Influence of social self-identification on sustainable consumption: Moderating role of future self-continuity

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Paper presented at the 48th Annual EMAC Conference, Hamburg, May 24-27, 2019.

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Abstract:

Recent studies showed that social self-identification contributed to intentions and behaviors for the sustainable consumption. Despite researchers' emphasis on the independent effect of social self-identification, a boundary condition in which the effect is fostered or hindered has been less addressed. We argue that the effect of social self-identification varies across consumers who differ in attributing meanings to the sustainable consumption. Focusing on the temporal aspect inherent in the decision about sustainable consumption, particularly in terms of tradeoff between the present and the future, we propose that the effect of social self-identification on sustainable consumption varies depending on the future self-continuity. Study 1 showed that future self-continuity moderated the influence of social self-identification on behavioral tendency for organic food consumption. Study 2 replicated the moderating effect of future self-continuity on behavioral intention for environmentally friendly consumption, which was measured as a response to public communication aimed to prevent deforestation.

Keywords: Sustainable consumption, Social self-identification, future self-continuity

Track: Social responsibility & ethics

1. Introduction

Social self-identification influenced sustainable consumption, independently of other predictors such as attitudes, normative beliefs, and behavioral control as well as demographics and innovativeness across various domains such as organic food consumption (Bartels & Reinders, 2016; Sparks & Shepherd, 1992), recycling (Mannetti, Pierro, and Livi, 2004; Nigbur, Lyons, and Uzzell, 2010), organic gardening (Kiesling & Manning, 2010), and other pro-environmental behaviors including low carbon emissions and water and energy conservation (Whitmarsh & O'Neill, 2010). The influence of social self-identification on sustainable consumption is based on the social identity theory which views the self as being socially defined and addresses the role of social self-identity in forming intentions and behaviors relevant to the social influence (Tajfel, 1974; Terry, Hogg, and White, 1999). Researchers' inclusion of social self-identification as an independent predictor of sustainable consumption was successful in complementing the insufficiency of theories of reasoned action and planned behavior.

Consumers perceive various meanings associated with sustainable consumption (Hanss & Böhm, 2012), producing individual differences in attributing self-related meanings to specific elements or activities of sustainable consumption. It is a reasonable suspicion to conjecture that individual differences in the meaning attribution would create variances in the influence of social self-identification on sustainable consumption across consumers. For instance, the influence of social self-identification will be evident for consumers who appropriate meanings related to the interdependent self through the sustainable behavior, compared to those who appropriate meanings related to the independent self. The influence of social self-identification is likely to be stronger when consumers perceive sustainable consumption as a means of verifying and confirming their social identities than when they perceive it as a source of conflict between diverse aspects of the self.

Compared to a sheer volume of research on the independent effect of social self-identification on sustainable consumption, a boundary condition in which the effect is fostered or hindered has been little addressed with a few exceptions (e.g., Du, Bartels, Reinders, and Sen, 2017 etc.). The UN Brundtland Commission's definition of sustainable development notes that "sustainable" is related to a temporal tradeoff between the present and the future by referring to "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (Report of the World Commission on Environment and Development, 1987). Consumers may be faced with a conflict between the present-self and

the future-self in deciding to engage in sustainable consumption, particularly when they attend to costs incurred in the present for the sake of the future and perceive the temporal tradeoff between the present and the future. Faced with an intertemporal conflict, consumer engagement in the sustainable consumption driven by social self-identification is more easily purported when it benefits one's own self in the future, compared to when its beneficiary is others in the future. In other words, consumers' intentions and behaviors for sustainable consumption that are driven by social self-identification are likely to vary depending on their beliefs about the tradeoff-based conflict between the present-self and the future-self.

The present study's goal is to examine a boundary condition that moderates the effect of social self-identification on sustainable consumption by focusing on the moderating role of temporal self-continuity, which refers to the perception that one's life is continuous and repetitive along the temporal span (Lennings & Burns, 1998). Specifically, focusing on the continuity between the present-self and the future-self, we propose that the effect of social self-identification on sustainable consumption is fostered for consumers who have a stronger perception of continuity between present and future selves, referred to as future self-continuity.

2. Social Self-Identification And Sustainable Consumption

While social identity is often interpreted as an aspect of individual self-concept including social characteristics that differentiate an individual from others in a given social context, it also refers to the categorization of the self into a social unit (Brewer, 1991). Social categorization is a process of creating and defining an individual's own place in society and allows the individual to recognize one's identity in terms of group membership (Tajfel, 1974). The social identity theory conceptualizes the notion of norm, which is conceived as a social pressure in the theories of reasoned action and planned behavior, in a cognitive term such as group prototype based on beliefs, attitudes, feelings, and behaviors that minimize differences among group members (Terry & Hogg, 1996). The categorization process into a social group results in depersonalization in the sense that individuals lose their differences from others by holding similar beliefs and maintaining similar behavioral patterns with group members (Tajfel, 1982). Thus, those who identify with a social group are likely to engage in a particular behavior in accordance with group members' perceptions, beliefs, and behaviors for the purpose of self-enhancement as group members. (Terry & Hogg, 1996; Terry et al., 1999).

Drawing on the social identity theory, researchers of sustainability extended the theories

of reasoned action and planned behavior by emphasizing the role of social self-identification in contributing to intentions and behaviors for sustainable consumption. Past studies revealed that social self-identification with typical sustainable consumers had a positive effect on intention and behavior for sustainable consumption and that the effect was independent of attitude, subjective norm, and control which are components of the theories of reasoned action and planned behavior (Bartels & Reinders, 2010; Mannetti et al., 2004; Nigbur et al., 2010; Sparks & Shepherd, 1992). Further, the relationship between social self-identification and intention or behavior was stronger when the two were measured in the same domain than the social self-identification was measured in a generic term or in a different domain (Bartels & Reinders, 2016; Whitmarsh & O'Neill, 2010).

3. Moderating Effect of Future Self-Continuity

From a temporal perspective, self consists of varying aspects along a temporal span such as past, present, and future selves (Markus & Wurf, 1987). In general, while individuals have tendency to maintain the sense of continuity of temporal selves, they have varying perceptions of psychological connectedness among temporal selves (Lennings & Burns, 1998; Zimbardo & Boyd, 1999). While the temporal selves can be perceived to be discrepant from each other depending on the perceived temporal distances among the selves, the future-self is often perceived to be discrepant psychologically from the present-self (Jamison & Wegener, 2010; Robinson & Ryff, 1999). Individuals differ in the perception of psychological similarity and connectedness between oneself in the present and the self in the future, which is referred as future self-continuity (Hershfield, 2011). Future self-continuity influences an individual's intertemporal decision which includes tradeoff between benefits or costs in the present and those in the future. When consumers have a strong perception that they are similar and connected with their future selves, they prefer future benefits than immediate rewards (Bartels & Urminsky, 2011; 2015). Future self-continuity also has an influence on the decision to save more for retirement (Ersner-Hershfield, Garton, Ballard, Samanez-larkin, and Knutson, 2009) and the decision to engage in ethical behavior (Hershfield, Cohen, and Thompson, 2012).

From the view of evolutional psychology and behavioral ecology, all actions including those involved in group living include trade-offs between varying costs and benefits: investing in one activity means sacrificing another (Ackerman & Kenrick, 2008, p. 119). A social activity is more likely to be refused when its cost outweighs benefit, compared to when its benefits outweighs cost. While activities related to the sustainable consumption enhance

social self-identity, particularly for the consumer who identifies oneself with sustainable consumers, they also incur monetary, physical, and psychological costs in the present for the sake of the future. When the consumer believes that the costs create benefits for the future-self as an extension of the present-self, a sustainable activity driven by the motive to enhance social self-identity is likely to be fostered. On the other hand, when the consumer believes that the beneficiary in the future is dissimilar or disconnected from the present-self, the sustainable activity is likely to be hindered. Thus, we predict that the influence of social self-identification on sustainable consumption will be greater for consumers with stronger perceptions of future self-continuity.

4. Study One

4.1 Methods

The study was aimed to test the moderating effect of future self-continuity on the influence of social self-identification with organic consumers on the organic food consumption. A survey was conducted for 194 American adults who were recruited from Amazon's MTurk (Female: 88, Male: 106; Single: 80, Married: 114). Average age was 40.3, ranged between 19 and 73. Organic food consumption was measured by four seven-point scales ("How often do you consume organic meat, vegetables, fruit, and dairy products?", α = .88). Social self-identification with organic consumers was measured by a five-point visual scale (Bartels & Reinders, 2016). Future self-continuity was measured by two seven-point visual scales (Hershfield et al., 2012, r = .82, p < .001). In addition, we included long-term orientation as a covariate, which was measured by a seven-point scale ("How long do you consider the duration between today and ten years from now?), and reverse-scored it such that a higher score indicated greater long-term orientation. We also included marital status and age as covariates in the analysis.

4.2 Results

The correlation between social self-identification and future self-continuity was significant at a moderate level (r = .14, p = .057). The correlation between future self-continuity and organic food consumption was not significant (r = .10, p = .17). Organic food consumption was regressed on social self-identification, future self-continuity, their interaction term, and the covariates. The married consumed more organic food products (t = 3.45, p < .001). There was not a significant main effect of age and long-term orientation (t <

1.0, p > .60). Main effect of social self-identification was not significant (b = .27, SE = .20, t = 1.36, p = .18). Main effect of future self-continuity was significant in the negative direction (b = -.27, SE = .13, t = 2.01, p = .046). However, the interaction effect between social self-identification and future self-continuity was significant in the positive direction (b = .11, SE = .05, t = 2.11, p = .036), indicating that the influence of social self-identification on organic food consumption was stronger for those with higher levels of future self-continuity. We conducted a spotlight analysis to probe the interaction effect. The influence of social self-identification on organic food consumption was positively significant at one standard deviation above the mean of future self-continuity (t = 2.45, p < .02) but was not significant at one standard deviation below the mean (t = .67, p > .50). The results indicate that social self-identification had a positive influence on organic food consumption for the respondents with higher levels of future self-continuity corresponding to the prediction that we made earlier.

4.3 Discussion of study one

The findings showed that social self-identification had a positive influence on the organic food consumption more strongly for the respondents with stronger perceptions of future self-continuity. However, as all the variables were measured in terms of chronic differences, an accurate interpretation of the interaction effect was problematic. For instance, future self-continuity could influence social self-identification, and behavioral tendencies of organic food consumption could be reflected in the social self-identification. In the next study, we conducted an experiment in a different domain of sustainable consumption by manipulating future self-continuity, measuring behavioral intention as a response to a stimulus public communication, and controlling the effect of behavioral tendency.

5. Study Two

5.1 Methods

We conducted an experiment in the domain of environmentally friendly consumption by creating a public communication aimed to prevent using disposable cups and plates for protecting forest. The experiment was conducted for 81 American adults who were recruited through Amazon's MTurk (Female: 38, Male: 43; Single: 44, Married: 37). Average age was 39.2, ranged between 20 and 70.

For the manipulation of future self-continuity, we presented the participants with a short article addressing either similarity/connectedness or dissimilarity/disconnectedness between

the present-self and the future-self. Following the manipulation, the participants viewed the public communication. Then, the participants answered six seven-point scales measuring their intentions to avoid disposable cups and plates and use environmentally friendly ones (e.g., "How likely is it that you will refrain from buying disposable paper cups or plates in the near future," α = .94). We measured social self-identification in the same way with study 1 by replacing organic consumers with environmentally conscious consumers. We included behavioral tendency as a covariate, which was measured by a seven-point scale ("How often do you purchase environment-friendly products?").

5.2 Results

For testing the manipulation of future self-continuity, we used the two seven-point visual scales used in study one (r = .90, p < .001). Those who were assigned to the continuity (vs. discontinuity) condition showed greater scores of future self-continuity ($M_{continuity}$ = 4.69, SD = 1.77 vs. $M_{discontinuity}$ = 3.86, SD = 1.43, F(1, 79) = 5.25, p = .025). The two groups did not differ in the social self-identification ($M_{continuity}$ = 3.14, SD = .85 vs. $M_{discontinuity}$ = 2.95, SD = .85, F(1, 79) = 1.10, p > .30). Marital status, age, and gender did not have a significant influence on the behavioral intention and were not included in the analysis.

Behavioral intention was regressed on social self-identification, future self-continuity, and their interaction term in addition to behavioral tendency. Behavioral tendency had a positive effect on behavioral intention (t(76) = 5.44, p < .001). The main effect of social self-identification was not significant (t(76) = .38, p > .70). The main effect of future self-continuity was marginally significant in the negative direction (t(76) = 1.81, p = .075). The interaction effect was significant in the positive direction (b = .73, SE = .32, t(76) = 2.26, p = .027), indicating that social self-continuity had a stronger influence on behavioral intention for the participants who were assigned to the condition of future self-continuity (vs. self-discontinuity). Specifically, social self-identification had a positive influence on behavioral intention for the group of future self-continuity (b = .67, SE = .24, t(41) = 2.72, p < .01), but not for the group of self-discontinuity (b = -.14, SE = .27, t(34) = .55, p > .50).

In sum, the results replicate study one by showing that the effect of social self-identification on behavioral intention was moderated by future self-continuity, which was manipulated to vary across the participants. While the findings converge with study one in general, this study differed in addressing situational perceptions of future self-continuity and using behavioral intention to comply with a public communication.

6. Discussion

While we focused on the interaction effect between social self-identification and future self-continuity, there is a need to explore a psychological mechanism behind the interaction effect, at least from a theoretical view. We speculate that the interaction could be based on a psychological distance between the future-self and sustainability, which might vary depending on the future self-continuity perception. When an individual perceives that one's future-self is disconnected from the present-self being identified with sustainable consumers in the present, the psychological distance between the future-self and sustainability is likely to be far distant from each other, diluting perceived benefits of sustainable consumption in the future. On the other hand, a stronger perception of future self-continuity is likely to shorten the psychological distance between the future-self and sustainability, accentuating perceived benefits of sustainable consumption in the future and reinforcing the motivational force driven by social self-identification.

Researchers who included social self-identification as a predictor of sustainable consumption showed consistently its contribution to intention and behavior. However, it has remained to be uncovered whether the effect of social self-identification is invariant across consumers who identify with sustainable consumers when they appropriate different meanings in engaging in the sustainable consumption. As sustainable behavior includes various characteristics that convey different meanings across individuals (Hanss & Böhm, 2012; Whitmarsh, Lorraine and Saffron O'Neill, 2010), it is worthwhile to explore boundary conditions that accentuate or attenuate the effectiveness of social self-identification. The present study added to the research of sustainable consumption by showing a boundary condition in which the effect of social self-identification was fostered or hindered. Our emphasis on the individual's perception of future self-continuity as a moderator provides an opportunity for future researchers to address temporal meanings inherent in sustainability by integrating the literature of temporal self into the research on sustainable consumption.

For policy makers persuading the public, it should be worth appealing to individuals' social self-identification with a desired social group such as typical sustainable consumers. However, more importance lies in the implementation of the appeal in ways to meet individuals' differences in their self-related schema. The present study suggests that appealing to social self-identification is effective, particularly for individuals who perceive their future selves are an extension of present selves.

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