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Contribution Statement

Although substantial streams of research examine goal pursuit processes and cultural differences in consumer behavior, relatively little research has attempted to link these two important domains. This article uses Kruglanski et al.'s (2000) regulatory mode framework as a basis for differentiating preferred goal pursuit mechanisms for collectivists vs. individualists. We find that collectivists tend to have a locomotion orientation that focuses on making progress and moving forward, whereas individualists tend to have an assessment orientation that focuses on comparing alternatives. These relationships have important implications for consumer behavior, and we find that they are potentially responsible for known cultural differences in counterfactual thinking and impression management.

Abstract

Consumer goal pursuit comprises several functional components. Two important components identified by recent research are assessment (critical evaluation and comparison of entities and states) and locomotion (movement from state to state), alternately termed regulatory modes. Seven studies were conducted to investigate the relation between cultural orientation and regulatory mode and its implications for consumer behavior. Results suggest that Caucasians (vs. Asians/Hispanics), independents (vs. interdependents), and individualists (vs. collectivists) have a greater tendency to engage in assessment because they are more likely to engage in cost-benefit analysis. In contrast, interdependents (vs. independents), Asians/Hispanics (vs. Caucasians), and collectivists (vs. individualists) have a greater tendency to engage in locomotion because they tend to acquiesce and avoid conflict. These relationships were found to be potentially responsible for cultural differences in counterfactual thinking and impression management. Implications of these findings in relation to consumers' goal pursuit are discussed.

How consumers engage in goal pursuit activities is a topic of considerable importance to scholars of marketing and consumer behavior. Goal pursuit strategies influence a wide variety of factors related to consumer decisions, including the amount of product information a consumer considers before a purchase, the breadth of the consideration set, and the decision to purchase the first acceptable brand or to continue looking for better brands. One variable that is likely to be an important determinant of behavior in situations like these is *regulatory mode* (Kruglanski et al. 2000), which involves the degree to which an individual engages in analytical activities such as comparing alternatives versus activities oriented toward goal-related movement. These two aspects of regulatory mode are referred to as *assessment* and *locomotion*. Although research has previously identified aspects of the goal achievement process related to both assessment and locomotion, the notion that individuals are predisposed to differentially emphasize assessment versus locomotion in their goal-directed behavior is relatively new and its implications for marketing and consumer behavior are only beginning to be explored. Considering the significant role regulatory mode plays in guiding consumer decisions, it is important to gain a better understanding of factors influencing locomotion and assessment modes.

The present article examines the relation between cultural orientation and regulatory mode and the implications of this relation for consumer behavior. Specifically, we investigate the degree to which individualist and collectivist cultural orientations predict locomotion and assessment tendencies, and examine how these relationships potentially impact aspects of consumer behavior. Seven studies using various operationalizations of both cultural orientation and regulatory mode provide converging evidence that individualists (vs. collectivists) are likely to emphasize assessment because of their tendency to compare and contrast and to conduct cost-benefit analyses (McCusker 1994; McCarty and Shrum 2001; Orehek et al. 2012; Pierro et al.

2012; Randall 1993; Triandis, McCusker, and Hui 1990). For instance, Triandis, McCusker, and Hui (1990) found that while relationships are normative for collectivists, individualists' tendency to engage in cost-benefit analyses extends to social relationships. That is, individualists maintain relationships as long as that cost-benefit analyses reveal they are beneficial, and that individualists drop out of groups when ; they are in line with the individuals' preferences and cost benefit analyses and drop out of groups when personal and group goals become incompatible.

In contrast, collectivists (vs. individualists) tend to emphasize locomotion because of their tendency to acquiesce and avoid conflict (Johnson, Shavitt, and Holbrook, 2011; Kagitcibasi and Berry 1989; Leung 1987), which encourages them to forego critical evaluation and move forward with decisions. Further, regulatory mode is found to underlie cultural differences in counterfactual thinking and impression management demonstrated by previous research.

Theoretically, the issues addressed by the present research are directly relevant to the discipline of cross-cultural psychology (Briley and Wyer 2001; Chiu and Hong 2007), and also contribute to the literature examining goal-driven consumer behavior. Moreover, the present research integrates these two important domains by demonstrating that cultural orientation predicts which aspects of goal-driven behavior are likely to be prioritized by a particular consumer. From a managerial perspective, the present research has implications for companies that interact with culturally diverse segments. Such companies need to understand that goal-related behavior in collectivist versus individualist consumers is likely to differ in predictable ways that dictate appropriate managerial strategies. For example, the finding that individualists (vs. collectivists) are more assessment-oriented indicates that individualists are relatively likely

to attempt to compare all options available to them before arriving at a decision, and hence might be more perfectionistic in purchase decisions (Kruglanski, Pierro, and Higgins 2007). Thus, for individualist consumers, companies that provide detailed information and facilitate comparisons with competing brands can potentially gain a competitive advantage. By demonstrating the self-regulatory functions likely to be emphasized by individualists and collectivists, the present research enables companies to target marketing communications in different cultures in a way that is likely to be most compatible with consumer goals.

THEORETICAL DEVELOPMENT

Imagine that you and your spouse have decided to buy a new digital camera. You drive to the local electronics store and walk to the digital camera display area. Much to your delight, a good brand-name camera is on sale for a price that is within your budget. You quickly pick up a box containing the camera, only to turn around and see that your spouse is not pleased. Instead of just taking the first reasonable-looking camera on display, it is apparent that your spouse would prefer to perform a detailed comparison of several brands in terms of price, megapixels, display size, zoom capability, and a host of other features before deciding on a camera. You, on the other hand, would prefer to buy the first decent camera you find and get on with your life as an amateur photographer. Are the different preferences exhibited by you and your spouse influenced by your respective cultural orientations? Who – individualists or collectivists – would be more or less eager to buy the first acceptable digital camera and move to the next task as opposed to assessing each and every attribute of several digital camera brands? Why? What are the implications of these tendencies?

The preceding example illustrates a conflict between two distinct self-regulatory modes, *assessment* and *locomotion* (Kruglanski et al. 2000). Assessment is the aspect of self-regulation that focuses on comparisons and critical evaluations of entities or states (i.e., goals or means) in relation to different alternatives, whereas locomotion is the aspect of self-regulation that focuses on movement between states and commitment of psychological resources to initiate and maintain goal-related movement. In the example, the assessment regulatory mode is illustrated by the spouse's desire to perform a comprehensive analysis of numerous features across several brands before selecting a digital camera, whereas the locomotion regulatory mode is exemplified by the protagonist's desire to buy the first acceptable digital camera and move on. The assessment mode enables consumers to identify the right or best action to take, whereas the locomotion mode allows consumers to take action. Thus, both assessment and locomotion are important components of any self-regulatory activity.

Regulatory Mode

Classic models of self-regulation typically describe assessment and locomotion processes as components of a series of stages that result in goal completion. For example, the first stage of the Rubicon Model of Action (Heckhausen and Gollwitzer 1987; Gollwitzer 1990) involves a *deliberation* process that produces a goal intention; this deliberation process generally involves both evaluation of potential goals (assessment) and decisive goal selection (locomotion) that enables the individual to move forward to the *implementation* and *action* stages of the goal completion process. Because assessment and locomotion are intertwined in multiple stages of the goal completion process, these two self-regulatory modes have generally been treated as inseparable and functionally interdependent (Kruglanski et al. 2000). Kruglanski et al. (2000)

proposed the alternative approach of focusing on the degree to which assessment and locomotion functions can operate independently, and how people tend to differentially direct attention, resources, or action to these distinct components of the self-regulation process.

Assessment is the aspect of self-regulation that pertains to evaluating entities or states, such as goals or means, in comparison to alternatives (Higgins, Kruglanski, and Pierro 2003). People focused on assessment tend to choose an option from a set of alternatives by comprehensively comparing the options on all possible attributes (Avnet and Higgins 2003), even if this process takes a long time (Kruglanski, Pierro, and Higgins 2007a). Such individuals seek to make the right decision by choosing the alternative with the best overall quality. Locomotion is the aspect of self-regulation that pertains to movement from state to state. This change of state can be either psychological or behavioral, and actual physical movement need not occur (Higgins et al. 2003). People focused on locomotion tend to emphasize getting started and taking action. Their overarching objectives are advancement, progress, and making headway, even if this process results in a failure to fully consider available options and hence might lead to suboptimal decisions (Pierro, Kruglanski, and Higgins 2006).

Culture and Regulatory Mode

How and why might cultural orientation predict regulatory mode? We propose that individualists (vs. collectivists) are more assessment oriented and that collectivists (vs. individualists) are more locomotion oriented. There are several theoretical reasons to believe that individualists (vs. collectivists) tend to rely on logical rules, analysis, and cost-benefit analysis when making decisions, and that these characteristics align with an assessment orientation. Regarding decision-making strategies for individualists, research indicates that when

individualists (vs. collectivists) make decisions, they rely more heavily on logical analysis (rather than on intuitive analysis; Gelfand and Dyer 2000; Goldman 1994) and logical rules (Nisbett et al. 2001). Individualists also tend to rely more heavily on analytical decision modes such as cost-benefit analysis, and are more likely to engage in critical analysis and appraisal of alternatives (McCarty and Shrum 2001; McCusker 1994; Mintzberg 1989; Triandis, McCusker and Hui 1990). For example, Caucasians (who are predominantly individualists), compared to Asians (who are predominantly collectivists), are more likely to analyze alternatives in order to choose the best option rather than making quick but potentially sub-optimal choices (Triandis 1995). It has even been argued that the logical thought process itself has its roots in individualism (Markus, Kitayama, and Heiman 1996; Gelfand and Dyer 2000) and that rational analysis is a defining feature of individualism (Triandis 1995).

The reliance on logical rules, analysis, and cost-benefit analysis that characterizes individualists is also closely related to the assessment regulatory mode. The assessment function involves comparing and contrasting options and reflecting on the trade-offs between attribute values (Kruglanski et al. 2000). Other research suggests that individualists (but not collectivists) are likely to engage in critical appraisal of alternatives by applying compensatory rules that entail conducting a cost-benefit analysis. For instance, Chu, Spires, and Sueyoshi (1999) found that Americans (individualists), compared to Japanese (collectivists) are more likely to invoke compensatory decision processes that enable the individual to appraise and engage in cost-benefit analysis. Similarly, Triandis, McCusker, and Hui (1990) found that individualists' tendency to critically appraise and to engage in cost-benefit analyses extends to social relationships. That is, individualists maintain relationships to the extent that cost-benefit analyses

reveal they are beneficial, and that individualists drop out of groups when such analyses do not reveal advantages.

The primary modes of reasoning that individualists rely on when making decisions are highly congruent with the functions served by assessment-oriented components of the goal achievement process. Like individualists, assessment oriented people make decisions based on logic, rational analysis, analytical decision modes (e.g., cost-benefit analysis; Weber, Ames, and Blais 2004; Weber and Lindemann 2007), and critical appraisal of alternatives (Kruglanski et al. 2009). They also tend to choose an option from a set of alternatives by comprehensively comparing the options on all possible attributes (Avnet and Higgins 2003), even if this process takes a long time (Kruglanski, Pierro, and Higgins 2007a). Preliminary support for the links between individualism, analytical decision style, and assessment is provided by Weber et al.'s (2004) content analysis of decisions made by characters in 29 bestselling and classic novels in China (collectivist) and the United States (individualist). These researchers found that decisions in American novels were more rational and assessment oriented (i.e., less focused on careful evaluation and making the right or ideal choice) than those in Chinese novels. Although this research is not experimental, it does provide empirical evidence consistent with the relation between individualism and assessment.

Moving to the culture-locomotion link, research suggests that collectivists (vs. individualists) and locomotion-oriented people have similar decision styles. For instance, Higgins, Pierro, and Kruglanski (2008) found that people oriented towards locomotion tend to be more agreeable than individuals oriented towards assessment. Apparently, the tendency of locomotors to forego critical evaluation causes them to be less fault-finding and hence, more

agreeable. In contrast, the tendency of assessors to engage in critical evaluation leads them to be less agreeable.

Research suggests that agreeableness and acquiescence are also key traits of collectivists but not individualists (Realo, Allik, and Vadi 1997; Taras, Kirkman, and Steel 2010; Johnson et al. 2011). Triandis and Suh (2002) argued that agreeableness is important in cultures that emphasize interpersonal harmony, which is an important facet of collectivism. Indeed, when faced with conflicts, collectivists hate to take sides and strive to find the “middle way” (Nisbett et al. 2001). Even when it comes to responding to scale items, Asian participants are more likely to agree with positively worded items than reverse worded items (Hui and Triandis 1983; Javeline 1999; Wong, Rindfleisch, and Burroughs 2003). Hence, because collectivists (vs. individualists) are more agreeable they might be more prone to engage in locomotion oriented behavior.

Further, Weber and her colleagues (Weber et al. 2004; Weber and Lindemann 2007) suggest that locomotion involves making recognition-based decisions primarily guided by intuition and experience, set rules, or personal roles, a set of decision criteria that is also heavily used by collectivists (Markus and Kitayama 1991; Mintzberg 1989; Nisbett et al. 2001). Each of these decision criteria enables the person to fulfill the primary locomotion objective of quickly moving on to the next task without delaying to engage in detailed analysis. This suggests that collectivists might emphasize locomotion more than individualists, which is consistent with Weber et al.’s (2004) content analysis of novels in China and the United States which showed that Chinese decisions were more rule/role based and locomotion oriented than American decisions. Finally, subgroups that endorse collectivistic values have been shown to be oriented towards greater locomotion and lower assessment. For instance, Kruglanski et al. (2000) found

that military personnel scored higher on locomotion and lower on assessment than college students. It can be argued that military personnel typically have a more collectivist orientation characterized by strict adherence to group norms and focus on the success of the group rather than on individual performance. Collectively, the preceding evidence suggests that collectivists might be more locomotion-oriented than individualists.

Implications for Counterfactual Thinking and Impression Management

The present research examines not only the general relation between cultural orientation and regulatory mode, but also the implications of this relation for consumer behavior. Considerable research has examined how a variety of constructs examined in consumer research relate to cultural orientation. It is possible that some of these relations might be at least partially due to regulatory mode. By examining the impact of regulatory mode on these relations, we can gain novel insights into underlying mechanisms and boundary conditions. We focused on two consumer behavior constructs that previous research suggests may be associated with both cultural orientation and regulatory mode, namely counterfactual thinking and impression management (Lalwani, Shavitt, and Johnson 2006; Lalwani, Shrum, and Chiu 2009; Markus and Kitayama 1991; Pierro et al. 2007).

Research suggests that because assessment oriented people are prone to analyzing situations, they compare the outcome to “what might have been” had things turned out differently. That is, they are more likely to engage in counterfactual thinking and experience regret with negative outcomes (Pierro et al. 2007). In contrast, locomotion oriented people strive to move on to the next task and do not tend to dwell on outcomes that happened in the past. Other research suggests that collectivists are less able to think counterfactually than

individualists (Bloom 1984). Bloom (1984) observed that, when asked to imagine their reactions to hypothetical scenarios like changes in local laws, Chinese respondents (who are predominantly collectivists) frequently rejected the hypothetical scenario rather than imagining their reactions if that scenario would come to pass. When pressed, these respondents often became frustrated or claimed that it was unnatural or un-Chinese to think in this counterfactual way. Conversely, Bloom's (1984) respondents from western cultures (who are predominantly individualists) had no difficulties responding to similar hypothetical scenarios. Based on this and other related findings, Bloom concluded that Chinese speakers "might be expected typically to encounter difficulty in maintaining a counterfactual perspective as an active point of orientation for guiding their cognitive activities" (1984, p. 21). We propose that an assessment orientation is a key characteristic that enables individualists to think counterfactually, and thus that assessment should mediate the relation between individualism and counterfactual thinking. In other words, individualists are more prone to counterfactual thinking in part because they are assessment-oriented and their tendency to focus on comparisons and critical evaluations makes them more likely to think about "what could have been" (i.e., counterfactual thinking). This tendency might also enhance their likelihood of experiencing regret following a negative outcome.

We also propose that regulatory mode is a key factor in the relation between culture and impression management. In particular, we propose that locomotion enables collectivists to engage in impression management, and thus mediates the relationship between collectivism and impression management. Previous research has demonstrated that collectivists have a tendency to engage in impression management (Lalwani 2009; Lalwani et al. 2006; 2009). Our mediation hypothesis assumes that locomotion also predicts impression management. Although no known research has empirically examined this predictive relation, there are theoretical reasons to expect

it. Impression management is an *active* and *deliberate* attempt to fake good behavior in front of a real or imagined audience (Leary and Kowalski 1990; Mick 1996). It requires retrieval of relevant behavioral norms from memory and continuous adaptation of responses to fit with those norms (Leary and Kowalski 1990). In other words, impression management involves going back and forth between one's actual attitudes/behaviors and behavioral norms in an effort to select and portray oneself in the best possible view, in addition to continuous behavioral changes to adapt to situation-based changes in prevailing social norms. A locomotion orientation might facilitate those movements from state to state and hence enable collectivists (vs. individualists) to engage in greater impression management.

Overview of Studies

We tested our hypotheses in seven studies. The first four studies provide evidence that collectivism is associated with locomotion and that individualism is associated with assessment. A multi-method approach was used in these studies to demonstrate the generality of the results. Cultural orientation was operationalized by measuring participants' ethnicity (Study 1A), by priming self-construal (independent, interdependent; Study 1B), and by direct assessment of chronic cultural orientation (individualism, collectivism; Studies 1C and 2) using a self-report scale. Locomotion and assessment were operationalized using both an established self-report scale (Studies 1A, 1B, and 1C) and a set of scenarios describing events that consumers encounter in their day to day lives (Study 2). Study 3 provides support for the prediction that agreeableness is a key factor driving the relation between collectivism and locomotion. The last two studies demonstrate that regulatory mode can partially account for previous empirical findings indicating that individualism is associated with counterfactual thinking (Study 4) and that collectivism is

associated with impression management (Study 5).

STUDY 1A

Study 1A was conducted to test the relationship between cultural self-construal (independent, interdependent) and regulatory mode. We predicted that independents (vs. interdependents) will be more assessment oriented, whereas interdependents (vs. independents) will be more locomotion oriented.

Method

Participants and Design. Participants were 452 undergraduate students (41% male) at a large university who participated in exchange for class credit. A 2 (participant ethnicity: Caucasian, Asian/Hispanic; between-subjects) x 2 (regulatory mode: locomotion, assessment; within-subjects) mixed factorial design was used.

Measures. Locomotion and assessment were measured using Kruglanski et al.'s (2000) 30-item, 6-point Likert type scale (1 = strongly disagree, 6 = strongly agree). Sample items to measure locomotion ($\alpha = 0.72$) include "I feel excited just before I'm about to reach a goal" and "Most of the time, my thoughts are occupied with the task I want to accomplish." Sample items to measure assessment ($\alpha = 0.63$) include "I spend a great deal of time taking inventory of my positive and negative characteristics," and "When I meet a new person I usually evaluate how well he or she is doing on various dimensions (e.g., looks, achievements, social status, clothes)."

Participants were asked to report the ethnic group they identified with by means of a closed-ended question with seven options (African-American or Black; White; Hispanic or Latino; Asian; Native American or Aleut; Multiracial; or some other group). Following Escalas

and Bettman (2005), participants who indicated being White were termed “Caucasian” (to represent individualists) whereas those who indicated being Asian, Hispanic, or Latino were termed “Asian/Hispanic” (to represent collectivists). The responses of two outliers were deleted because they scored 3 standard deviations or more away from the mean on the locomotion or assessment scales, although our results did not differ when those responses were retained.

Results and Discussion

A general linear model with locomotion and assessment entered as repeated measures and participant ethnicity (Caucasian, Asian/Hispanic) entered as a between subjects variable revealed a significant interaction between ethnicity and regulatory mode ($F(1,381) = 13.27, p < .00$). Contrasts indicated that Caucasians scored significantly higher than Asians/Hispanics on assessment ($M_{\text{Caucasians}} = 4.13, M_{\text{Asians/Hispanics}} = 3.99; t(381) = 2.29, p < .05$), whereas Asians/Hispanics scored significantly higher than Caucasians on locomotion ($M_{\text{Caucasians}} = 4.36, M_{\text{Asians/Hispanics}} = 4.48; t(381) = -1.97, p < .05$; figure 1). These findings suggest that Caucasians, who are more concerned about choosing the best option than about making quick but potentially sub-optimal decisions (Triandis 1995), have a greater tendency to engage in assessment – the aspect of self-regulation that compares the relative quality of options —than Asians/Hispanics, who in turn have a greater tendency to engage in locomotion– the aspect of self-regulation that emphasizes movement from state to state.

In order to examine the relation between cultural orientation and regulatory mode more clearly, the next studies were conducted using different operationalizations of culture. In Study 1B, we manipulated cultural orientation via priming, and in Study 1C, we assessed chronic cultural orientation.

Insert figure 1 about here

STUDY 1B

Method

Two hundred and three participants between the ages of 18 and 71 (54% male) completed the study via Amazon Mechanical Turk. A 2 (self-construal prime: independent, interdependent; between-subjects) x 2 (regulatory mode: locomotion, assessment; within-subjects) mixed design was used. Self-construal (independent or interdependent) was activated using a short story taken from Brewer and Gardner (1996), in which participants were asked to count all singular first-person pronouns (I, me, my, mine) in the independent prime condition or all plural first-person pronouns (we, us, our, ours) in the interdependent prime condition. Locomotion and assessment were measured as in Study 1A (α 's: locomotion = 0.77; assessment = 0.67).

Results and Discussion

Manipulation Checks. A pretest ($N = 39$) was conducted to verify that the self-construal prime was effective. Consistent with expectations, pretest respondents in the independent self-construal condition scored higher on an 8-item, 7-point Likert type scale measuring individualist values (Triandis and Gelfand 1998) than did those in the interdependent self-construal condition ($M_{\text{Independent}} = 5.56$, $M_{\text{Interdependent}} = 4.98$; $t(38) = 2.36$, $p < .05$), indicating that the manipulation was effective.

Primary Analyses. As predicted, a GLM with locomotion and assessment scores entered as repeated measures and self-construal prime (independent, interdependent) entered as a between subjects variable revealed a significant interaction ($F(1,201) = 8.93, p = .003$). Contrasts indicated that the independent self-construal prime led to significantly higher assessment scores than the interdependent self-construal prime ($M_{\text{Independent}} = 4.00, M_{\text{Interdependent}} = 3.77; F(201) = 4.78, p < .05$), whereas the interdependent self-construal prime resulted in higher locomotion scores than the independent self-construal prime ($M_{\text{Interdependent}} = 4.34, M_{\text{Independent}} = 4.17; F(201) = 2.85, p = .09$), although the latter difference was only marginally significant.

As expected, we observed a significant interaction between self-construal prime and regulatory mode. Participants with a salient independent (vs. interdependent) self-construal scored higher on assessment, whereas participants with a salient interdependent (vs. independent) self-construal scored higher on locomotion. The next study further tests the generalizability of these relationships using a measure of chronic cultural orientation instead of ethnicity or a self-construal prime. We hypothesized that individualism, but not collectivism, predicts assessment, whereas collectivism, but not individualism, predicts locomotion.

STUDY 1C

Method

Respondents were 101 undergraduate students (50% male, age group: 20-55) enrolled in business courses at a large university who participated in exchange for class credit. Participants responded to a questionnaire administered via the computer. They completed the regulatory mode questionnaire described in Study 1A, as well as Triandis and Gelfand's (1998) scale measuring individualist (8 items) and collectivist (8 items) cultural orientations. Examples of individualist items include "I'd rather depend on myself than others" and "It is important that I

do my job better than others.” Two sample collectivist items are “If a coworker gets a prize, I would feel proud” and “Parents and children must stay together as much as possible.” All items in the cultural orientation scale were anchored by 1 (strongly disagree) and 7 (strongly agree).

Results and Discussion

In order to test the relative influence of individualism and collectivism on locomotion and assessment, two regression equations were estimated. The first equation, in which locomotion was regressed on both individualism and collectivism, revealed that collectivism significantly predicted locomotion ($\beta = 0.32$, $t(98) = 3.38$, $p < .001$) but individualism did not ($\beta = 0.10$, $t(98) = 1.08$, $p > .28$). The second equation, in which assessment was regressed on both individualism and collectivism, revealed that individualism significantly predicted assessment ($\beta = 0.22$, $t(98) = 2.21$, $p < .05$) but collectivism did not ($\beta = 0.05$, $t(98) = 0.56$, $p > .57$). These results support the hypotheses that individualists are more oriented toward assessment than collectivists, whereas collectivists are more oriented toward locomotion than individualists.

STUDY 2

Although the preceding studies support the hypotheses that individualism tends to be associated with assessment and collectivism tends to be associated with locomotion, it remains to be established whether these relationships have implications for other judgments or behaviors. In Study 2, we examined whether cultural orientation influences respondents' predictions regarding their future behaviors or outcomes in the context of relevant consumption scenarios. Given that individualists emphasize assessment and collectivists emphasize locomotion, we predicted that

these two groups will also be more likely to present their actions or behaviors in ways that focus on comparing alternatives or moving from state to state, respectively.

A pilot study ($N = 408$) was conducted to empirically derive a set of consumption scenarios related to either locomotion or assessment. Participants responded to several scenarios constructed to reflect everyday situations that consumers are likely to encounter. A principal component analysis with varimax rotation indicated that the locomotion and assessment scenarios loaded on distinct factors (factor loadings = 0.42 to 0.76). Responses to the assessment and locomotion scenarios were averaged separately to form indices of assessment and locomotion. These indices were validated using regression analyses with trait assessment and locomotion (as measured by Kruglanski et al.'s [2000] scale; see Study 1A) entered as independent variables. With the assessment index as the dependent variable, trait assessment was a significant predictor ($\beta = 0.26$, $t(405) = 5.52$, $p < .001$) but trait locomotion was not ($\beta = 0.07$, $t(405) = 1.45$, $p > .14$). With the locomotion index as the dependent variable, trait locomotion was a significant predictor, ($\beta = 0.33$, $t(405) = 6.72$, $p < .001$) but trait assessment was not ($\beta = 0.01$, $t(405) = 0.18$, $p > .85$). The results of these regression analyses confirm that the scenarios tapped the intended regulatory modes.

Method

Fifty seven undergraduate students at a large university participated in exchange for class credit. These participants were shown the scenarios (5 for assessment, 3 for locomotion) that were developed in the pretest. An example of a locomotion scenario follows:

You are in a store to buy a cable for your MP3 player. The store has every cable on the list but not the one you need. You are informed that the cable part is out of stock and you will have to wait for two weeks before the part becomes available. You know that the part you need is available at another store that is 20 miles away. How likely would you be to go to the other store to get the cable? (1 = not at all likely, 9 = very likely)

An example of an assessment scenario follows:

You are trying to check out at a grocery store. The lines are very long because there are not enough people working at the registers. You notice that the grocery store has twenty registers and only five of them are open now. How likely would you be to spend a lot of time thinking about ways the store could improve customer service? (1 = not at all likely, 9 = very likely)

Participants were asked to predict their judgment or behavior in each scenario.

Respondents also completed the 16-item Triandis and Gelfand (1998) cultural orientation scale described in Study 1C.

Results and Discussion

We predicted that collectivism, but not individualism, would be associated with the locomotion index, whereas individualism, but not collectivism, would be associated with the assessment index. Regression analyses confirmed these predictions. The first regression analysis revealed that collectivism significantly predicted the locomotion index ($\beta = 0.37$, $t(54) = 2.96$, p

< .005) but individualism did not ($\beta = 0.09$, $t(54) = 0.69$, $p > .49$). The second regression analysis revealed that individualism significantly predicted the assessment index ($\beta = 0.44$, $t(54) = 2.24$, $p < .05$) but collectivism did not ($\beta = 0.12$, $t(54) = .92$, $p > .36$). These results are consistent with our hypotheses and provide further evidence for the relationship between cultural orientation and regulatory mode.

These findings extend those of the previous studies by showing systematic differences in the way individualists and collectivists direct their attention, resources, or actions towards two components of self-regulation. Individualists have a greater tendency to focus on assessment – the aspect of self-regulation that emphasizes comparisons and critical evaluations of options – than collectivists. In contrast, collectivists have a greater tendency to focus on locomotion – the aspect of self-regulation that emphasizes movement from state to state. The purpose of Study 3 was to explore the role of agreeableness in the link between collectivism and locomotion. If collectivists are locomotion oriented because of their tendency to be agreeable, then the relationship between collectivism and locomotion should be positive and significant when participants are put in an agreeable mindset, but the relationship should disappear when they are put in a disagreeable mindset. Study 3 tested this hypothesis.

STUDY 3

Method

One hundred and five participants between the ages of 18 and 73 completed the study via Amazon Mechanical Turk. Participants were randomly assigned to an agreeable or a disagreeable condition. Both conditions consisted of a word search puzzle where participants were instructed to find 5 words. In the agreeable condition, the word search consisted of words

related to feelings of acquiescence (e.g., agreeable, compliant, willing, obedient, and consent); in the disagreeable condition, the word search consisted of words related to feelings of disagreeableness (e.g., disagree, contradict, oppose, refuse, and protest). To ensure that the priming task was an appropriate manipulation of agreeableness and disagreeableness, a pretest was conducted. Results indicated that participants who completed the agreeable word search were significantly more likely than those who completed the disagreeable word search to agree with positive ratings of various brands ostensibly given by participants in a previous survey ($M_{\text{Agree}} = 4.81$ vs. $M_{\text{Disagree}} = 4.32$; $t(94) = 4.54, p < .04$).

After participants completed the word search task, they were asked to respond to one of the locomotion consumption scenarios that was developed as part of Study 2. Specifically, participants read:

You work for a company called ABC Incorporated. The last few days have been very hectic for you as your responsibilities at work have increased significantly. Today is no different, and you have a bunch of files to work on. It is 6:00 p.m., and all your colleagues have left the office, and it is quite tempting for you to "call it a day." How likely would you be to continue working on the files? (1=not at all likely, 9 = very likely)

Respondents also completed the 16-item Triandis and Gelfand (1998) cultural orientation scale described in Study 1C.

Results and Discussion

If collectivists' tendency to pursue locomotion is driven by acquiescence, then we would expect that the relationship between collectivism and locomotion will be significant in the agreeableness condition, but not in the disagreeableness condition. The data supported these expectations. Specifically, a general linear model with the agreeableness priming manipulation and cultural orientation as between subject factors revealed a significant interaction between collectivism and agreeableness to predict locomotion ($F(1,104) = 3.93, p < .05$). Further analyses indicated that the correlation between collectivism and locomotion was significant in the agreeableness condition ($r = .37, p < .01$), but not in the disagreeableness condition ($r = .04, p = .79$). Further, as expected, there was no significant interaction between individualism and condition to predict locomotion ($F(1,104) = .96, p = .49$). The correlation between individualism and locomotion was not significant in either the agreeableness condition ($r = .14, p = .28$) or the disagreeableness condition ($r = -.04, p = .76$). These findings suggest that the relationship between collectivism and locomotion is driven by the tendency to agree or an unwillingness to disagree.

The final two studies examine marketing-related consequences of the relation between cultural orientation and regulatory mode. In Study 4, we examine whether assessment is potentially responsible for the relation between individualism and counterfactual thinking, and in Study 5, we investigate whether locomotion is potentially responsible for the relation between collectivism and impression management.

STUDY 4

Method

Respondents were 114 undergraduate students (60% male, 90% in age group: 20-30)

enrolled in business courses at a large university who participated in exchange for class credit. Regulatory mode was assessed as in Study 1A. Cultural orientation was assessed using scales developed and tested by Oyserman (1993; Study 4). The collectivism scale included 5 Likert-type items anchored by 1=strongly disagree and 7 = strongly agree, for instance, “Whatever is good for my group is good for me,” and “If you know what groups I belong to, you know who I am.” The individualism scale included 4 similarly formatted items such as, “Self-actualization is one of my highest values” and “It is important to me that I am unique.” Because previous research has linked individualism, but not collectivism, to additive counterfactuals (Chen et al. 2006), participants were asked to read and respond to the following additive counterfactual scenario developed and validated by Krishnamurthy and Sivaraman (2002):

Sue was investing in the stock market for the first time. Although she initially enjoyed some solid profits, she tried to be extremely careful about not going in over her head. Soon after, however, the market took a wild turn, and Sue lost a huge amount of money. When rethinking about negative experiences, people often develop thoughts such as 'If only I had ... things could have turned out a lot better.' Please indicate how many thoughts like that would have come to your mind if you were Sue.

The number of thoughts listed by respondents served as the measure of counterfactual thinking. In addition, anticipated regret was measured with the question, “If you were Sue how much regret would you feel? (1 = not at all, 7 = very much).”

Results

Counterfactual thinking. A regression equation with counterfactual thinking as the dependent variable and both collectivism and individualism as independent variables revealed a

significant effect of individualism ($\beta = 0.24, t(113) = 2.59, p < .02$) but not of collectivism ($\beta = -0.01, t(113) = -0.15, p > .88$), suggesting that individualism but not collectivism is associated with counterfactual thinking. Another regression equation with counterfactual thinking as the dependent variable and both locomotion and assessment entered as independent variables revealed a significant effect of assessment ($\beta = 0.36, t(113) = 3.85, p < .001$) but not of locomotion ($\beta = -0.03, t(113) = -0.27, p > .78$), suggesting that assessment but not locomotion is associated with counterfactual thinking.

Using Baron and Kenny's (1986) procedure, we tested whether assessment mediated the relation between individualism and counterfactual thinking. In separate regression equations, individualism predicted counterfactual thinking ($\beta = 0.24, t(113) = 2.60, p < .02$) and assessment ($\beta = 0.30, t(113) = 3.26, p < .001$). Finally, when counterfactual thinking was regressed on both individualism and assessment, the effect of individualism was no longer significant ($\beta = 0.15, t(113) = 1.61, p > .11$), whereas assessment was significant ($\beta = 0.31, t(113) = 3.34, p = .001$). A Sobel test supported the mediation (Sobel's $z = 2.33, p < .02$). These findings indicate that assessment fully mediated the effect of individualism on counterfactual thinking.

Regret. A regression equation with regret as the dependent variable and both collectivism and individualism entered as independent variables revealed a significant effect of individualism ($\beta = 0.23, t(113) = 2.54, p < .02$) but not of collectivism ($\beta = 0.13, t(113) = 1.41, p > .16$), suggesting that individualism but not collectivism is associated with regret. Another regression equation with regret as the dependent variable and both locomotion and assessment entered as independent variables revealed a significant effect of assessment ($\beta = 0.35, t(113) = 3.76, p < .001$) but not of locomotion ($\beta = -0.07, t(113) = -0.76, p > .44$), suggesting that assessment but not locomotion is associated with regret.

Using Baron and Kenny's (1986) procedure, we tested whether assessment mediated the relationship between individualism and regret. In separate regression equations, individualism predicted regret ($\beta = 0.25$, $t(113) = 2.70$, $p < .01$) and assessment ($\beta = 0.30$, $t(113) = 3.26$, $p < .001$). Finally, when regret was regressed on both individualism and assessment, assessment was significant ($\beta = 0.28$, $t(113) = 3.06$, $p < .005$), whereas the effect of individualism decreased substantially ($\beta = 0.16$, $t(113) = 1.78$, $p = .08$). A Sobel test supported the mediation (Sobel's $z = 2.23$, $p < .03$). These findings indicate that assessment partially mediated the effect of individualism on regret.

Discussion

These findings support Pierro et al.'s (2007) proposition that assessment (vs. locomotion) is associated with increased counterfactual thinking and regret concerning negative outcomes and are also consistent with previous research (Bloom 1981; Markus and Kitayama 1991) indicating that individualism (vs. collectivism) is associated with increased counterfactual thinking and regret concerning negative outcomes. Most importantly, the finding that assessment mediates the relation between individualism and counterfactual thinking suggests that the relation between cultural orientation and counterfactual thinking is at least partially driven by regulatory mode. Study 5 takes a similar approach by examining the relationships between cultural orientation, regulatory mode, and impression management.

STUDY 5

The objective of Study 5 was to test the hypothesis that collectivism (but not individualism) is associated with impression management because of its relationship with

locomotion. That is, the relationship between collectivism and impression management should be mediated by locomotion.

Method

Respondents were 146 undergraduate students (74 males, 71 females, 1 missing) enrolled in business courses at a large university who participated in exchange for class credit. Regulatory mode and cultural orientation were measured as in Study 1C (α 's: assessment = 0.74, locomotion = 0.80; individualism: 0.70; collectivism: 0.78). Impression management ($\alpha = 0.79$) was measured using the 20-item Paulhus deception scale (Paulhus 1991). A sample item is "I always obey laws, even if I'm unlikely to get caught" (1 = strongly disagree, 7 = strongly agree).

Results

Effect of cultural orientation on impression management. A regression equation with impression management as the dependent variable and both individualism and collectivism entered as independent variables revealed a significant positive effect of collectivism ($\beta = 0.17$, $t(144) = 2.04$, $p < .01$) but no effect of individualism ($\beta = -0.13$, $t(144) = -1.59$, $p > .11$). These findings replicate those of Lalwani et al. (2006; Lalwani 2009; Lalwani, et al. 2009; Lalwani and Shavitt 2009), who found a robust positive tendency among collectivists, but not individualists, to engage in impression management.

Effect of regulatory mode on impression management. Another regression equation with impression management as the dependent variable and both locomotion and assessment entered as independent variables revealed a significant positive effect of locomotion ($\beta = 0.44$, $t(144) = 5.83$, $p < .001$) but a significant negative effect of assessment ($\beta = -0.21$, $t(144) = -2.70$, $p <$

.01), suggesting that consumers oriented towards locomotion are more likely to engage in impression management, whereas those oriented towards assessment are less likely to engage in impression management.

Mediation Analyses. Using Baron and Kenny's (1986) procedure, we tested whether locomotion mediated the relationship between collectivism and impression management. In separate regression equations, collectivism predicted impression management ($\beta = 0.17, t(144) = 2.06, p < .05$) and locomotion ($\beta = 0.22, t(144) = 2.70, p < .005$). When impression management was regressed on both collectivism and locomotion, the effect of collectivism was no longer significant ($\beta = 0.08, t(144) = 1.05, p > .29$), whereas the effect of locomotion was significant ($\beta = 0.38, t(144) = 4.93, p < .001$). A Sobel's test confirmed the mediation (Sobel's $z = 2.37, p < 0.02$). These findings suggest that locomotion fully mediated the effect of collectivism on impression management. In contrast, because, collectivism was not related to assessment ($\beta = -0.01, t(144) = -0.07, p > .95$), assessment did not mediate the relationship between collectivism and impression management.

Discussion

These findings support Lalwani et al's (2006) work indicating that collectivism, but not individualism, is associated with impression management. In addition, the present study shows that a locomotion orientation is positively related to impression management whereas an assessment orientation is negatively related to impression management. The most important finding is that locomotion fully mediates the relation between collectivism and impression management. Although previous research has demonstrated the impact of other explanatory factors on the relation between collectivism and impression management, such as prevention

focus (Lalwani et al. 2009) and the tendency to engage in deception (Lalwani et al. 2006), the present findings suggest that the well-established relation between cultural orientation and impression management is at least partially driven by regulatory mode.

GENERAL DISCUSSION

Collectively, the present research provides converging evidence for the relationship between cultural orientation and regulatory mode. In Study 1A, Caucasians scored significantly higher on assessment than Asians/Hispanics, who in turn scored significantly higher on locomotion. In Study 1B, independent (vs. interdependent) self-construal resulted in significantly higher scores on assessment, whereas interdependent (vs. independent) self-construal led to higher scores on locomotion. Study 1C replicated these findings using chronic cultural orientation. Study 2 replicated these results and extended these findings to behavioral scenarios that consumers encounter in their day to day lives. These findings suggest that individualists are more likely to focus on choosing the best option by investing the time and energy necessary to evaluate and compare alternatives. In contrast, collectivists are more likely to change their judgments, responses, and behaviors to meet others' expectations, and hence, focus on movement from state to state and quickly accept options presented to them.

Study 3 revealed that the relationship between collectivism and locomotion is significant and positive when participants are primed to be agreeable, but disappears when participants are primed to be disagreeable. These findings suggest that collectivists' tendency to engage in locomotion is driven by their tendency to acquiesce. Studies 4 and 5 examined two phenomena that previous research had shown to be associated with cultural orientation and demonstrated that these relationships were at least partially driven by regulatory mode. In Study 4, an assessment orientation was found to mediate the relation between individualism and counterfactual thinking,

as well as that between individualism and regret following a negative outcome. In Study 5, a locomotion orientation was found to mediate the positive relation between collectivism and impression management.

Contributions and Implications

This article contributes both to the cross-cultural and the self-regulatory literatures by demonstrating that cultural orientation significantly influences regulatory mode. Specifically, individualists (vs. collectivists) were found to emphasize assessment, the tendency to focus on evaluating entities or states, such as goals or means, in comparison to alternatives to form judgments of relative quality (Higgins et al. 2003). These findings suggest that individualists might be relatively more perfectionistic than collectivists, as they carefully attempt to compare all options available to them to select the best option, even if this process takes a long time (Kruglanski, Pierro, and Higgins 2007). This fits with the goals of the individualistic cultural orientation to be competent, unique, and independent (Markus and Kitayama 1991). Conversely, collectivists (vs. individualists) were found to focus on locomotion, the tendency to focus on movement from state to state, that is, getting started and taking action. These findings suggest that collectivists might be especially concerned about making discernible progress on tasks and about making headway, even if the process results in sub-optimal decisions (Pierro, Kruglanski, and Higgins 2006). This concern on the part of collectivists might be linked to their goal to appease others and “fit in” with their groups by demonstrating to others that steady progress is being made on tasks assigned to them (Lalwani et al. 2006).

The differential self-regulatory functions emphasized by individualists and collectivists have potentially important implications in a number of domains, including decision making, self-

consciousness, discomfort with ambiguity, and openness to change (Higgins et al. 2003). Previous research has shown that a locomotion orientation is associated with an increased likelihood of following an “elimination by aspects” decision strategy in choosing products (Kruglanski et al. 2007). The present findings suggest that, because collectivism is associated with locomotion, collectivists might prefer similar decision strategies that enable them to make steady progress toward a goal. Considering that making a purchase is often the clearest evidence of progress in consumer contexts, collectivists might also be more likely to act like the protagonist in our shopping example and prefer making an immediate purchase over engaging in comparison shopping. Conversely, individualists who are more oriented toward assessment might act like the spouse in our shopping example and try to gather as much information as possible before making a purchase. To the extent that this is the case, collectivists might be less likely than individualists to investigate multiple products, multiple stores, or external information sources like internet consumer sites, before making a purchase. This could be because collectivists enjoy larger and stronger social networks, which are ever-ready to provide the necessary support if things go wrong. These social support structures are less common among individualists (Markus and Kitayama 1991; Triandis 1995). The social structure might also result in collectivists being better able to cope with change. Consistent with this possibility, considerable research suggests that people with a high locomotion orientation are better able to adapt to change (Judge et al. 1999; Kruglanski et al. 2002).

Other implications are also noteworthy. In the realm of decision-making, people with an assessment focus tend to emphasize value (potential rewards) whereas people with a locomotion focus place more emphasis on the likelihood of success, suggesting that locomotion-oriented collectivists should be less likely to choose risky ventures or potentially to try unproven brands

(Higgins et al. 2003). Research also shows that people are likely to make product choices that are congruent with their preferred regulatory mode; for example, people with a locomotion orientation tend to prefer movies in which quick and sudden changes happen to the central characters or those that enable them to move between various states of excitement (e.g., comedies and action/adventure films), whereas people with an assessment orientation tend to prefer movies that have slower development to facilitate understanding and evaluation of the nature of the central characters (e.g., dramatic films; Higgins et al. 2003; Pierro, Higgins, and Kruglanski 2002). Given cultural differences in regulatory mode, these distinctions may carry over to individualists and collectivists. Finally, Avnet and Higgins (2003) found that the degree of fit between a consumer's preferred regulatory mode and the decision strategy used to evaluate a product positively influenced the amount of money they are willing to spend for the product. Hence, individualists may spend more money when they are given the opportunity to assess products, whereas collectivists may spend more money when they are given the opportunity to make rapid decisions with products.

We are aware of one study that, on the surface, seems to contradict our findings. Higgins and his colleagues (Higgins, 2008; Higgins, Pierro and Kruglanski, 2008) collected regulatory mode data for a cross-national sample involving several countries, although they did not explicitly examine how individualism and collectivism relate to regulatory mode. The overall pattern of their data was that collectivist countries (e.g., Japan and Korea) tended to have higher assessment scores than individualist countries (e.g., Italy) and that individualist countries tended to have higher locomotion scores than individualist countries. However, their data do not consistently support these relationships. For example, India (collectivist) scored lower on assessment and higher on locomotion than either the U.S. or England (both individualist).

Similarly, the U.S. and Israel (both individualist) had higher assessment scores than Japan (collectivist). The fact that these country-level data do not indicate a consistent relation between cultural orientation and regulatory mode suggests that country might be too broad as a predictor variable, perhaps because country embodies a complex combination of several psychological constructs. Accordingly, Kim et al. (1994) argued that cross-national comparisons are valid only for cultural level variables (e.g., GNP, epidemiological rates) and that within-country analyses should be used for individual level measures (attitudes, beliefs, etc., which would include self-regulatory orientations like regulatory mode).

Limitations and Directions for Future Research

The current investigation does have some limitations. Because some of the data were collected using student samples in laboratory settings, our findings might have limited generalizability. Nevertheless, in light of the underlying theories we draw from and relatively converging evidence from multiple studies, including some studies sampling the general population, our results seem persuasive. In addition, we collected cross-national data comparing respondents in the U.S. with those in India, and found non-significant differences between their regulatory mode scores. However, because countries differ on a host of dimensions (e.g., power distance, masculinity-femininity, etc.), other factors may have played a bigger role, thus dwarfing the role of individualism-collectivism. Further, although we did not find support for a relationship between either locomotion and individualism or assessment and collectivism, there is some theoretical support for these relationships; consequently, it is possible that these relationships might emerge under some conditions, and future research should attempt to identify these conditions. Finally, our research suggests that the relationship between individualism and

counterfactual thinking is mediated by assessment; however, this finding might be limited to additive counterfactual thinking in which people are asked to imagine additional things they could have done to achieve a desired result (as opposed to subtractive counterfactual thinking, in which people are asked to imagine things they did but could have undone; Roese, Hur, and Pennington 1999; Chen et al. 2006). Future research should explore how culture and regulatory mode impact different kinds of counterfactual thinking and advance our understanding of this important phenomenon.

Conclusions

This research represents one of the first steps in understanding cultural influences on self-regulatory functions. The findings suggest that individualists focus on assessment – the tendency to critically evaluate and compare entities and states – more than collectivists, whereas collectivists tend to focus on locomotion – the tendency to psychologically move from state to state – more than individualists. Further, these tendencies were found to be potentially responsible for cultural differences in counterfactual thinking and impression management. The results of this study have important implications for the study of culture and goal pursuit. In particular, by examining relationships between these important constructs, this work offers a step toward integrating key research programs in cross-cultural and self-regulatory aspects of consumer behavior.

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Figure 1: Effect of Participant Ethnicity on Regulatory Mode (Study 1A)

