


Cultural Variation in the Focus on Goals Versus Processes of Actions

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Abstract

Everyday actions (e.g., riding a bike) can be described in ways that emphasize either the goals of the action by adapting a higher level identification (e.g., getting exercise) or the processes of the action by adapting a lower level identification (e.g., pedaling). In Studies 1 and 2, we demonstrate cultural differences in focusing on the process or goal of actions at the individual level: Americans are more likely than Japanese to focus on the goal (rather than the process) of actions. Study 3 recruited Chinese participants in addition to American and Japanese participants and found that cultural differences in action identification are partly explained by cultural differences in self-consistency. Study 4 further showed cultural differences at the collective level: American media presents more goal-oriented information and less process-oriented information than does Japanese media. These findings highlight the role of culture in shaping how people attend to different aspects of actions.

Keywords

process versus goal, action identification, self-consistency, culture, individual and collective levels

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When construing an action, some people focus more on the goal whereas others focus more on the process. Action Identification Theory has provided a framework to conceptualize the relative focus on goal versus process of action by proposing that everyday experiences of action can be meaningfully interpreted with varying degrees of abstraction (Vallacher & Wegner, 1989). For example, the act of “riding a bike” can be interpreted as “pedaling (a bike)” or “getting exercise,” conveying different sets of information about the act itself. These different ways of representing and identifying the action can be arranged in a hierarchical structure. The former identification conveys specifics of the action (hierarchically lower level representation), which contain more information about the process of the action. However, the latter identification conveys a more general understanding of the action (hierarchically higher level representation), which provides more information about the goals of the actor (Vallacher & Wegner, 1987). While many researchers have examined how individuals identify actions (i.e., at the lower or higher levels), little is known about whether there are cultural differences in action identification at the individual and collective levels.

Past research has demonstrated that there are cultural differences in how people view the self (Markus & Kitayama, 1991; Triandis, 1995). In Japanese culture, the self is viewed as inherently connected to social contexts and is malleable depending on the nature of situations. The primary task of such individuals is to adjust to or fit in with social contexts.

However, in American culture, the self is viewed as a bounded entity defined by unique internal attributes which are stable and consistent across situations. The primary task of such individuals is to express and realize their unique attributes. Supporting these different models of the self, cross-cultural studies have repeatedly shown that Americans’ self-concepts are more consistent across situations, whereas Japanese self-concepts are more malleable across situations (Cousins, 1989; Kanagawa, Cross, & Markus, 2001).

Such cultural differences in self-consistency may be closely associated with how people attend to the process or goal of actions. Specifically, individuals whose self-concepts and traits are consistent across situations are likely to choose their specific behavior in a way that the goal of the behavior matches their self-concepts (Carver & Scheier, 1990). For example, someone who perceives himself or herself to be athletic across situations is likely to choose to engage in behaviors that serve the goal of getting exercise (e.g., riding a bike, running) regardless of specific situations. To do so, it is probably necessary for the person to pay attention to the

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goal of actions. This should lead the person who perceives himself or herself to be consistent across situations to attend to the goal of actions. Supporting this possibility, Vallacher and Wegner (1989) showed that people who are consistent in their daily activities tend to identify actions at a higher level (i.e., goal), more than do those who are less consistent.

However, for individuals who perceive their self-concepts and traits to depend on and change across situations, their behavior might be less likely to be guided by the match between their self-concepts and the goal(s) of their behavior. Rather, they might be more likely to construe their behavior at a lower level to be ready to adopt a high-level construal that may emerge from the situation. For example, if one construes the act of riding a bike at a lower level (e.g., pedaling), one can easily reinterpret the action to serve different goals (e.g., getting exercise, commuting) depending on situations and potentially change his or her subsequent behavior accordingly. In fact, Wegner, Vallacher, Macomber, Wood, and Arps (1984) showed that those individuals who were induced to identify behavior at a lower level were more likely to change their subsequent behavior than were those who were induced to identify behavior at a higher level.

As Americans tend to be more consistent across situations than Japanese are (Cousins, 1989; Kanagawa et al., 2001), our reasoning suggests that they may be more likely than Japanese to identify actions at a higher level, focusing on why the actions are performed. We thus propose that Americans are more likely than Japanese to identify actions at a higher level, focusing on the goal of actions, whereas Japanese are more likely than Americans to identify actions at a lower level, focusing on the process of actions, and such cultural differences in action identification are partly due to cultural differences in self-consistency.

In addition to cultural differences in action identification at the individual level, however, is such culturally divergent attention to goal versus process information also reflected at the collective level? Culturally divergent patterns of thinking do not exist only in the mind, but are also embodied and grounded in collective cultural practices and products, such as arts and mass media (Lee, Hallahan, & Herzog, 1996; Masuda, Gonzalez, Kwan, & Nisbett, 2008; Morris & Peng, 1994; for a review, see Morling & Lamoreaux, 2008). For example, Markus, Uchida, Omoregie, Townsend, and Kitayama (2006) showed that, in the media coverage of Olympic medalists at the collective level, Japanese media are more likely to refer to the processes that underlie success, such as athletic background and hardships during Olympic preparation, whereas American media are more likely to refer to game plans than are Japanese media. Therefore, it is likely that cultural differences in attention to goal versus process information are reflected in actual mass media. We thus examined if any differences found in action identification at the individual level extend to collective-level differences.

It is important to note that such collective cultural practices and products serve as a means through which the common

patterns of thinking are reinforced and maintained within each culture (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Miyamoto, Nisbett, & Masuda, 2006). The existence of collective-level differences suggests that people are constantly exposed to different types of representations in different societies. By being repeatedly exposed to certain types of information in daily life, people may attune their attentional styles to match them. Demonstrating collective-level differences in how goals versus processes are represented would thus shed light on a collective mechanism through which cultural environments shape attentional styles.

In sum, we explored cultural differences in attention to goals versus processes of action at the individual and collective levels. We hypothesized that, partly due to cultural differences in self-consistency, Americans are more likely than Japanese to identify actions at a higher level, focusing on *why* the actions are performed, whereas Japanese are more likely than Americans to identify actions at a lower level, focusing on *how* the actions are performed. Furthermore, we also hypothesized that American mass media conveys more goal-oriented information than does their Japanese counterpart, whereas Japanese mass media conveys more process-oriented information than does their American counterpart. To test these hypotheses, we conducted four studies. In the first study, a behavior redescription questionnaire (Beukeboom & Semin, 2005) was administered to American and Japanese students. To replicate the results from Study 1 with a more structured task, participants from Japan and the United States completed a behavior identification form (BIF; Vallacher & Wegner, 1989) in Study 2. In Study 3, we tested whether self-consistency partly explains cultural differences in attention to the goals versus processes of action. In addition, we included Chinese participants in Study 3. Although Chinese and Japanese are often considered to share similar values and self-concepts, there could be potential cultural differences within East Asian cultures. Finally, in Study 4, we analyzed popular fashion magazines from Japan and the United States to examine cultural differences in goal- and process-oriented representations at the collective level.

Study 1

Method

Participants. Participants were 39 Japanese undergraduate students enrolled at Waseda University (17 female and 22 male students) and 34 European American undergraduate students (15 female and 19 male students) enrolled at the University of Wisconsin–Madison.

Procedure. Participants completed a questionnaire for a “study on interpretation of daily activities” consisting of 15 items taken from the behavior redescription questionnaire (Beukeboom & Semin, 2005; see Table 1 for specific items). Some of the items were modified to fit the Japanese context (e.g., “cooking pasta” instead of “cooking macaroni”). For each

Table 1. Ratio of Participants Who Provided Goal-Oriented, Process-Oriented, and Other Response as a Function of Culture (Study 1).

Behavior redescription questionnaire items	Ratio of goal		Ratio of process		Ratio of other	
	U.S.	Japan	U.S.	Japan	U.S.	Japan
1. Making a grocery list	.21	.28	.44	.59	.35	.13
2. Washing my clothes	.35	.15	.38	.31	.27	.54
3. Taking care of the plants	.27	.18	.65	.64	.09	.18
4. Locking a door	.71	.31	.27	.15	.03	.54
5. Brushing my teeth	.77	.62	.15	.13	.09	.26
6. Calling someone on the phone	.74	.69	.18	.13	.09	.18
7. Riding a bike	.91	.49	.03	.31	.06	.21
8. Buying flowers	.65	.54	.18	.33	.18	.10
9. Reading the newspaper	.79	.64	.09	.33	.12	.03
10. Eating a sandwich	.85	.64	.09	.18	.06	.18
11. Sending a letter	.56	.49	.27	.36	.18	.13
12. Ringing a doorbell	.68	.56	.09	.26	.24	.18
13. Washing the dishes	.53	.26	.29	.13	.18	.62
14. Cooking pasta	.74	.51	.24	.28	.03	.21
15. Greeting someone	.35	.41	.62	.54	.03	.05
Average number of responses	9.09	6.77	3.94	4.67	1.97	3.56

item, participants were given a daily activity (e.g., “making a grocery list”) and asked to describe the activity in their own words. Participants received the following instructions:

This study is about how people think about different daily activities. Any activity can be thought of in a variety of ways. For example, “getting a job” might be described as “getting a source of income” or as “getting an interview.” We are interested in the way in which you would like to describe some different activities. Below are a number of daily activities. In the space next to each activity please write a description of the activity in your own words. That is, we want you to describe the same activity in a different way. Please see the examples below. Remember that there are no right or wrong answers.

Example 1. getting a job: getting a source of income, or getting an interview

Example 2. writing a paper: typing on a computer, or expressing ideas

Items and instructions were translated into Japanese and then back-translated into English to ensure cross-cultural equivalence. All the Japanese responses were translated into English and two American coders who were blind to participant culture coded the responses using Beukeboom and Semin’s (2005) method of grammatically arranging participants’ responses in

relation to the original item. This method was used to code responses as either *process-oriented* or *goal-oriented* descriptions of the activity. Items that fit the format, “[questionnaire item] by [participant response]” were coded as *process-oriented* responses (e.g., [calling someone on the phone] by [dialing a number]). Items that fit the format, “[participant response] by [questionnaire item]” were coded as *goal-oriented* responses (e.g., [getting in touch with someone] by [calling someone on the phone]). Items that did not fit either of these formats were coded as “other.”

Results and Discussion

The percentage agreement between coders was .85 (Cohen’s kappa = .76), which was comparable with the previous study using the behavior redescription questionnaire (Beukeboom & Semin, 2005). In accordance with our hypotheses, Americans ($M = 9.09$, $SD = 3.66$) were more likely than Japanese ($M = 6.77$, $SD = 3.88$) to provide goal-oriented responses, $t(71) = 2.61$, $p = .01$, $d = 0.61$ (see Table 1). Although there was also a pattern for Japanese ($M = 4.67$, $SD = 3.54$) to provide more process-oriented responses than Americans ($M = 3.94$, $SD = 3.64$), this cultural difference was not significant, $t(71) = 0.86$, $p = .39$, $d = 0.20$. In addition, Japanese ($M = 3.51$, $SD = 2.02$) were more likely than Americans ($M = 1.97$, $SD = 1.96$) to describe the activities in ways other than goals or processes, $t(71) = 3.29$, $p = .002$. This is probably due to the fact that there were more ways to rephrase the actions at the same level in Japanese than in English (“Washing the dishes [sarawo arau]” could be rephrased as “do dish-washing [sara-araiwo suru]”).

These findings provide initial evidence for cultural differences between Americans and Japanese in how people identify actions at a high level. However, cultural differences in how people identify action at a low level were not statistically significant. The fact that Japanese were more likely than Americans to describe the activities at the exact same level suggests that the free response format used in Study 1 might have allowed too much variability in their responses. In Study 2, we thus explored whether there are cultural differences when participants have to choose either high- or low-level action identification. Study 2 used the BIF (Vallacher & Wegner, 1989), which presents participants with two options—one high level (goal-oriented) and one low level (process-oriented)—for each behavior and asks them to pick the one that best describes the behavior.

Study 2

Method

Participants. Forty-eight Japanese students at Hokkaido University (16 female and 32 male students) and 57 European American students enrolled at the University of Wisconsin–Madison (10 female and 21 male students)¹ participated.

Table 2. Ratio of Participants Who Chose Goal-Oriented Response as a Function of Culture (Studies 2 and 3).

Behavioral identification form item: Goal- vs. process-oriented responses	Study 2		Study 3		
	U.S.	JPN	U.S.	JPN	CHN
1. Making a list: Getting organized vs. writing things down	.63	.50	.77	.45	.73*
2. Reading: Gaining knowledge vs. following lines of print	.61	.65	.92	.50	.84*
3. Washing clothes: Removing odors from clothes vs. putting clothes into the machine	.53	.40	.54	.37	.77*
4. Picking an apple: Getting something to eat vs. pulling an apple off a branch	.32	.15	.52	.15	.53*
5. Chopping down a tree: Getting firewood vs. wielding an ax	.40	.06*	.55	.10	.60*
6. Measuring a room for carpeting: Getting ready to remodel vs. using a yardstick (tape measure in JPN and CHN)	.67	.13*	.80	.13	.73*
7. Cleaning the house: Showing one's cleanliness vs. vacuuming the floor (sweeping the floor in CHN)	.25	.06*	.34	.10	.87*
8. Painting a room: Making the room look fresh vs. applying brush strokes	.54	.31*	.51	.35	.89*
9. Paying the rent: Maintaining a place to live vs. writing a check (Transferring money in JPN; Giving money to the landlord in CHN)	.44	.38	.51	.45	.39
10. Caring for houseplants: Making the room look nice vs. watering plants	.14	.02*	.15	.06	.37*
11. Locking a door: Securing the house vs. putting a key in the lock	.72	.69	.72	.65	.94*
12. Voting: Influencing the election vs. marking a ballot (Filling out a ballot in JPN and CHN)	.63	.31*	(.55)	(.40)	(.51)
13. Climbing a tree: Getting a good view vs. holding on to branches	.30	.23	.45	.42	.46
14. Filling out a personality test: Revealing what you're like vs. answering questions	.40	.23	.56	.40	.79*
15. Toothbrushing: Preventing tooth decay vs. moving a brush around in one's mouth	.73	.54*	.76	.69	.83
16. Taking a test: Showing one's knowledge vs. answering questions	.32	.52*	.49	.52	.43
17. Greeting someone: Showing friendliness vs. saying hello	.42	.27	.41	.19	.73*
18. Resisting temptation: Showing moral courage (showing true courage in JPN; showing the power of morality in CHN) vs. saying "no"	.39	.35	.55	.35	.39*
19. Eating: Getting nutrition vs. chewing and swallowing	.60	.58	.70	.63	.70
20. Growing a garden: Getting fresh vegetables vs. planting seeds	.39	.54	(.35)	(.37)	(.67)*
21. Traveling by car: Seeing countryside vs. following a map	.44	.38	(.45)	(.40)	(.69)*
22. Having a cavity filled: Protecting your teeth vs. going to the dentist	.18	.08	.45	.21	.60*
23. Talking to a child: Teaching a child something vs. using simple words	.53	.50	.56	.61	.50
24. Pushing a doorbell: Seeing if someone's home vs. moving a finger	.81	.94	.90	.81	.87
Average number of goal-oriented response excluding three items that are not common in China	—	—	12.17	8.15	13.94*
Average number of goal-oriented response including all the items	11.37	8.81*	13.52	9.66	15.81*

Note: Words in parentheses are words used in either Japanese (JPN) or Chinese (CHN) version. Numbers in parentheses are those that pertain to the items that are either not common in China or difficult to translate into Chinese.

* $p < .05$.

Procedure. Participants completed the BIF (Vallacher & Wegner, 1989) in their native language. The BIF was translated into Japanese and then back-translated into English. Because of the difficulty of translating the words “identify” and “identification,” we changed them to “rephrase” and “description” in the instructions in both languages. Except for those changes, the instructions were identical to Vallacher and Wegner (1989). One item from the BIF regarding joining the Army was removed because it was not cross-culturally appropriate. The form consisted of 24 daily activities (e.g., “making a list”) and two choices of descriptions for that activity (e.g., “getting organized” or “writing things down”; see Table 2 for specific items). Following the instructions, participants were asked to choose the description that best described the behavior for them. Each item had one high-level (goal-oriented) and one low-level (process-oriented) description, and scores were based on how many high-level descriptions were chosen.

Results

Supporting our hypotheses, Americans chose high-level descriptions ($M = 11.37$, $SD = 5.06$) more than Japanese did ($M = 8.81$, $SD = 2.61$), which also means that Japanese chose low-level descriptions ($M = 15.19$, $SD = 2.61$) more than Americans did ($M = 12.63$, $SD = 5.06$), $t(103) = 3.16$, $p = .002$, $d = 0.65$. As expected, these results indicate that Americans have a greater tendency to focus on the goal of an action compared with Japanese, whereas Japanese have a greater tendency to focus on the process of an action than do Americans. As shown in Table 2, Americans were more likely to choose high-level, goal-oriented descriptions than were Japanese on 20 out of 24 items.²

Discussion

The results from Study 2 provide additional support for the findings from Study 1. In two studies at the individual level,

we found that Americans are more likely than Japanese to construe actions at a higher level—focusing more on goals than on processes. In addition, when a more structured task was used, we found that Japanese are more likely than Americans to choose a lower level identification. In combination with Study 1, this is the first evidence to show cultural differences between Americans and Japanese in their tendency to focus on goal versus process. In the next study, we examined a potential mechanism underlying cultural differences in the focus on processes or goals of actions. Specifically, we examined whether self-consistency across different relational contexts mediates the cultural differences found in the first two studies because individuals who perceive the self to be consistent across situations may choose their behavior based on the match between the goal of the behavior and their self-concepts.

Furthermore, in Study 3, we also included Chinese participants to examine whether they focus on goals or processes. Although Chinese and Japanese live in East Asian cultural contexts that share similar values and self-concepts (Markus & Kitayama, 1991; Triandis, 1989), there are some differences within East Asian cultures (Nakamura, 1964). One potential source of differences within East Asian cultures is linguistic differences in the number of first-person singular pronouns (e.g., “I” in the case of English). Whereas Chinese languages (i.e., Cantonese, Mandarin) as well as English have a single first-person singular pronoun, Japanese language has multiple first-person singular pronouns (E. S. Kashima & Kashima, 1998). Because the use of different first-person singular pronouns depends on social roles and situations, people who speak a language with multiple first-person singular pronouns might perceive themselves to be more variable across situations than those who speak a language with a single first-person singular pronoun that can be used across situations. Supporting this possibility, when asked to describe the self, Americans and Chinese were more likely than Japanese to use general psychological attributes (e.g., introverted) that transcend specific contexts (Bond & Cheung, 1983). If Chinese indeed are more likely than Japanese to perceive themselves to have consistent attributes across contexts, Chinese may be more likely than Japanese to focus on goals than on processes.

In a recent study that compared Hong Kong Chinese and European Americans’ responses to the BIF (Hong & Lee, 2010), Chinese identified actions at a higher level than European Americans did. Because the present study found that Japanese identified actions at a lower level than European Americans did, such findings provide indirect support for the possibility that Chinese identify actions at a higher level than Japanese do. At the same time, Hong Kong Chinese participants in Hong and Lee’s study might have responded to the BIF in English. Recent research has found that people tend to think more myopically when they think in their native language than when they think in a foreign language (Keysar, Hayakawa, & An, 2012). If thinking in a foreign language leads to greater cognitive and emotional distancing, it may

also lead to a higher level of identification (Trope & Liberman, 2003). Thus, it is not clear whether Chinese would identify actions at a high level when responding to the BIF in their native language. We explored these possibilities in Study 3.

Study 3

Method

Participants. Sixty-two Japanese students at Kobe University (21 female and 41 male students), 70 Chinese students at Huazhong Normal University (34 female and 36 male students), and 71 European American students enrolled at the University of Wisconsin–Madison (37 female and 34 male students) participated.

Procedure. Participants first completed a questionnaire that measures self-consistency across relationships, based on the procedures of English and Chen (2007). In this questionnaire, participants were presented with two pairs of relationships (i.e., friends–roommates/classmates, parents–siblings).³ For each pair, participants were first asked to choose the relationship in which they could best describe themselves, and then to rate on a 7-point scale how 10 attributes (e.g., considerate, open-minded, bossy, picky) describe them in each relationship that they had just chosen. Following the procedures of English and Chen, an index of self-consistency was created by computing a within-subject correlation between each participant’s ratings of the 10 attributes in one relationship context (e.g., friends) and the same participant’s ratings of the 10 attributes in the other relationship context (e.g., parents).⁴ A higher score on this index indicates higher consistency across different relationship contexts.⁵ In the subsequent task, participants completed the BIF as they did in Study 2.

All the materials were translated into participants’ own language. Out of the 24 items included in the BIF in Study 2, two items involved situations that are rarely experienced in China (i.e., voting, and following a map while traveling in car). Another item (growing a garden) was difficult to translate, and, once translated (*zhong4 cai4 pu3*), became something that was rarely experienced. These three items were retained in the questionnaire to maintain the equivalence of the procedure across cultures, but were not included in the analyses (although results remained the same when these items were included in the analyses).⁶

Results

Self-Consistency. Supporting our hypotheses and previous findings, one-way ANOVA was significant, $F(2, 191) = 17.28, p < .001$. Americans ($M = 0.60, SD = 0.34$) reported being more consistent across relationship contexts than did Japanese ($M = 0.21, SD = 0.41$), $t(126) = 5.73, p < .001, d = 1.01$, or Chinese ($M = 0.45, SD = 0.38$), $t(130) = 2.91, p = .004, d =$

0.51. Furthermore, in line with the possibility that Chinese may perceive a higher level of self-consistency compared with Japanese, Chinese ($M = 0.45$, $SD = 0.38$) reported being more consistent across relationship contexts than did Japanese ($M = 0.21$, $SD = 0.41$), $t(126) = 3.11$, $p = .002$, $d = 0.54$. We thus successfully replicated previous studies (English & Chen, 2007), as well as showed cultural differences among East Asians, with Chinese being more consistent across contexts than Japanese.

BIF. One-way ANOVA was significant, $F(2, 200) = 39.66$, $p < .001$. Replicating the findings of Study 2, Americans ($M = 12.17$, $SD = 4.15$) chose high-level descriptions more than Japanese did ($M = 8.15$, $SD = 3.22$), $t(131) = 6.18$, $p < .001$, $d = 1.08$. In addition, in line with the possibility that Chinese may identify actions at a higher level than Japanese due to differences in self-consistency, Chinese ($M = 13.94$, $SD = 3.90$) chose high-level descriptions more than Japanese did ($M = 8.15$, $SD = 3.22$), $t(130) = 9.23$, $p < .001$, $d = 1.62$. In addition, consistent with the findings of Hong and Lee (2010), Chinese chose high-level descriptions even more ($M = 13.94$, $SD = 3.90$) than did Americans ($M = 12.17$, $SD = 4.15$), $t(139) = 2.61$, $p = .01$, $d = 0.44$.

Mediation Analysis. We tested whether self-consistency partly explains cultural differences in action identification. Following Aiken and West's (1991) procedures, culture was dummy coded into two variables using Japan as the comparison group and both dummy codes were entered simultaneously: (a) Americans (1) versus Japanese (0) and (b) Chinese (1) versus Japanese (0). First, as reported above, compared with Japanese, Americans and Chinese were more likely to choose a higher level identification, $\beta = .41$, $t(191) = 5.78$, $p < .001$, and $\beta = .64$, $t(191) = 9.15$, $p < .001$, respectively, and to have a higher level of self-consistency, $\beta = .46$, $t(191) = 5.88$, $p < .001$, and $\beta = .23$, $t(191) = 2.95$, $p < .004$, respectively. Second, when culture and self-consistency were entered simultaneously to predict action identification, the self-consistency index significantly predicted action identification, $\beta = .17$, $t(190) = 2.63$, $p = .009$, while both dummy codes were still significant predictors of action identification, $\beta = .33$, $t(190) = 4.37$, $p < .001$, and $\beta = .60$, $t(190) = 8.54$, $p < .001$, for American and Chinese contrasts, respectively. The Sobel tests were also significant, $Z_s = 2.40$, 1.96 , $ps = .002$, $.05$, for American and Chinese contrasts, respectively, suggesting that self-consistency partially mediates cultural differences in focusing on the process or goal of an action.

Discussion

Study 3 demonstrated that cultural differences in action identification can be at least partially explained by cultural differences in self-consistency. American and Chinese participants perceived themselves to be more consistent across relationship contexts than Japanese participants did, and those participants

who were consistent were more likely to construe actions at a higher level than were those who were less consistent. In addition, the differences between Chinese and Japanese participants suggest the existence of cultural differences within East Asian cultures, which have not been examined much in the previous literature (with a few exceptions, such as Yates et al., 2010).

At the same time, Study 3 also found that, in line with the previous findings (Hong & Lee, 2010), Chinese are more likely than European Americans to choose high-level descriptions. Because Chinese perceived themselves to be less consistent than Americans did, self-consistency cannot explain such cultural differences between Chinese and Americans. Although multiple factors are likely to underlie this difference between Chinese and Americans (e.g., political systems, economic status), one potential source of such cultural differences is uncertainty avoidance. Uncertainty avoidance is a societal level index of "the extent to which the members of a culture feel threatened by ambiguous or unknown situations" (Hofstede, Hofstede, & Minkov, 2010, p. 191). In strong uncertainty-avoidance societies, people tend to feel uncomfortable in unstructured, ambiguous environments, and thus there is a higher need for formal and informal rules (e.g., precise instructions on how to perform a job). Such a need for rules and structure might motivate people to focus on the implementation (i.e., process) of actions to increase their predictability and precision. However, in weak uncertainty-avoidance societies, there is less need for rules or structure and people tend to perceive that they can work around or change rules if necessary. In such a society, people may focus more on the planning (i.e., goal) of actions. China scores lower on uncertainty avoidance than the United States, which in turn scores lower than Japan (Hofstede et al., 2010). Thus, the weak uncertainty avoidance of Chinese culture might also be contributing to the tendency to focus on goals. This possibility could be tested in future research.

The results from Study 3 provide additional support for the findings of the first two studies. In three studies, we found that Americans are more likely than Japanese to construe actions at a higher level—focusing more on goals than on processes. However, it is not clear whether the cultural differences found at the individual level can also be found at the collective level. Previous studies have shown that culturally divergent patterns of thinking—such as situational versus dispositional attribution and attention to focal versus contextual information—are reflected in collective cultural practices and products (Lee et al., 1996; Markus et al., 2006; Masuda et al., 2008; Miyamoto et al., 2006; Morris & Peng, 1994). If the tendency to focus on goals versus processes is reflected in cultural environments, we should also expect to observe collective-level cultural differences in the tendency to focus on goals versus processes.

In Study 4, we thus examined cultural differences in collective representations—specifically, fashion magazines. Fashion magazines are media through which people in both

cultures are exposed to cultural ideas about *what* to strive for and *how* to strive for them. In both cultures, fashion magazines may convey both types of information. However, magazines may differ in the extent to which they emphasize goal- versus process-oriented information across cultures. By being exposed to one type of information more than the other, people's cognitive styles may be shaped to reflect such differences in the collective environments.

We examined the amount of process-oriented information conveyed through presentation of *how-to* tips as well as the amount of goal-oriented information conveyed through images of *celebrities* in fashion magazines. Tips on how to wear and coordinate outfits could direct readers' attention to a hierarchically lower level of identification, such as the details or specifics of fashion, which may indicate the process of fashion. On the other hand, images of celebrities could represent a hierarchically higher level of identification, such as what people may strive for in fashion, which may indicate the goal of fashion. For example, a page that shows how a white jacket can be matched with five different types of bottoms (e.g., a black skirt, blue trousers) could provide specific information about how to pair clothing, whereas a page that shows a celebrity wearing a dress could provide an ideal goal for which to strive. We conducted a pilot test to first examine whether how-to tips are perceived to be conveying process-oriented information and whether images of celebrities are perceived to be conveying goal-oriented information in the United States and Japan. We then compared fashion magazines across cultures to test our hypothesis that whereas American fashion magazines may present more goal-oriented information (i.e., images of celebrities) than Japanese fashion magazines do, Japanese magazines may present more process-oriented information (i.e., how-to tips) than American fashion magazines do.

Study 4

Method

Materials. We coded eight Japanese and eight American popular women fashion magazines designed to be representative of a variety of audiences. We chose representative magazines for each culture from three different subgenres: teen, young/professional, and upscale.⁷ Magazines were issued in various months between August 2007 and January 2008 to ensure that the effects were not contingent on a specific month. The month of issue was matched within each subgenre across cultures.

Coding Procedure. Each magazine was coded by two individuals in each culture. Thus, two Japanese living in the United States coded the Japanese magazine and two Americans coded the American magazines. Any magazine page in which at least half of the content was fashion related was coded. Advertisements and sponsored pages were not included.

Intercoder agreement in deciding which pages to code was 95%. Differences were resolved in discussion. In total, 585 pages in American fashion magazines and 941 pages in Japanese fashion magazines were included in the analysis. Pages were then coded based on the overall theme and the detailed content presented on each page.

The coders first made an overall judgment of the most salient theme of the page. The three themes were "how-to," "featuring celebrities," and "others." If the most salient theme of the page was how to wear, coordinate, or use items, the page was coded as "how-to." If the most salient theme was to feature celebrities, it was coded as "featuring celebrities." Even if celebrities were presented, if the main emphasis was placed on how-to information (by using celebrities as examples), the page was coded as "how-to." If neither how-to information nor celebrities were featured, it was coded as "others."

The coding of global themes may not be sensitive enough to the information embedded in each page. To code process-oriented information presented on each page in a more bottom-up manner, the coders counted the number of visual images that explained how to wear or coordinate outfits (e.g., the same jacket paired with a skirt in one image and with jeans in another image), or how to use a particular item (e.g., a step-by-step visual instruction for how to put on makeup). Goal-oriented information was coded by counting the number of celebrities appearing on each page. In addition, the coders also counted the total number of people and items appearing on each page to control for potential cultural differences in the amount of overall information presented.

For the coding of global themes, the percentage agreement between coders was 89% in the United States (Cohen's kappa = .82) and 82% in Japan (Cohen's kappa = .65). For the coding of detailed content, intraclass correlations for the number of visual references to how-to and the number of celebrities were .79 and .97 in the United States and .85 and .80 in Japan, respectively. Any disagreements were resolved through discussion among coders.

Results

Pilot Test. To examine whether how-to tips and images of celebrities are perceived to convey process-oriented or goal-oriented information, we first randomly chose 10 pages with a how-to theme that did not involve any images of celebrities, and 10 pages with a celebrity theme that did not involve any how-to images, from fashion magazines in each culture. We then recruited 34 European American students (22 female students) and 18 Japanese students (8 female students) and presented them with pages of fashion magazines from their own culture. They were asked to judge the extent to which each page focused on either a process (i.e., how to choose, wear, or coordinate clothing; how to arrange hair styles; or how to apply makeup) or a goal (i.e., what to strive for and why) using a 7-point scale (1 = *strongly focuses on a*

Table 3. Ratio of Page Themes as a Function of Culture and Magazines Category (Study 4).

Page theme	Category	Culture	
		U.S.	Japan
How-to	Teen	.65	.66
	Young/professional	.35	.57*
	Upscale	.08	.64*
	Overall	.33	.60*
Celebrity	Teen	.07	.02
	Young/professional	.21	.05*
	Upscale	.11	.01*
	Overall	.16	.04*
Others	Teen	.28	.32
	Young/professional	.45	.38*
	Upscale	.81	.35*
	Overall	.52	.37*

* $p < .05$.

process, 4 = equally, 7 = strongly focuses on a goal). As expected, the pages with a celebrity theme ($M = 5.59$, $SD = 0.81$) were judged to focus more on a goal than were the pages with a how-to theme ($M = 2.50$, $SD = 0.86$), $F(1, 50) = 268.52$, $p < .001$, $d = 3.70$. In addition, the means for celebrity and how-to themes were significantly different from the theoretical middle point of the scale (i.e., 4), $t(51) = 14.11$ and 12.52 , $ps < .001$, respectively. There was no Culture \times Theme interaction, $F(1, 50) = 2.70$, $p = .11$. These results suggest that the pages featuring celebrities were perceived to represent more goal-oriented information, whereas the pages with a how-to theme were perceived to represent more process-oriented information in both cultures.

Theme Analysis. To test our hypothesis about cultural differences in *process-oriented information*, a logistic regression was performed with culture (1 = Japan, 2 = U.S.) and magazine subcategory (1 = teen, 2 = young/professional, 3 = upscale) as predictors and the how-to page theme as the dependent variable. As shown in Table 3, supporting our hypothesis, 60% of the pages in Japanese magazines focused on presenting how-to information, but only 33% of the American magazines did so, Wald = 105.73, $df = 1$, $p < .001$, odds ratio (OR) = 0.32. In addition, the likelihood of focusing on how-to information decreased as the magazine's target generation increased, Wald = 31.36, $df = 1$, $p < .001$, OR = 0.62. In the next step, we entered the interaction between culture and magazine category, which also was significant, Wald = 54.18, $df = 1$, $p < .001$, OR = 0.23: the effect of magazine category was found in the United States, $\chi^2(df = 2) = 87.73$, $p < .001$, but the effect was not statistically significant in Japan, $\chi^2(df = 2) = 5.46$, $p = .07$. Japanese magazines focused on presenting how-to information regardless of their target generation.

Cultural differences in *goal-oriented information* were tested by a logistic regression with culture and magazine subcategory as predictors and the "featuring celebrities" page theme as the dependent variable. Whereas 16% of the pages in American magazines focused on presenting celebrities, only 4% of the Japanese magazines did so, Wald = 60.47, $df = 1$, $p < .001$, OR = 5.14. There was no effect of magazine category, Wald = 0.12, $df = 1$, $p = .73$, OR = 0.95. Finally, the interaction between culture and magazine category was not significant, Wald = 0.65, $df = 1$, $p = .42$, OR = 1.31.

Bottom-Up Analysis. We also coded more detailed contents of each page to examine whether cultural differences found with a global theme of the page can also be found with a bottom-up analysis. First of all, there were cultural differences in the number of items and people that appeared on each page, $F(1, 1522) = 189.32$ and 112.28 , $ps < .001$, η_p^2 s = .11 and .07, respectively. Pages in Japanese magazines contained a larger number of items and people ($Ms = 8.69$ and 4.86 , $SDs = 6.07$ and 4.92 , respectively) than did those in American magazines ($Ms = 4.54$ and 2.29 , $SDs = 4.32$ and 3.01 , respectively). Such cultural differences in the amount of information are consistent with previous studies showing that Japanese perceptual environments tend to be more complex and contain a larger number of objects than do American perceptual environments (Miyamoto et al., 2006). To test our main hypotheses about cultural differences in process- versus goal-oriented information (independently from the mere amount of information), the number of items and the number of people were used as covariates in the following analyses.

We examined cultural differences in process- versus goal-oriented information by coding the number of visual images which conveyed how-to information as well as the number of celebrities. We ran a 2 (culture: US vs. Japan) \times 3 (magazine category: teen, young/professional, upscale) \times 2 (coded type: how-to vs. celebrities) mixed-design ANOVA with coded type as a repeated factor, while controlling for the number of items and people. Supporting our hypothesis, there was a culture by coded type interaction, $F(1, 1520) = 83.80$, $p < .001$, $\eta_p^2 = .05$. As shown in Table 4, pages in Japanese magazines ($M = 1.58$, $SD = 3.28$) presented a larger number of visual images instructing readers on how to coordinate or wear items than did pages in American magazines ($M = 0.70$, $SD = 0.77$), $F(1, 1520) = 33.69$, $p < .001$, whereas pages in American magazines ($M = 1.08$, $SD = 2.47$) presented a larger number of celebrities than did pages in Japanese magazines ($M = 0.04$, $SD = 1.33$), $F(1, 1520) = 90.67$, $p < .001$. In addition, the magazine category by coded type interaction was also significant, $F(1, 1520) = 6.29$, $p = .002$, $\eta_p^2 = .01$. Pages in teen and upscale magazines contained a larger number of how-to visuals ($Ms = 1.36$, 1.05 , respectively) than images of celebrities ($Ms = 0.37$, 0.47 , respectively), $ts(1520) = 4.71$, 3.53 , $p < .001$, respectively, whereas there were no differences between the

Table 4. Adjusted Mean Numbers of Coded Contents on Each Page as a Function of Culture and Magazines Category, Controlling for the Overall Numbers of Items and People (Study 4).

Coded content	Category	Culture	
		U.S.	Japan
Number of how-to images	Teen	0.86 (0.94)	1.86 (4.05)*
	Young/professional	0.77 (0.88)	1.25 (3.27)*
	Upscale	0.48 (0.15)	1.62 (2.58)*
	Overall	0.70 (0.77)	1.58 (3.28)*
Number of celebrity images	Teen	1.02 (2.52)	-0.28 (0.78)*
	Young/professional	1.54 (2.85)	0.12 (1.64)*
	Upscale	0.67 (1.08)	0.27 (0.46)*
	Overall	1.08 (2.47)	0.04 (1.33)*

Note: Numbers in parentheses are standard deviations.

* $p < .05$.

number of how-to visuals and celebrity images ($M_s = 1.01, 0.83$, respectively) in young/professional magazines, $t(1520) = 1.66, p = .10$. The three-way interaction was not significant, $F(1, 1520) = 0.97, p = .38$.

Discussion

The findings from Study 4 provided evidence for cultural differences in collective-level representations of goal- versus process-oriented information. The global coding of the theme and the bottom-up coding of the content showed that Japanese fashion magazines tend to convey more process-oriented information than American fashion magazines do, whereas American fashion magazines tend to convey more goal-oriented information than Japanese fashion magazines do. Because the repeated exposure to certain types of information in the collective environments guides people's attention (Miyamoto et al., 2006), such cultural differences in the collective environments are likely to serve as a collective mechanism through which cultural environments influence attention to goals versus processes.

General Discussion

The goal of the present studies was to examine cultural differences in attention to the goal versus process of actions at the individual and collective levels. Two studies found that Americans are more likely than Japanese to identify actions at a higher level, indicating their attention to the goal of actions. Although Study 1 did not find significant cultural differences in lower level identifications, a more structured task used in Study 2 found that Japanese are more likely than Americans to identify actions at a lower level, indicating their attention to the process of actions. Study 3 showed that self-consistency partially accounts for cultural differences in attention to the goal versus process

of actions. Specifically, Americans and Chinese have higher self-consistency than Japanese, and those who have higher self-consistency tend to identify actions at a higher level. Furthermore, Study 4 showed that such individual differences in attention to different aspects of action are manifested at the collective level: American fashion magazines present more goal-oriented information than Japanese fashion magazines, whereas Japanese fashion magazines present more process-oriented information than American fashion magazines.

Although cultural differences in various psychological processes have been widely documented (for a recent review, see Miyamoto & Eggen, in press), how people construe their own actions has not been examined much. The present studies provide one of the initial evidence for cultural differences in the tendency to focus on the goals versus processes of actions. Because action identification and action are interdependent (Vallacher & Wegner, 1987), the present findings point out the possibility that there might also be cultural differences in how people perform actions.

Furthermore, the present research found that self-consistency mediates cultural differences in action identification. Americans and Chinese tend to perceive themselves to be more consistent across situations than Japanese do, and those people who perceive themselves to be more consistent across situations are more likely to focus on the goals of actions that transcend specific situations. These findings suggest that how people attend to their actions can be grounded in the way people view their selves. It is important to point out that the relationship between self-consistency and action identification is likely to be bidirectional. That is, self-consistency may not only guide how people construe their actions, but how people construe their actions might also guide self-consistency. Thus, in future research, it may be interesting to expand on the present findings and examine exactly when self-consistency drives a goal-oriented focus and when a goal-oriented focus drives self-consistency across cultures.

In Study 3, we also recruited Chinese participants and found that Chinese are more likely than Japanese to identify actions at a high level, indicating that they attend to the goal of actions. Furthermore, we also found that Chinese tend to perceive themselves to be more consistent across relationship contexts than Japanese do, and self-consistency partially mediates cultural differences in action identification. Although it has been theorized that East Asian cultures in general give emphasis to collective goals (Triandis, 1989) and view the self as fundamentally embedded in social relationships (Markus & Kitayama, 1991), our findings suggest that there are cultural differences within East Asian cultures in terms of how much the self changes depending on relationship contexts. At the same time, a meta-analysis found that Chinese score higher than Japanese on collectivism/interdependence scales (Oyserman, Coon, & Kimmelmeier, 2002). Thus, Chinese may be as collectivistic or interdependent as, or even more so than, Japanese, though there might

be variations within East Asians in how collectivism or interdependence manifests. Future research should examine the nature of cultural differences within East Asian cultures and identify sources of such differences.

In addition, in Study 3, we also found that Chinese are more likely than Americans to identify actions at a high level. Although multiple factors are likely to underlie such differences between Chinese and Americans, uncertainty avoidance could also be playing a role. Uncertainty avoidance indicates the level of threat that people in a society experience when they face uncertainty, and China has been shown to be a weaker uncertainty-avoidance culture compared with the United States or Japan (Hofstede et al., 2010). In strong uncertainty-avoidance societies, there is a higher need for rules and structure to make events predictable and less ambiguous. Such a need for rules might motivate people to focus on the implementation (i.e., process) of actions to increase their precision and predictability. Because there is less need for rules and more tolerance of ambiguity in weak uncertainty-avoidance societies, Chinese may be able to focus on the planning (i.e., goal) of actions, which may involve more ambiguity than implementation. Such a possibility also needs to be explored in future research.

The present studies also found that American fashion magazines present more goal-oriented information than their Japanese counterparts, whereas Japanese fashion magazines present more process-oriented information than their American counterparts. Such collective-level differences in mass media show that culturally divergent attention to goal versus process information found in Studies 1 to 3 is shared by members of these societies. These findings also indicate that people are constantly exposed to different types of information in their daily lives. Such collective-level differences in everyday environments may be one of the mechanisms that underlie cultural differences in attention to goal versus process information. In being repeatedly exposed to different types of information, people may attune their attentional styles to differences in their collective environments. For example, one may be more likely to encounter process-oriented information when living in Japan than when living in the United States, and being exposed to more process-oriented information may make one more likely to focus on processes in general.

Future research should examine if cultural differences in the understanding of actions can be observed with online measures, and also explore potential moderators of these cultural differences. For example, measuring how participants are actually paying attention to the process or goal of an action while performing an activity, such as arts or sports, would be informative. In traditional Japanese arts (e.g., tea ceremony, calligraphy, martial arts), the primary emphasis is placed on acquiring the form (Ikuta, 1987)—the way of performing. In fact, the names of all traditional Japanese arts include the suffix “doh,” which means “path/way.” Drawing on such evidence, Heine, Lehman, Markus, and Kitayama

(1999) pointed out that “Japanese seem more concerned with the journey than the destination” (p.771). It is thus possible that even while they are performing arts or playing sports, Japanese are attending more to the process than Americans are. On the other hand, researchers have shown that when an action is difficult, people adopt a lower level identification (Wegner et al., 1984). Such findings suggest the possibility that when people first learn a new, difficult skill, they need to focus on the process, regardless of culture. Supporting this possibility, Study 4 found that even in the United States, teen magazines tend to present the how-to theme more than upscale magazines do. As one gains a skill, Americans may shift their attention more quickly to the goal than Japanese do. One anecdotal example supports such a possibility: When comparing Cal Ripken, Jr., an American major league all-star player, with Tatsunori Hara, a Japanese star baseball player, Whiting (1989) wrote that whereas Ripken was trained for the fundamentals only as a youth and soon grew out of them, like other typical successful athletes in America, Hara had been trained throughout his career to focus on the right *form*.

Links to Relevant Constructs

The present research specifically tested cultural differences in attention to goal and process information. Because attention to goals involves attention to properties at a higher level of abstraction than attention to process does (Vallacher & Wegner, 1989), attention to goal and process information has been considered to be one specific type of abstract and concrete processing (Lieberman & Trope, 1998; Trope & Liberman, 2003). For example, when people are thinking about distant future activities, they are more likely to focus on goals of actions (Lieberman & Trope, 1998, Study 1) and to use more abstract, inclusive categories to classify relevant objects (Lieberman, Sagristano, & Trope, 2002, Study 1) than they are when thinking about near future activities. One might speculate that, given cultural differences in attention to goal and process, there are cultural differences in other types of abstract versus concrete processing. Such a possibility remains to be examined in the future.

It is important to note the differences between abstract versus concrete and analytic versus holistic cognitive processing. The distinction between abstract and concrete processing is based on attention to properties at a hierarchically higher or lower level of structure (Vallacher & Wegner, 1987), whereas the distinction between analytic and holistic cognition is based on the degree of attention to relationships between objects and contexts (Nisbett, 2003; Nisbett, Peng, Choi, & Norenzayan, 2001; Witkin, Dyk, Faterson, Goodenough, & Karp, 1974). Depending on the nature of the task, relational/contextual information can exist at either a higher or lower level of structure. For example, when describing others or groups, Easterners are more likely than Westerners to use verbs, which provide relatively concrete information, whereas

Westerners are more likely than Easterners to use adjectives, which provide relatively abstract information (Y. Kashima, Kashima, Kim, & Gelfand, 2006; Maass, Karasawa, Politi, & Suga, 2006). In such a task, relational/contextual information is located at more of a *lower* level (i.e., verbs) than at a higher level (i.e., adjectives) of structure (Semin & Fiedler, 1988). However, Kühnen and Oyserman (2002) found that people who are primed with interdependent self-concepts show facilitated identification of properties at a hierarchically higher level of structure (i.e., identifying a large letter composed of smaller letters; Navon, 1977). In such a task, relational/contextual information is located at more of a *higher* level (i.e., a large letter) than at a lower level (i.e., a small letter) of structure. Thus, abstract versus concrete and analytic versus holistic cognitive processing should be considered to be orthogonal constructs. Furthermore, the fact that Chinese and Japanese, both of whom have been shown to engage in holistic cognitive processing (Nisbett et al., 2001), showed divergent patterns of attention to goal (i.e., abstract) versus process (i.e., concrete) information in the present studies further suggests that these two types of cognitive processing are independent from each other.

Conclusion

In sum, this article provided the first evidence of cultural differences in attention to goal versus process identification of an action at the individual and collective levels. These findings suggest that cultural contexts influence how we construe and make meaning of actions. Even when people are engaging in the same action, they can construe the action quite differently, which has consequences not only on various cognitive processes but also on future behaviors. We believe that understanding cultural differences in how people are construing actions provides a generative framework that can integrate cultural influences on various psychological processes and potentially lead to new, meaningful predictions.

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Notes

1. Inadvertently, gender information for 26 of the American participants was not collected.
2. To ensure the equivalence of the behavior identification form (BIF) across cultures, we asked 78 European American students and 27 Japanese students to rate the appropriateness of low- and high-level descriptions. There were two sets of questions. In the goal set, each behavior (e.g., “making a list”) was paired with a corresponding high-level description (e.g., “getting organized”) from the BIF and participants rated the extent to which each description was appropriate as a *goal* of the behavior. In the process set, each behavior was paired with a corresponding low-level description (e.g., “writing things down”) and participants rated the extent to which each description was appropriate as a *process* of the behavior. Responses were made on 5-point scales (1 = *not at all*, 3 = *moderately*, 5 = *very*). Using BIF items ($n = 24$) as units of analysis, we conducted a 2 (culture) \times 2 (question set: goal vs. process) repeated-ANOVA. Compared with Japanese ($M = 3.67$), Americans perceived descriptions to be more appropriate ($M = 4.15$), $F(1, 23) = 111.26$, $p < .001$. Also, there was a main effect of question sets: The process set was rated as more appropriate ($M = 3.99$) than the goal set ($M = 3.83$), $F(1, 23) = 4.34$, $p = .049$. Culture marginally qualified this effect, $F(1, 23) = 3.95$, $p = .059$. That is, whereas Japanese were more likely to perceive low-level descriptions to be appropriate as processes of the behavior ($M = 3.84$) than to perceive high-level descriptions to be appropriate as goals of the behavior ($M = 3.49$), $F(1, 23) = 6.33$, $p = .02$, Americans’ rating of appropriateness did not differ across two sets of questions, $F(1, 23) = 0.14$, $p = .72$. To rule out the possibility that cultural differences in appropriateness of descriptions were guiding cultural differences in action identification, we examined whether cultural differences in action identification would remain even after controlling for appropriateness of descriptions. Using BIF items as units of analysis, we conducted a repeated-ANOVA with culture as the repeated factor and the ratio of high-level descriptions as the dependent variable, while controlling for the difference between appropriateness of a goal and a process in Japan and the difference between appropriateness of a goal and a process in the United States. Replicating the findings using participants as a unit of analysis, high-level descriptions were significantly more likely to be chosen by Americans (48%) than by Japanese (37%) even after controlling for appropriateness of descriptions, $F(1, 21) = 4.78$, $p = .04$, though the cultural main effect did become weaker compared with the same analysis run without any covariates, $F(1, 23) = 10.64$, $p = .003$. These results suggest that the perceived appropriateness cannot fully explain cultural differences in the choice between goals and processes.
3. Whereas American participants were presented with a friends–roommates pair, Japanese and Chinese participants were presented with a friends–classmates pair because it is not common for Japanese students to have a roommate. In China, roommates and classmates tend to overlap.

4. Correlations for five American and four Chinese participants who skipped any of the items on the self-consistency questionnaire were not computed because of the possibility that correlations might be distorted for those participants due to the small number of items (i.e., 10).
5. Fisher's *z*-transformation was used to transform correlations before the analyses. However, for the ease of understanding, the means and standard deviations reported in the text are based on raw scores.
6. The means of these items are reported in parentheses in Table 2.
7. The following magazines were used in Japan: *Seventeen*, *Soup* (Teen), *AneCan*, *CanCam*, *More*, *ViVi* (Young/Professional), *Oggi*, and *Classy* (Upscale). The following magazines were used in United States: *Seventeen*, *Cosmogirl* (Teen), *Allure*, *Lucky*, *In Style*, *Glamour* (Young/Professional), *Bazaar*, and *Vogue* (Upscale).

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