

Article

Feeling Good in the Place We Live: The Moderating Role of the Perception of Environmental Resources in the Relationship between Values and Personal and Family Well-Being

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Abstract: The environmental psychological literature suggested that three different value orientations (egoistic, altruistic, and biospheric) are relevant for understanding environmental beliefs and intentions. We surveyed 365 Italian adults of different ages (range 18–87) to examine whether the egoistic, altruistic, and biospheric value orientations can lead to personal and/or family related well-being. Additionally, it is examined whether the perception of presence and accessibility of two types of environmental resources (natural and urbanistic) related to ecosystem services can moderate the relation between value orientations and personal and family well-being. Results of moderation analyses showed that people with high biospheric values felt themselves as more satisfied if they perceived high and medium (but not low) presence or accessibility of natural resources in their environment, while people with high egoistic values perceived their family more satisfied if they perceived the high and medium (but not low) presence of good infrastructures in their environment of living. No significant moderation model emerged considering the participants' altruistic values. The implications for environmental beliefs and well-being are discussed.

Keywords: value orientations; ecosystem service resources; natural and infrastructural resource; personal well-being; family well-being



Citation: Maricchiolo, F.; Mosca, O.; Paolini, D.; Marino, D. Feeling Good in the Place We Live: The Moderating Role of the Perception of Environmental Resources in the Relationship between Values and Personal and Family Well-Being. *Sustainability* **2021**, *13*, 4407. <https://doi.org/10.3390/su13084407>

Academic Editors: Marc A. Rosen and Bernardo Hernandez

Received: 10 February 2021

Accepted: 13 April 2021

Published: 15 April 2021

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1. Introduction

In the issue related to environmental beliefs and the environment–people relationship, we believe that people's perceptions about the presence and accessibility of ecosystem resources of their residential place have an important role on the personal and family well-being, in particular on the values–wellbeing relationship. The environmental psychology literature, in the last 30 years, has widely studied the relationship between value orientations and specific beliefs and intentions [1–6]. Since the late 1990s, studies of attitudes toward environmental issues have begun to focus on a more differentiated conceptualization of environmental attitude formations, moving beyond a simplistic examination of general environmental concern [4,6]; for example, Stern and Dietz [5] proposed a value-basis theory for environmental concern, with the claim that environmental attitudes stem from a person's more general set of values [5]. Specifically, egoistic, altruistic, and biospheric are the three value orientations to explain the environmental beliefs and intentions related to environmentally significant behavior (ESB). De Groot and Steg [7] have provided consistent distinction of these three value orientations, suggesting a distinct basis for pro-environmental intentions. According to these authors [7], people with an egoistic value orientation will analyze the effect that environmental destruction may have on themselves and will adopt an environmental significant behavior only when the perceived benefits of

the behavior exceed the perceived costs; people with a social–altruistic value orientation will focus on protecting the environment to prevent the long-term consequences of environmental destruction may have on other people and will base their decision to behave pro-environmentally or not based on the evaluation of perceived costs and benefits for other people. Finally, people with a biospheric value orientation focus on the inherent value of the natural environment and will do the same analysis of costs/benefits, considering as target the ecosystem and biosphere as a whole. The majority of research has been conducted on understanding and encouraging pro-environmental behavior, that is, behavior that harms the environment as little as possible or even benefits it, both in private households and in the workplace [8]. In this article, we argue that the three relevant value orientations as postulated by De Groot and Steg [7], that is, egoistic, altruistic, and biospheric, would be differently related to personal and/or family well-being. We assessed this relationship (values–well-being) in a novel and original way, by considering the importance of the role of presence and accessibility of environmental resources in moderating this relationship. We thus propose a study to understand whether the environmental resources (i.e., natural and urbanist) are relevant in the relationship between value orientations and personal and family well-being.

1.1. Values and Subjective Well-Being

Research on the antecedents and correlates of subjective well-being have been especially active in the last four decades (see [9] for a recent review, and also [10]). Of the various constructs used to study this concept, subjective well-being (SWB) is the most widely used concept and validated measure and includes a cognitive component (i.e., life satisfaction) and an emotional component (positive and negative affect) [10]. As SWB is related positively to numerous desirable health, work, and family outcomes, it is important to understand the individual-level variables that prevent or promote SWB and features of the life context that moderate the way these predictors affect SWB. Several studies related subjective well-being (SWB) to personality attributes (e.g., extroversion, neuroticism, openness to experience) [11,12]. Additionally, basic values, a different type of individual difference variable, were related to well-being [13]. Values are desirable goals, varying in perceived importance, that function as guiding principles in people's lives. They are socially approved verbal representations of basic motivations [14]. It is important to consider basic values because a person's subjective sense of well-being might depend upon his or her profile and hierarchy of basic values. People for whom certain values are particularly important may tend to have a more positive and strong sense of well-being than people guided by different values. Well-being may be associated positively with emphasizing particular values (e.g., self-direction, benevolence, universalism, stimulation, and achievement) or associated negatively with others (e.g., conformity, security, power, and tradition) [15], and fully realizing personal values may increase personal well-being. Schwartz and Sortheix [15] described three theoretical perspectives on relations of values to SWB: the first perspective is aimed to investigate direct relations between values and to explain variation by pointing to societal-level moderators; the second analyzes the coherence between individual values and their environment's prevailing values as a determinant of SWB; the third one conceptualizes the pursuit of valued goals as the source of SWB. Among the first line of research, a cross-cultural study conducted on six samples from three different cultural groups [14] showed that there was no evidence for any relations between value priorities and the cognitive aspect of subjective well-being, i.e., satisfaction with life. According to the authors, basic values influence, weakly, the affective component of well-being, i.e., positive (in a direct way) and negative (in an inverse way) emotionality. Sortheix and Schwartz [16] reported eight different studies of direct value–SWB associations in nonrepresentative student or adult samples from seven countries. The authors showed a consistent, although not perfect, tendency across studies for power values to relate positively and for benevolence, stimulation, and self-direction values to relate negatively to SWB. There was also a tendency for universalism values to relate

positively and conformity values to relate negatively to SWB. Schwartz and Sortheix [15] and Sortheix and Schwartz [16] proposed an original theoretical model of direct value–SWB relationships. They assumed that relations of values to SWB are based on the interplay between two motivational underpinnings of values and well-being. In other words, according to the authors, what determines a value’s association with SWB is its combination of growth-versus-protection orientation and person-versus-social focus. Every value has an individual or a social focus, but it also comprehends a self-expansive growth orientation or a self-protective, anxiety-based orientation [17,18]. Achievement values can be both self-expansive (expressing competence) and self-protective (meeting social standards).

1.2. Values and SWB: Which Moderators?

Literature showed that value–SWB associations vary across contexts and different characteristics of societies moderated these associations. Gibson [19] proposed that people recognize opportunities for action in the environment by perceiving the affordances of either objects within the environment or the environment itself. Different environmental contexts provide different opportunities and impose different affordances or constraints on the successful pursuit of valued goals [19]. Three recent studies introduced contextual variables as moderators that might explain the variation across samples in the direct relations of values with SWB. Sortheix and Lönnqvist [20] assumed that values’ association to SWB depend on how well values function to help individuals cope with their environment and proposed that the level of human development in a country (HDI: affluence, health, and education) moderates direct value—life satisfaction (LS) relations. This study demonstrated that the socioeconomic context moderated 8 of the 10 associations between values and SWB. In low HDI countries, the social-focused values related negatively to SWB, while in high HDI countries the social-focused values related positively to SWB. However, several findings did not fit the theorizing based on the social versus person focus, especially in high HDI contexts. Sortheix and Schwartz [16] proposed that the cultural values that prevail in a society moderate the associations and they considered cultural egalitarianism as the critical moderator. The authors showed that person-focused values help to cope in low egalitarian societies because in such societies there are few resources; therefore, to succeed, individuals must count on their capacities and resources and take self-assertive initiatives. In contrast, pursuing social-focused values is less likely to motivate behavior that can compensate for the instability, uncertainty, and selfishness that characterize low egalitarian societies. The needs of others, the concern of self-transcendence values, are liable to be more intense and disturbing in low egalitarian societies. Moreover, these values motivate harmony rather than the assertiveness and competitiveness that can overcome a lack of resources. Lastly, Boer [21] proposed that cultural factors and environmental threats (e.g., disease, wars) may moderate associations of values with affective well-being. The author argued that economic, climatic, or safety threats strengthen the associations between affective well-being and the values that protect against threats (e.g., conservation values). Schwartz and Sortheix [15,16] called out for more research on other potential societal moderators: for example, researchers might consider rural/urban differences or democracy level, on the one hand, and cultural values such as embeddedness, hierarchy, and harmony, on the other. Adopting certain values might enhance or prevent optimal coping with the environmental demands, constraints, opportunities, and sanctions associated with a variation on potential moderators.

1.3. The Present Study

Previous research suggested that the value orientations play a significant role in explaining specific beliefs and behavior since they are considering as predictors for different variables such as attitudes and behavioral intentions [5,22]. What is not already studied, however, is an understanding of the prediction role of the values orientations on both personal and family well-being. Indeed, to our knowledge, there is no published study that investigates this relation: already existing studies considered only the self as the reference

target evaluated, i.e., satisfaction with life for the self. Therefore, the first aim of the present research was to verify the relationship between each single value orientations (i.e., egoistic, altruistic, and biospheric) and two different targets of well-being (i.e., personal and family). Furthermore, the study was also focused to understand on how the perception of certain boundary conditions exacerbated the relationship between value orientations and personal and family well-being. In an explorative vein, we tested the moderation role of the perception of presence and the accessibility of two types of resources (i.e., natural and urbanistic), on the relationship between values orientations and both levels of well-being (i.e., personal and family). Thus, we explored whether the perception of certain resources related to ecosystem services can be valid conditions to increase people's personal and/or family well-being based on specific individual values.

2. Materials and Methods

2.1. Participants

We recruited 365 Italian participants (217 females, 148 males) aged from 18 to 87 years old (mean age = 34; SD = 13.43) by spreading an online survey. Participants took part in the survey voluntarily.

2.2. Procedure

The questionnaire was implemented by using the Google Forms platform. The survey was open from March to November 2019. Participants were recruited by instructing different University students in collecting online data. Participants were recruited from different Italian regions (mainly Lazio and Sicily) from both urbanized centers and small villages.

The questionnaire took approximately 15 minutes to fill in. According to the Ethical Standards Declaration of Helsinki [23], participants were informed about all relevant aspects of the study (e.g., methods, institutional affiliations of the researchers) before they started to fill out the questionnaire. Importantly, they were apprised of their right to anonymity, refuse to participate in the study, or withdraw their consent to participate at any time during the study without fear of reprisal. Participants then confirmed that they had understood the instructions correctly, agreed to participate, and began filling out the questionnaire. The research protocol was approved by the local Ethics Committee of the Sapienza University of Roma.

2.3. Materials

Values: We administered a brief inventory of values [24]. The inventory consisted of five subscales, each composed of three items. We selected three subdimension according to De Groot and Steg [7]: the first one evaluated the participants' level of biospheric values ("Protect the environment, preserve the nature"; "Unity with nature, fitting into nature"; "Respecting the earth, harmony with other species"; $\alpha = 0.76$). The second one assessed the participants' levels of egoistic values ("Wealth, material goods, money"; "Authority, the right to lead or to command"; "Influential, having an impact on people and events"; $\alpha = 0.63$). The last one was composed of three items and measured the participants' level of altruistic values ("Equality, equal justice for everybody"; "A world at peace, free of war and conflict"; "Social justice, correcting injustice, care for the weak"; $\alpha = 0.74$). All subscales were ranged from 1 (=It does not describe me at all) to 9 (=It describes me completely). We averaged responses for each scale—after reverse coding negative items—to create three different value indexes (i.e., biospheric, egoistic, and altruistic). Higher ratings indicated the highest level of participants' evaluation of social values.

Environmental Resources: We measured the perception of presence and accessibility of 11 different environmental resources related to ecosystem services (e.g., good quality of food, air, water, climate, streets) in participants' personal and environmental context. Participants were asked to evaluate each resource under two different dimensions—the presence and the accessibility of the resources: "In this section, you will be asked to evaluate some important goods or services in the area where you live. Evaluate each of the following good or

service by marking how much it is present in the area where you live and how much possibility you have to access to it in the area where you live." Items were organized in two different factors:

1. Nature resources dimension, assessed by six items: "Purity of the air you breathe"; "Integrity of the rural, forest and agricultural landscape"; "Clean and constant drinking water"; "Safe and quality food"; "Territory free from landslides and erosion"; "Existence of many animal and plant species (bear, wolf, beech, etc.)". Hence, participants were invited to evaluate the presence ($\alpha = 0.94$) and the accessibility ($\alpha = 0.94$) of every resource related to nature;
2. Infrastructure resources dimensions, assessed by five items: "Primary services (schools and hospitals)"; "Quality and beauty of city buildings"; "Urban infrastructure (roads, railways, etc.)"; "Protection from extreme weather events or damage"; "Rural infrastructures for the access to the territory." Therefore, participants were asked to evaluate both the presence ($\alpha = 0.93$) and the accessibility ($\alpha = 0.93$) of every infrastructure resource.

All measures were ranged from 1 (=low presence/accessibility) to 9 (=high presence/accessibility). We averaged responses for each scale—after reverse coding negative items—to create a total of four different resources indexes: perception of the presence of nature (i.e., Nature–Pres); perception of the accessibility of nature (i.e., Nature–Acc); perception of the presence of infrastructures (i.e., Infrast–Pres); and perception of the accessibility of infrastructures (i.e., Infrast–Acc). Higher ratings indicated a higher level of presence and/or accessibility of nature and infrastructure resources.

Satisfaction with Life: Participants' cognitive component of subjective well-being was assessed by using the *Satisfaction with Life Scale* [25] administered for two different targets (i.e., self and family) [26]. Each scale was composed of five items that were ranged from 1 (=It does not describe me at all) to 9 (=It describes me completely). The first target was the self, so we measured participants' level of satisfaction with life (e.g., "Your living conditions are excellent"; $\alpha = 0.87$, SWL) and the second one was the family (e.g., "My family life conditions are excellent"; $\alpha = 0.91$, SWL–F). Higher ratings indicated higher personal and family satisfaction with life.

Sociodemographic Characteristics: At the end of the questionnaire, participants were asked some sociodemographic questions: age, gender, educational attainment, work situation, type of the place where they live, i.e., large urban city (more than 5000 inhabitants), small town (less than 5000 inhabitants), suburban area (periphery or out of the urban center).

2.4. Data Analysis

By using the Statistical Package for the Social Sciences (SPSS 22.0), we conducted the following analyses. Correlations were performed to assess the relationships between measures. We also conducted 24 moderation analysis to test whether the relation between the three different types of values (i.e., biospheric, egoistic, and altruistic) and the satisfaction with life under the two perspective (i.e., self and family) were moderated by the perception of presence and/or accessibility of the two types of resources (i.e., nature and infrastructures). To this end, according to the literature and the rationale described above, the moderation analyses were conducted by using the SPSS macro developed by Hayes and Preacher [27] in which the presence and the accessibility of the two types of resources (i.e., nature and infrastructures) were considered as continuous moderators, the three different types of values (i.e., biospheric, egoistic, and altruistic) as independent variables, and satisfaction with life under the two perspectives (i.e., self and family) as the dependent variable. This order also reflects the order in which we assessed the two constructs in the questionnaire. In the below results, we report the models emerged as significant (we ran the same moderation model per each variable; we decided to report only the models that emerged as significant. Note that no moderation of perception of environmental resources on the relationship between altruistic value and both subjective and familiar well-being was significant).

3. Results

3.1. Sample Description

In the following paragraph, the sociodemographic data are reported. Regarding educational attainment, the majority of participants had obtained a master's degree (38%) or high school (28%); few participants had obtained low educational attainments (1% primary and 4% middle school); other participants had obtained bachelor degree (15%) or postgraduate specialization (14%). Most of the respondents had an employ (56%), 26% were students, 13% were unemployed, and only 5% were retired. More than half of our sample (57%) lived in a large city (more than 5000 inhabitants), 27% in a small town, and 16% in a suburban or out of a city.

3.2. Correlations

Table 1 shows the means and standard deviations among all variables and Pearson's correlations between all measures investigated in the study.

Table 1. Means (standard deviation) and zero-order correlations among variables ($n = 365$).

Variable	Min ^o	Mean (SD)	1	2	3	4	5	6	7	8	9
1. Biospheric	3.3	7.32 (1.31)	1								
2. Egoistic	1.0	5.58 (1.60)	0.07	1							
3. Altruistic	2.0	8.15 (0.96)	0.55 **	0.06	1						
4. Nature–Pres	1.2	4.40 (2.31)	0.14 **	−0.01	0.02	1					
5. Nature–Acc	1.2	4.31 (2.28)	0.15 **	−0.01	0.03	0.99 **	1				
6. Infrast–Pres	1.0	4.10 (2.13)	0.12 *	−0.02	0.03	0.89 **	0.89 **	1			
7. Infrast–Acc	1.0	3.98 (2.11)	0.13 *	−0.01	−0.04	0.88 **	0.89 **	0.98 **	1		
8. SWL	1.4	6.29 (1.45)	0.23 **	0.16 **	0.09	0.06	0.08	−0.07	−0.09	1	
9. SWL–F	1.0	6.57 (1.56)	0.23 **	0.25 **	0.18 **	−0.01	0.001	0.02	0.04	0.63 **	1

Notes: ** $p < 0.01$; * $p < 0.05$, 1. biospheric values; 2. egoistic values; 3. altruistic values; 4. perception of presence of natural resources; 5. perception of accessibility of natural resources; 6. perception of presence of infrastructures; 7. perception of accessibility of infrastructures; 8. satisfaction with life for the self; 9. satisfaction with life for the family. ^o The maximum score is 9.0 for all variables.

Relevant to the study, the biospheric and egoistic values were significantly related to both personal and family satisfaction with life, while the altruistic values were significantly related only to family satisfaction with life and not to the individual one. Interestingly, biospheric values were the only type of value bearing significant associations (although small) with perceived presence and accessibility natural or infrastructure ecosystem services. Personal and family well-being were significantly related among them showing a linear relationship effect.

3.3. The Role of the Perception of Presence and Accessibility of Natural Resources in the Relation between Biospheric Values and Satisfaction with Life

Two moderation analyses were undertaken to understand the boundary conditions under which the increase of participants' biospheric values was likely to increase their satisfaction with life (SWL).

The first moderation model was tested in which the perception of the presence of natural resources was considered to be a continuous moderator, the biospheric values were regarded as the independent variable, and SWL as the dependent variable (Process Model 1) [28].

The overall equation was significant, $R^2 = 0.06$, $F(3, 361) = 8.17$, $p < 0.001$. Crucially, the biospheric values by the perception of presence of nature resources interaction significantly increased the explained variance, $\Delta R^2 = 0.01$, $F(1, 361) = 4.27$, $p = 0.04$. The relation between the increase of the biospheric values and personal well-being (see Figure 1) was significant for medium ($b = 0.26$, CI: [0.1491, 0.3761]) and high ($M + 1SD$; $b = 0.39$, CI: [0.2115, 0.5666]) levels of the perception of presence of nature resources, while it was not significant for low levels ($M - 1SD$) of the perception of presence of nature resources ($b = 0.14$, CI: [−0.0162, 0.2885]).

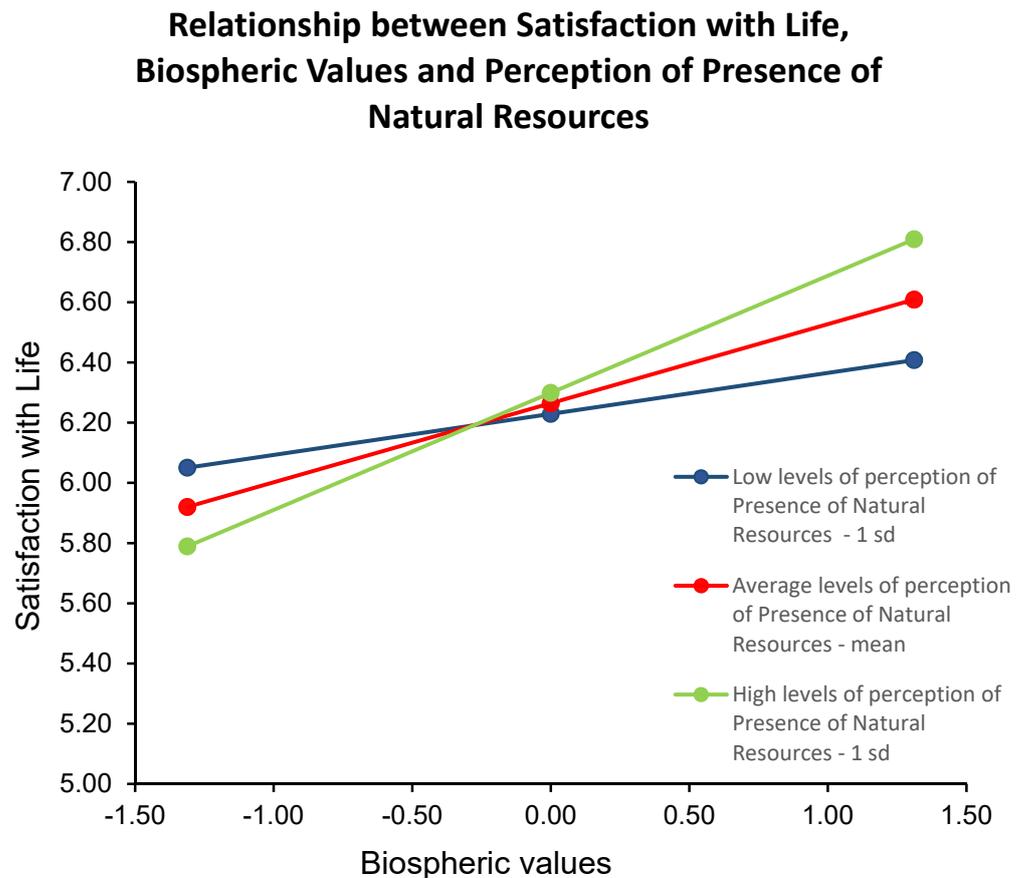


Figure 1. Predicted means of satisfaction with life for the self as a function of the interaction of biospheric values and perception of the presence of natural resources (−1 SD, mean, +1 SD).

The second moderation model was tested in which the perception of the accessibility of natural resources was considered to be a continuous moderator, the biospheric values were regarded as the independent variable, and personal well-being as a dependent variable (Process Model 1) [28].

The overall equation was significant, $R^2 = 0.06$, $F(3, 361) = 8.25$, $p < 0.001$. Crucially, the biospheric values by the accessibility of nature resources interaction significantly increased the explained variance, $\Delta R^2 = 0.01$, $F(1, 361) = 3.91$, $p = 0.05$. The relation between the increase of the biospheric values and personal well-being (see Figure 2) was significant for medium ($b = 0.26$, CI: [0.1478, 0.3759]) and high ($M + 1SD$; $b = 0.38$, CI: [0.2032, 0.5639]) levels of the accessibility of nature resources, while it was not significant for low levels ($M - 1SD$) of the accessibility of nature resources ($b = 0.14$, CI: [−0.0107, 0.2910]).

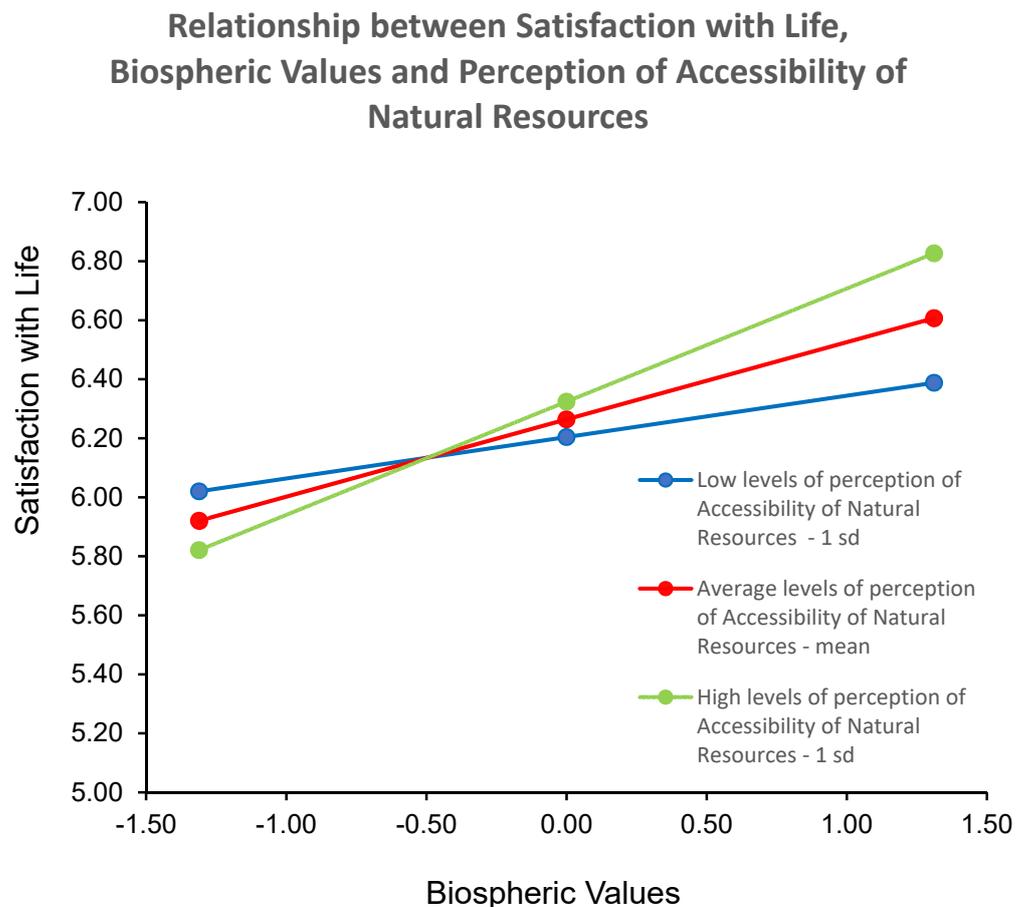


Figure 2. Predicted means of satisfaction with life for the self as a function of the interaction of biospheric values and perception of the accessibility of natural resources (−1 SD, mean, +1 SD).

3.4. The Role of the Perception of Presence of Infrastructure Resources in the Relation between Egoistic Values and Family Well-Being

A moderation analysis was undertaken to understand the boundary conditions under which the increase of participants' egoistic values was likely to increase their family satisfaction with life (SWL–F).

The moderation model was tested in which the perception of the presence of infrastructure resources was considered to be a continuous moderator, the egoistic values were regarded as the independent variable, and the family satisfaction with life as a dependent variable (Process Model 1) [28].

The overall equation was significant, $R^2 = 0.07$, $F(3, 361) = 9.37$, $p < 0.001$. Crucially, the egoistic values by the perception of the presence of infrastructure resources interaction significantly increased the explained variance, $\Delta R^2 = 0.01$, $F(1, 361) = 3.88$, $p = 0.05$. The relation between the increase of the egoistic values and the family life satisfaction (see Figure 3) was significant for medium ($b = 0.24$, CI: [0.1455, 0.3398]) and high ($M + 1SD$; $b = 0.34$, CI: [0.2042, 0.4853]) levels of the perception of the presence of infrastructure resources, while it was not significant for low levels ($M - 1SD$) of the perception of the presence of infrastructure resources ($b = 0.14$, CI: [−0.0007, 0.2817]).

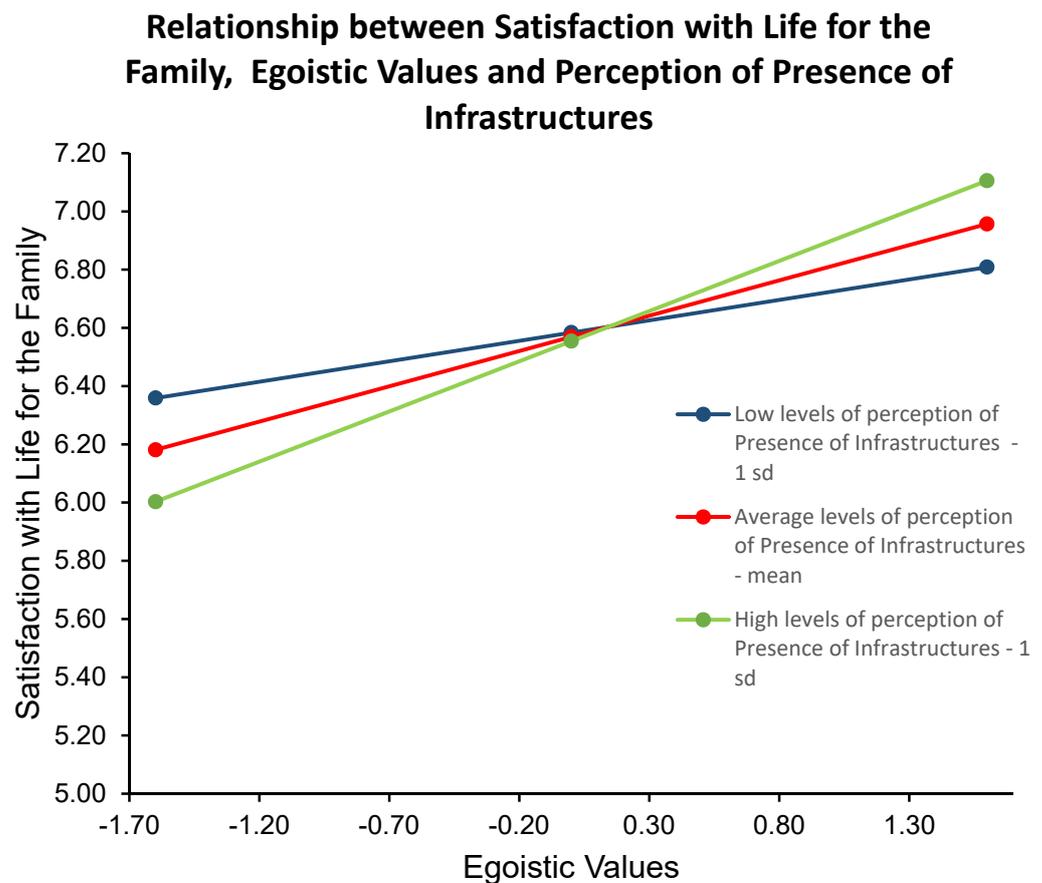


Figure 3. Predicted means of satisfaction with life for the Family as a function of the interaction of biospheric values and perception of the presence of infrastructures (-1 SD, mean, $+1$ SD).

4. Discussion

This study had the objective to investigate the relationship between value orientations related to environmental beliefs (i.e., biospheric, egoistic, and altruistic values) and the individual and family well-being of people in terms of satisfaction with personal and family life. We also aimed to investigate how the direct relationship between values and satisfaction is moderated by the perception of the presence and accessibility of different environmental resources related to ecosystem services. As a first result, we found biospheric and egoistic values highly correlated with both personal and family well-being, while altruistic values correlated only to family well-being. This means that considering the protection of the environment and the preservation of nature as important is related to the satisfaction with personal and family life. Similarly, the egoistic value linked to wealth and material goods also is correlated with personal and family well-being, while the altruistic values of equality and justice are only correlated with a more social and relational form of well-being, which is family life satisfaction. Biospheric values were positively associated with the perception of presence and accessibility of environmental resources, while altruistic values were not associated with them. The peculiarity of biospheric values to be associated specifically with aspects related to the environment [7] is confirmed in the results of our correlations.

This study confirms, as shown in the literature [16,17,21], that value–SWB associations are moderated by different factors, in particular by environmental perceptions. In our moderation models, as novel moderators concerning previous research, we found that biospheric values are more related to personal satisfaction with life in contexts of high or medium level of perceived presence and accessibility of natural resources related to ecosystem services beneficial for humans. That means that people with high biospheric values have a high level

of personal satisfaction only if they perceive a high or medium presence of and accessibility to nature (i.e., rural, forest, and agricultural landscape, pure air, healthy food, clean water, intact territory) in the place in which they live. Furthermore, egoistic values are more related to family well-being when a high or medium presence of infrastructure is perceived. Selfish or material people feel a high level of family well-being, in terms of satisfaction with life if they perceive that the place in which they live has infrastructural resources, such as primary services, transport, roads, beautiful buildings, etc.

Although the R-square increase due to the interaction is small (1%), the moderation models resulted significant, showing that how people perceive the presence and accessibility of environmental resources can strengthen the positive relationship between values and well-being in terms of satisfaction with life. In particular, the perception of the presence and accessibility of natural resources strengthens the positive relationship between biospheric values and individual well-being, while the perception in the environment of the presence of infrastructural resources strengthens the positive relationship between egoistic values and family life satisfaction. Ecologist people feel more satisfied if they perceived to have many natural resources in the place in which they live. Selfish people feel their family is safer and more satisfied when they perceived that their environment offers many infrastructures and services.

5. Limitations and Future Developments

Our study is an initial tentative to demonstrate the moderating role of people's perceptions of environmental resources in the values–wellbeing relationship, but it certainly has some limitations. Meanwhile, it is a cross-sectional study that does not demonstrate the direction of the relationship between values and well-being or satisfaction with life. Furthermore, it did not investigate the actual presence of the environmental or infrastructural resources requested in the questionnaire—people answered only based on their perceptions. Future studies should investigate how effectively the actual presence and accessibility of natural and infrastructural resources can moderate the positive impact of biospheric or egoistic values on people's well-being, comparing different places with different amounts of accessible ecosystem services such as natural resources or infrastructures. Furthermore, it should be investigated to what extent the presence of each environmental resource, natural or infrastructural (i.e., pure air, or clean water, healthy food, public infrastructure, services, roads, etc.), affects the possible influence of biospheric and egoistic values on people's personal and family well-being, and which of these would most strongly affect people satisfaction and well-being. Another limitation of this study probably is to have overlooked the inner urban green. We considered the environment as a human living environment, in which nature is one of the components. This is also true in the city, where some natural resources (parks, gardens, peri-urban agricultural areas) can be organized—spontaneously or through urban projects—into green infrastructures. Urban green therefore falls within the “natural resources,” even if the infrastructure is planned and built within urban spaces, and it thus can be perceived by the inhabitants as natural. It must be surely taken into consideration in future research. It could be expected that the perception of the presence and accessibility of urban green places could have a role in strengthening the relationship between biospheric value orientation and personal well-being as well. This is relevant for the implication and application effects of our results on urban planning aimed at inhabitant well-being related to biospheric values. Finally, an important limitation is that participants were invited to indicate only their gender, age, education, work, and residence. There could be other potential confounders, such as health or lifestyle. Future research should take into account these variables in the moderation models tested. Furthermore, since more than half of the respondents lived in a large city (more than 5000 inhabitants), ours was not a representative sample of the entire population. A more differentiate investigation on these associations (values–wellbeing–ecosystem) in diverse types of places of life would be interesting.

Our study, however, adds to the knowledge in the literature on moderators of the value–well-being relationship. It also demonstrates how the relationship with one’s living environment and values, especially biospheric ones, is associated with people’s well-being and satisfaction, especially at the level of personal life satisfaction.

6. Conclusions for Practical Implications

Our study demonstrates the importance of environmental beliefs, as the subjective perceptions of people’s living environment, for the people’s well-being, and of the interaction of these perceptions with psychosocial factors such as values.

Given the role of the interaction between values related to environmental beliefs and the perception of the presence and accessibility of environmental resources on people’s well-being, knowing which resources have the greatest impact is useful as an indication for urban and environmental regeneration policies to understand which natural and infrastructural increase to promote the well-being of people who have biospheric and/or selfish values. It would be convenient that policymakers devise environmental policies for sustainability in connection with the local people, listening to the inhabitants of the places through meetings with stakeholders and the common civil community. Areas for further attention are assessments of ecosystem services that incorporate local and indigenous beliefs, feelings, perception, and knowledge, and clear links to policy and decision making that drive local actions and contribute to local living, well-being, and satisfaction with life [29]. Such an approach can assume educational and cultural importance if we consider that the presence and accessibility of ecosystem resources could influence certain values. If we assume that values are not stable but malleable, influenced by the cultural and environmental context, then a potential intervention for environmental regeneration of the places would be to create more ecosystem services to try and change citizen and people values.

Author Contributions: Conceptualization, F.M. and O.M.; methodology, D.P., O.M.; formal analysis, D.P., O.M.; data curation, F.M. and O.M.; writing—original draft preparation, D.P., F.M., O.M.; writing—review and editing, F.M., O.M., D.P., D.M.; supervision, F.M., D.M.; project administration, F.M. and O.M.; funding acquisition, F.M. All authors have read and agreed to the published version of the manuscript.

Funding: This study is part of a biannual research project funded by the Department of Educational Studies, University of Roma Tre, years 2017–2018.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Ethics Committee of Sapienza University of Rome (29 October 2018).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data are available upon request.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Gärling, T.; Fujii, S.; Gärling, A.; Jakobsson, C. Moderating effects of social value orientation on determinants of pro-environmental behavior intention. *J. Environ. Psychol.* **2003**, *23*, 1–9. [[CrossRef](#)]
2. Joireman, J.A.; Lasane, T.P.; Bennet, J.; Richards, D.; Solaimani, S. Integrating social value orientation and the consideration of future consequences within the extended norm activation model of pro-environmental behaviour. *Br. J. Soc. Psychol.* **2001**, *40*, 133–155. [[CrossRef](#)] [[PubMed](#)]
3. Nordlund, A.M.; Garvill, J. Value structures behind pro-environmental behavior. *Environ. Behav.* **2002**, *34*, 740–756. [[CrossRef](#)]
4. Schultz, P.W.; Zelezny, L.C. Values as predictors of environmental attitudes: Evidence for consistency across 14 countries. *J. Environ. Psychol.* **1999**, *19*, 255–265. [[CrossRef](#)]
5. Stern, P.C.; Dietz, T. The value basis of environmental concern. *J. Soc. Issues* **1994**, *50*, 65–84. [[CrossRef](#)]
6. Stern, P.C.; Dietz, T.; Abel, T.; Guagnano, G.A.; Kalof, L. A value-belief-norm theory of support for social movements: The case of environmentalism. *Hum. Ecol. Rev.* **1999**, *6*, 81–95.
7. De Groot, J.I.; Steg, L. Value orientations to explain beliefs related to environmental significant behavior: How to measure egoistic, altruistic, and biospheric value orientations. *Environ. Behav.* **2008**, *40*, 330–354. [[CrossRef](#)]

8. Ruepert, A.; Keizer, K.; Steg, L.; Maricchiolo, F.; Carrus, G.; Dumitru, A.; Mira, R.G.; Stancu, A.; Moza, D. Environmental considerations in the organizational context: A pathway to pro-environmental behaviour at work. *Energy Res. Soc. Sci.* **2016**, *17*, 59–70. [[CrossRef](#)]
9. Maricchiolo, F.; Mosca, O.; Lauriola, M.; Krysz, K. From ME to WE: A literature review on happiness and well-being focused on relational factors and social interconnectedness. *Psicol. Soc.* **2020**. [[CrossRef](#)]
10. Paolini, D.; Maricchiolo, F.; Pacilli, M.G.; Pagliaro, S. COVID-19 lockdown in Italy: The role of social identification and social and political trust on well-being and distress. *Curr. Psychol.* **2020**, 1–8. [[CrossRef](#)]
11. Argyle, M.; Martin, M. The psychological causes of happiness. In *Subjective Well-Being: An Interdisciplinary Perspective*, 1st ed.; Strack, F., Argyle, N., Schwarz, N., Eds.; Pergamon Press: Oxford, UK, 1991; pp. 77–100, ISBN 0-08-037264-3.
12. Heady, B.; Wearing, A.J. *Understanding Happiness: A Theory of Subjective Well-Being*; Longman Cheshire: Melbourne, Australia, 1992.
13. Sagiv, L.; Schwartz, S.H. Value priorities and subjective well-being: Direct relations and congruity effects. *Eur. J. Soc. Psychol.* **2000**, *30*, 177–198. [[CrossRef](#)]
14. Schwartz, S.H. Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In *Advances in Experimental Social Psychology*; Zanna, M., Ed.; Academic Press: Orlando, FL, USA, 1992; pp. 1–65.
15. Schwartz, S.H.; Sortheix, F.M. Values and subjective well-being. In *Handbook of Well-Being*; Diener, E., Oishi, S., Tay, L., Eds.; DEF Publishers: Salt Lake City, UT, USA, 2018; pp. 1–25.
16. Sortheix, F.M.; Schwartz, S.H. Values that underlie and undermine well-being: Variability across countries. *Eur. J. Pers.* **2017**, *31*, 187–201. [[CrossRef](#)]
17. Schwartz, S. A theory of cultural value orientations: Explication and applications. *Comp. Sociol.* **2006**, *5*, 137–182. [[CrossRef](#)]
18. Schwartz, S.H. Basic individual values: Sources and consequences. In *Handbook of Value*; Sander, D., Brosch, T., Eds.; Oxford University Press: Oxford, UK, 2015; pp. 63–84.
19. Gibson, J.J. The theory of affordances. *Hilldale USA* **1977**, *1*, 67–82.
20. Sortheix, F.M.; Lönnqvist, J.E. Personal value priorities and life satisfaction in Europe: The moderating role of socio-economic development. *J. Cross Cult. Psychol.* **2014**, *45*, 282–299. [[CrossRef](#)]
21. Boer, D. Values and affective well-being: How culture and environmental threat influence their association. In *Values and Behavior*; Springer: Cham, Switzerland, 2017; pp. 191–218.
22. Stern, P.C. New environmental theories: Toward a coherent theory of environmentally significant behavior. *J. Soc. Issues* **2000**, *56*, 407–424. [[CrossRef](#)]
23. World Medical Association. World Medical Association Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects. *Bull. World Health Organ.* **2001**, *79*, 373–374.
24. Stern, P.C.; Dietz, T.; Guagnano, G.A. A brief inventory of values. *Educ. Psychol. Meas.* **1998**, *58*, 984–1001. [[CrossRef](#)]
25. Diener, E.D.; Emmons, R.A.; Larsen, R.J.; Griffin, S. The satisfaction with life scale. *J. Pers. Assess.* **1985**, *49*, 71–75. [[CrossRef](#)]
26. Maricchiolo, F.; Mosca, O.; Lauriola, M.; Krysz, K. The role of urbanization of place of living in the relation between individual features and happiness (El papel del desarrollo urbanístico del lugar de residencia en la relación entre las características individuales y la felicidad). *Psycology* **2020**, *11*, 232–259. [[CrossRef](#)]
27. Hayes, A.F.; Preacher, K.J. Statistical mediation analysis with a multi-categorical independent variable. *Br. J. Math. Stat. Psychol.* **2014**, *67*, 451–470. [[CrossRef](#)] [[PubMed](#)]
28. Hayes, A.F. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*; Guilford Publications: New York, NY, USA, 2017.
29. Paudyal, K.; Baral, H.; Keenan, R.J. Local actions for the common good: Can the application of the ecosystem services concept generate improved societal outcomes from natural resource management? *Land Use Policy* **2016**, *56*, 327–332. [[CrossRef](#)]