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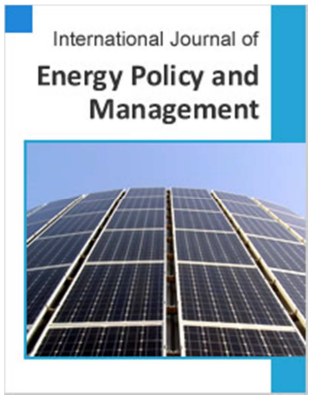

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Being Global Is Being Green: Associations Between Global Citizenship Identification and Measures of Environmental Motivations and Attitudes

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Abstract

Past research shows that global citizenship identification is associated with endorsement of environmental sustainability. However, prior studies used a short, two-item measure of environmental sustainability. In the present study we examined identification with global citizens and endorsed motivations and attitudes related to environmental sustainability with longer and multidimensional measures, arguing that global citizenship identification is, indeed, positively related to dimensions of environmentalism. The results showed that global citizenship identification was positively related to measures regarding intrinsic motivation toward environmentally-friendly behaviors, human interconnectedness with the environment, and endorsement of policies and government action toward protecting the environment. Together, the results strongly support the connection between global citizenship identification and motivation and attitudes in support of environmental sustainability.

1. Introduction

Throughout daily social interactions, individuals frequently behave as members of a group, rather than as individuals. Following a social identity perspective [1, 2], when a social identity is cognitively activated, greater ingroup identification (i.e., felt connectedness to the group) predicts adherence to a group's norms (e.g., beliefs, values, behaviors). With greater world interconnectedness and increasing globalization, individuals are increasing afforded a more inclusive identity—global citizen. Global citizenship is defined as awareness, caring, embracing cultural diversity, promoting social justice and sustainability, and a sense of responsibility to act for the betterment of the world [3]. This definition is supported by numerous empirical studies that highlight the positive associations between individuals' degree of felt psychological connection to the global citizen identity (i.e., global citizenship identification) and prosocial values [3, 4, 5]. Reysen and Katzarska-Miller [4] developed and tested a model of antecedents and outcomes related to identification with this group. The model suggests that one's normative environment (i.e., persons and environments that cue and prescribe a global citizen identity) and global awareness (i.e., knowledge about the world and a sense of

human interconnectedness) predict global citizenship identification. In turn, global citizenship identification predicts prosocial outcomes, including intergroup empathy (i.e., felt connection to others outside one's in group), valuing diversity (e.g., interest and appreciation for diverse cultures), social justice (e.g., endorsement of human rights and equality), environmental sustainability (e.g., concern for the natural environment), intergroup helping (i.e., desire to help others outside one's in group), and felt responsibility to act for the betterment of the world. In line with a social identity perspective, when a global citizen identity is salient, greater identification predicts endorsement of these six broad categories of values and behaviors that reflect the group's content.

Importantly, as noted above, one of the six broad clusters of prosocial values is environmental sustainability. Although this model has been replicated in subsequent research [3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16], the measures used to assess the outcomes of global citizenship used short, two-item scales. Use of short measures while convenient to avoid participant fatigue and save space on studies, can be less reliable. Furthermore, the same two-item measure of environmental sustainability was used in the numerous studies supporting the model. In other words, the previously reported connection between global citizenship identification and environmental sustainability may be due to something unique about the measure rather than a connection between global citizenship identification and pro-environmental attitudes and intended behaviors. Additionally, the short measure does not include various dimensions of pro-environmental attitudes that have been proposed in the literature. In the present study we expand upon this prior research by examining the associations between global citizenship identification and longer, multidimensional measures related to environmental motivations and attitudes. Based on the wealth of prior research showing global citizenship identification as related to environmental sustainability, albeit a short two-item measure, we expect that greater identification with global citizens will be positively related to pro-environmental motivations and attitudes. In the following section we briefly describe a selection of measures used in psychological research to assess individuals' degree of motivation and attitudes regarding environmental issues. We then revisit the notion of the connection between global citizenship and environmental sustainability, present a test of the associations, and discuss the implications for education and management.

1.1. Environmental Motivations and Attitudes

A concern regarding the degradation of the environment grew in the 1960's and has been a major societal issue since [17]. Although there is still a debate on the dimensions of the degradation, there is no doubt that the issue is of great concern for many [18]. For example, the results of a multicultural study involving business, government, and academic sectors from the United States, Japan, and western and central Europe countries suggest that environmental issues is one of the top ranked priorities [19]. Over the years various measures of individuals' attitudes and motivations toward the environment have been proposed. In the present section we review past measures and research examining individuals' motivations and attitudes toward the environment.

1.1.1. Motivation for Environmental Behaviors

In order to assess individuals' level of self-sufficiency related to environmental behaviors, Pelletier and colleagues [18, 20] proposed a motivational approach examining individuals' motivation to act green, utilizing Deci and Ryan's [21, 22] self-determination theory. Self-determination theory suggests that three innate psychological needs must be addressed: competence, relatedness, and autonomy, in order to understand goal-directed behavior, psychological development, and well-being. The theory offers a continuum that ranges from amotivation on one end to intrinsic motivation on the other. The researchers argue that by differentiating between intrinsic motivation and different forms of self-determined extrinsic motivation (e.g., integrated and identified regulation), self-determination theory further explains and differentiates motivations for pro-environmental behaviors. Pelletier and colleagues [18] argue that self-determined individuals generally demonstrate dissatisfaction with the conditions of the environment, consider the environmental problem as important to them, feel capable of helping the situation and engage in activities to do so.

Research utilizing this measure of different styles of motivation tends to show that intrinsic motivation is related to pro-environmental attitudes and behaviors. Lavergne, Sharp, Pelletier, and Holtby [23] examined motivations as mediators between perception of the government's approach to environmental regulation and pro-environmental behaviors. Viewing the government as promoting an autonomy to environmental regulation (i.e., giving individuals freedom in strategies to help the environment) predicted autonomous motivation (e.g., intrinsic motivation to be pro-environmental). Autonomous motivation then predicted the frequency of environmental behaviors (e.g., recycling newspapers, turning off lights when not at home, responsible consumerism). Amotivation was negatively associated with pro-environmental behaviors. In general, individuals who indicated greater intrinsic/autonomous motivation (vs. amotivation) tend to report more frequent pro-environmental behaviors [24]. For example, intrinsic motivation is positively associated with the amount of money intended to donate to charity and consideration of environmental performance when purchasing a car, while amotivation is negatively related to these intended behaviors [25]. To the extent that global citizenship identification is related to pro-environmental behaviors, identification should be positively associated with the intrinsic end of the self-determination

motivation categories and either negatively or nonsignificantly related to extrinsic and amotivation.

1.1.2. New Environmental Paradigm

In order to counter a widespread ideology in the 1970's emphasizing the superiority of humans over other species inferring, among other ideas, that unlike other species, humans are somehow exempt from constraints of natural resources, Dunlap and Van Liere [26] defined societal and cultural processes related to the concern for the ecosystems in the environment as worldviews and labeled them as a new environmental paradigm. Their conceptualization of the new environmental paradigm focused on beliefs about humanity's ability to offset the balance of nature, the existence of limits to human societies' progress, and humanity's right to rule over the rest of nature.

The new environmental paradigm scale is one of the most widely used and cited measures of environmental attitudes [27]. For example, higher scores on the new environmental paradigm scale are related to policy support for government environmental regulation, concern for global warming, intended behaviors to save energy [28], positive attitude toward recycling [29], support for policies to reduce burning of fossil fuels [30], ecological behaviors [31], and environmentally conscious consumer behaviors [32]. Higher endorsement of the new environmental paradigm should be positively related to greater global citizenship identification.

1.1.3. Human Interdependence

Corral-Verdugo, Carrus, Bonnes, Moser, and Sinha [33] identified two opposing belief systems in the environment literature: an anthropocentric worldview and an ecocentric worldview. The anthropocentric belief system takes into consideration humans' needs and their dominance over other species in the globe. It follows the idea that the world is vast and has the capability to provide unlimited opportunities for humans as they will always find a solution for problems [34]. On the other hand, the ecocentric belief system emphasizes the importance of limiting human activities in an attempt to preserve the integrity and stability of ecosystems and human communities, thus, viewing humans as a part that complex ecosystem in which the operation and survival of its components depend on each other [35].

In an attempt to develop an integrative approach – considering both the anthropocentric and the ecocentric views, Corral-Verdugo and colleagues [33] created the new human interdependence paradigm. The researchers urge the recognition of both the needs of current and future human societies to progress and the need to preserve the integrity and stability of ecosystems and human communities [36]. In other words, the new human interdependence paradigm combines human progress and nature conservation and considers them as a dynamic process, incorporating human needs into natural processes. The new human interdependence paradigm findings suggest that the endorsement of a more integrative view of human–nature relationship appears to be a better predictor of sustainable behaviors as compared to other widely used measures of environmental attitudes [33].

1.1.4. Environmental Attitudes

Pettus and Gilles [37] examine the relationship between attitudes toward environmental issues and different personality characteristics related to locus of control, openness of belief system, and perceptions about the self. The authors suggest that freedom of choice, thoughts on actions and beliefs about the "common good" are all related to environmental concerns. Additionally, the researchers propose that individuals' attitudes towards the environment are connected to the way they seem themselves in relation to others and to environmental conditions around them. Pettus and Gilles also hypothesized that human's attitudes toward environmental issues could be related to individuals perception of their own influence and control over others, over their surrounding conditions, and their own future.

1.2. Global Citizenship Identification and Environmental Attitudes

Researchers have noted the importance of identity and norms for predicting pro-environmental attitudes and behaviors. For example, one's self-identity as environmentally-friendly (e.g., "I am the type of person who acts environmentally friendly") predicts environmentally sustainable purchasing behaviors [38]. Various researchers examining environmentally friendly attitudes and behaviors have shown that norms are also important for predicting environmental behaviors [39, 40, 41]. With a few exceptions [42], there is a lack of studies using group identity when examining environmental attitudes and behavior. As noted previously, past research examining global citizenship identification shows positive associations between the construct and measures of concern for global warming [43] and the environment [44]. From a social identity perspective, greater identification with the category label global citizen should be positively related to motivations and pro-environmental attitudes.

1.3. Present Research

The purpose of the present research is to examine associations between global citizenship identification and motivations and attitudes related to environmental issues. Participants completed measures concerning global citizenship identification, motivations for environmental behaviors, human interdependence, new environmental paradigm, environmental attitudes, and demographic characteristics. Based on prior research [4], we predict that global citizenship identification will be positively related to motivations and attitudes regarding environmentalism.

2. Method

2.1. Participants and Procedure

Participants (N = 201, 76.1% women; M_{age} = 22.80, SD = 6.35) included undergraduate students participating for

partial course credit or extra credit in a psychology class at Texas A&M University-Commerce. Participants indicated their ethnic/racial category as African American (38.8%), White (32.8%), Hispanic (18.9%), Asian/South Pacific Islander (2.5%), multiracial (2.5%), other (2%), Indigenous Peoples (1.5%), or Central Asian/Indian/Pakistani (1%). Participants completed measures regarding global citizenship identification, motivation toward the environment, human interconnectedness with the environment, environmental attitudes, and demographic items. All measures used a 7-point Likert-type response scale, from 1 = *strongly disagree* to 7 = *strongly agree*.

2.2. Measures

2.2.1. Ingroup Identification

Five items (e.g., "I strongly identify with global citizens") were adapted from prior measures [45, 46]. Participants rated identification with global citizens (α =.97).

2.2.2. Motivation for Environmental Behaviors

We adopted 23 items from a prior measure of motivation regarding environmental behaviors [18]. Participants were asked rate statements regarding why they do things for the environment. The measure contains six subscales, including: intrinsic motivation (4 items; e.g., "I feel pleasure in improving the quality of the environment;" α =.89), integrated regulation (4 items; e.g., "Doing things for the environment has become a fundamental part of who I am;" α =.94), identified regulation (4 items; e.g., "Doing things for the environment is a sensible thing to do;" α =.86), introjected regulation (3 items; e.g., "I would feel guilty if I didn't do something for the environment;" α =.87), external regulation (4 items; e.g., "I do things for the environment for the recognition I get from others;" α =.89), and amotivation (4 items; e.g., "I wonder why I do things for the environment; the situation isn't improving;" α =.94).

2.2.3. Human Interdependence

We adopted 16 items from a prior measure to assess participants' perception of human interdependence with nature [33]. The measure contains four subscales, including: human well-being and natural integrity (6 items; e.g., "Humans can only enjoy nature if we make wise use of its resources;" α =.91), sustainable development (3 items; e.g., "Human progress and caring for nature are perfectly compatible;" α =.79), awareness of future consequences (4 items; e.g., "Environmental deterioration affects hungry in poor countries;" α =.88), and compatibility between human progress and responsible use of natural resources (3 items; e.g., "Humans can only progress if we protect natural resources;" α =.88).

2.2.4. New Environmental Paradigm

We included 12 items (e.g., "The balance of nature is very delicate and easily upset") from a prior measure [26] to assess environmental attitudes (α =.85).

2.2.5. Environmental Attitudes

To assess environmental attitudes we included 30 items from a prior measure [37]. The measure contains three subscales, including environmental responsibility (15 items; e.g., "We have a responsibility not to purchase or use products that are known to be detrimental to the environment;" α =.89), rights and restrictions for environmental quality (7 items; e.g., "All commercial packaging materials and containers should be recyclable or reusable;" α =.89), and social and governmental actions for environmental quality (8 items; e.g., "More federal money should be spent on research and development to ensure higher standard of environmental quality;" α =.82).

Table 1. *Means (Standard Deviation) and Correlations between Global Citizenship Identification and Environmental Attitudes.*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Global Citizen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2. Intrinsic	.22**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3. Integrated	.29**	.44**	--	--	--	--	--	--	--	--	--	--	--	--	--
4. Identified	.22**	.74**	.50**	--	--	--	--	--	--	--	--	--	--	--	--
5. Introjected	.27**	.56**	.55**	.65**	--	--	--	--	--	--	--	--	--	--	--
6. External	.11	-.12	.30**	-.18**	.07	--	--	--	--	--	--	--	--	--	--
7. Amotivation	.04	-.25**	.14*	-.28**	-.13	.73**	--	--	--	--	--	--	--	--	--
8. Well-Being	.21**	.54**	.35**	.61**	.55**	-.28**	-.37**	--	--	--	--	--	--	--	--
9. Sustainable	.17*	.50**	.30**	.53**	.47**	-.28**	-.36**	.86**	--	--	--	--	--	--	--
10. Future	.19**	.48**	.32**	.55**	.42**	-.25**	-.38**	.87**	.79**	--	--	--	--	--	--
11. Progress	.30**	.50**	.29**	.57**	.50**	-.29**	-.42**	.91**	.78**	.82**	--	--	--	--	--
12. NEP	.15*	.39**	.14	.47**	.34**	-.35**	-.46**	.60**	.54**	.61**	.61**	--	--	--	--
13. Responsible	.20**	.54**	.29**	.62**	.54**	-.31**	-.43**	.78**	.68**	.75**	.74**	.65**	--	--	--
14. Rights	.23**	.53**	.38**	.60**	.54**	-.20**	-.30**	.70**	.66**	.69**	.67**	.59**	.84**	--	--
15. Government	.23**	.40**	.35**	.49**	.43**	-.03	-.12	.53**	.51**	.56**	.49**	.49**	.67**	.72**	--
Mean	4.75	5.03	4.20	4.99	4.65	3.17	3.15	5.16	5.16	6.93	5.19	4.82	4.73	4.74	4.46
SD	1.72	1.28	1.45	1.24	1.39	1.52	1.68	1.29	1.28	1.77	1.42	1.01	1.01	1.20	1.06

3. Results

To examine the relationships between global citizenship identification and various measures related to environmental motivations and attitudes we conducted correlation analyses. As shown in Table 1, global citizenship identification was significantly positively correlated with four of the six subscales assessing motivations to act in environmentally sustainable ways. The associations between global citizenship identification and external and amotivation were not significant. Global citizenship identification was significantly positively correlated with the four dimensions of interdependence between humans and the environment. Lastly, global citizenship identification was positively related to the new environmental paradigm measure and the three subscales of environmental attitudes. Together, the results strongly support the connection between identifying as a global citizen and motivation and attitudes in support of environmental sustainability.

4. Discussion

The purpose of the present research was to examine the associations between global citizenship identification and various measures related to motivation and attitudes toward the environment. We predicted, and found, that global citizenship identification was positively related to intrinsic motivations, human and environment interdependence, endorsement of the new environmental paradigm, and attitudes toward the environment. The results of the present research have implications of research on identity, global citizenship identification, and education and policy.

Following a social identity theoretical perspective, Reysen and Katzarska-Miller [4] proposed that greater identification with the category label global citizen would predict greater endorsement of prosocial attitudes and behaviors. One proposed outcome or prototypical content cluster associated with the identity of global citizen is environmental sustainability. Although the model, including the relationship between global citizenship identification and environmental sustainability, has been replicated in numerous research studies, the measure used to assess environmental sustainability was a short face-valid assessment. One may argue that the association between global citizenship identification and environmental sustainability in this line of research was due to the measure rather than reflecting a consistent connection with pro-environmental attitudes, or that the short two-item measure only reflected one dimension of pro-environmental attitude. Therefore, in the present research we examined the correlations between global citizenship identification and a variety of different measures within the psychological literature tapping pro-environmental attitudes and motivations. As expected, global citizenship identification was positively associated with a variety of dimensions and measures. The results show that prior associations between global citizenship identification and endorsed environmental sustainability was not due to characteristics of measurement, but rather suggest that a component of the norms or content of global citizen identity is environmental sustainability.

The results of the present research also hold implications for research regarding environmental motivation and attitudes. Based on self-determination theory, Pelletier et al. [18] proposed a measure tapping different motivational orientations for environmental behaviors. The results show that global citizenship identification is positively related to the intrinsic side of the continuum, while extrinsic and amotivation were non-significantly related to global citizenship identification. Furthering the positive attitudes toward the environment, the results showed that global citizenship was related to viewing a close interdependence between humans and the environment (e.g., awareness of future consequences if humans do not take care of the environment, and the need for a clean environment for humans to progress). Greater identification was also related to greater endorsement of the new environmental paradigm worldview, and dimensions of environmental attitudes including a felt responsibility to care for the environment, endorsement of policies to mitigate human impact on the environment, and endorsement of federal and governmental actions to protect the environment. Although researchers have long known that norms impact environmental behaviors [41], the results highlight a unique and beneficial identity—global citizenship—which includes a norm of environmental sustainability.

The results also hold implications for both educational practices and policy. Educators who would like to engender pro-environmental attitudes within the classroom may strive to increase students' global citizenship identification rather than focusing solely on a single value. In other words, by increasing global citizenship identification, teachers can influence a variety of prosocial values (e.g., intergroup empathy and helping) as well as pro-environmental attitudes. Past research suggests that both teachers and educational institutions can achieve this by focusing on students' normative environment and global awareness [47]. For example, teachers can explicitly state or model behaviors related to global citizenship (e.g., inclusion of environmentally friendly messages in classrooms, recycling bins) to build an environment that consistently reminds students that valued others prescribe a global citizen identity. Additionally, inclusion of content about the world and highlighting the interconnectedness of the self with others in the world can increase students' global awareness. As shown in the present research, global citizenship identification is positively related to endorsement of policies and government actions to protect the environment. Organizations wishing to gather public support may highlight global citizenship identity in messages and campaigns to promote governmental actions. A global citizen identity may also be useful as an umbrella identity for environmental activist organizations to rally members behind different campaigns and sustain momentum and membership.

The present research is not without its limitations, which

hinder the generalizability of the results. First, the present research was correlational. Therefore, we are unable to make causal claims regarding the association between global citizenship identification and environmental motivation and attitudes. Future research may employ a longitudinal design to bolster the argument that global citizen identification has a downstream influence on environmentally sustainable attitudes and behaviors. Second, the sample of participants included college students at a single university. While Reysen and Katzarska-Miller's [4] model has been replicated in other cultural spaces, future research may further explore whether the associations are found in diverse samples of participants.

5. Conclusion

To conclude, we examined associations between global citizenship identification and motivations and attitudes related to the environment. The results showed that global citizenship identification was positively related to intrinsic motivation to engage in environmentally friendly manner, positive attitudes regarding environmental sustainability, and endorsement of policies to protect the environment. With different parities (e.g., educators, activists, political organizations) striving to engender pro-environmental attitudes, the results of the present research suggest that increase individuals' global citizenship identification is a potentially fruitful method to achieve those goals.

References

[1] Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.

[2] Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.

[3] Reysen, S., Larey, L. W., & Katzarska-Miller, I. (2012). College course curriculum and global citizenship. *International Journal of Development Education and Global Learning, 4,* 27-39.

[4] Reysen, S., & Katzarska-Miller, I. (2013). A model of global citizenship: Antecedents and outcomes. *International Journal of Psychology, 48,* 858-870.

[5] Reysen, S., & Katzarska-Miller, I. (2013). Intentional worlds and global citizenship. *Journal of Global Citizenship and Equity Education, 3,* 34-52.

[6] Blake, M. E., Pierce, L., Gibson, S., Reysen, S., & Katzarska-Miller, I. (2015). University environment and global citizenship identification. *Journal of Educational and Developmental Psychology, 5,* 97-107.

[7] Blake, M. E., & Reysen, S. (2014). The influence of possible selves on global citizenship identification. *International Journal of Development Education and Global Learning, 6,* 63-78.

[8] Gibson, S. A., & Reysen, S. (2013). Representations of global citizenship in a school environment. *International Journal of Education Research, 8,* 116-128.

[9] Gibson, S. A., Reysen, S., & Katzarska-Miller, I. (2014). Independent and interdependent self-construal and global citizenship. *International Journal of Business and Public Administration, 11,* 62-72.

[10] Katzarska-Miller, I., Barnsley, C. A., & Reysen, S. (2014). Global citizenship identification and religiosity. *Archive for the Psychology of Religion, 36,* 344-367.

[11] Lee, R. B., Baring, R., Maria, M. S., & Reysen, S. (2017). Attitude toward technology, social media usage, and grade point average as predictors of global citizenship identification in Filipino university students. *International Journal of Psychology, 52,* 213-219.

[12] Plante, C. N., Roberts, S., Reysen, S., & Gerbasi, K. C. (2014). "One of us": Engagement with fandoms and global citizenship identification. *Psychology of Popular Media Culture, 3,* 49-64.

[13] Reysen, S., & Hackett, J. (2017). Activism as a pathway to global citizenship. *The Social Science Journal, 54,* 132-138.

[14] Reysen, S., Katzarska-Miller, I., Gibson, S. A., & Hobson, B. (2013). World knowledge and global citizenship: Factual and perceived world knowledge as predictors of global citizenship identification. *International Journal of Development Education and Global Learning, 5,* 49-68.

[15] Reysen, S., Katzarska-Miller, I., Salter, P. S., & Hirko, C. (2014). Blurring group boundaries: The impact of subgroup threats on global citizenship. *Cultural Encounters, Conflicts, and Resolutions, 1* (2). Retrieved from http://engagedscholarship.csuohio.edu/cecr/vol1/iss2/5/

[16] Reysen, S., Pierce, L., Mazambani, G., Mohebpour, I., Puryear, C., Snider, J. S., Gibson, S., & Blake, M. E. (2014). Construction and initial validation of a dictionary for global citizen linguistic markers. *International Journal of Cyber Behavior, Psychology and Learning, 4,* 1-15.

[17] Dunlap, R. E. (1987). Polls, pollution, and politics revisited public opinion on the environment in the Reagan era. *Environment: Science and Policy for Sustainable Development, 29,* 6-37.

[18] Pelletier, L. G., Tuson, K. M., Green-Demers, I., Noels, K., & Beaton, A. M. (1998). Why are you doing things for the environment? The motivation toward the environment scale (MTES). *Journal of Applied Social Psychology, 28,* 437-468.

[19] Czinkota, M. R., & Ronkainen, I. A. (1992). Global marketing 2000: A marketing survival guide. *Marketing Management, 1,* 37-44.

[20] Green-Demers, I., Pelletier, L. G., & Ménard, S. (1997). The impact of behavioural difficulty on the saliency of the association between self-determined motivation and environmental behaviours. *Canadian Journal of Behavioural Science, 29,* 157-166.

[21] Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination*. New York, NY: Plenum.

[22] Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist, 55,* 68-78.

[23] Lavergne, K. J., Sharp, E. C., Pelletier, L. G., & Holtby, A. (2010). The role of perceived government style in the facilitation of self-determined and non self-determined motivation for pro-environmental behavior. *Jouranl of Environmental Psychology, 30,* 169-177.

[24] Pelletier, L. G., & Sharp, E. (2008). Persuasive communication and proenvironmental behaviours: How message tailoring and message framing can improve the integration of behaviours through self-determined motivation. *Canadian Psychology, 49,* 210-217.

[25] de Groot, J. I. M., & Steg, L. (2010). Relationships between value orientations, self-determined motivational types and pro-environmental behavioural intentions. *Journal of Environmental Psychology, 30,* 368-378.

[26] Dunlap, R. E., & Van Liere, K. D. (1978). A proposed measuring instrument and preliminary results: The "new environmental paradigm". *Journal of Environmental Education, 31,* 10-19.

[27] Hawcroft, L. J., & Milfont, T. L. (2010). The use (and abuse) of the new environmental paradigm scale over the last 30 years: A meta-analysis. *Journal of Environmental Psychology, 30,* 143-158.

[28] Poortinga, W., Steg, L., & Vlek, C. (2004). Values, environmental concern, and environmental behavior: A study into household energy use. *Environment and Behavior, 36,* 70-93.

[29] Valle, P. O. D., Rebelo, E., Reis, E., & Menezes, J. (2005). Combining behavioral theories to predict recycling involvement. *Environment and Behavior, 37,* 364-396.

[30] Dietz, T., Dan, A., & Shwom, R. (2007). Support for climate change policy: Social psychological and social structural influences. *Rural Sociology, 72,* 185-214.

[31] Casey, P. J., & Scott, K. (2006). Environmental concern and behaviour in an Australian sample within an ecocentric-anthropocentric framework. *Australian Journal of Psychology, 58,* 57-67.

[32] Ebreo, A., Hershey, J., & Vining, J. (1999). Reducing solid waste: Linking recycling to environmentally responsible consumerism. *Environment and Behavior, 31,* 107-135.

[33] Corral-Verdugo, V., Carrus, G., Bonnes, M., Moser, G., & Sinha, J. (2008). Environmental beliefs and endorsement of sustainable development principles in water conservation: Toward a new human interdependence paradigm scale. *Environment and Behavior, 40,* 703-725.

[34] Catton, W. R., Jr., & Dunlap., R. E. (1980). A new ecological paradigm for post-exuberant sociology. *American Behavioral Scientist, 24,* 15-47.

[35] Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). New trends in measuring environmental attitudes: Measuring endorsement of the New Ecological Paradigm: a revised NEP scale. *Journal of Social Issues, 56,* 425-442.

[36] Hernández, B., Suárez, E., Corral-Verdugo, V., & Hess, S. (2012). The relationship between social and environmental interdependence as an explanation of proenvironmental behavior. *Research in Human Ecology, 19,* 1-9.

[37] Pettus, A. M., & Giles, M. B. (1987). Personality characteristics and environmental attitudes. *Population & Environment, 9,* 127-137.

[38] Van der Werff, E., Steg, L., & Keizer, K. (2013). It is a moral issue: The relationship between environmental self-identity, oblication-based intrinsic motivation and pro-environmental behavior. *Global Environmental Change, 23,* 1258-1265.

[39] Biel, A., Borgstede, C. V., & Dahlstrand, U. (1999). Norm perception and cooperation in large scale social dilemmas. In M. Foddy, M. Smithson, S. Schneider, & M. Hogg (Eds.), *Resolving social dilemmas: Dynamic, structural, and intergroup aspects* (pp. 245-252). New York, NY: Psychology Press.

[40] Kallgren, C. A., Reno, R. R., & Cialdini, R. B. (2000). A focus theory of normative conduct: When norms do and do not affect behavior. *Personality and Social Psychology Bulletin, 26,* 1002-1012.

[41] Reno, R. R., Cialdini, R. B., & Kallgren, C. A. (1993). The transsituational influence of social norms. *Journal of Personality and Social, 64,* 104-112.

[42] Fielding, K. S., Terry, D. J., Masser, B. M., & Hogg, M. A. (2008). Integrating social identity theory and the theory of planned behaviour to explain decisions to engage in sustainable agricultural practices. *British Journal of Social Psychology, 47,* 23-48.

[43] Katzarska-Miller, I., Reysen, S., Kamble, S. V., & Vithoji, N. (2012). Cross-national differences in global citizenship: Comparison of Bulgaria, India, and the United States. *Journal of Globalization Studies, 3,* 166-183.

[44] Reysen, S., Pierce, L., Spencer, C., & Katzarska-Miller, I. (2013). Exploring the content of global citizenship identity. *The Journal of Multiculturalism in Education, 9,* 1-31.

[45] Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of Experimental Social Psychology, 31,* 410-436.

[46] Reysen, S., Katzarska-Miller, I., Nesbit, S. M., & Pierce, L. (2013). Further validation of a single-item measure of social identification. *European Journal of Social Psychology, 43,* 463-470.

[47] Reysen, S., & Katzarska-Miller, I. (2013). Student pathways to global citizenship. In C. Boyle (Ed.), *Student learning: Improving practice* (pp. 121-137). Hauppauge, NY: Nova.