

# What Is the Relation Between Cultural Orientation and Socially Desirable Responding?

Ashok K. Lalwani and Sharon Shavitt  
University of Illinois at Urbana–Champaign

Timothy Johnson  
University of Illinois at Chicago

Research suggests that collectivists are more likely to engage in deception and socially desirable responding to maintain good relationships with others. In contrast, individualists are portrayed as candid and sincere because individualism encourages people to “be yourself.” The authors propose that people with both types of cultural orientations or backgrounds engage in desirable responding, albeit in distinct ways. In Study 1, respondents from the United States compared with those from Singapore, and European Americans compared with Asian Americans, scored higher on self-deceptive enhancement (SDE)—the tendency to see oneself in a positive light and to give inflated assessment of one’s skills and abilities—but lower on impression management (IM) by misrepresenting their self-reported actions to appear more normatively appropriate. In Studies 2 to 4, horizontal individualism as a cultural orientation correlated with SDE but not with IM, whereas horizontal collectivism correlated with IM but not with SDE. Further analyses examining (a) individual differences in the tendency to answer deceptively and (b) responses to behavioral scenarios shed additional light on the culturally relevant goals served by these distinct types of socially desirable responding.

*Keywords:* cultural orientation, socially desirable responding, individualism, collectivism

When asked a question about themselves or their behavior, are collectivists likely to answer dishonestly to present themselves in a socially desirable manner? Are individualists likely to answer candidly? These characterizations seem to be part of a set of stereotypes that paint collectivists as deceitful and individualists as sincere. However, collectivists we know adamantly reject the above characterizations. They argue that it is actually individualists who present themselves in a distorted way. They point out that individualists hold exaggerated views of themselves and that they never focus on their own shortcomings. Given that tendency, how can you expect them to respond honestly to your questions?

The current article examines the link between cultural orientation and the response style referred to as socially desirable re-

sponding (SDR). Specifically, we explore the extent to which categories of individualistic and collectivistic cultural orientations are predictive of SDR. SDR is the systematic tendency to give answers that make the respondent look good (Paulhus, 1991). Because SDR involves responding that is systematically distorted in a manner that makes the self appear more desirable, understanding the links between cultural orientation and SDR is key to the validity of cross-cultural research efforts and many other research efforts involving self-reports. Rather than assume a main effect relation between cultural orientation and SDR, our aim is to examine the distinct ways in which individualists and collectivists respond to questions in socially desirable ways. The research addresses the different culturally relevant goals that SDR serves by examining the links between specific types of individualistic or collectivistic cultural orientation and SDR. In examining relations between these widely studied constructs, the present research offers an integration of major research programs in cross-cultural and personality psychology.

We report the results of four studies conducted to examine the relations between individualism and collectivism and SDR. Our studies examine three samples of American students, one sample of Singaporean students, an ethnically diverse adult American sample, and a sample of Korean–American church members. In addition, to explore the culturally relevant goals served by different types of desirable responding, we examine related goal-relevant constructs that may determine or mediate the link between cultural orientation and SDR. For instance, recent research has indicated that these cultural categories differ in terms of their horizontal versus vertical orientations (e.g., Triandis & Gelfand, 1998) and that individuals’ values and goals appear to be linked specifically to each of these orientations (e.g., Kurman & Sriram, 2002; Nelson & Shavitt, 2002; Oishi, Schimmack, Diener, & Suh, 1998). Accordingly, to shed light on the goals associated with

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Ashok K. Lalwani, Department of Business Administration, University of Illinois at Urbana–Champaign; Sharon Shavitt, Department of Business Administration and Department of Psychology, University of Illinois at Urbana–Champaign; Timothy Johnson, Survey Research Laboratory, University of Illinois at Chicago.

Ashok K. Lalwani will be at the Department of Marketing, University of Texas at San Antonio, from July 15, 2006.

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Correspondence concerning this article should be addressed to Ashok K. Lalwani or Sharon Shavitt, Department of Business Administration, University of Illinois at Urbana–Champaign, 350 Wohlers Hall, Champaign, IL 61820. E-mail: lalwani@uiuc.edu or shavitt@uiuc.edu

SDR, we explore whether the horizontal–vertical dimension of individualism and collectivism predicts distinct patterns of SDR. We also examine whether individual differences in the tendency to deceive or dissimulate, which have been linked to impression-management motives (e.g., Jacobson, Berger, & Millham, 1970), mediate the relation between cultural orientation and SDR. Finally, we extend the observed relationships to responses on behavioral scenarios.

### Collectivism and Social Desirability

For those with a collectivistic orientation or culture, social behavior is largely determined by the goals, attitudes, and values shared with one's ingroups, whereas in individualist cultural contexts, social behavior is largely determined by one's personal goals and attitudes. Individualism is associated with an emphasis on independence, self-reliance, and a desire to be unique. In comparison, collectivism is associated with an emphasis on interdependence, belongingness, pursuing common goals with others, and maintaining harmonious relationships (Hofstede, 1980; Markus & Kitayama, 1991; Triandis, 1995).

Much of the literature in cross-cultural psychology suggests that there should be a straightforward relation between individualism–collectivism and SDR (e.g., Triandis, 1995; Triandis et al., 2001; Triandis & Suh, 2002; Trilling, 1972). The evidence indicates that collectivism (but not individualism) is associated with deception (Triandis et al., 2001), lying (Triandis & Suh, 2002), and face-saving behavior (Ho, 1976; Hu, 1944; Triandis, 1995) in order to meet interpersonal goals. In a study of eight cultures and over 1,500 respondents, Triandis et al. (2001) found greater tendencies toward deception among collectivist than individualist samples in negotiation scenarios. Trilling (1972) argued that people in individualist cultures are more likely to seek sincerity and authenticity, whereas people in collectivist cultures de-emphasize authenticity.

Similarly, Triandis (1995) proposed that honesty in interactions with strangers is a characteristic that is more highly valued by individualists than collectivists. Supporting this notion, van Hemert, van de Vijver, Poortinga, and Georgas (2002) reported in a sample of 23 countries a significant negative correlation ( $r = -.68$ ) between a country's individualism score and its score on the Lie scale of the Eysenck Personality Inventory (Eysenck & Eysenck, 1964). Moreover, the tendency to respond deceptively has been linked to impression-management motives (e.g., Jacobson et al., 1970; Kashy & DePaulo, 1996; Sengupta, Dahl, & Gorn, 2002). Thus, taken together, the evidence suggests that collectivism is more likely than individualism to be associated with a tendency to dissemble in order to present oneself in a socially desirable manner.

### Individualism and Social Desirability

Consistent with the perceptions of many collectivists we know, cross-cultural research indicates that individualism is also associated with considerable biases in self-reports and self-views. These take the form of possessing overly positive and unrealistic views of the self, enhancing the positivity of the self-view, and actively seeking information that maintains that inflated self-view (e.g., Baumeister, 1998; Heine & Lehman, 1995; Heine, Lehman, Markus, & Kitayama, 1999; Sedikides & Strube, 1997; Taylor &

Brown, 1988). For example, Myers (1987) reported that more than 50% of American undergraduates indicated being in the top 10% in interpersonal sensitivity. Indeed, individualists appear to strategically choose comparison with others who allow them to form or maintain positive self-views (see Dunning, 2001, for a review). Such tactics may be beneficial in a cultural system that is based on fostering and promoting the independence and uniqueness of the self (Markus & Kitayama, 1991) and may even enhance mental health (Taylor, Lerner, Sherman, Sage, & McDowell, 2003).

In contrast, several recent studies have reported the absence of such self-enhancing biases and even the tendency toward self-critical behavior among those from collectivistic cultures (Campbell et al., 1996; Heine & Lehman, 1995; Heine et al., 1999; Kitayama & Markus, 1995; Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997; Kurman, 2001; Markus & Kitayama, 1991). For instance, the self-serving attributional bias so commonly observed among Americans is not found among Japanese (Mezulis, Abramson, Hyde, & Hankin, 2004). Indeed, Heine et al. (1999) concluded that whereas Japanese are more concerned with being interdependent with rather than better than others, "the typical North American's self-evaluation is fraught with inaccurate and distorted perceptions. . . Many studies report that when evaluating themselves, people often compromise accuracy in favor of information that inflates their perceptions of themselves" (p. 779; see also Sedikides, Gaertner, & Toguchi, 2003, for a situation in which collectivists may self-enhance).

In sum, both individualism and collectivism may be associated with socially desirable response styles but in distinct ways. A primary goal associated with individualism is to view the self in unique and positive terms, but a primary concern associated with collectivism is to save face and maintain good relationships with others. This suggests that whereas those with an individualistic orientation or cultural background may have a motivation to present themselves as being better or more capable than others, those with a collectivistic orientation or cultural background may have a tendency to give false or deceptive responses to questions to harmoniously fit in and gain social approval. A finer sense of these differences in desirable responding can be obtained from a review of research on SDR.

### SDR

A widely studied topic in research methodology, SDR continues to be a serious concern in psychological assessment because of its potential to introduce response bias (Johnson & van de Vijver, 2002; Paulhus, 1991). For example, evidence suggests that standard self-report methodologies distort the reporting of racist attitudes, nonnormative sexual attitudes, desirable behaviors, deviant behaviors, and abortion (Paulhus, 1991).

Research reveals two main types of socially desirable response styles that fit well with the distinct motivational profiles of individualism and collectivism. These have been termed *self-deceptive enhancement* (SDE) and *impression management* (IM; e.g., Gur & Sackeim, 1979; Paulhus, 1984, 1991, 1998a; Sackeim & Gur, 1979), and subscales measuring these dimensions compose the Paulhus Deception Scales (formerly called the Balanced Inventory of Desirable Responding; Paulhus, 1984, 1991, 1998b). SDE refers to the tendency to provide inflated and honestly held self-descriptions in response to questions (Paulhus, 1991; Paulhus &

Reid, 1991). Example items include “My first impressions of people usually turn out to be right” and “I am very confident of my judgments” (Paulhus, 1998a). SDE is a predisposition to see oneself in a positive light, is closely related to narcissism, and is a form of “rigid overconfidence” (Paulhus, 1998a). SDE has been linked to such personality constructs as perceived control (Paulhus, 1991), optimism (Scheier & Carver, 1985), self-controlling behavior (Paulhus, 1991), self-esteem (Paulhus, 1998a), social dominance (Paulhus, 1991), and a general sense of capability (Holden & Fekken, 1989). Respondents scoring high on SDE tend to overclaim knowledge of various persons, events, and objects (Paulhus, Harms, Bruce, & Lysy, 2003).

On the other hand, IM refers to an attempt by respondents to present their self-reported actions in the most positive manner to maintain a favorable image (Paulhus, 1998a; Schlenker & Britt, 1999; Schlenker, Britt, & Pennington, 1996) and is closely related to faking. It is an “attempt to control images that are projected in real or social interactions” (Schlenker, 1980, p. 6). This construct is most often associated with dissimulation, including deceiving others (Mick, 1996). Example items include “I have never dropped litter on the street” and “I sometimes drive faster than the speed limit” (reverse scored; Paulhus, 1998a).

### Cultural Orientation and SDR

SDE has been found to be correlated with such constructs as optimism, self-esteem, perceived control, and general sense of capability, all of which are hallmarks of individualism (e.g., Heine & Lehman, 1999), and individualists appear particularly likely to engage in self-enhancing biases (see Heine et al., 1999, for a similar point). Thus, to the extent that individualism is associated with the goal of seeing oneself as independent of and more capable than others, an individualistic cultural orientation should predict a tendency to engage in SDE. We also expected collectivism to be related to IM. Indeed, early on in the conceptualization of IM, researchers recognized that culture plays an important role in determining the desirability of opinions and behaviors. For example, Crowne and Marlowe (1964, p. 27) suggested that IM was driven by the need of participants to respond in “culturally sanctioned and approved” ways to obtain social approval, a defining characteristic of collectivism but not individualism. Johnson and van de Vijver (2002; see also Schwartz, Verkasalo, Antonovsky, & Sagiv, 1997) indicated that IM is primarily related to the constructs of conformity, face management, and deference, all of which are trademarks of collectivism (e.g., R. Bond & Smith, 1996). Finally, the propensity of an individual to answer deceptively (as measured by the Eysenck Lie scale) has been shown to correlate with IM (as measured by the Marlowe–Crowne scale;  $r = 0.45\text{--}0.55$ ; Khavari & Mabry, 1985; McCrae & Costa, 1983). In sum, we expected collectivism to be associated with a tendency to give false or deceptive responses to manage social impressions. Accordingly, we examined the relationship between collectivism, the tendency to answer deceptively, and IM.

### Vertical and Horizontal Individualism and Collectivism

Recently, Triandis and Gelfand (1998) have refined the concepts of individualism and collectivism to include a horizontal–vertical dimension. People with a horizontal cultural orientation value

equality and view the self as having the same status as others. In contrast, people with a vertical cultural orientation view the self as differing from others along a hierarchy—they accept inequality and believe that rank has its privileges (Triandis, 1995). This dimension combined with individualism–collectivism produces four cultural orientations: horizontal individualism (HI), vertical individualism (VI), horizontal collectivism (HC), and vertical collectivism (VC; Triandis & Gelfand, 1998).

This horizontal–vertical dimension adds nuance to the understanding of cultural value systems and can shed light on the distinct motives associated with the broader individualism–collectivism categories (Maheswaran & Shavitt, 2000). Indeed, it appears that very distinct patterns of certain values, goals, and judgments are linked to each of these horizontal and vertical orientations (e.g., Gürhan-Canli & Maheswaran, 2000; Kurman & Sriram, 2002; Nelson & Shavitt, 2002; Oishi et al., 1998; Triandis & Gelfand, 1998). People with an HI orientation are especially motivated to view the self as independent, self-reliant, self-directed, and unique (Triandis, 1995). For such persons, it should be particularly desirable to see oneself overconfidently, and these tendencies are likely to foster a response style characterized by SDE. In contrast, people with a VI orientation are motivated to view the self as having high power and status relative to others and are not concerned with uniqueness and self-direction (Triandis & Gelfand, 1998). Thus, Oishi et al. (1998) found that self-direction was positively correlated with HI orientation but negatively correlated with VI orientation. Self-direction was defined by the following traits: creativity, curiosity, freedom, choosing one’s goals, and independence. Similarly, Triandis and Gelfand (1998) reported a positive correlation between HI and self-reliance. Because SDE serves to maintain a self-image of independence, capability, and self-directedness, we expected the positive relationship with SDE to emerge for HI but not for VI.

People with an HC orientation are especially focused on sociability and on treating others with benevolence and loyalty. In contrast, people with a VC orientation are particularly focused on dutifully fulfilling their obligations to others (Triandis, 1995). Oishi et al. (1998) observed that HC orientation but not VC orientation correlated positively with a focus on social relationships. Along similar lines, Triandis and Gelfand (1998) reported that HC was predicted by interdependence and sociability. Further, Nelson and Shavitt (2002) found in a cross-national sample that HC but not VC orientation correlates with sociable and benevolent values in both the United States and Denmark. In sum, people with an HC orientation appear particularly oriented toward sociability and motivated to maintain good relationships, and an IM response style serves those goals. Accordingly, we expected HC but not VC to be positively related to IM.

### Study 1

To provide an initial demonstration of these relationships, we examined, in the first study, differences in SDE and IM as a function of national culture and ethnicity. We compared two sets of samples: The first comprised participants from the United States, which has a relatively individualistic national culture, and from Singapore, which has a relatively collectivistic national culture. The second comprised participants of European and Asian backgrounds, both recruited in the United States. We hypothesized

that U.S. participants (or European Americans) would score higher on SDE and lower on IM than Singaporean participants (or Asian Americans).

### Method

*Sample 1 participants.* Participants in the first sample were 59 undergraduate students (25 men and 34 women) at the University of Illinois at Urbana-Champaign and 30 undergraduate students (8 men and 22 women) at Nanyang Technological University in Singapore. Both groups were enrolled in introductory business courses, participated in exchange for extra credit, and completed the questionnaire in English. All participants in both samples were between 21 and 25 years old. All Singaporean respondents were born in Singapore, and 85% of the U.S. respondents were born in the United States. Further, all Singaporean participants were ethnic Chinese, and 70% of U.S. participants were European American.

*Sample 2 participants.* Participants in the second sample were 33 undergraduate students (18 men and 15 women) at the University of Illinois at Urbana-Champaign, who participated in exchange for extra credit in an introductory course, and 32 members (9 men and 23 women) of a Korean-American church in Champaign, Illinois, who participated in exchange for a bookstore gift card. These participants were classified on the basis of their ethnicity: European American (those who indicated their ethnicity as American [5%], German [2%], and White [30%]) or Asian American (those who indicated their ethnicity as Asian [17%] and Korean [36%]). Of European Americans, 96% were in the age range of 16–22 years, whereas 94% of Asian Americans were in the age range 15–29 years. Of the European Americans, 85% were born in the United States, and of the Asian Americans, 55% were born in the United States.

*Materials.* For both samples, the 40-item Paulhus Deception Scales (Paulhus, 1991) were administered to measure SDE (20 items, e.g., “Many people think that I am exceptional”) and IM (20 items; e.g., “I always obey laws, even if I’m unlikely to get caught”). All items were 7-point Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Participants also responded to several demographic questions, including their gender, ethnicity, year of birth, and country of birth. Participants only in Sample 2 began by completing Triandis & Gelfand’s (1998) 16-item scale (4 items for each cultural orientation) designed to measure the four cultural orientations on 7-point Likert-type scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Examples included “I’d rather depend on myself than others” (HI), “It is important that I do my job better than others” (VI), “If a coworker gets a prize, I would feel proud” (HC), and “Parents and children must stay together as much as possible” (VC).

### Results

A general linear model (GLM) run on Sample 1 data with SDE and IM scores as a within-subject factor and nationality (United States or Singapore) as a between-subjects factor revealed a significant interaction,  $F(1, 87) = 6.63, p < .01$ . As hypothesized, independent sample  $t$  tests indicated that U.S. participants scored higher than Singaporeans on SDE,  $M_{U.S. \text{ participants}} = 4.10, M_{\text{Singaporeans}} = 3.86, t(87) = 1.69, p < .05$ , but lower than Singaporeans on IM,  $M_{U.S. \text{ participants}} = 3.34, M_{\text{Singaporeans}} = 3.60, t(87) = 1.79, p < .05$ . Because the gender breakdown of the two samples differed, we also conducted the same analysis with gender as a covariate and obtained the same pattern of results.

On similar lines, a GLM run on Sample 2 data with SDE and IM scores as a within-subject factor and ethnicity (European American or Asian American) as a between-subjects factor revealed a significant interaction,  $F(1, 56) = 8.77, p < .001$ . Independent sample  $t$  tests indicated that European Americans scored signifi-

cantly higher than Asian Americans on SDE,  $M_{\text{European Americans}} = 4.41, M_{\text{Asian Americans}} = 3.99, t(55) = 2.16, p < .05$ , but lower than Asian Americans on IM,  $M_{\text{European Americans}} = 3.56, M_{\text{Asian Americans}} = 4.12, t(55) = 2.50, p < .01$ . Again, because the gender breakdown in the two samples differed, we conducted the same analysis with gender as a covariate and found the same pattern of results. These findings are in line with our hypothesized framework.

For Sample 2, we also examined the relationship between cultural orientation and SDR. Four regression equations were estimated. In the first two, SDE and IM, respectively, were entered as dependent variables and the aggregate scores on individualism (i.e., the mean of HI and VI items) and collectivism (i.e., the mean of HC and VC items) were entered as independent variables. In the next two equations, IM and SDE, respectively, were entered as dependent variables and HI, VI, HC, and VC were entered as independent variables. This enabled us to examine the relationships between the broad individualism–collectivism dimensions and SDR as well as between the four specific dimensions of cultural orientation and SDR.

Individualism significantly predicted SDE,  $\beta = .25, t(62) = 2.52, p < .01$ , but collectivism did not,  $\beta = .14, t(62) = 1.26, ns$ . Collectivism marginally predicted IM,  $\beta = .17, t(62) = 1.28, p < .10$ , whereas individualism did not,  $\beta = -.08, t(62) = -0.70, ns$ . When SDE was regressed on the four cultural orientations, HI was significant,  $\beta = .26, t(60) = 2.88, p < .01$ , but the other three were not: VI,  $\beta = .04, t(60) = 0.65, ns$ ; HC,  $\beta = .20, t(60) = 1.84, ns$ ; VC,  $\beta = -.04, t(60) = 0.50, ns$ , as expected. When IM was regressed on the four cultural orientations, both HI,  $\beta = .20, t(60) = 2.02, p < .05$ ; and VI,  $\beta = -.22, t(60) = 2.75, p < .01$ ; but not HC,  $\beta = .01, t(60) = 0.08, ns$ ; or VC,  $\beta = .09, t(60) = 0.91, ns$ , were significant. Although the latter findings are unexpected, it should be noted that neither Triandis & Gelfand’s (1998) measure nor the Paulhus Deception Scales have been specifically validated among Korean-American samples. Further, Korean-American churchgoers are likely using a different standard of reference to describe their cultural values than are European-American students, which may have influenced their responses (Heine, Lehman, Peng, & Greenholtz, 2002). To overcome these limitations, in the remaining studies, we administered Triandis and Gelfand’s measure as well as the Paulhus Deception Scales to U.S. samples more similar to those examined in previous research with these instruments.

### Discussion

The results of this study support the broad proposition about the relationships between national culture and ethnicity and distinct types of SDR. U.S. participants (and European Americans) scored higher on SDE but lower on IM than Singaporeans (and Asian Americans). We have argued that such differences should emerge because U.S. participants and European Americans, who share an individualistic culture, may be particularly motivated to see themselves as unique, independent, and self-reliant, whereas those from Singapore and Asian Americans, who share a collectivistic culture, may be particularly motivated to see themselves as interdependent, sociable, and engaged in positive relationships with others. A caveat is that the Asian Americans in Sample 2 were church members, and hence, the two ethnic groups may have differed on other variables (e.g., religiosity), which may have been responsible

for the differences in SDR. Nevertheless, the fact that we obtained a similar pattern of results among participants from Singapore and the United States provides converging evidence for our interpretation.

The findings on the relationships between cultural orientation and SDR were generally in line with expectations and revealed that individualism and HI significantly predicted SDE, whereas collectivism marginally predicted IM. These findings are consistent with the notion that the goal of viewing oneself as independent, self-reliant, and self-directed leads one to engage in SDE, whereas interdependence leads one to engage in IM. The relationships of IM with the four cultural orientations were unexpected and may be a function of reference group effects (Heine et al., 2002) or other limitations of these scales when applied to the types of samples examined in this study. Accordingly, in the remaining studies, we enrolled heterogeneous groups of U.S. participants similar to those studied in prior research.

## Study 2

To provide evidence for the role of cultural goals in motivating particular forms of SDR, we assessed the relations between horizontal and vertical individualism and collectivism and SDR in a broadly multiethnic sample. Because there has been very little research examining optimal ways to assess horizontal and vertical aspects of individualism and collectivism, a second goal was to explore the structural properties and reliabilities of the two scales that have been used to measure these orientations (Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998).

## Method

**Participants.** A multiethnic group of 124 participants residing near an urban campus (the University of Illinois at Chicago) participated in exchange for \$15. The data of 2 participants were removed because they failed to follow instructions. Of the participants, 44% were 21–25 years of age, 46% were 26–32 years of age, and the rest were 33–54 years of age. Of the respondents, 35% were men, 33% were European Americans, 41% were Asian Americans, 12% were African Americans, and 51% were born in the United States.

**Materials and procedure.** Fliers were used to solicit respondents near the University of Illinois at Chicago campus. Those who responded were scheduled to participate in groups of about 30 people and completed a questionnaire comprising scales to assess cultural orientation, SDR, and demographics.

**Measures.** Triandis & Gelfand's (1998) 16-item scale was used to measure the four cultural orientations. Triandis et al.'s (1998) measure comprising 16 scenarios with four response options pertaining to HI, VI, HC, and VC was also included. An example included the following scenario:

You and your friends decided spontaneously to go out to dinner at a restaurant. What do you think is the best way to handle the bill? 1) Split it equally, without regard to who ordered what (HC), 2) Split it according to how much each person makes (VI), 3) The group leader pays the bill or decides how to split it (VC), 4) Compute each person's charge according to what that person ordered (HI).

In addition, the Paulhus Deception Scales, as well as questions pertaining to age, country of birth, ethnicity, gender, and year of move to the United States (if born elsewhere) were included in the questionnaire.

## Results

Because of the relatively limited research conducted on the cultural orientation measures, the first objective was to ascertain their factor structure and reliabilities. Although scenario measures have been advocated for cross-cultural measurement of values (Peng, Nisbett, & Wong, 1997), factor analysis using principal component analysis with varimax rotation on Triandis et al.'s (1998) 16-scenario measure revealed that (a) the items did not load as predicted, and (b) most loadings were less than 0.4. Moreover, the four subscales (four items each) were not sufficiently reliable for further analysis: HI,  $\alpha = .45$ ; VI,  $\alpha = .18$ ; HC,  $\alpha = .16$ ; VC,  $\alpha = .00$ . Deletion of specific items would not have improved subscale reliabilities. Thus, results on this scenario measure were not considered further. A factor analysis on Triandis & Gelfand's (1998) scale conducted on similar lines revealed that, except for one item purportedly measuring HC ("To me, pleasure is spending time with others"), all items loaded neatly on their respective subscales with acceptable factor loadings. In addition, subscale reliabilities were generally satisfactory: HI,  $\alpha = .70$ ; HC,  $\alpha = .55$ ; VI,  $\alpha = .72$ ; VC,  $\alpha = .67$ . Hence, scores on this scale were used to determine cultural orientation.

As in the previous study, four regression equations were estimated to examine the relationship between cultural orientation and IM–SDE. Results of the analyses as a function of the horizontal–vertical dimension were generally in line with expectations and shed light on the distinct motives linking cultural orientation with SDR. As Table 1 shows, individualism as a broad dimension was not associated with SDE. However, as expected, HI was positively related to SDE. In comparison, VI was negatively related to SDE. These results are consistent with other studies that have indicated that HI, but not VI, is linked to self-direction and self-reliance values (Oishi et al., 1998; Triandis & Gelfand, 1998). Thus, it appears that the SDE response style fits with the motives of people who desire to be self-reliant, self-directed, and unique (i.e., people with an HI orientation).

Collectivism significantly predicted IM. Moreover, consistent with our hypotheses, HC significantly predicted IM, but VC did not. Because people with an HC orientation value sociability and

Table 1  
Beta Weights for Cultural Orientation and Socially Desirable Responding in Study 2

Cultural orientation	IM		SDE	
	<i>B</i>	<i>r</i>	<i>B</i>	<i>r</i>
Simultaneous Regression Model 1				
Individualism	-.20	-.16	.03	-.03
Collectivism	.30**	.18*	-.05	-.10
Simultaneous Regression Model 2				
Horizontal individualism	.00	-.03	.28***	.31**
Vertical individualism	-.14	-.18*	-.15**	-.25**
Horizontal collectivism	.19*	.18*	.00	-.02
Vertical collectivism	.12	.12	-.04	-.14

Note. IM = impression management; SDE = self-deceptive enhancement.  
\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

maintaining benevolent relationships with others, they should be particularly likely to engage in IM behavior that “others might find endearing” (Kashy & DePaulo, 1996, p. 1038). These results are also consistent with other studies that have shown that HC, but not VC, links to sociability and benevolence (Nelson & Shavitt, 2002; Oishi et al., 1998; Triandis & Gelfand, 1998). Thus, it appears that IM among those with a collectivistic orientation serves the goal of maintaining strong social relationships. No other regression weights were statistically significant. The same analyses were also conducted again, after including the demographic variables of age, country of birth, and gender in separate analyses of covariance, but these did not affect the results. Thus, controlling for a variety of demographic factors, the relations between cultural orientation and SDR remained unchanged.

We also assessed whether participant ethnicity influenced SDE and IM scores, contrasting those with an individualistic cultural background (European Americans) and those with a collectivistic cultural background (Asian Americans). A GLM run with SDE and IM scores as a within-subject factor and ethnicity as a between-subjects factor revealed a significant interaction,  $F(1, 88) = 4.92, p < .05$ . European Americans scored significantly higher than Asian Americans on SDE,  $M_{\text{European Americans}} = 4.31, M_{\text{Asian Americans}} = 4.00, t(88) = 1.90, p < .05$ . Even though Asian Americans scored higher than European Americans on the IM measure, the difference did not attain statistical significance,  $M_{\text{European Americans}} = 3.77, M_{\text{Asian Americans}} = 3.97, t(88) < 1.00$ , possibly because of high variance on the IM measure,  $\text{variance of SDE} = 0.48, \text{variance of IM} = 0.95$ . These findings are generally in line with those of Study 1 addressing SDR in U.S. and Singaporean participants and in European-American and Asian-American participants.

In addition to testing our focal hypotheses, we explored whether there was any relation between ethnicity and orientation scores in this data set. Independent sample  $t$  tests on the cultural orientation measures indicated that European Americans scored higher than Asian Americans on HC,  $M_{\text{European Americans}} = 5.80, M_{\text{Asian Americans}} = 5.29, t(73) = 2.54, p < .05$ , but lower on VC,  $M_{\text{European Americans}} = 5.12, M_{\text{Asian Americans}} = 5.68, t(73) = 2.38, p < .05$ . The two groups did not significantly differ on individualism,  $M_{\text{individualists}} = 4.97, M_{\text{Asian Americans}} = 4.92, t(73) = 0.28, ns$ ; collectivism,  $M_{\text{European Americans}} = 5.46, M_{\text{Asian Americans}} = 5.45, t(73) = 0.06, ns$ ; HI,  $M_{\text{European Americans}} = 5.87, M_{\text{Asian Americans}} = 5.57, t(73) = 1.52, ns$ ; and VI,  $M_{\text{European Americans}} = 4.07, M_{\text{Asian Americans}} = 4.26, t(73) = 0.62, ns$ . This is in line with extensive research indicating that orientation measures often do not capture cultural distinctions in values and beliefs across ethnic or cultural groups (e.g., M. H. Bond, 2002; Gaines, Marelich, & Bledsoe, 1997; Heine et al., 2002; Oyserman, Coon, & Kimmelmeier, 2002; Triandis et al., 1998).

Given that both cultural orientation and ethnicity were significantly related to SDR and that ethnicity and orientation were not related to each other, we tested whether the effects of each was independent of the other. When ethnicity, HI, and HC were entered in the model to predict SDR (both SDE and IM were entered as repeated measures variables), all three were found to explain SDR, though HC did so only marginally: ethnicity,  $F(1, 83) = 4.57, p < .05$ ; HI,  $F(1, 83) = 4.18, p < .05$ ; HC,  $F(1, 83) = 1.26, p < .13$ . As elaborated later, these findings provide further evidence that

ethnicity and cultural orientation are not isomorphic and that they influence SDR independently of one another.

### Discussion

The results of this study are in line with the hypothesized relationships between cultural orientation and desirable responding styles. Examining the pattern as a function of the horizontal-vertical dimension reveals the distinct motives associated with different types of SDR (SDE or IM). As expected, HI significantly predicted SDE. That is, an emphasis on independence, self-competence, self-reliance, self-direction, and uniqueness (i.e., an HI orientation) is associated with a response style characterized by SDE. The findings also suggest that those with a VI orientation are unlikely to engage in SDE. Thus, it appears that SDE (the tendency to give inflated ratings of one's capabilities and knowledge) serves the specific goal of viewing oneself as self-reliant and self-directed.

Collectivism was associated with a response style characterized by IM. As expected, this was primarily the case for those high in HC but not for those high in VC. That is, an emphasis on sociability and on maintaining loyal and benevolent relationships (i.e., an HC orientation) predicted IM. Thus, it appears that for those with a collectivistic orientation, IM (the tendency to tailor one's responses in order to conform to others and obtain social approval) serves the specific goal of maintaining friendly relationships with others. SDR differences by ethnicity were also generally in line with the hypothesized framework. SDE and IM scores were predicted by respondents' ethnicity (European American or Asian American) in the hypothesized direction. Moreover, cultural orientation and ethnicity appeared to exert independent influences on SDR.

### Study 3

Study 3 was designed to replicate these results and extend them to gain further understanding of the motives and mechanisms driving the relationship between cultural orientation and IM. As discussed earlier, one potential pathway linking collectivism (particularly HC) to IM may be via a heightened willingness to dissimulate in order to save face and maintain good social relations (e.g., Hofstede, 1980; Markus & Kitayama, 1991). Indeed, prior research points to an empirical relationship between deceptive responding (DR) and IM (as measured by the Marlowe-Crowne scale:  $r = .45-.55$ ; Khavari & Mabry, 1985; McCrae & Costa, 1983). Support also comes from Mick (1996), who associated dissimulation with IM. Similarly, Cattell, Pierson, and Finkbeiner (1976) associated IM with moralistic hypocrisy, and Paulhus (1991) confirmed that “impression management correlates with a cluster of measures traditionally known as lie scales” (p. 38), including Eysenck's Lie Scale and the Minnesota Multiphasic Personality Inventory Lie Scale. Because collectivism is also known to be associated with DR (Triandis, 1995; Triandis et al., 2001; Triandis & Suh, 2002; Trilling, 1972), we propose that a propensity to answer deceptively to save face may be one mechanism by which collectivism influences IM response tendencies.

### Method

*Participants.* Participants were 192 students in an introductory course at the University of Illinois at Urbana-Champaign who participated for

Table 2  
Beta Weights for Cultural Orientation and Socially Desirable Responding in Study 3

Cultural orientation	IM		SDE	
	B	r	B	r
Simultaneous Regression Model 1				
Individualism	-.09	-.08	.15**	.19*
Collectivism	.27**	.23**	-.01	.00
Simultaneous Regression Model 2				
Horizontal individualism	.11	.04	.18**	.25***
Vertical individualism	-.09	-.15*	.00	.08
Horizontal collectivism	.36***	.36***	-.03	-.05
Vertical collectivism	-.07	.02	.00	.03

Note. IM = impression management; SDE = self-deceptive enhancement. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

course credit. Of the participants, 48% were men, 70% were European Americans, 20% were Asian Americans, and 7% were African Americans. Of the participants, 86% were born in the United States, and all were between 20 and 27 years old.

**Materials and procedure.** The Paulhus Deception Scales for assessing SDR and Triandis & Gelfand’s (1998) scale for measuring cultural orientation was administered (however, because of a scheduling error, only 179 of the participants completed Singelis et al.’s scale). The questionnaire also included the Eysenck Lie scale (22 items; see Eysenck & Eysenck, 1964). Responses to these items were on a binary scale (1 = *yes*, 2 = *no*). The scale reliabilities (Cronbach’s alpha) were as follows: SDE,  $\alpha = .70$ ; IM,  $\alpha = .77$ ; HI,  $\alpha = .68$ ; VI,  $\alpha = .75$ ; HC,  $\alpha = .70$ ; VC,  $\alpha = .70$ ; Lie,  $\alpha = .89$ . Triandis et al.’s (1998) scale was also administered, but reliabilities for the subscales were again quite low, HI,  $\alpha = .35$ ; VI,  $\alpha = .48$ ; HC,  $\alpha = .24$ ; VC,  $\alpha = .04$ , and thus these data were not considered further. Finally, demographic information was collected.

**Results**

As in the previous study, four regression equations were estimated to ascertain the relationship between IM–SDE and cultural orientation. Individualism, but not collectivism, significantly pre-

dicted SDE (see Table 2). Further, as expected, HI (but not VI) was positively related to SDE. These results suggest that SDE among those high in individualism serves the goal of being self-directed and self-reliant. None of the other variables were significantly associated with SDE.

Further, both collectivism overall and HC, but not VC, significantly predicted IM. This again supports the argument that the link between collectivism and an IM response style reflects the motivation to maintain friendly and benevolent social relationships. People with an HC orientation seek social acceptance, and one tactic adopted to achieve this objective may be an IM response style (Kashy & DePaulo, 1996). None of the other regression weights were significant. As in Study 2, separate analyses of covariance conducted after including each of the demographic variables did not affect these results.

**Relationships with propensity to respond deceptively.** To further explore the respondent motives served by engaging in desirable responding, we investigated the relationship of collectivism and IM as well as that of HC and IM with the respondents’ propensity toward DR. As shown in Table 3, correlation analyses revealed that DR was significantly associated with collectivism but not individualism. This finding is consistent with several studies that demonstrated that collectivists, but not individualists, are likely to dissemble and engage in deception (e.g., Triandis et al., 2001; Triandis & Suh, 2002; Trilling, 1972).

In addition, DR was significantly related to HC, but not to HI, VI, or VC. This suggests that people with an HC cultural orientation are likely to engage in deception to save face and maintain their social relationships. Further, although DR significantly correlated with both social desirability measures, the effect was much stronger for IM than for SDE. These results, too, are consistent with several other studies showing that IM is closely related to deception (e.g., Jacobson et al., 1970; Kashy & DePaulo, 1996; Mick, 1996; Sengupta et al., 2002).

**Mediation analyses.** One objective of Study 3 was to explore the mediating role of DR in the relationship between collectivism and IM. Using Baron and Kenny’s (1986) procedure, we conducted a series of regression analyses. In the first equation, IM was regressed on collectivism and the relationship was significant,  $\beta = .27$ ,  $t(167) = 3.03$ ,  $p < .005$ . In the second equation, DR was

Table 3  
Correlations Between Propensity to Respond Deceptively, Cultural Orientation, and Socially Desirable Responding in Study 3

	1	2	3	4	5	6	7	8	9
1. DR	—	-.03	.23**	.01	-.06	.26**	.12	.60***	.19*
2. IND		—	.02	.77***	.86***	-.14	.14	-.08	.19*
3. COLL			—	.11	-.06	.75***	.82***	.29**	-.01
4. HI				—	.33***	-.04	.20**	.04	.25***
5. VI					—	-.17*	.05	-.15*	.08
6. HC						—	.25***	.36***	-.05
7. VC							—	.02	.03
8. IM								—	.20**
9. SDE									—

Note. DR = propensity to respond deceptively; IND = individualism; COLL = collectivism; HI = horizontal individualism; VI = vertical individualism; HC = horizontal collectivism; VC = vertical collectivism; IM = impression management; SDE = self-deceptive enhancement. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

regressed on collectivism and the relationship was significant,  $\beta = .06$ ,  $t(167) = 3.10$ ,  $p < .005$ . In the third equation, IM was regressed on DR and collectivism. Results indicated that collectivism was no longer significant,  $\beta = .10$ ,  $t(166) = 1.39$ , *ns*, whereas the influence of DR remained significant,  $\beta = 2.81$ ,  $t(166) = 9.94$ ,  $p < .001$ . This indicates that the participants' tendency to respond deceptively completely mediated the influence of collectivism on IM. Sobel's test confirmed the mediation, Sobel's  $t(166) = 2.96$ ,  $p < .005$ .

On similar lines, we tested the mediating role of DR in the relationship between HC and IM. When IM was regressed on HC, consistent with the correlational analysis, the relationship was significant,  $\beta = .36$ ,  $t(167) = 5.00$ ,  $p < .001$ . When DR was regressed on HC, the relationship was also significant,  $\beta = .06$ ,  $t(167) = 3.45$ ,  $p < .001$ . When IM was regressed on DR and HC, results indicated a decreased influence of HC,  $\beta = .21$ ,  $t(166) = 3.53$ ,  $p < .001$ , whereas the influence of DR remained significant,  $\beta = 2.65$ ,  $t(166) = 9.61$ ,  $p < .001$ . This suggests that the participants' tendency to respond deceptively partially mediated the influence of HC on IM. Sobel's test confirmed the mediation, Sobel's  $t(166) = 3.25$ ,  $p < .001$ .

Finally, as in Study 2, we also attempted to assess whether SDR differed by participant ethnicity (European American vs. Asian American). However, in this study, the large difference in the number of European-American ( $n = 117$ ) and Asian-American participants ( $n = 34$ ) precluded any statistical comparisons. Despite this limitation, the pattern of data was in line with the earlier pattern, with European Americans higher on SDE and lower on IM than Asian Americans. Also, none of the six cultural orientation measures (HI, VI, HC, VC, individualism, collectivism) appeared to differ by ethnicity.

## Discussion

The results support our conceptualization of the relationship between cultural orientation and desirable responding styles, and they provide further information on the mechanisms linking them. Individualism in general and HI (but not VI) in particular was predictive of SDE. In other words, people who are especially concerned about self-competence, self-reliance, uniqueness, and self-direction (those with an HI orientation) are more likely to engage in SDE responding. Also as expected, collectivism was found to be predictive of IM. The fact that HC but not VC predicted IM, as in Study 2, suggests that the relationship between collectivism and IM reflects the desire to maintain benevolent and friendly relationships with others and to gain social acceptance. Support was also obtained for the hypothesized mediating role of DR in the relationship between collectivism and IM on one hand and HC and IM on the other. That is, being oriented toward the maintenance of friendly relationships is associated with a tendency to dissemble or respond deceptively (Triandis et al., 2001; Trilling, 1972) to save face and maintain one's social image. In turn, these objectives are likely to be satisfied by a response style characterized by IM.

## Study 4

So far, the results support the hypothesized links between cultural orientation and distinct forms of SDR. However, it remains to

be established whether these associations shown between individual-difference measures have implications for other judgments and self-presentations. Thus, the next objective was to assess the degree to which cultural orientation predicts self-presentation in specific contexts relevant to either self-reliance or image protection. Study 4 examined the relation between cultural orientation and respondents' predictions regarding their future behaviors or outcomes in the context of relevant behavioral scenarios. It addressed whether participants present their likely actions in ways that fit the self-presentational patterns linked to cultural orientation. Specifically, we hypothesized that because individualism, and in particular HI, is associated with a self-presentational style characterized by SDE, it will also be associated with a tendency to present one's likely actions in ways that make one appear self-reliant. In contrast, because collectivism, and in particular HC, is associated with a response style characterized by IM, it will also be associated with a tendency to present one's likely actions in ways that protect one's image from loss of face. We further hypothesized that the former relationship would be mediated by respondents' SDE (but not IM) scores, whereas the latter relationship would be mediated by their IM (but not SDE) scores.

## Method

**Participants.** Participants were 76 students in introductory courses at the University of Illinois at Urbana-Champaign who participated for class credit. Of the participants, 38% were men, 60% were European American, 32% were Asian American, 3% were Hispanics, and 1% were African American. Of the participants, 92% were 20–24 years of age (the rest were 25–34 years of age), and 78% were born in the United States.

**Materials and procedure.** To empirically derive a set of behavioral scenarios relevant to either self-reliance or image protection, we constructed a broad set of scenarios that reflect everyday situations that students are likely to encounter. For instance, a self-reliance scenario read

You are interviewing for an internship at a company called "XYZ." Doing the job well would require self-reliance and independence on your part to set goals and to meet them. If you were offered the job, how confident would you be that you'd make the right decision about it? (1 = not at all confident, 9 = very confident)

An example of an image-protection scenario read

The end of the semester is nearing, and you have a lot of assignments to complete, besides studying for the finals. One important assignment is due in and you have yet to write it. The marks for this assignment count for 40% of your overall grade for Marketing and it is not your best subject. You are friends with a student who took the same course the year before you and he or she offers to give you his or her assignment to help you out. He or she got 85 for their essay. What is the likelihood that you would borrow your friend's assignment and use it to prepare yours? (1 = not at all likely, 9 = very likely).

Participants were asked to predict their behavior or outcome in each situation. They also completed the Paulhus Deception Scales and Triandis & Gelfand's (1998) scale for measuring cultural orientation. Scale reliabilities (Cronbach's alpha) were as follows: SDE,  $\alpha = .70$ ; IM,  $\alpha = .77$ ; HI,  $\alpha = .69$ ; VI,  $\alpha = .70$ ; HC,  $\alpha = .73$ ; VC,  $\alpha = .62$ . Participants also provided the same demographic data as in earlier studies.

## Results

We conducted a factor analysis on the scenario responses by using principal component analysis with a criterion of eigenvalue

greater than one, and it revealed distinct factors corresponding to the two focal types of motives. These factors were termed *self-reliance scenarios* and *image-protection scenarios*. The self-reliance factor comprised three scenarios ( $\alpha = .85$ ), in which respondents rated their future confidence in deciding to accept a job, their anticipated performance on the job, and the likelihood of earning a distinction or award for their performance. The image-protection factor comprised of four scenarios ( $\alpha = .69$ ), in which respondents rated their future likelihood of plagiarizing a friend's paper for a course, damaging someone's piece of furniture without telling them, gossiping about coworkers on a job, and cheating on a particular exam. A separate study validated the meanings associated with these scenarios. One hundred and two participants rated each scenario in terms of the extent to which answers reflect one's desire to see oneself as competent and the extent to which they reflect one's desire to protect one's image. Results indicated that respondents perceived answers to the self-competence scenarios to reflect a greater desire for self-competence than for image protection,  $M_{\text{self-competence}} = 6.79$ ,  $M_{\text{image protection}} = 6.36$ ,  $t(101) = 3.03$ ,  $p < .005$ . Similarly, answers to the image protection scenarios were perceived to reflect a greater desire for image protection than for self-competence,  $M_{\text{self-competence}} = 5.58$ ,  $M_{\text{image protection}} = 5.96$ ,  $t(101) = -2.65$ ,  $p < .01$ .

Regression analyses revealed that individualism,  $\beta = .30$ ,  $t(73) = 2.13$ ,  $p < .05$ , but not collectivism,  $\beta = .03$ ,  $t(73) < 1.00$ , significantly predicted scores on the self-reliance scenarios. Although regression analyses suggested a positive relationship between HI and scores on the self-competence scenarios, the relationship did not attain a conventional significance level,  $\beta = .16$ ,  $t(70) = 1.18$ ,  $p < .13$ , although the relation with VI scores did,  $\beta = .22$ ,  $t(70) = 2.00$ ,  $p = 0.05$ . Correlation analyses, however, confirmed that HI,  $r = .20$ ,  $p < .05$ , but not VI,  $r = .18$ ,  $p > .10$ , significantly predicted responses on the self-reliance scenarios.

Along similar lines, regression analyses were conducted on the image protection scenarios. Collectivism marginally predicted the scores on the image protection scenarios,  $\beta = -.21$ ,  $t(73) = 1.25$ ,  $p < .11$ , but individualism did not,  $\beta = .00$ ,  $t(73) < 1$ . As expected, HC,  $\beta = -.30$ ,  $t(70) = -1.74$ ,  $p < .05$ , but not VC,  $\beta = .00$ ,  $t(70) < 1$ , significantly predicted scores on the image-protection scenarios. Thus, cultural orientation appears to predict responses to behavioral scenarios that link to the self-presentational goals associated with HI and HC.

It should also be noted that regression analyses generally supported our conceptualization of the relationships between HI–HC and SDE–IM. As in the previous studies, HI, but not VI, was positively related to SDE: HI,  $\beta = .17$ ,  $t(70) = 1.85$ ,  $p < .05$ ; VI,  $\beta = -.01$ ,  $t(70) < 1.00$ . No other regression weights were significant for the prediction of SDE. Collectivism was positively related to IM,  $\beta = .37$ ,  $t(73) = 3.47$ ,  $p > .001$ ; as was HC,  $\beta = .17$ ,  $t(70) = 1.53$ ,  $p < 0.07$ ; and also VC,  $\beta = .17$ ,  $t(70) = 2.20$ ,  $p < 0.05$ . None of the other variables significantly predicted IM.

We also assessed whether participant ethnicity influenced SDE and IM scores, contrasting those with an individualistic cultural background (European Americans) and those with a collectivistic cultural background (Asian Americans). A GLM run with SDE and IM scores as a within-subject factor and ethnicity as a between-subjects factor revealed a significant interaction,  $F(1, 65) = 5.48$ ,  $p < .05$ . European Americans scored significantly higher than Asian Americans on SDE,  $M_{\text{European Americans}} = 4.44$ ,

$M_{\text{Asian Americans}} = 3.97$ ,  $t(65) = 2.77$ ,  $p < .01$ , and lower on IM, although that difference did not attain statistical significance,  $M_{\text{European Americans}} = 3.68$ ,  $M_{\text{Asian Americans}} = 3.75$ ,  $t(65) < 1.00$ . Overall, these findings are in line with our hypotheses.

As in the previous studies, we explored whether there were any ethnic differences in measured cultural orientation. In line with the arguments presented earlier, none of the six cultural orientation variables yielded differences by ethnicity: individualism,  $M_{\text{European Americans}} = 4.96$ ,  $M_{\text{Asian Americans}} = 5.08$ ,  $t(65) < 1.00$ ; collectivism,  $M_{\text{European Americans}} = 5.55$ ,  $M_{\text{Asian Americans}} = 5.31$ ,  $t(65) = 1.34$ , *ns*; HI,  $M_{\text{European Americans}} = 5.38$ ,  $M_{\text{Asian Americans}} = 5.22$ ,  $t(65) = 1.34$ , *ns*; VI,  $M_{\text{European Americans}} = 4.55$ ,  $M_{\text{Asian Americans}} = 4.94$ ,  $t(65) = 1.22$ , *ns*; HC,  $M_{\text{European Americans}} = 5.52$ ,  $M_{\text{Asian Americans}} = 5.15$ ,  $t(65) = 1.91$ , *ns*; VC,  $M_{\text{European Americans}} = 5.57$ ,  $M_{\text{Asian Americans}} = 5.46$ ,  $t(65) < 1.00$ .

Finally, we also examined whether ethnicity and cultural orientation influenced SDR independently. When ethnicity, HI, and HC were entered in the model to predict SDR (SDE and IM were entered as repeated measures), all three explained SDR, though HI and HC did so only marginally: ethnicity,  $F(1, 63) = 6.38$ ,  $p < .05$ ; HI,  $F(1, 63) = 1.90$ ,  $p < .09$ ; HC,  $F(1, 63) = 2.08$ ,  $p < .08$ . These findings are consistent with the view that cultural orientation and ethnicity exert independent but parallel influences on SDR.

We hypothesized that the relation between HI and responses to the self-reliance scenarios is mediated by SDE and that the relation between HC and responses to the image-protection scenarios is mediated by IM. In the first regression equation, participants' aggregate score on the self-reliance scenarios was regressed on HI and the relationship was significant,  $\beta = .23$ ,  $t(74) = 1.71$ ,  $p < .05$ . In the second equation, SDE was regressed on HI and the relationship was significant,  $\beta = .17$ ,  $t(74) = 1.93$ ,  $p < .05$ . In the third equation, the score on the self-reliance scenarios was regressed on SDE and HI. Results indicated that HI was no longer significant,  $\beta = .14$ ,  $t(73) = 1.10$ , *ns*, whereas the influence of SDE remained significant,  $\beta = .50$ ,  $t(73) = 2.98$ ,  $p < .005$ . This indicates as expected that the relationship of HI with the self-reliance scenarios was completely mediated by SDE. Further, IM was not related to self-reliance scenarios,  $\beta = -.01$ ,  $t(74) < 1.00$ , indicating that IM did not mediate the relationship between HI and the self-reliance scenarios.

On similar lines, when the aggregate score on the image-protection scenarios was regressed on HC, the relationship was found to be significant,  $\beta = -.26$ ,  $t(74) = 1.73$ ,  $p < .05$ . When IM was regressed on HC, the relationship was significant,  $\beta = .31$ ,  $t(74) = 3.11$ ,  $p < .005$ . When the score on the image-protection scenarios was regressed on IM and HC, results indicated that HC was no longer significant,  $\beta = -.10$ ,  $t(73) < 1.00$ , whereas IM remained significant,  $\beta = -.51$ ,  $t(73) = -3.14$ ,  $p < .005$ . This indicates as expected that the relationship of HC with responses to the image-protection scenarios was completely mediated by IM. Further, SDE was not related to image-protection scenario responses,  $\beta = -.10$ ,  $t(74) < 1.00$ , indicating that SDE did not mediate the relationship between HC and image-protection scenarios.

## Discussion

The results of this study extend those of the previous studies by showing systematic differences in the self-presentational response

strategies associated with individualism and collectivism on specific behavioral scenarios. Specifically, an HI orientation was associated with a response style characterized by self-reliance, whereas an HC orientation was associated with a response style characterized by image-protection. The results also indicated, as hypothesized, that these response styles are mediated by the respondent's SDE and IM scores, respectively.

### General Discussion

These studies address the link between cultural orientation and SDR. Although research has yet to examine this relation directly, previous cross-cultural studies have depicted collectivists as dishonest, insincere, and face saving in their responses to others, implying a main effect relation between collectivism and SDR. In contrast, we sought to explore the distinct ways in which individualism and collectivism link to tendencies to respond to questions in socially desirable ways. Moreover, we investigated the different culturally relevant goals that SDR serves by examining the links between specific types of individualistic and collectivistic cultural orientation and distinct forms of SDR. In addition, we replicated the findings by using behavioral scenarios that tapped the distinct goals associated with desirable responding among individualists and collectivists.

The results of four studies support this conceptual framework. On the basis of a review of the extensive literature on SDR, we proposed that the response tendencies of people with individualistic versus collectivistic cultural orientations or backgrounds correspond to two distinct response styles associated with SDR—IM and SDE (Gur & Sackeim, 1979; Paulhus, 1991; Sackeim & Gur, 1979). IM refers to an attempt by respondents to present their self-reported actions in the most positive manner to save face and maintain social approval. SDE refers to a tendency to hold and report inflated or overconfident views of one's skills and capabilities.

As an initial demonstration, we showed that national culture and ethnicity predict distinct patterns of SDR. Respondents from the United States, which has an individualistic national culture, scored significantly higher on SDE and lower on IM than those from Singapore, which has a relatively collectivistic national culture. Moreover, across the studies, we observed that people of European–American ethnicity, who have a relatively individualistic cultural background, scored higher on SDE than Asian Americans, who have a relatively collectivistic cultural background, and somewhat lower on IM.

We further hypothesized and found that these relationships were linked to specific types of cultural orientations. Indeed, by distinguishing between horizontal versus vertical categories of individualism and collectivism, the data shed light on the specific culturally relevant goals that SDR serves. As expected, there was a positive relationship between HI and SDE. This, we argued, is because being independent and self-directed is especially valued by horizontal individualists. Providing inflated ratings of one's capabilities serves the goal of seeing oneself as self-reliant, skillful, and independent.

Also as hypothesized, there was a positive relationship between HC and IM. We argued that this is because horizontal collectivists are especially oriented toward benevolent social relationships. This goal can be served by providing deceptive ratings of one's self-

reported actions to appear more normatively appropriate. Thus, the link between collectivism and an IM response style may reflect the desire to maintain strong and friendly interpersonal relationships.

We further explored the distinct patterns of SDR linked to cultural orientation by using behavioral scenarios that reflected situations the respondents encountered in their day-to-day lives. Individualism, in particular HI, but not collectivism was associated with a tendency to respond favorably on scenarios depicting respondents positively on self-reliance. Further, SDE scores mediated the relationship between HI and responses to self-reliance scenarios. On similar lines, HC, but not VC, was associated with a tendency to respond favorably on scenarios related to image protection, and this relationship was mediated by IM scores.

### *HI Versus VI and HC Versus VC*

As noted earlier, the linkages between cultural orientation and SDR were specific to certain subtypes of individualism or collectivism. For instance, IM has been shown to be directed toward peers (M. H. Bond, 1991) and is primarily engaged for reasons related to social approval (Jacobson et al., 1970). Hence, we argued and found that people with an HC orientation, who emphasize sociability, cooperativeness, benevolence, and loyalty, are especially likely to exhibit an IM response style. However, we argued and found that people with a VC orientation, who pay special attention to stature, and whose relationships are often characterized by duty and hierarchy (e.g., Triandis, 1995), are not especially likely to exhibit IM. We speculate that the VC orientation may instead be more predictive of responses concerning fulfillment of obligation and deference to higher status others.

Similarly, we showed that people with an HI orientation, who emphasize self-competence, self-direction, self-reliance, independence, and uniqueness, are likely to exhibit an SDE response style. However, people with a VI orientation, who place special emphasis on status, power, and individual achievement (e.g., Triandis, 1995), are not likely to engage in SDE. Instead, we would speculate that the VI orientation would be more predictive of responses concerning competition, achievement, and the gaining or displaying of status.

Distinguishing between horizontal versus vertical cultural categories not only afforded insights on the specific culturally relevant goals that SDR serves, it also affirmed the value of examining this recently proposed cultural distinction (Triandis & Gelfand, 1998). Whereas the large majority of cross-cultural research examines broad distinctions between individualism and collectivism, or independence and interdependence, accounting for the horizontal–vertical distinction adds valuable information to the understanding of cultural value systems (Chirkov, Ryan, Kim, & Kaplan, 2003; Maheswaran & Shavitt, 2000). Indeed, our results are in line with a growing set of studies on these cultural categories (e.g., Gürhan-Canli & Maheswaran, 2000; Kurman & Sriram, 2002; Nelson & Shavitt, 2002; Oishi et al., 1998; Singelis et al., 1995), indicating that distinct patterns of responses are linked to HI versus VI and HC versus VC orientations. Thus, for instance, the current studies suggest that the relationship between cultural orientation and SDR may not be discerned from examining individualism as a whole; it differs depending on whether HI or VI in particular are considered.

In addition to our focal hypotheses, the data offered the opportunity to explore the relations between ethnicity and measured

cultural orientation. Our findings are in line with a sizable literature attesting to the lack of isomorphism between cultural orientation scores and ethnic group differences (e.g., Gaines et al., 1997; Heine et al., 2002; Oyserman et al., 2002; Triandis et al., 1998). Indeed, considerable research has indicated that ethnicity is not a proxy for cultural orientation, and thus consistent relationships between these variables cannot be assumed (e.g., M. H. Bond, 2002; Gaines et al., 1997; Oyserman et al., 2002; Triandis, 1995). Moreover, cultural differences in the reference groups that are salient when orientations are measured may mask whatever true differences in values exist across cultural groups (Heine et al., 2002).

Although both are culturally relevant variables, orientation measures may map different aspects of culture than do classifications such as ethnicity or national group. Part of the distinction may derive from the nature of the values or behaviors captured by each construct. Part of the distinction may also be method based, owing to the fact that classification by cultural orientation is based on self-rated values or standards, whereas ethnicity classifications require little if any judgment on the part of the respondent. Thus, orientation measures emphasize one's normative and affective responses to others at a molar level, especially in work-related settings (e.g., "It is important that I do my job better than others."). In contrast, we speculate that ethnicity or national group may instead map distinctions in perceptions and behavioral patterns at a subtler and more molecular level (e.g., attentiveness to others' behaviors or to slight shifts in the context surrounding a request; Haberstroh, Oyserman, Schwarz, Kühnen, & Ji, 2002; Ji, Schwarz, & Nisbett, 2000).

Given these distinctions, one would expect that ethnicity and orientation would contribute relatively independently to explained variance in SDR. The data in Studies 2 and 4 afforded the opportunity to examine the distinct influences of ethnicity and orientation on SDR. Orientation and ethnicity were found to play an independent role in predicting SDR, which is consistent with the argument that each construct captures a distinct aspect of cultural variation that links to socially desirable response tendencies. It is noteworthy, however, that our findings provide evidence of convergence across national culture, ethnicity, and cultural orientation regarding the SDR phenomena of interest.

### *The Role of Propensity to Respond Deceptively*

We further examined one potential pathway linking collectivism (particularly HC) and IM—a willingness to dissimulate or respond deceptively to save face and maintain one's social image. Indeed, several previous studies have associated DR with collectivism (e.g., Triandis et al., 2001; Triandis & Suh, 2002; Trilling, 1972; van Hemert et al., 2002) and with IM (e.g., Jacobson et al., 1970; Kashy & DePaulo, 1996; Mick, 1996; Sengupta et al., 2002). For example, Kashy and DePaulo (1996) found that people who tell more lies are especially concerned about self-presentation and actively manage others' impressions of themselves. Our results confirmed these relationships. Moreover, as expected, the relationship between collectivism and IM as well as that between HC and IM was mediated by the propensity to respond deceptively. These

findings provide insight into the goals and mechanisms that link collectivism and an IM response style, suggesting that an orientation toward sociable and benevolent relations with others leads to a tendency toward dissimulation for the purpose of managing social impressions.

It is worth noting that although there are similarities between Paulhus's IM scale and the Lie scale, these measures capture different constructs. We replicate previous findings on the positive relationship between the Lie scale and IM (e.g., Paulhus, 1991) and also provide insights on one possible mechanism by which collectivists manage social impressions. As noted, this analysis also sheds light on the goals linking a collectivistic orientation and IM. Further research could examine other potential mechanisms and tendencies, such as ingratiation or self-effacement, that may link collectivism to IM.

Our results regarding IM responding emerged in an anonymous response environment in which no audience was present. One might argue that those with a collectivistic orientation should only have manifested context-dependent and audience-specific IM tendencies. Although this expectation would fit with a conceptualization of collectivistic behavioral styles as being highly context specific, current conceptualizations of IM stress its decontextualized nature (see Schlenker & Weigold, 1992). Audiences for one's self-presentations need not be physically present to be mentally activated (e.g., Fitzsimons & Bargh, 2003; Shah, 2003). Thus, studies have demonstrated that neither social interaction nor audiences are necessary to motivate IM (Paulhus, 2002; Schlenker & Pontari, 2000) and that normative influences on one's responses can readily emerge in private as well as public contexts (see Wood, 2000, for a review). The present results are consistent with that conceptualization of the nature of IM.

### *Methodological Implications*

As has been established, desirable responding is one of the major causes of response bias and is a serious threat to the validity of research findings (see DeMaio, 1984; Johnson & van de Vijver, 2002). The current studies have important implications regarding the common practice of researchers using social desirability measures as adjustments for data distortion when conducting substantive analyses. Our research suggests that the underlying main-effects assumption of this practice is likely incorrect given the more complex relationships revealed here between various dimensions of social desirability and cultural orientations. It is thus perhaps not surprising that most reported attempts to use measures of social desirability as adjustments in substantive analyses have proven unsuccessful (e.g., Gove, McCorket, Fain, & Hughes, 1976; Kozma & Stones, 1987; McCrae, 1986; McCrae & Costa, 1983; Welte & Russell, 1993). We would therefore caution in general against this practice. Additional work on appropriate procedures for addressing the effects of SDR on research findings is essential. It should also be noted that a variety of procedures (van de Vijver & Leung, 1997) are currently available that may be useful in identifying variations in SDR processes across cultures.

Although to our knowledge, the literature in general has not addressed the linkages between culture and desirable responding, there is one limited study of which we are aware that addressed this relationship. Heine and Lehman (1995) found that people from

a collectivistic country (Japan) did not differ significantly from their individualistic counterparts (Canadians) on IM and SDE. Their findings may be attributable to their collectivist sample, which comprised Japanese exchange students who chose to visit Canada and who thus may actually have been relatively individualistic in orientation. In the current studies, we used multiple culturally relevant variables to provide converging evidence for the SDR phenomena of interest.

### Conclusions

This research represents one of the first steps in understanding cultural influences on SDR. It also adds to a growing literature suggesting that the horizontal and vertical distinction enriches our understanding of culture. In the present context, this distinction appears to enhance the ability to predict SDR beyond the prediction afforded by the broader individualism–collectivism dichotomy. The results of this study likely have important implications for the study of culture and of desirable response styles. In particular, by examining relationships between these widely studied constructs, this work offers a step toward integrating key research programs in cross-cultural and personality psychology.

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