment-preserving behavior”, “environmentally responsible behavior” (Kaiser et al., 1999), “ecological behavior”<sup>5</sup> (Axelrod, Lehman 1993, Kaiser et al., 1999), “sustainable behavior”(Clayton, Myers, 2009). The opposite is “environment-destructive behavior”<sup>6</sup> or Czech “environmentally unfriendly behavior”.

Environmental issues nowadays include a wide range of phenomena which are in the area of environment protection generally considered as negative. Among them, we distinguish four areas of environmental issues (comp. Bell, 2001): Litter, distortion of natural monuments and abuse of countryside are to great extent issues of environmental aesthetics. Issue connected with health is the air pollution, toxic material in environment or the level of radiance enhanced by the human activity.

The core of the natural resources issue is the excessive exploitation of unsustainable (mineral resources such as coal or petrol) or sustainable (water, soil) resources. Mass agricultural breeding, testing the cosmetic products on animals, destruction of natural biotopes and creation of migration barriers may be covered in the issue of life protection and its dignity.

Certain environmental issues arise in several other areas. As Bell points out (2001), current extent of motor-vehicle traffic is a serious problem from the point of view of health, environmental aesthetics or natural resources, and because the busy roads often cross habitat corridors and are lined with surprising amount of killed animals it also poses a challenge for the life protection and its dignity.

The mentioned classification of environmental issues can be used in research of human behavior in the environment. According to the structure of behavior linked with different kinds of environmental issues we can distinguish areas of environmental behavior which are analogously connected with health, aesthetics, natural resources and life protection.

Environmental studies, sociology, economy but also legal sciences, culturology, religious studies and other disciplines also deal with (among other things) the matter how external conditions influence environmental behavior of the public. Attention is paid to economical environment with prices, product availability and organic products certification, legal environment with pollution and construction standards, waste handling and animal abuse, cultural and social environment with traditions, moral rules, religious and value systems and influence of organizations, mass media, social groups and authorities, and the environment (physical) with the availability and quality of the environment, environmental conditions, traffic infrastructure, civic amenities and waste management. The external influence on the environmental behavior is possible to understand as an action of external factors which influence people’s behavior to the environment.

According to legal science, it is possible to distinguish social, cultural, environmental, legal, economical and other conditions of external factors. The conditions of external factors are “alive”- they change and influence each other; e.g. economical factors interact not only within themselves, but they also influence social, environmental or cultural environment. The factors encounter, they empower each other or create synergy. These actions are the domain of study of humanitarian disciplines, whereas the cooperation between the disciplines helps to create complex views on environmental conditions which have an impact on mankind and prognosis of the next development.

While the domain of most psychological disciplines are the factors of the “internal world” to behavior, social psychology and sociology, economical psychology and economy, environmental psychology and environmental science have a scientifically uneasy task at the border of “internal” and “external”: they observe how the social, economical and environmental factors influence human experience and behavior – for example:

All these questions are also dealt with by conservation psychology, a cross disciplinary discipline considered as a platform for interconnecting the knowledge and cooperation of professionals from different disciplines who are moving at the border between “internal” and “external”. Many of these researches of this issue are connected with a so-called behavioral analysis. Empirically tested are strategies supporting the environmental behavior which change the external conditions so that it would anticipate environmentally friendly behavior?

Many voices have called for changes in human behavior, changes that would harm the environment less. Collectively, we humans have had an enormous impact on the land, water, and air of the planet, far out of proportion to our role as merely one species out of millions. We have massively shaped the planet to suit our comfort and perceived needs, using our outstanding technical abilities and dexterity. In doing so, we have very heavily exploited many of the world’s natural resources, pushed aside other species, and left the by-products of our efforts to improve our lifestyles in pools, pits, oceans, lakes, rivers, and landfills around the world, on the highest mountains, and in the air. And this trend is increasing.

Many possible solutions for changing this behavioral direction have been proposed, including a variety of theories, policies, and interventions (e.g., Abrahamse, Steg, Vlek, & Rothengatter, 2005; Swim et al., 2011). Several attempts have been made to describe the categories of factors that result in pro-environmental behavior or the lack of it. These attempts include visualizing the problem at the macro scale and therefore include such non-psychological factors as geophysical conditions and political influences (Gifford, 2006; 2008).

At the meso scale, which focuses on psychological influences, the values-beliefs-norm model (Stern, 2000), the theory of planned behavior (Ajzen, 1991), norm activation theory (Schwartz, 1977), and the focus theory of normative conduct (Cialdini, Reno, & Kallgren, 1990) have been proposed as succinct models of pro-environmental concern and behavior. Yet many studies have shown that the elements of these models could be expanded to include other personal and social factors (e.g., Chen, & Tung, 2010; Heath & Gifford, 2002; Hinds & Sparks, 2008; Raymond, Brown, & Robinson, 2011).

At the same time, self-reported concern often does not translate to objective pro-environmental behavior; the correlation has been estimated in one meta-analysis to be about .45 (Kormos & Gifford, submitted). This occurs partly because as many as 30 barriers to behavior change have been described (Gifford, 2011). Humans are an extremely protean species. Succinct or “shorthand” theories and models may help to capture important portions

of the variability in environmental concern and pro-environmental behavior, but a full account inevitably must include a broad range of personal and social influences. To that end, this article summarizes many of the personal and social influences on whether a given person will tend to have concern about the environment or act in pro-environmental ways. It cannot summarize all the efforts; 25 years ago, over 300 relevant studies were gathered in a meta-analysis by Hines, Hungerford and Tomera (1986-87), and many more studies have been conducted since then. Rather, we hope to provide a reasonable, selective guide to the personal and social influences.

These influences on environmental concern and behavior include childhood experience, knowledge and education, personality, sense of control, values, political and world views, felt responsibility, place attachment, norms, age, gender, social class, chosen activities, religion, urban-rural differences, proximity to problematic environmental sites, and cultural and ethnic

Education is important. Individuals with more education in general are more concerned about the environment (Arcury & Christianson, 1993; Chanda, 1999; Hsu & Rothe, 1996; Klineberg, McKeever, & Rothenbach, 1998; Ostman & Parker, 1987), although a study in Norway found the opposite (Grendstad & Wollebaek, 1998). More specifically, however, business (Synodinos, 1990) and technology (McKnight, 1991) majors are less concerned than students in other disciplines (Tikka, Kuitnen, & Tynys, 2000). Students enrolled in a university environmental education (EE) program have significantly greater environmental knowledge, verbal commitment, and actual commitment than similar students who are not enrolled in (Gifford, Hay, & Boros, 1982-83), although it may be that students in EE programs had more environmental concern before they entered the EE program (Reid & Sa'di, 1997); EE programs may not necessarily increase environmental attitudes.

Values (and related concepts that are relatively stable within a person) are strongly related to environmental attitudes (Schultz & Zelezny, 1999). Not surprisingly, persons who hold more altruistic and biospheric values report being more environmentally concerned (Milfont & Gouveia, 2006). Individuals who simply have stronger value orientations, are more people-oriented, less authoritarian (Schultz & Stone, 1994), have higher levels of moral development (Swearingen, 1990), and believe their actions will make a difference (Axelrod & Lehman, 1993) tend to be more environmentally concerned. Younger people are less ecocentric than older people, at least in some samples (Grendstad & Wollebaek, 1998).

An Australian study reports that committed environmentalists have more secular and post-materialist values (McAllister & Studlar, 1999). Post-materialistic values seem positively related to environmental concern; in turn, environmental concern, perceived threat, and perceived behavioral control apparently predict willingness to sacrifice, which then seems to lead to a variety of pro-environmental behaviors (Oreg & Katz-Gerro, 2006).

Post-materialist values typically are held by more affluent citizens who have fewer worries about the basic materials of life; they tend to be concerned with "higher-level" goals and actions such as self-improvement, personal freedom, and providing direct input to government. Among students, holding moral principles is a better predictor of environmental actions, whereas among community residents, tangible possessions (such as material economic rewards) are better predictors of environmental actions (Axelrod & Lehman, 1993). Holding post-materialist values and political competence is related to increased interest in environmental political action (Paloniemi & Vainio, 2011).

Materialists and post-materialists may be concerned about different environmental issues. In Turkey, materialists tend to be more concerned about local environmental issues

(Göksen, Adaman, & Zenginobuz, 2002). However, post-material values may be less important than other factors, such as whether an actual environmental hazard is nearby (Drori & Yuchtman-Yaar, 2002).

Individuals who believe in free-market principles, that technology will solve environmental problems, and that economics is the best measure of progress tend to have less environmental concern (Heath & Gifford, 2006; Kilbourne, Beckmann, & Thelen 2002). Similarly, Less environmental concern has been reported for individuals with conservative political views (Eiser, Hannover, Mann, Morin et al. 1990; Schultz & Stone, 1994). However, the relation between values and environmental views may not be simple. People have multiple values and they can conflict. When two values are in conflict, for example, the difference between the preexisting level of endorsement of the two values may predict one's environmental views than the endorsement level of either single value (Howes & Gifford, 2009).

Early studies (Hines, Hungerford, & Tomera, 1986/87; Roberts, 1993) as well as more recent ones (Gilg, Barr, & Ford, 2005; Pinto, Nique, Añaña, & Herter, 2011) find that older people report more pro-environmental consumer behaviors than younger people. These findings may support the hypothesis that something important happened to an older generation that did not happen to the younger generation. If so, such a cohort effect would not be caused by aging itself, but by events that had a greater impact on one age group than another. This effect seems plausible if it stems from a background of limited resources and the need to conserve in the depression 1930s and wartime 1940s. However, the behaviors measured often are not only conservation behaviors, but include such choices as fairly traded goods and recycled products (Gilg, Barr, & Ford, 2005). This may hint at another hypothesis that is as yet poorly understood.

The picture for environmental *concern*, however, is not the same as that for environmental *behavior*. Most (but not all) research shows that younger people report being more environmentally concerned than older people, at least about the general environment (Arcury & Christianson, 1993; Honnold, 1984–85; Klineberg, McKeever, & Rothenbach, 1998; Zhang, 1993), although why this is so when younger people may be less ecocentric(see above) remains to be discovered. This trend even seems to hold *within* the younger age range; a German study found that 12-year-olds were more concerned than 15- and 18-year-olds (Szagun & Mesenholl, 1993). However, environmental concern is quite variable among older adults, so concluding that all older people are unconcerned would be an obvious mistake (Wright, Caserta, & Lund, 2003).

Apart from the cohort effect, two other possible interpretations of this age-related trend are possible. First, as people age, they may become less concerned about the environment; this would be a true age effect. Second, perhaps the times are changing; that is, if the overall political-social climate is growing more conservative, everyone may be less concerned about the environment than they were earlier. This is an era effect. In a clever study that compared concern across different ages, generations, and eras to answer this question, support appeared for an era effect, although true age effects also appear strong within the young-adult age group (Honnold, 1984-85). However, this study is now almost thirty years old, so a current examination of this issue is needed.

Early research reviews of gender differences in environmental attitudes and behaviors (Hines, Hungerford, & Tomera, 1986-87; Van Liere & Dunlap, 1980) concluded that the literature was inconsistent; that no clear differences could be discerned. However, a clearer—

but not entirely uniform--picture seems to have emerged more recently, in which women tend report stronger environmental attitudes, concern, and behaviors than men (Blocker & Eckberg, 1997; Gutteling & Wiegman, 1993; Luchs & Mooradian, 2012; Scannell & Gifford, 2013; Tikka, Kuitnen & Tynys, 2000; Zhang, 1993). Indeed, this gender difference in environmental attitudes and behaviors was also supported across age and across 14 countries and was consistently stronger for behaviors than for environmental attitudes (Zelezny, Chua & Aldrich, 2000). The exceptions to this trend seem to be in China, where the above pattern was observed in domestic environmental behaviors (e.g., recycling), whereas outside the home (e.g., environmental organization donations) no gender differences were exhibited, and women expressed lower levels of concern than men (Xiao & Hong, 2010).

Based on topic was mentioned above in this study the hypothesis of this study is:

**H1: Cultural Capital impact on Environmental Behaviors**

**2. METHODS**

The responders of the study were 320 citizens of Sanandj from three regions. For the determining of 320 citizens used of the under formula:

$$n = \frac{\frac{(t^2 pq)}{d^2}}{1 + \frac{1}{N} \left( \frac{(t^2 pq)}{d^2} - 1 \right)} \cong 320$$

$N = 179000$   
 $t = 2.58$   
 $p = 0.6$   
 $q = 0.4$   
 $d = 0.05$

Reliability of questionnaire was tested by Cronbach's alpha reliability test. According to Table 1, reliability of questions related to Environmental Behaviors 0/911 and Cultural Capital 0/854.

**Table 1.** Results of Cronbach's alpha for variables in questionnaire.

Variable	Number of items	Alpha amount
Environmental Behaviors	20	0/911
Cultural Capital	13	0/901

**3. RESULTS**

In this section, results of research results were indicated based on two dimensions, descriptive and explanation results:

### 3. 1. Descriptive results

#### Environmental Behaviors and Cultural Capital of citizen of Sanandaj

For determining situation of Environmental Behaviors and Cultural Capital of citizenships of Sanandaj was used of mean responses of sample. The mean responses of sample were showed in Table 2:

**Table 2.** Mean responses of sample statistics based of Likert scale.

Variable	Number	Man	S.D	Minimum	Maximum
Environmental Behaviors	320	64/48	9/73	20	100
Cultural Capital	320	27/27	7/21	13	45

Based of the table 2, resultats indicat Mean of Environmental Behaviors from 20 to 100 is 64/48 that shows Environmental Behaviors is in good situation. Results also show that level of Cultural Capital is in low(17/32).

### 3. 2. Explanation results

#### H1, 2: Cultural Capital Impact on Environmental Behaviors and

For survey impact of Cultural Capital on Environmental Behaviors, because both of variables have measured in Distance level, by use of Pearson Test, the meaningfully of their relationship was computed. Table 3 indicates situation of relationship between Environmental Behaviors and Cultural Capital.

**Table 3.** The results of Pearson Correlation Test.

		Environmental Behaviors	
		Sig. (2-tailed)	Pearson value
Independent Variables	Cultural Capital	0/004	0/284

Based on table 3, results indicate:

1. There is positive and meaningful relationship between Cultural Capital and Environmental Behaviors (Sig = 0.004).
2. Strength of relationship between Cultural Capital and Environmental Behaviors is in high (value = 0/284).

#### 4. CONCLUSION

As mentioned above the main objective of this paper described situation of Environmental Behaviors of Sanandaj citizenships and explain it by Cultural Capital factor. The findings of the study have determined that Environmental Behaviors of citizenships is 64/48 that shows Environmental Behaviors is in good situation. Results also showed that level of Cultural Capital were in high low.

The result also shows that Cultural Capital has been meaningful impact on Environmental Behaviors of citizenships. The above theoretical study associated with Environmental Behaviors and Cultural Capital also confirms these results. It is mentioned that the high level of Cultural Capital due to best Environmental Behaviors.

#### Reference

- [1] Abrahamse, W., Steg, L., Gifford, R., & Vlek, C. (2009). Factors influencing car use and the intention to reduce it: A question of morality? *Transportation Research Part F: Psychology and Behavior*, 12, 317-324.
- [2] Abrahamse, W., Steg, L., Vlek, C., & Rothengatter, T. (2005). A review of intervention studies aimed at household energy conservation. *Journal of Environmental Psychology*, 25, 273-291.
- [3] Adams, J. (1995). *Risk*. London: Routledge, Taylor, & Francis.
- [4] Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- [5] Allport, G. W. (1954). The historical background of modern social psychology. In G. Lindzey, (Ed.), *Handbook of social psychology* (Vol. 1, pp. 3-56). Reading, MA: Addison-Wesley.
- [6] Ando, K., Ohnuma, S., Blöbaum, A., Matthies, E., & Sugiura, J. (2010). Determinants of individual and collective pro-environmental behaviors: Comparing Germany and Japan. *Journal of Environmental Information Science*, 38, 21-32.
- [7] Arcury, T. A., & Christianson, E. H. (1993). Rural-urban differences in environmental knowledge and actions. *Journal of Environmental Education*, 25, 19-25.
- [8] Arcury, T. A., Scollay, S. J., & Johnson, T. P. (1987). Sex differences in environmental concern and knowledge: The case of acid rain. *Sex Roles*, 16, 463-472.
- [9] Arp, W., & Boekelman, K. (1997). Religiosity: A source of Black environmentalism and empowerment? *Journal of Black Studies*, 28, 255-267. NOT IN TEXT Arp, W., & Kenny, C. (1996). Black environmentalism in the local community context. *Environment and Behavior*, 28, 267-282.
- [10] Axelrod, L. J., & Lehman, D. R. (1993). Responding to environmental concerns: What factors guide individual action? *Journal of Environmental Psychology*, 13, 149-159.
- [11] Baldassare, M., & Katz, C. (1992). The personal threat of environmental problems as predictor of environmental practices. *Environment and Behavior*, 24, 602-616.

- [12] Clayton Susan, Myers Gene. *Conservation Psychology: Understanding and Promoting Human Care for Nature*. Wiley-Blackwell, 2009.
- [13] Činčera Jan. *Evaluačce programů environmentální výchovy*. [Habilitační práce] Brno: Masarykova univerzita, 2009 (v řízení).
- [14] Hungerford Harold R.; Volk Trudi L. Changing Learner Behavior Through Environmental Education. *The Journal of Environmental Education*, 1990, vol. 21, is. 3, pp. 8-21.
- [15] Kaiser Florian G., et al. Ecological Behavior, Environmental Attitude, and Feelings of Responsibility for the Environment. *European Psychologist*. 1999, vol. 4, no. 2, pp. 59-74.
- [16] Stern Paul C. Toward a Coherent Theory of Environmentally Significant Behavior. *Journal of Social Issues*. 2000, vol. 56, no. 3, pp. 407-424.
- [17] Baclar Karel. *Úvod do studia psychologie osobnosti*. Praha: SPN, 1983. 232 s.
- [18] Bell Paul A., et al. *Environmental Psychology*. 5th edition. [s.l.]: [s.n.], 2001. 634 s.
- [19] Bechtel Robert B., Churchman Arza (Eds.), *The New Handbook of Environmental Psychology*. New York: John Wiley, 2002.
- [20] Clayton Susan, Opatow Susan (Eds.). *Identity and the natural environment*. Cambridge, MA: MIT Press, 2003.
- [21] Gardner Gerald T., Stern Paul C. *Environmental Problems and Human Behavior*. [s.l.]: Allyn and Bacon, 1996. 369 s.
- [22] Gifford Robert. *Environmental Psychology : Principles and Practice*. 2nd edition. Allyn and Bacon: [s.n.], 1997. 506 s.
- [23] Kollmus Anja, Agyeman Julian. Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*. 8(3) (2002) 239-260.
- [24] Urien, B., & Kilbourne, W. (2011). Generativity and self-enhancement values in eco-friendly behavioral intentions and environmentally responsible consumption behavior. *Psychology and Marketing*, 28, 69-90.
- [25] Uyeki, E. S., & Holland, L. J. (2000). Diffusion of pro environmental attitudes. *American Behavioral Scientist*, 43, 646-662.
- [26] Van Liere, K. D., & Dunlap, R. E. (1980). The social bases of environmental concern: A review of hypotheses, explanations, and empirical evidence. *Public Opinion Quarterly*, 44, 181-197.
- [27] Walton, T., & Austin, D. M. (2011). Pro-environmental behavior in an urban structural context. *Sociological Spectrum*, 31, 260-287.
- [28] White, L. (1967). The historical roots of our ecological crisis. *Science*, 155, 1203-1207.
- [29] Whitmarsh, L. (2009). Behavioural responses to climate change: Asymmetry of intentions and impacts. *Journal of Environmental Psychology*, 29, 13-23.

- [30] Whitney, E. (1993). Lynn White, ecotheology, and history. *Environmental Ethics*, 15, 151-169.
- [31] Wolkomir, M., Futreal, M., Wooddrum, E., & Hoban, T. (1997). Substantive religious belief and environmentalism. *Social Science Quarterly*, 78, 96-108.
- [32] Woodrum, E., & Hoban, T. (1994). Theology and religiosity effects on environmentalism. *Review of Religious Research*, 35, 193-206.
- [33] Wright, S. D., Caserta, M., & Lund, D. A (2003). Older adults' attitudes, concerns, and support for environmental issues in the 'new west'. *International Journal of Aging & Human Development*, 57, 151-179.

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