

A CONCEPTUAL FRAMEWORK FOR STUDYING ENVIRONMENTAL MENTALITY AND BEHAVIOR

Mati Heidmets, Maaris Raudsepp

Tallinn Pedagogical University

Abstract. While studying the environmentalism in a social psychological context, one is faced with a great variety of notions and concepts, which might be analytically divided into two broad classes – environmental mentality and environmental behavior. The first refers to the whole complex of mental representations of environment, as well as representations of human-environment relations (knowledge, beliefs, attitudes, evaluations), the second refers to patterns of actual behavior towards environment. Departing from this conceptual frame, some characteristic features of environmentalism in transitional societies are hypothesized and discussed – westernization at a current stage of development is supposed to be associated with a noticeable discrepancy between mental and behavioral layers of environmentalism, as well as with a situation where the shift towards post-materialist value model is not favoring the pro-environmental attitudes and behaviors.

Introduction

We proceed from a broad definition proposed by Milton (1996:33): “environmentalism is a concern to protect the environment through human effort and responsibility ... wherever and in whatever form it exists”, and we will use this term rather loosely, synonymously with such concepts as “ecological mentality” or “environmental friendliness”. Environmentalism is a certain way of thinking about the environment and a practical way of relating to it.

Modern environmentalism as a particular field of thought and actions is quite a recent invention, its emergence is usually dated to late 1960s and early 1970s, resulting from various intellectual developments and forms of practice. Macnaghten and Urry (1998:73) describe contemporary environmentalism as risen from “... English Romanticism, the traditions of preservationism, critique of post-war modernization, science-based critiques of unlimited growth, the expansion of ecology and nature conservation expertise, the counter-cultural movement, the mediatization of social life...”.

Environmentalism is a complex social phenomenon, covering various forms of thought and practice, including new elements of individual lifestyle (selective consuming, recycling), green-colored group initiatives (from local *save the forest* initiatives to Greenpeace actions), and global political programs, conventions and agendas. The common denominator for such a variety of forms is a concern about the state of natural environment, and a concern about human-nature relations.

Environmentalism became one of the most influential social and political paradigms of the late 20th century, remaining at the same time quite controversial. First of all because it has started to question the very foundations of the mainstream Western political and economical establishment, trying to find the balance between the obviously contradictory forces of a modern world. As Matthew Gandy (1997:154) describes it: “The postmodern era, as distinctive historical period since the early 1970s, is a deeply paradoxical one for environmental discourse. On the one hand, social and economic developments have facilitated the emergence of “post-material” political concerns with lifestyle issues such as environmental quality. On the other hand, the underlying dynamic of global social, economic and political change has been towards neoliberal deregulation, higher levels of worldwide consumption and an acceleration in environmental degradation and resource use at a global level. Contemporary environmental discourse has scarcely begun to reconcile these contradictory developments”.

The emerging need for such a “reconciliation” has inevitably meant that environmental issues gradually overcame the limits of being a field of study predominantly for natural sciences. Contemporary environmentalism is first of all a social and political issue, studied by very different disciplines, from biology to economy, from psychology to law and medicine. In this article we will make an attempt to approach the issue from the social-psychological viewpoint. Our aim is analytical – to clarify the main concepts that are used when speaking about environmentalism in the context of person-nature relations. We will also present some hypotheses about the specific features of environmentalism in transitional societies, which might stand as a framework for empirical studies of the issue in this part of the world.

Components of environmentalism

Departing from the person-environment interaction perspective, empirical manifestations of environmentalism may be analytically divided into three kinds of phenomena. Firstly, a *cognitive representation* about the situation in the natural and human world, secondly – an *evaluation* or *standpoint* in relation to this situation, thirdly – an *activity* or *restraint from activity* in relation to the environment.

The first, *cognitive* (or *non-evaluative*) *component* of environmentalism may be revealed in generalized and specific knowledge (and misconceptions) about the environment and environmental consequences of human activities; ecological

beliefs and belief systems; representations of public environmental debates on environmental issues; categories, meanings and explanations that are organized in the form of lay theories and myths of nature; perception and understanding of ecological threats and available options, etc.

The second, *affective (evaluative) component* is an emotional position-taking in relation to some underlying representation of the environment (general environmental concern, specific environmental attitudes, e.g. towards pollution), ecological values, emotional attachment to nature, accepted norms of environmental friendliness, etc.

The third, *behavioral component* may be operationalized as behavioral intentions, behavioral commitments and observable behavior in relation to the environment (pro-environmental behavior, ecologically responsible activities). Usually such types of activities as habitual behavior at home (e.g. voluntary simplicity in lifestyle, recycling, resource saving), ecologically friendly consumer and investment choices, transportation behavior, or environmental activism and participation in (green) grassroots movements have been defined as behavioral aspects of environmentalism.

Such tri-componential division of thought, feeling and action has long roots in Western intellectual history (McGuire 1999:339). It has been established also as a departing point for analyzing environmentalism in the context of social sciences. From the social-psychological perspective those three components are usually represented by the notions of environmental beliefs, attitudes, mentality and behavior.

Environmental beliefs, attitudes and mentality. The notion of **beliefs** is traditionally used to denote acceptance of some statement, proposition or ideology; or as an expressible idea or point of view. Objects of study are normally not single beliefs but *belief systems* that regulate human activity. Such systems of shared beliefs may be considered as a world view, ideology or social representation (when analyzed on a group level) or as a cultural model (when analyzed on a level of a culture). Environmental beliefs stand as a set of knowledge and convictions about the nature and human-nature relations, held by person or group (and not necessarily being “right, correct or adequate” reflections of the situation).

Attitudes are mostly conceptualized as belonging to an individual (although they may be similar in several people), relatively inconstant and evaluative, reflecting individual position in relation to an attitudinal object. The usual empirical definition of attitudes is “a response locating an object of thought along some dimension of judgement” (McGuire 1986:114). Attitudes form an underlying organizing principle which is not directly observable but which can be inferred from attitudinal surface statements (opinions and beliefs).

Although attitudinal paradigm is dominant in most empirical studies of environmental consciousness, Stern (1992) argues that the nature and structure of environmental attitudes is not yet well understood. For instance, it is not clear whether environmental attitudes are one thing (generalized attitude) or many different specific attitudes.

Both environmental beliefs and environmental attitudes stand as a main components in the mental layer of environmentalism or **environmental mentality** (synonymously labeled also as environmental awareness, environmental consciousness, ecological mentality). Brand (1997) defines environmental mentalities as “typical patterns of socially shared interpretations of realities (---) that are acquired, reproduced and changed in everyday life” (p. 210) Environmental mentality is a regulative principle that “integrates and weights all other determining factors in a particular context” (p. 213) It structures “the way people deal with constraints upon, and opportunities for, environmentally friendly behavior in everyday life” (p. 213).

The content of environmental mentality of a person or a group usually consists of elements of various discourses, ideologies, individual and shared representations. It may include elements of archaic representations (e.g. beliefs in supernatural powers in nature), fragments from different modern belief systems (e.g. environmental ethics), fragments from school knowledge and expert accounts, knowledge about environmental consequences of one's behavior (what should I do in order to be environmentally friendly), elements of social knowledge (group norms concerning the environment), traces of personal experience, etc. Such a heterogeneity can be found both on individual and group level – a person may be more or less environmentally friendly, and he/she may be environmentally friendly in many different ways.

Ecological behavior. Ecological behavior means “actions which contribute towards environmental protection and/or conservation” (Kaiser et al 1999). It is measured by recording the observed or self-reported behavior in different domains, or as readiness to act in a certain way. In questionnaire studies a list of presumably environmentally friendly behaviors is usually presented. Specific behaviors include recycling, composting, energy conservation, political activism, selective consumerism, commitment to environmental organizations, ecological farming, water conservation, etc. (Kaiser et al 1999, Diekmann & Preisendorfer 1998). With the help of logical and factor analysis different types of ecological behavior are then differentiated. Survey results show that a growing proportion of people in the developed countries are engaged in different kinds of environmentally friendly activities. For example, Macnaghten & Urry (1998) cite a 1994 all-European survey where on the average over 80% people report saving electricity, 67% sorting their domestic waste, 67% buying environmentally friendly products, 41% using environmentally friendly means of transportation.

Such lists of ecologically responsible activities help us to make comparisons between people living in different places and at different time, but they tell us little about the meaning of these kinds of activities to those who practice them (and to those who do not). Different groups (cultures) would interpret different activities as environmentally friendly and they would use different justifications for classifying a behavior as environmentally friendly (e.g. reasons related to nature or society, values, norms or group identity).

It is therefore difficult to construct a universal typology of environmentally friendly behaviors. In an overview McKenzie-Mohr et al (1995) stress that

different forms of responsible environmental behaviors are not predictable from a common set of variables, but have a separate set of predictors.

Brand (1997) also notes that it is difficult to compare behavioral data in different contexts. A heterogeneous picture is typical of all Western countries: environmental behavior is emphasized differently in various dimensions of everyday life.

Interrelations between elements of environmentalism. Mental phenomena and overt behavior are easily distinguishable but relations between them remain a controversial issue (e.g. McGuire 1999). Some models assume a causal chain starting from most general beliefs, proceeding to more specific attitudes and beliefs, behavior intentions and actual behavior. Other models consider the system of attitudes and the behavioral system as relatively independent and not necessarily consistent with each other.

By interpreting the relations between environmental mentality and ecological behaviors it is necessary to take into account the actual sociocultural context. Particular pro-environmental behavior may be a norm (or habitual practice) in one place or for particular groups (e.g. paper reuse in Scandinavia or public transport in developing countries), or a marginal (exploratory) activity in other places. In the first case it is related to dominant, system-justifying beliefs and discourses, in the second case – to marginal discourses, and probably to system-challenging values and beliefs. A particular type of behavior may be symbolic self-restriction of the wealthy, or life necessity for the poor. It may be a habitual way of relating to the world, a deliberate self-controlling activity or moral choice. There is also variation in terms of which behaviors are considered as environmentally friendly, or which kind of justifications are presented for these behaviors (related to the environment or to society, related to norms, values or group identity). In spite of strong correspondence between mentality and behaviors that are expected at the common-sense level, the studies usually report vice versa results; the research results often describe the discrepancies between environmental attitudes and actual behavior patterns (Diekmann & Preisendorfer, 1998).

Integrative approaches. The above described division of environmentalism into elements or components has been developed first of all for the analytical and research purposes. In everyday practice all those units operate as a more or less interrelated system, even when the elements of this system happen to contradict each other. There are several attempts to conceptualize such holistic systems as social representations, widespread beliefs, generalized models, meaning complexes, etc.

For example, according to the social representations theory the representations stand as a system of values, ideas, and practices that are shared by a certain group (Moscovici 1984). In addition to “mental” elements (beliefs, images or emotions), a social representation also contains group-specific practices in relation to the object of representation. A social representation is not a simple aggregate of individual opinions or attitudes, but a systemic result of group processes (concerted interaction). A social representation is “a collective phenomenon

pertaining to a community which is co-constructed by individuals in their daily talk and action” (Wagner et al 1999:96).

According to the representational paradigm people do not relate to environment as isolated individuals but as members of different groups and cultures. Interpretation of environment and proper attitude/behavior towards it is a social and historical construction, variable in different cultures and in different historical periods. There are no constant and unchangeable representations of environment. “What we call individual experiences of the environment (psychologists speak of environmental perception, cognition, assessment, and so on) is largely contingent upon the societal construction of environment. But so is environmental (i.e. ecologically sound) behavior; only in solidarity with other citizens does the individual have a chance to help the environment by gradually changing its social construction” (Graumann & Kruse 1990:223). This paradigm suggests that the person's relation to natural environment is inevitably mediated by his belonging to particular groups and culture. Environmental mentality and behaviors are first of all shaped by collective representations, while individual experience and decisions are of minor importance. Therefore, the acting “units” of environmentalism are first of all the collective representations of the situation in the nature and of the ways we relate to it.

Factors shaping environmental mentality and behavior

Contemporary environmentalism is a socially (re)produced phenomenon. According to Dietz et al (1998:452): “environmentalism is a joint production of social structural, socialization and social psychological processes”. A variety of social “forces” can be analyzed as determinants or factors of its emergence and development. First, formal and informal social norms, established in a group or society are acting as forces influencing the environmental mentality and behaviors. Also a dominating value system stands as an important predictor of a person's representations of environment (e.g. Inglehart (1995) about the materialist and postmaterialist values).

Although the social constructionist approach is today strongly dominating in analyzing the determinants of environmentalism, forces, acting mainly at the individual level should also be considered; especially while speaking about the particular elements of environmentalism. One has to consider the person's individual experience with nature, and the forms of his/her place attachment and place identity should play a role in the formation of his/her environmental mentality and behavior. Personality traits and utilitarian cost-benefit calculations should be taken into account as well. Some combinations of psychological and social factors may also become important, e.g. self-esteem mechanisms, rising from the needs to cope with diversity, uncertainty and risks in the modern world.

Therefore, the actual representations of the environment are shaped by various forces, acting on the sociocultural level, as well as on the level of group and

individual performance. Which in turn means that it is quite hard to influence/change only one component of such an integrated system (e.g. conception of nature or habitual forms of behavior in relation to nature) without shaping other components (e.g. conception of man, feelings of trust or mistrust concerning one's fellow beings).

We have to conclude that the conceptual framework of contemporary environmentalism is diverse and sometimes contradictory. In environmental literature concepts of environmental attitudes, beliefs, mentality, representations, etc are very often used indiscriminately and interchangeably. Environmental mentality or consciousness may be operationalized in extremely diverse ways: "... either as knowledge, attitudes, values, mentalities, hierarchical stages, mental representations of nature, public environmental debate, readiness to spend money on nature protection, etc." (Brand 1997:206)

Several authors (e.g. Brand 1997, Stern 1992) have mentioned the lack of specific theory of environmentalism and scarcity of standardized measurement instruments. Stern (1992:279) states that "the anarchy of measurement reflects theoretical ambiguity about the nature of environmental concern". It is obvious that the theoretical confusion also prevents the consistent use of the terms that are used for empirical measurement of environmentalism.

While creating conceptual framework for empirical studies, one inevitably has to reduce such a diversity. We prefer to use a scheme where environmental mentality and environmental behaviors are considered as main elements of environmentalism. The first refers to the whole complex of various mental representations of environment as well as representations of human-environment relations (knowledge, beliefs, attitudes, evaluations), the latter refers to patterns of actual behavior towards environment. If mentality covers the "verbally expressible" part of environmentalism, then the behavior refers to any kind of environmental practice. It seems that, at least for empirical purposes, such a rough division into mental and behavioral components of environmentalism may stand as most general and comparatively clear way of structuring the phenomenon.

We will also follow the theoretical approaches claiming the relative independence of these two sides of environmentalism. We assume mentality to be more flexible than behavioral patterns, being determined by the dominating values and established norms in a particular group, behavioral patterns being at the same time more "conservative", more dependent on the situational context as well as traditions, available resources, cost-benefit and self-esteem calculations. This position seems to be supported also by the history of environmentalism. Although modern environmentalism – thinking about environment, calculating pro- and anti-environmental outcomes of everyday action – has emerged and gained acceptance among wide public only during the recent decades, one cannot conclude that people without modern type of "environmental awareness" never behaved in an environmentally friendly way. Following various environment-friendly behavioral patterns has been characteristic of the majority of traditional cultures, although those forms of action have not been accompanied by modern environmentalist

mentality, as we define it now. They have rather been supported by other kind of mental constructions – mythological or traditional explanations and reasoning, cost-benefit calculations, etc. Therefore – pro-environmental mentality does not automatically mean following environment-friendly behavioral habits, and vice versa. Those two elements of environmentalism are related, but not in a deterministic way.

Accepting the mentality-behavior division, we also agree with approaches, emphasizing *socially mediated* relations between humans and nature. As a modern urban person is gradually losing his/her direct experience with (wild) nature and feeling of personal dependence on it, his/her image of environment is inevitably becoming more socially constructed and mediated. Common beliefs (only partly depending on the level of actual scientific knowledge), shared (and socially reproduced) attitudes, established behavioral patterns (only indirectly related to beliefs and attitudes) form such a mediating device. At the same time it does not mean that the researcher can fully ignore the individual variables while investigating environmentalism. While describing the mechanisms of contemporary environmentalism, such factors as place identity or personal cost-benefit calculations should also be added to the picture.

Environmentalism in a transitional society

Considering environmentalism a socially constructed and socially mediated phenomenon, one may expect substantial differences, while comparing the environmental mentality and behaviors in different sociocultural contexts. In the last section of our article we will present some considerations/hypotheses about the possible features of environmentalism in a transitional society, using Estonia as an example. We also compare the proposed transitional models of environmentalism with the situation described in the studies of this phenomenon in economically more developed western countries.

Transitional context. The last decade in Estonia has been shaped by a deep paradigm change – moving from the communist system to the western-type market based democracy. Such a transformation, sometimes called westernization, includes a number of dimensions of change. Lauristin has counted 21 “indicators of westernization” starting from the adjustment of legislation to the western (European Union) standards up to people focusing on making money, gambling and symbolic consumption (1997:30). It is inevitable that those changes are proceeding at different speed and intensity. One can easily observe that more individualistic value orientations and western type of consumer attitudes “have arrived” in East Europe comparatively quickly, the economic welfare and more reflexive environmental knowledge/awareness are still on their way. Rapid increase of inequality (winners and losers of the transformation) as well as the confusion resulting from the redistribution of the property in combination with the partial westernization constitute a set of rather contradictory sociocultural forces

that today shape the mentality and behavioral patterns in this part of world. And as usual in a context of post-totalitarian liberalization, the normative regulation is not determined and weak, both on the levels of formal and informal norms. Although Estonia was one of the first nations adopting its own Law of Sustainable Development in 1995, it has not had noticeable influence on the real state of affairs. As Valdur Lahtvee describes the situation: "Contemporary political atmosphere and economical hardships have removed the environmental issues from the list of the urgent concerns in a society, at the same time voices claiming the priority of the economic growth and social security at expense of environment, are becoming louder" (Lahtvee 1999:70). At the individual level of performance the knowledge about the environment-friendly actions and practices is often limited to the industrial and transport pollution issues (Kaasik et al. 1996); the main regulators of person-environment interaction are traditions, habits, established behavioral patterns. Departing from such an ambivalent sociocultural context and quite fragmented research data about environmental mentality and behavior in this country, we hypothesize the following features of environmentalism in a transitional society.

Hypothesis 1. The majority of Estonian population considers the environment and environmental problems highly important, environmental issues are placed among the top values in people's lives. In the evaluation of environment we are not expecting substantial differences while comparing the situation in Estonia with that in the western countries. At the same time high evaluations and positive attitudes are not substantially regulating and channeling people's everyday practices. From the viewpoint of environmental behavior the situation is expected to differ from the "ordinary western" models. Thus, the east-west (or developed-transitional) differences in the field of environmentalism exist first of all on the level of environmental behavior, not so much in the sphere of mentality, especially while using abstract values and general attitudes as tools to measure/evaluate environmental mentality.

This hypothesis is based on several observations and research data. According to a number of studies, the issues of clean and protected environment, at least during a few last decades, are listed among the top priorities for Estonian people, their importance is comparable with such central issues of life as health, freedom, true friendship, love and family (Lauristin, Vihalemm 1997:252, Kelam 1999:33). This seems to be quite similar with the situation as described by studies dealing with environmental attitudes and values in the western countries (Nas 1995, Nas & Dekker 1996, Macnaghten, Urry 1998:79). Gardner and Stern, analyzing public attitudes towards the environment in US are surprised how permanently positive they have been: "... it is striking and unusual, that pro-environmental public sentiments in the United States have remained quite strong over the last twenty-five years and are now stronger than ever before ... environmental concern is widespread and cuts across traditional sociodemographic lines." (1996:61). The situation in Estonia seems to be quite similar. Naturally, we have to keep in mind that those results have usually been gained by studying people's attitudes on a

quite general and abstract level, finding out their ideas and evaluations about environment as such and the actions of some (not personalized) “people”. This may also explain some surprising outcomes, for instance the fact that more than 60% of Estonian respondents agree with the statement “I would accept some people losing their jobs if this helped the environment” (Lang 1999:48). One may suppose that if the question was not about abstract “people”, but about the respondent losing his/her *own* job, the results would be considerably different. However, such results again confirm that the idea of “environment” occupies an important position in people’s minds.

At the same time there is reason to think that at least in Estonia, the valuing of environment does not mean that the principles of pro-environmental behavior have become a part of people’s everyday practices. The study of Kährik and Alakivi in Tartu recorded that even such simple pro-environmental actions as paper recycling and collection of old batteries is followed by less than 10% of the studied sample (1999:18). This seems to be quite different from the situation in Western countries we described earlier, which is usually characterized by comparatively widespread pro-environmental practices. Having no illusions about the overwhelming “environmental correctness” in western countries, we still suppose that the discrepancy between mental and behavioral layers of environmentalism is more obvious in the transitional societies. One of the reasons seems to be the fact that the actual behavior is usually more dependent on the economical situation and practical possibilities/obstacles than the verbally expressed values and attitudes.

Hypothesis 2. We suppose that a shift towards post-materialist values and mentality, emerging in transitional societies, is not resulting in a higher interest and concern about environment, as expected by some theoretical models. We expect environmental concern and activities to be more widespread among groups with stronger pro-social orientations compared to groups with a more explicit post-materialist value model.

Several studies, departing mainly from the Ronald Inglehart (1990) materialist-post-materialist value model, have documented substantial value shift that the Estonian society has experienced during the nineties. Analyzing the changes in value preferences during 1985–1995, Kelam (1999:31) outlined two periods in value dynamics in Estonia. During the first period, 1985–1993, the importance of scarcity (materialistic) values grew and the security (post-materialist) values dropped. This constituted a quite opposite tendency compared to the development in the western countries experienced during the same period. Between 1993–1998, a continual rise of scarcity values was observed, accompanied at the same time by the increase of support to such post-materialist values as varied life, physical fitness or creative activities. Kelam concluded that: “... judging by the value surveys, we can say that the stabilization of the material situation in the second half of 1990s has brought about changes that were noted in Western Europe a few decades earlier, namely a movement towards post-materialist values” (32). Quite similar conclusions are presented by Lauristin and Vihalemm (1997), whose data from the comparative analysis of the value changes in Estonia and Sweden during

1991–95 “... clearly show, that during the five years of transition, the change in the value system in Estonian has been in the direction of post-materialist values... . The younger generations in particular are rapidly integrating into the international youth culture, assuming the individualistic-hedonistic value orientations which prevail there.” (255–256)

An interesting point here is that contrary to what Inglehart’s theory is supposing, i.e. that the post-materialist value shift is accompanied by the increase of pro-environmental attitudes, the Estonian data do not apparently support this idea. If Kelam’s study is reporting a slight increase of the importance of the environmental values during 1985–98 (1999:31), then Lauristin and Vihalemm’s data indicate an opposite development. In fact, during the economic stabilization period 1994–1995, the importance of environment as a value actually decreased. (1997:257)

In line with Gardner and Stern, who state that “... the impacts of post-materialist values on public concern about the environment remain uncertain” (1996:65), our hypothesis does not expect people’s environmental concern and activity to be so much correlated with the whole complex of the post-materialist value shift, but more related to a particular value group, which may be described as prosocial values. It also includes the ways people identify themselves with larger social entities as well as intensity of such a large group identification. We expect that prosocial orientation, or as Gardner and Stern put it, “... proper coordination of individual behavior for the common good” (1996:27) serve as one of the key factors creating motivation for pro-environmental behaviors. As the value studies indicate, the post-materialist value shift in Estonia has a strong individualistic orientation, a specific kind of individualism based first of all on valuing power, wealth and self-realization. Concluding their study, Lauristin and Vihalemm emphasize, that “... the individualism of Estonians means primarily self-enhancement whereas individualism for Swedes is more related to hedonism and openness to change” (1997:253). In a situation where materialist values still form a priority for a large part of society, while some groups are rapidly moving towards the post-materialist value model with strong individualistic orientation, we do not expect that such a value scheme is really favoring the pro-environmental mentality and actions in society (contrary to the theoretical proposition that the post-materialist orientation is more environment friendly than the materialist mode of thought and action).

Those hypotheses will be empirically studied by Environmental Psychology Research Unit at the Tallinn Pedagogical University in the context of our ongoing research program concerning sustainable mentality and lifestyle. Our initial positions are not too optimistic about the chances of (pro)environmentalism in such a particular context. We propose that the discrepancies between the mental and behavioral layers of environmentalism and the current value shifts in society are not encouraging public interest in environmental issues. If those tendencies are confirmed, this will indicate a need for far stronger efforts in order to move from the verbal environmentalism into the phase of real actions as well as real efforts to

overcome the period of the wild pragmatism and indifference towards nature, so usual in the era of “catching up with” the west. A research of this kind will hopefully promote discussion about the possibilities of reconciliation between such contradictory forces as economic efficiency, social justice, environmental friendliness and personal self-realization in the modern world, particularly in transitional societies. Can similar reconciliation be considered as a realistic goal, or is it simply an illusion, like striving towards a model, which Giddens describes as combining “harmonious human co-existence on the global level and psychologically rewarding self-actualization on the personal plane” (1991:223)?

Address:

Mati Heidmets
Tallinn Pedagogical University
Environmental Psychology Research Unit
Narva Rd 25
Tallinn 10120

Phone: +372 6 623740

E-mail: hei@tpu.ee

References

- Brand, Karl-Werner (1997) “Environmental consciousness and behavior: The greening of lifestyles”. In *The handbook of environmental sociology*. M. Redclift, & G. Woodgate, eds. 204–217, London: Edward Elgar.
- Diekmann, Andreas & Preisendörfer, Peter (1998) “Environmental behavior: Discrepancies between aspirations and reality”. *Rationality and Society*, 10, 1, 79–103.
- Dietz, Thomas, Stern, Paul C. & Guagnano, Gregory A. (1998) “Social structural and social psychological bases of environmental concern”. *Environment and Behavior*, 30, 4, 450–472.
- Gandy, Matthew (1997) “Postmodernism and environmentalism: complementary or contradictory discourses?”. In *The handbook of environmental sociology*. M. Redclift, & G. Woodgate, eds. 150–157, London: Edward Elgar.
- Gardner, Gerald & Stern, Paul C. (1996) *P. Environmental problems and human behavior*. Boston: Allyn and Bacon
- Giddens, Anthony (1991) *Modernity and self-identity*. London: Polity Press.
- Graumann, Carl F. & Kruse, Lenelis (1990) “The environment: social construction and psychological problems”. In *Societal psychology*, H. T. Himmelweit, & G. Gaskell, eds. 212–229, Newbury Park: Sage.
- Inglehart, Ronald (1990) *Culture shift in advanced industrial society*. Princeton, NJ: Princeton University Press
- Inglehart, Ronald (1995) “Changing values, economical development and political change”. *International Social Science Journal*, 145, 379–404
- Kaasik, Tõnis, Peterson, Kaja & Kaldaru, Hella (1996) *Inimene ja keskkond: Muutused Eesti keskkonnateadvuses 1983-1994*. Tallinn: Stockholmi Keskkonnainstituudi Tallinna filiaal.
- Kaiser, Florian, Ranney, Michael, Hartig, Terry & Bowler, Peter A. (1999) “Ecological behavior, environmental attitudes, and feelings of responsibility for the environment”. *European Psychologist*, 4, 2, 59–74.
- Kelam, Aili (1999) “Changing values and attitudes 1985–1998”. In *Estonian Human Development Report 1999*, 30–35, Tallinn: UNDP.

- Kährik, Anneli, Alakivi, Irja (1997) *Hinnang Tartu elukeskkonna seisundile*. Käsikiri. Tartu: Tartu Linnavalitsus.
- Lahtvee, Valdur (1999) "Säästev areng on areng keskkonnaruumi piires". In *Eesti 21 sajandil. Arengustrateegiad, Visioonid, Valikud*. A. Oja, A. Raukas, ed. 69–73, Tallinn: TA Kirjastus.
- Lang, Stefanie (1999) *Nature concepts, environmental consciousness and behavior in Estonia*. Tallinn: The Regional Environmental Centre.
- Lauristin, Marju (1997) "Contexts of transition". In *Return to the Western World. Cultural and Political Perspectives on the Estonian Post-Communist transition*. Lauristin, M., Vihaemm, P., ed. 25–40, Tartu: Tartu University Press.
- Lauristin, Marju & Vihaemm, Triin (1997) "Changing Value Systems: Civilizational shifts and Local Differences". In *Return to the Western World. Cultural and Political Perspectives on the Estonian Post-Communist transition*. Lauristin, M., Vihaemm, P., eds. 244–263, Tartu: Tartu University Press.
- Macnaghten, Phil & Urry, John (1998) *Contested natures*. London: Sage.
- McGuire, William (1999) *Constructing Social Psychology: Creative and Critical Processes*. Cambridge: Cambridge University Press.
- McKenzie-Mohr, Doug, Nemiroff, Lisa S., Beers, Laurie & Desmarais, Serge (1995) "Determinants of responsible environmental behaviors". *Journal of Social Issues*, 51, 4, 139–156.
- Milton, Kay (1996) *Environmentalism and cultural theory*. London: Routledge.
- Moscovici, Serge (1984). "The phenomenon of social representations". In *Social representations*. R. Farr & S. Moscovici, eds. 3–70, Cambridge: Cambridge University Press.
- Nas, Masja (1995). "Green, greener, greenest". In *The impact of values*. J. W. Van Deth & E. Scarbrough, eds. 275–300, Oxford: Oxford University Press.
- Nas, Masja & Dekker, Paul (1996) "Environmental involvement in four West European countries: A comparative analysis of attitudes and actions". *Innovation: The European Journal of Social Sciences*, 9, 4, 509–536.
- Pligt, Joop van der (1995) "Social psychology and environmental issues". In *Applied social psychology*. G. R. Semin & K. Fiedler, eds. London: Sage.
- Stern, Paul C. (1992) "Psychological dimensions of global environmental change". *Annual Review of Psychology*, 43, 269–302.
- Wagner, Wolfgang, Duveen, Gerald, Farr, Rob, Jovchelovich, Sandra, Lorenzo-Cioldi, Fabio, Markova, Ivana, & Rose, Diane (1999) "Theory and method of social representations". *Asian Journal of Social Psychology*, 2, 95–125.