# The Cultural Grounding of Personal Relationship: The Importance of Attractiveness in Everyday Life

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Previous research has suggested that physically attractive people experience more positive life outcomes than do unattractive people. However, the importance of physical attractiveness in everyday life may vary depending on the extent to which different cultural worlds afford or require individual choice in the construction and maintenance of personal relationships. The authors hypothesized that attractiveness matters more for life outcomes in settings that promote voluntaristic-independent constructions of relationship as the product of personal choice than it does in settings that promote embedded-interdependent constructions of relationship as an environmental affordance. Study 1 examined self-reported outcomes of attractive and unattractive persons. Study 2 examined expectations about attractive and unattractive targets. Results provide support for the hypothesis along four dimensions: national context, relationship context, rural-urban context, and experimental manipulation of relationship constructions. These patterns suggest that the importance of physical attractiveness documented by psychological research is the product of particular constructions of reality.

Keywords: attraction, physical attractiveness, personal relationship, culture, life outcomes

Physical attractiveness is in high demand: Hollywood glorifies it, a vast array of products and services promise it, and Americans are buying it. In fact, Americans spend more each year on beauty products and services than they do on education ("Pots of Promise," 2003). Why is physical attractiveness so important? Research within social psychology suggests one possibility: Physical attractiveness matters for important life outcomes. Attractive adults receive more attention, positive social interaction, and help from others than do unattractive adults; in addition, they achieve greater occupational success, have more dating and sexual experience, are more popular, and—perhaps as a result of positive treatment—enjoy better physical and mental health (see Langlois et al., 2000, for a meta-analytic review). It is no wonder then that people in contemporary American settings devote so much time and attention to physical attractiveness.

There is reason to believe that the emphasis on physical attractiveness is a panhuman characteristic. Although some aspects of what is considered beautiful may vary across time and place,

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research suggests that standards of beauty are somewhat universal; that is, people tend to agree about who is and is not physically attractive, both within and across cultural and ethnic groups (Cunningham, Roberts, Barbee, Druen, & Wu, 1995; Zebrowitz, Montepare, & Lee, 1993). Furthermore, research suggests that attractiveness is an important consideration in mate preference across several diverse societies (Buss et al., 1990).

Without denying a shared evolutionary basis for some determinants of attractiveness (e.g., symmetry; Rhodes, 2006) or a general preference for good-looking mates, this article approaches the phenomenon of attraction from a cultural perspective. Contrary to popular understandings, the point of a cultural perspective is not to demonstrate that phenomena vary "across cultures"; instead, the goal is to illuminate a process that is typically invisible in mainstream accounts: the extent to which psychological phenomena are not "just natural," but reflect particular constructions of reality. In particular, we propose that attraction is especially important for life outcomes in worlds that promote constructions of relationship as the product of personal choice (Adams, Anderson, & Adonu, 2004; Giddens, 1991). To the extent that people experience relationship as an agentic creation and expression of personal preferences, attraction and other bases of preference loom large in relationship life. However, attraction may be less relevant in worlds that promote constructions of relationship as environmental affordance (Adams et al., 2004). To the extent that people experience less agency in the construction of relationship, attraction and other bases of personal preference have less impact on life outcomes.

# Previous Research: Attractiveness Effects as a Stereotyping Phenomenon

Research has documented a *physical attractiveness stereotyping* (PAS) effect: the tendency to evaluate physically attractive people more positively than physically unattractive people, especially for

traits associated with social skills (Eagly, Ashmore, Makhijani, & Longo, 1991; Feingold, 1992; Langlois et al., 2000). In a classic study, researchers asked undergraduates to evaluate the personality traits and probable life outcomes of attractive and unattractive targets (Dion, Berscheid, & Walster, 1972). Participants not only judged attractive targets more positively than they did unattractive targets on a composite measure of social desirability but also expected attractive targets to experience greater overall happiness, obtain more prestigious jobs, have better marriages, and lead more satisfying social and professional lives than would their unattractive peers. Numerous studies have replicated this "what is beautiful is good" pattern, even for ratings of children (e.g., Dion, 1973) and infants (e.g., Stephan & Langlois, 1984).

Besides individual judgments, PAS effects are also evident in entertainment media. Smith, McIntosh, and Bazzini (1999) randomly selected 100 popular American films across 5 decades and analyzed them for PAS effects. They found that films in the sample portrayed attractive characters more positively than they did unattractive characters in terms of both moral goodness and subsequent happiness, regardless of production decade or character gender. Moreover, merely viewing a high-PAS film increased PAS effects among participants in a subsequent experiment. Besides demonstrating PAS effects in cultural representations, this study suggests that the strength of such effects can vary with exposure to different representations.

### Cultural Variation in PAS

Some researchers have suggested that PAS effects might reflect sociocultural factors (see Dion, 1986). For example, the "what is beautiful is good" account of PAS (Dion et al., 1972) holds that perceivers use physical attractiveness as a heuristic cue about a target's defining essence. If so, then one can expect PAS tendencies to be relatively strong in settings associated with individualism or independent selfways1 that promote a focus on personal characteristics as the essence of identity. In these settings, attractiveness serves as a cue that a target's essential nature is good, and perceivers use this cue to make judgments about other traits. In contrast, the tendency to stereotype on the basis of attractiveness may be relatively weak in settings associated with collectivism or interdependent selfways (see Markus, Mullally, & Kitayama, 1997) that promote a focus on ascribed social locations (e.g., roles, family connection, and group identities) as the essence of identity. In these settings, attractiveness may provide little information about the target's essential nature, so perceivers may be less inclined to use this information when making judgments about other traits.

To test this hypothesis, Dion, Pak, and Dion (1990) examined the role of physical attractiveness in judgments of traits and life outcomes among samples of Chinese-Canadian participants who varied in involvement with the local Chinese community and cultural life. Consistent with their hypothesis, the influence of physical attractiveness was smaller for highly involved participants (who presumably had greater exposure to collectivism and interdependent selfways) than it was for less involved participants. This pattern of results was particularly evident for ratings of traits that reflected social morality (e.g., "kind" and "considerate"). However, participants in both groups showed evidence of PAS

effects on items concerning desirable life outcomes (e.g., "a happy life").

# What Is Beautiful Is Culturally Good

An alternative account of cultural variation holds that PAS occurs to an equal extent across settings but varies in the traits that people consider valuable and therefore associate with physical attractiveness. Because people in different settings value different traits, the particular dimensions on which one will observe PAS effects will vary depending on context. To examine this "what is beautiful is culturally good" hypothesis, Wheeler and Kim (1997) exposed Korean participants to photos of Korean targets who varied in physical attractiveness and asked participants to judge the targets on traits reflecting domains of value in North American settings (e.g., "potency") and Korean settings (e.g., "integrity" and "concern for others"). Participants did not show PAS effects on ratings of potency, as North American participants do, but did show effects for integrity and concern for others, as North American participants do not (Eagly et al., 1991; Feingold, 1992). Wheeler and Kim concluded that the effect of physical attractiveness on trait judgments is universal but limited to culturally valued traits (cf. Chen, Shaffer, & Wu, 1997; Shaffer, Crepaz, & Sun, 2000).

# Present Research: Attractiveness Effects as a Relationship Phenomenon

Previous research has framed attractiveness as a stereotyping phenomenon and has investigated its effects on trait ratings. In contrast, the present research frames attractiveness as a relationship phenomenon and considers its implications for life outcomes. From this perspective, the importance of physical attractiveness depends upon the particular constructions of reality—voluntaristic-independent or embedded-interdependent—that inform relationship experience.

Most research on PAS has occurred in settings where independent selfways are prominent (Markus & Kitayama, 1991; Markus et al., 1997). Independent selfways promote an experience of the self as a bounded and separate entity and contribute to an experience of agency as disjoint or relatively separate from the actions of others (Markus & Kitayama, 2004). Constructions of reality in settings where independent selves and disjoint agency are prominent promote both an experience of insulation from context and an experience of relationship as a tenuous, voluntary agreement between inherently separate selves (Adams et al., 2004). Resonating with what Fiske (1990, 1991) referred to as a market pricing model of relationship, these constructions of reality promote an experience of the social world as a free market populated by unfettered free agents who are both enabled and compelled to contract their own relationships.

These *voluntaristic-independent* constructions of relationship are inscribed in several patterns of mainstream American worlds. Linguistic practices privilege the notion of relationship as the

<sup>&</sup>lt;sup>1</sup> Selfways refer to implicit and explicit patterns of ideas about being a person that are inscribed in (and exist in dialectical relationship with) institutions, practices, artifacts, and other material manifestations of culture (see Adams & Markus, 2004; Markus et al., 1997).

product of personal choice; for example, lay people talk about making friends, and researchers study mate selection and friendship *choice* despite the well-documented influence of environmental factors (e.g., propinquity) on relationship experience. Social networking websites (e.g., myspace.com and facebook.com) allow users to link to relationship partners, and online dating services (e.g., match.com and e-harmony.com) allow users to browse photographs and biographies for hundreds of potential mates. Relationship thus constitutes one of many domains of mainstream American worlds in which abundant opportunities for choice figure prominently in daily life. In contexts where choice is central to notions of human agency-where it is prized, where a plethora of opportunities for choice exists, and where choice affects likingchoosing a relationship partner is an act of self-determination and personal expression (Iyengar & Lepper, 2002; Kim & Sherman, 2007; Kitayama, Snibbe, Markus, & Suzuki, 2004; Schwartz, 2004; Snibbe & Markus, 2005; Tafarodi, Mehranvar, Panton, & Milne, 2002).

Given such voluntaristic-independent constructions of relationship, attraction looms large as the process by which people meet their needs for relationship and belonging (Baumeister & Leary, 1995). To the extent that people experience relationship as the discretionary product of free agents, personal preference (as a determinant of choice) and attraction (as a basis of preference) are important determinants of relationship (Rosenblatt & Cozby, 1972). Likewise, beauty and other attractive personal attributes loom large as determinants of who gets chosen for relationship. People who possess attractive attributes (physical beauty) will be in higher demand and have greater power to contract satisfying connections (Sangrador & Yela, 2000). In this way, voluntaristic-independent constructions of relationship promote the expectation that attractive people will have more satisfying lives than unattractive people will.

The positive association between attractiveness and life outcomes may be less readily apparent in worlds where relatively interdependent selfways are prominent. These worlds promote both (a) an experience of self and agency as inherently rooted in context (Markus & Kitayama, 2004) and (b) *embedded-interdependent* constructions of relationship as environmentally afforded connection (Adams et al., 2004). Rather than an emphasis on contracting relationships based on personal choice, these settings emphasize management of connections in densely interconnected networks associated with situations of limited mobility. To the extent that people experience relationship as an environmentally afforded fact, then personal choice, personal preference (as a determinant of choice), and attraction (as a basis of preference) may be somewhat irrelevant for the creation and maintenance of satisfying relationships.

# Context of the Present Research

To test these ideas, we conducted two studies that compared the importance of attraction for life outcomes in North American and West African settings. In contrast to the relatively voluntaristic-independent constructions of relationship that prevail in many North American worlds, research suggests that more embedded-interdependent constructions of relationship are prominent in many West African worlds (e.g., Adams et al., 2004; Ferme, 2001; Piot, 1999; Riesman, 1986; Shaw, 2000). Associated with these

constructions of relationship are several patterns that illustrate the de-emphasis on personal choice in relationship experience.

Perhaps the most important pattern is the centrality of kinship, evident in such practices as arranged marriage. Discussions of personal relationship in academic psychology tend to assume worlds in which individuals have a high degree of personal choice in mate-selection decisions; however, many (perhaps most) humans across time and place have inhabited settings where mate selection is less an agreement between individuals and more a contract between kinship groups. In West African settings, the kinship-contract nature of mate selection is evident in such practices as the exchange of bridewealth from a wife-receiving lineage to a wife-giving lineage or levirate marriage, a practice whereby the preferred choice for remarriage of a widow is to the brother of her deceased husband (e.g., see Goody & Goody, 1967; see also Takyi, 2003). Even in the numerous West African settings where arranged marriage is currently uncommon, preferences associated with the practice are present, such that in so-called "personal" ads, people seeking companions often emphasize compatibility of ethnic and family backgrounds rather than features related to romantic attraction. Moreover, even when people express interest in romantic attraction, the dating market in many West African worlds is more constricted than in North American worlds, such that people in general have fewer resources to devote to an extended period of "shopping" for a mate (on implications of arranged marriage, see Ghimire, Axinn, Yabiku, & Thornton, 2006).

The de-emphasis on personal choice is not limited to the practice of arranged marriage but also extends to other forms of relationship. Consider what many observers regard to be the prototypical case of voluntary relationship: friendship. Noting the remarkable degree to which kinship and clan affiliations structured interpersonal relationships, some ethnographers have suggested that everyday life in many "traditional" West African societies left few possibilities for the emergence of voluntary relationship resembling the English concept friend (e.g., see Tait, 1961, on Konkomba communities in Northern Ghana). Whether or not traditional societies afforded the possibility of friendship, people in current West African societies clearly do use the term to describe some connections. Nevertheless, the varieties of friendship that prevail in these settings suggest more sticky, less voluntary connections than are common in the North American experience (see Carrier, 1999; Wierzbicka, 1997). Contrary to stereotypes about gregarious, sociable collectivists, people in West African settings tend to report fewer friends and are more likely to claim enemies than are people in North American settings (Adams, 2005; Adams & Plaut, 2003). The explanation for this counterintuitive pattern has to do with the underlying constructions of reality that inform the experience of relationship and especially the experience of choice. People in North American settings report a large number of friends and a sense of freedom from enemies in part because local constructions of relationship afford them freedom of choice both to create positive connections and to avoid negative connections. In contrast, people in West African settings report fewer friends and frequently report that they are the target of malicious enemies in part because local constructions of relationship afford less choice or agency either to create positive connection or to avoid negative connection.

Together, these and other patterns suggest that everyday realities in many West African worlds promote the experience of relationship as an environmental affordance rather than a voluntary creation based largely on personal choice. To the extent that relationship experience is less dependent upon personal choice, one can hypothesize that determinants of personal choice—like physical attractiveness—exert less influence in relationship and life outcomes in West African than in North American worlds.

Finally, beyond de-emphasis on choice, everyday observation of West African worlds suggests an ambivalence about physical attractiveness that is less prominent in North American worlds. Although physical attractiveness is a desirable quality that people seek to cultivate, material artifacts and cultural practices imply that physical attractiveness can be dangerous. From the perspective of attractive persons, there is concern that excessive physical attractiveness exposes a person to malicious envy (see Peletz, 1996). One manifestation of this idea is a prohibition against excessive praise of children. Indeed, parents often give their children degrading names (e.g., "slave") or have them wear amulets in part to counteract the malicious attention that may follow from unguarded praise about a child's attractiveness, health, or good conduct (Handloff, 1982). From the perspective of potential partners, there is concern—expressed in lorry slogans (e.g., see Kyei & Schreckenbach, 1975) and market literature (Edoro, Adams, & Anderson, 2007)—that excessive attractiveness may lead people to neglect obligations in "natural" (i.e., kinship) relationships to pursue imagined benefits of "manufactured" (i.e., voluntary) relationships. In either case, this ambivalence suggests that the association between physical attractiveness and outcomes in West African settings is not only less positive than in North American settings but may even be negative.

#### Gender and Attractiveness

Although not a specific focus, the present studies provide an opportunity to explore gender differences in the importance of attractiveness. Theory and research on mate selection suggests that attractiveness is more important in the choices of male rather than female perceivers and in outcomes of female rather than male targets (Buss, 1989; Feingold, 1990; Frayser, 1985). However, a meta-analytic review concluded that gender was not a moderator of the relationship between attractiveness and outcomes (Langlois et al., 2000). Likewise, the present theoretical framework might suggest gender differences in the importance of attractiveness if one assumes that local realities afford greater agency or choice in relationship to men than to women (e.g., Cross & Madson, 1997). However, this assumption may be problematic in the microcultural settings of university life in which women's relative power in the mate-selection process may be at its peak (Sev'er, 1990). Finally, even if gender does moderate the relationship between attractiveness and mate selection, it may be less relevant for the relationship between attractiveness and the broader life outcomes that are the subject of the present article (Feingold, 1990). For these reasons, we have no expectation that gender will moderate the relationship between attractiveness and life outcomes.

# Study 1

Study 1 investigated the relationship between participants' satisfaction with life outcomes and judges' ratings of participants' attractiveness among students at two North American universities

and a West African university in the country of Ghana. The theoretical framework outlined in the introduction suggests the hypothesis that the relationship between attractiveness and outcomes should be more positive among American participants than among Ghanaian participants. Besides an overall measure of life outcomes, we also included measures of outcomes within three relationship types-friend, mating, and kin-that vary in the degree of choice they afford. To the extent that friendship is the prototypical "chosen" relationship (Palisi & Ransford, 1987) and kinship is the prototypical "given" relationship, cross-national differences in the attractiveness-outcome relationship should be greater for the former than for the latter. To the extent that the mating relationship entails an intermediate degree of choicespecifically, it allows more personal discretion than in kinship but is more exclusive (and therefore provides less opportunity for choice) than friendship—cross-national differences in the association between attractiveness and outcomes for the mating relationship should likewise be intermediate between differences for friendship and kinship.

#### Method

# **Participants**

Students from two American universities (n = 141; 59 women, 82 men) and a Ghanaian university (n = 60; 30 women, 30 men) participated in the study.<sup>2</sup> The mean age of American participants was 20 years old (SD = 3.71); the mean age of Ghanaian participants was 21 years old (SD = 5.33). Among participants who reported current involvement in a committed romantic relationship (40% of Americans and 38% of Ghanaians), the majority reported length of involvement as 1 year or less (75% of Americans and 71% of Ghanaians).

#### Procedure

Researchers invited students in introductory level psychology courses to participate in a study of personal characteristics and life outcomes. Students who agreed to participate completed a questionnaire (printed in English, the language of instruction at all three institutions) in individual or small group settings.

General life outcomes. In the first section, participants used 11-point scales ranging from 0 (strongly disagree) to 10 (strongly agree) to complete 15 items that assessed satisfaction with life outcomes. The 15 items were as follows:

1. "I am satisfied with...,"

"... my achievements."

"... my abilities."

"... my performance as a student or employee."

"... my career progress."

"... my life."

"... my social life."

"... my friend network."

<sup>&</sup>lt;sup>2</sup> We excluded 15 American participants (6 women and 9 men) who had resided for longer than 1 year outside the United States. We also excluded 2 American women, 1 Ghanaian woman, and 1 Ghanaian man who either failed to complete items or completed them incorrectly.

- 2. "I am happy overall."
- 3. "I am a good friend."
- 4. "I am a good son/daughter."
- 5. "I am a good romantic partner."
- 6. "Other people like me."
- 7. "Other people enjoy being around me."
- 8. "Other people respect me."
- 9. "I am lonely." (reverse-scored)

The mean of these 15 ratings provided a composite measure of life outcomes ( $\alpha = .82$ ).

Particular relationship contexts. In the second section, participants used 11-point scales ranging from 0 (not at all/not very good) to 10 (extremely/excellent) to complete 12 items that assessed satisfaction within three relationship contexts: friend, mating, and kin relationship. These items began with the stems, "In terms of practical support, how rewarding are your . . .," "In terms of emotional support, how rewarding are your . . .," "How would you rate the quality of your . . .," and "How close/intimate are your . . .," each followed by ". . . friendships," ". . romantic relationships (past or present)," and ". . . family relationships." The mean of the four items for each relationship type provided composite measures of outcomes for friend ( $\alpha$  = .84), mating ( $\alpha$  = .97), and kin ( $\alpha$  = .88) relationships.

Physical attractiveness. Finally, the researcher took a head-and-shoulders photograph of each participant. A separate sample of 10 opposite gender, same nationality students later rated the photographs on a 10-point scale ranging from 1 (very unattractive) to 10 (very attractive).<sup>3</sup>

### Results

Previous research has suggested a positive association between attractiveness and a variety of outcomes (Langlois et al., 2000). Study 1 investigated the hypothesis that this association is stronger or more evident in contexts characterized by constructions of relationship as the product of personal choice (i.e., in American settings and friendship) than in contexts characterized by constructions of relationship as the product of environmental affordance (i.e., in Ghanaian settings and kinship).

## Correlational Analyses

An initial analysis of zero-order correlations revealed three patterns of interest (see Table 1). First, results revealed no evidence that the attractiveness—outcome relationship was stronger for women (rs ranged from -.02 to .24) than it was for men (rs ranged from -.01 to .19). This pattern is consistent with a meta-analytic review conducted by Langlois et al. (2000), which found no moderating effects of gender on PAS effects.

Second, results provided evidence that the importance of mating relationship for overall life outcomes is stronger in American settings than in Ghanaian settings. In particular, the correlation between general and mating relationship outcomes was stronger

Table 1
Correlations Between Physical Attractiveness and Outcomes

Variable	1	2	3	4	5
Physical attractiveness					
Overall	_	.17	.22*	.03	.01
Men	_	.19	.17	.05	04
Women	_	.13	.24	03	.06
2. General outcomes					
Overall	$27^{*}$		.39**	.35**	.38**
Men	18		.35**	.37**	.32**
Women	18		.46**	.31*	.47**
3. Friendship outcomes					
Overall	16	.24	_	.23**	.12
Men	01	.02	_	.37**	.18
Women	10	.32	_	.01	.03
4. Kinship outcomes					
Overall	14	.20	.53**	_	.27**
Men	17	.13	$.40^{*}$	_	.24
Women	02	.18	.58**	_	.32*
5. Mating relationship outcomes					
Overall	.05	.07	.12	07	_
Men	.05	.10	.04	.06	_
Women	.12	.02	.16	19	_

*Note.* Correlations among Ghanaian participants (n=29 men and n=29 women) appear below the diagonal; correlations among American participants (n=66 men and n=58 women) appear above the diagonal. p<.05. p<.05.

among American participants (r = .38) than it was among Ghanaian participants (r = .07; z = 2.03, p < .05). This pattern is consistent with the assertion that the importance of mating relationships for overall outcomes is less in West African settings than it is in North American settings (Adams et al., 2004; Fiske, 1991; Fortes, 1950).

Third, and most important, results provided evidence for hypothesized, cross-national differences in the attractiveness-outcome relationship. The correlation between attractiveness and general outcomes was significantly different for American (r=.17) and Ghanaian (r=-.27) participants (z=2.76, p<.01). Likewise, the correlation between attractiveness and friendship outcomes was significantly different for American (r=.22) and Ghanaian (r=-.16) participants (z=2.37, p<.02). Correlations between attractiveness and outcomes were not significantly different for either kin (z=1.05, p=.29) or mating relationships (z=-.25, p=.81).

<sup>&</sup>lt;sup>3</sup> We conducted a 2 (participant nationality)  $\times$  2 (participant gender) ANOVA on physical attractiveness ratings made by an independent sample. This analysis yielded a main effect of nationality, F(1, 178) = 11.53, p = .001,  $\eta_p^2 = .06$ , and a main effect of gender, F(1, 178) = 12.77, p < .001,  $\eta_p^2 = .07$ ; however, the interaction was not significant (F < 1). Ghanaian students rated Ghanaian participants as more attractive (M = 4.58, SD = 1.06) than American students rated American participants (M = 3.91, SD = 1.33), t(180) = 3.39, p = .001. Male students rated female participants as more attractive (M = 4.46, SD = 1.22) than female students rated male participants (M = 3.81, SD = 1.27), t(180) = 3.53, p = .001. Intraclass correlations (ICC) among raters of the opposite gender and same nationality as the participants were as follows: Ghanaian women, ICC = .83; Ghanaian men, ICC = .72; American women, ICC = .92; and American men, ICC = .92.

### Multiple Regression Analyses

As a more stringent test of the hypotheses, we performed multiple-regression analyses of each outcome measure. The model included the continuous predictor attractiveness (centered around the overall mean) and dichotomous predictors nationality (Ghana =-1, US =+1) and gender (women =-1, men =+1) in the first step, followed by the interaction of attractiveness with each dichotomous predictor in the second step.<sup>4</sup>

General life outcomes. Analyses indicated that the model significantly predicted scores on the composite measure of self-reported life outcomes, F(5, 176) = 5.50, p < .001,  $R^2_{\rm adj} = .11$ . Results also revealed the hypothesized Attractiveness × Nationality interaction ( $\beta = .23$ , p = .01), indicating that nationality moderated the relationship between attractiveness and life outcomes. Consistent with existing theory and research, examination of simple slopes indicated that the relationship between attractiveness and life outcomes was positive among American participants ( $\beta = .13$ , p = .09). In contrast, this relationship was negative among Ghanaian participants ( $\beta = -.26$ ,  $\beta = .05$ ). Although attractive Americans reported more positive outcomes than did unattractive Americans, the reverse pattern was true of Ghanaian participants (see Figure 1).

Particular relationship contexts. Analyses indicated that the model significantly predicted scores on the composite measure of friendship outcomes, F(5, 176) = 9.35, p < .001,  $R^2_{adj} = .19$ . Results also revealed the hypothesized Attractiveness  $\times$  Nationality interaction ( $\beta = .18$ , p = .03), indicating that nationality moderated the relationship between attractiveness and friendship outcomes. Consistent with mainstream theory and research, examination of simple slopes indicated that the relationship between attractiveness and friendship outcomes was positive among American participants ( $\beta = .21$ , p = .05). In contrast, this relationship was not significant among Ghanaian participants ( $\beta = -.28$ , p = .16). Although attractive Americans reported more positive experiences of friendship than unattractive Americans did, attractive Ghanaians showed a nonsignificant tendency to report less positive experiences of friendship than unattractive Ghanaians did.

The model significantly predicted scores on the composite measure of self-reported mating relationship outcomes, F(5, 176) = 3.73, p < .05,  $R^2_{\rm adj} = .07$ , but it did not reach conventional levels of significance on the composite measure of kinship outcomes, F(5, 176) = 1.92, p = .09,  $R^2_{\rm adj} = .03$ . More important, the Attractiveness  $\times$  Nationality interaction was not a significant predictor of self-reported outcomes for either mating ( $\beta = -.02$ , p = .80) or kin ( $\beta = .09$ , p = .31) relationships, nor was attractiveness a significant predictor of outcomes for either mating ( $\beta = .04$ , p = .67) or kin ( $\beta = -.07$ , p = .45) relationships. Instead, nationality emerged as the only significant predictor of self-reported outcomes, such that both mating ( $\beta = .32$ , p < .001) and kin ( $\beta = .18$ , p = .03) relationships were more positive among American participants than they were among Ghanaian participants.

#### Discussion

Results from Study 1 provide evidence that the importance of physical attractiveness for life outcomes varies as a function of implicit constructions of relationship. Specifically, the results provide support for the hypothesis that the positive association between physical attractiveness and self-reported outcomes is greater in contexts that promote an experience of relationship as the product of individual choice than it is in contexts that promote an experience of relationship as a reflection of environmental affordance. Support for this hypothesis came from two sources.

#### Relationship Context

One source of support for the hypothesis was a difference in the association between attractiveness and outcomes across relationship contexts. Results revealed no association between attractiveness and relationship outcomes in either the nonvoluntary context of kinship or the semivoluntary context of mating relationship. In contrast, results did reveal a positive association between attractiveness and outcomes in the voluntary context of friendship but only among participants in American settings. Consistent with the primary hypothesis, the positive association between attractiveness and outcomes did not extend to participants in Ghanaian settings where friendship takes less voluntaristic-independent forms (Adams & Plaut, 2003).<sup>5</sup>

In contrast to these limited effects of target gender on discrimination of attractiveness—and consistent with results of Study 1 and the meta-analytic review by Langlois et al. (2000)—there was no evidence that target gender moderated relationships between attractiveness and ratings of either expected life outcomes or personality traits. Although not the focus of the present study, these patterns suggest that the moderating role of gender on the attractiveness—outcome relationship may be stronger for some outcomes (attractiveness judgments) than others (general life satisfaction; see Feingold, 1990). Details of these analyses are available from Stephanie L. Anderson.

Levene's test indicated that the variance in attractiveness ratings was not homogeneous across groups, F(3, 178) = 3.51, p = .02. Variance was smallest among (Ghanaian male) raters of Ghanaian women (M = 4.16, SD= 0.82, range = 3.0), followed by (Ghanaian female) raters of Ghanaian men, (M = 5.00, SD = 1.12, range = 4.0), (American female) raters of American men (M = 4.19, SD = 1.19, range = 5.0), and (American male) raters of American women, (M = 3.65, SD = 1.40, range = 6.5). These differences are interesting for two reasons. First, they may reflect the very phenomenon under investigation; that is, variance and range of attractiveness ratings is greater in American settings, where we have hypothesized that attractiveness plays a larger role in everyday experience. Second, smaller variance in ratings of Ghanaian photos poses a problem to the extent that the suppressive effect of range restriction on the magnitude of attractiveness-outcome relationships provides an alternative explanation for hypothesized cross-national differences. However, as we report in the next section, observed differences are not merely in magnitude of attractiveness-outcome relationships but typically reflect discrepancies in the direction of those relationships. Indeed, because the observed relationship between attractiveness and outcomes is negative among Ghanaian participants, any suppressive effects of restricted range would serve to underestimate hypothesized cross-national differences.

 $^5$  This pattern of results implies an Attractiveness  $\times$  Nationality  $\times$  Relationship Context interaction. However, the repeated measures analysis including relationship context (friend, mating, and kin) did not reach conventional levels of statistical significance (F < 1). Results of this higher order analysis suggest caution in interpreting differences in the Attractiveness  $\times$  Nationality interaction across relationship types.

 $<sup>^4</sup>$  Initial analyses included a third step with the Attractiveness  $\times$  Nationality  $\times$  Gender interaction. This step did not yield a significant increase in prediction of any outcome variable, so we do not discuss it further.

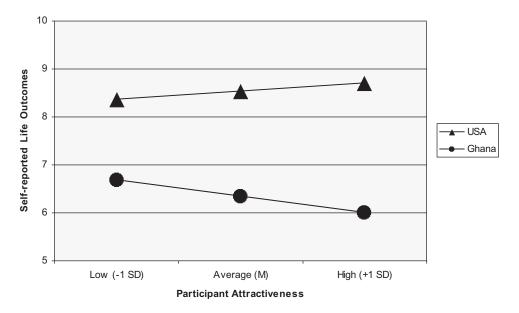


Figure 1. Self-reported outcomes of attractive and unattractive individuals by participant nationality.

#### National Context

The second source of support for the hypothesis was a difference in the association between attractiveness and life outcomes across national contexts. Reflecting voluntaristic-independent constructions of relationship as a personal choice, the association between attractiveness and overall life outcomes was positive among American participants; that is, attractive participants reported better outcomes than did unattractive participants. In contrast, reflecting more embedded-interdependent constructions of relationship as an environmental affordance, there was no positive association between attractiveness and self-reported life outcomes among Ghanaian participants. In fact, this association was negative; that is, attractive Ghanaian participants reported worse outcomes than did unattractive Ghanaian participants.

One interpretation of this negative association follows from the ambivalence about physical attractiveness in many West African worlds that we described in the introduction. Although physical attractiveness is a desirable quality that people seek to cultivate, it is also a negative force to the extent that it disrupts kin relations and incites malicious envy. However, another interpretation of the negative association concerns (a) the effect of globalization on expectations about attractiveness and (b) the subsequent effect of attractiveness expectations on subjective judgments of life outcomes. As Arnett (2002) has noted, globalization promotes an experience of bicultural identity in which people in any setting (but especially cosmopolitan, urban settings) participate in both a local culture of origin and a rapidly evolving, global culture manifested in entertainment media and consumer goods (among other carriers). Although engagement with these manifestations of global culture can promote psychological tendencies associated with Western market societies—including perception of the self as a consumer with consistent tastes (Murphy & Miller, 1997) or an emphasis on physical attractiveness and its importance for life outcomes (Smith et al., 1999)—everyday realities of West African

worlds may promote an experience of relationship that resonates more strongly with embedded or interdependent constructions of relationship. As a result, attractive people in West African worlds who simultaneously inhabit settings associated with global culture may come to expect that their attractiveness will yield benefits for life outcomes. However, to the extent that local constructions of relationship provide little opportunity for the exercise of choice in relationship, the expected benefits of attractiveness may not materialize. The combination of expectations shaped by global culture and outcomes shaped by local culture means that, although attractive people in West African settings may experience objectively favorable outcomes, they may subjectively experience these outcomes as less satisfying relative to their expectations about the benefits of attractiveness.

One way to investigate this latter interpretation is to consider expectations about life outcomes. If the negative association between attractiveness and self-reported outcomes observed among Ghanaian participants results from a mismatch between expectations and reality, then one might anticipate that Ghanaian participants and American participants should be similar in their expectation that attractiveness produces positive outcomes. Alternatively, engagement with cultural worlds that do not promote (or require) exercise of personal choice in relationship may lead people in Ghanaian settings to have less expectation that attractiveness will lead to positive outcomes. We investigate these ideas in Study 2.

#### Study 2

Study 2 examined how different constructions of relationship are associated with expectations about the role of physical attractiveness in life outcomes. Specifically, it tested the hypothesis that divergence in expected outcomes of attractive and unattractive people will be greater in settings associated with voluntaristic-independent constructions of relationship as discretionary product

than in settings associated with embedded-interdependent constructions of relationship as environmental affordance. Besides the cross-national comparison between students at North American and West African universities, Study 2 examined this hypothesis along two additional dimensions of variation in constructions of relationship.

One dimension of variation was a "cross-cultural" comparison of participants from urban and rural backgrounds. Extending research that examines differences in agency and relationship as a function of region (e.g., Markus, Ryff, Curhan, & Palmersheim, 2004; Plaut, Markus, & Lachman, 2002; Vandello & Cohen, 1999), one can hypothesize that urban and rural settings differ in the extent to which they afford the experience of relationship as a product of choice. Research suggests that urban areas promote voluntary interaction with friends, especially among individuals who have the resources to spend on cultivation of friendship (Fischer, 1982; Palisi & Ransford, 1987). The relative social mobility (fostered by fewer constraints), anonymity, and larger pool of potential interaction partners typical of urban settings may promote a free market of relationship in which personal choice and the qualities, such as attractiveness, that influence choice can become important determinants of relationship outcomes. In contrast, attractiveness effects may be less evident in rural settings, where local realities provide less opportunity for choice in relationship (Beggs, Haines, & Hurlbert, 1996). When one is bound by the structure of everyday life in situations of limited mobility to interact repeatedly with a small set of people with whom one has substantial duties and obligations (e.g., kin), there is relatively little opportunity (or necessity) for personal preferences or qualities that constitute attractiveness to influence relationship out-

The other dimension of variation was an experimental manipulation of relationship constructions. The use of experimental manipulation to test hypotheses about cultural differences may seem difficult when one defines culture as membership in monolithic groups. In contrast, the present studies are based on a conception of culture as patterns (Adams & Markus, 2004). From this perspective, people are not members of a single cultural group but instead inhabit worlds constituted by a multitude of cultural patterns. One can test hypotheses about the source of observed, cultural differences by manipulating the patterns (e.g., cultural models or social representations) thought to underlie differences (Hong, Morris, Chiu, & Benet-Martínez, 2000).

In addition, Study 2 provided an opportunity to test competing hypotheses about cultural differences in PAS. One hypothesis resonates with the idea that attractiveness effects are equally strong across cultures but are limited to locally valued traits (i.e., "what is beautiful is culturally good," Wheeler & Kim, 1997; see also Chen et al., 1997; Shaffer et al., 2000). Applying this perspective to the present study, one might anticipate that Ghanaian participants would show attractiveness discrimination for Ghanaian-valued traits but not American-valued traits. In contrast, the present framework links attractiveness effects to voluntaristic-independent constructions of relationship as the product of choice. To the extent that Ghanaian settings do not afford such constructions of relationship, we do not anticipate that Ghanaian participants will discriminate on the basis of attractiveness for either Ghanaian-valued or American-valued traits.

#### Method

# **Participants**

Students from an American university (n = 96; 61% men) and a Ghanaian university (n = 110; 50% men) participated in the study.<sup>6</sup> The mean age of American participants was 19 years old (SD = 1.21); the mean age of Ghanaian participants was 22 years old (SD = 2.37).

#### Materials

We collected 56 high-quality color photos of Black (12 women, 16 men) and White (12 women, 16 men) faces from various online sources to provide a preliminary set of potential stimuli. All photos depicted young adults of similar body composition without distinguishing features such as glasses, braces, or unconventional hairstyles. Nationality was ambiguous. During a pretesting phase of the study, students from the American university (n = 33) and the Ghanaian university (n = 40) rated the photos from 1 (unattractive) to 10 (attractive). In order to create stimulus materials that participants in both settings perceived in similar fashion, we selected photos that both sets of pretesting participants rated highest and lowest in attractiveness. The final set of stimuli consisted of eight target photos, one relatively attractive and one relatively unattractive Black and White face of each gender.7 We arranged the order of photos once within both the Black and White faces as follows—attractive woman, unattractive woman, unattractive man, attractive man—and maintained this order for all participants. For roughly half of the participants, Black faces preceded White faces; for the other half, White faces appeared first.

#### Procedure

Researchers invited students in introductory level psychology courses to participate in a study of people's beliefs about the world and their perceptions of others. Students who agreed to participate completed a questionnaire (printed in English) in small group settings.

Relationship constructions. The first page of the questionnaire served as a manipulation of relationship constructions. The experimenter assigned participants at random to one of two conditions. In the independent condition, participants described their three most meaningful personal characteristics. The intended purpose of this manipulation was to influence participants to experience themselves as a de-contextualized bundle of traits. In the interdependent condition, participants described their three most meaningful personal relationships. The intended purpose of this manipulation was to influence participants to experience themselves as embedded in connections with other people.

Life outcomes. After completing the manipulation, participants received a booklet containing the target photos. Written instructions directed participants to use a 7-point scale ranging from 1 (very unlikely) to 7 (very likely) to rate the likelihood that the person portrayed in each photo would experience 17 outcomes:

<sup>&</sup>lt;sup>6</sup> We excluded 5 American men who failed to complete items or completed them incorrectly.

 $<sup>^{7}</sup>$  The final set of photo stimuli is available from Stephanie L. Anderson.

- 1. satisfaction in romantic relationships,
- 2. satisfaction in career,
- satisfaction in life,
- 4. get along with his/her romantic partner,
- 5. get along with other people around him/her,
- 6. be liked by others,
- 7. get what he/she wants in life,
- 8. be lonely,
- 9. be successful in life,
- 10. be happy overall,
- 11. be respected by others,
- 12. have many friends,
- 13. get a divorce,
- 14. have monetary success,
- 15. be a good parent,
- 16. be successful in a career, and
- 17. be disliked by others.

We calculated the mean of these 17 ratings (reverse coded in the case of negative items) to create a composite measure of each participant's outcome expectations for each target ( $\alpha = .91$ ).

Personality traits. After rating expected outcomes for all eight targets, participants next used a 7-point scale ranging from 1 (not at all) to 7 (extremely) to rate each target on a series of 10 traits. During pretesting, independent samples of students from the American university (n = 16) and the Ghanaian university (n = 16)20) rated the social desirability of 60 traits compiled from previous research on PAS (e.g., Dion et al., 1972). We used these ratings to select five traits (trustworthy, stable, genuine, responsible, and spontaneous) that were rated highly desirable by American participants but only moderately so among Ghanaians and five traits (popular, sensitive, modest, simple, and strong) that were rated highly desirable by Ghanaian participants but only moderately so among Americans. We calculated the mean of each set of five traits to create a composite measure of each participant's ratings of each target on American-valued traits ( $\alpha = .81$ ) and Ghanaianvalued traits ( $\alpha = .76$ ). These composite measures were significantly and positively correlated, r(201) = .80, p < .001.

Additional information. After completing trait ratings for all eight targets, participants used a 10-point scale ranging from 1 (very unattractive) to 10 (very attractive) to rate the physical attractiveness of each person portrayed in the target photos. They then completed a final questionnaire. The first item of the questionnaire provided a check on the manipulation of relationship construction. Participants used a 7-point scale (1 = independent; 7 = connected) to answer this question: "To what extent would

you consider yourself inherently independent of or connected to others around you?" Another item assessed background. Participants used a 9-point scale (1 = rural; 9 = urban) to respond to the question, "To what extent would you classify yourself as an urban or rural person? That is, in the past, have you spent more time in urban settings (cities) or rural settings (the country)?" We used a median split (Mdn = 7) to create an indicator of urban-rural background (URB), resulting in groups of 41 rural and 50 urban American participants (M = 6.13, SD = 2.26) and 38 rural and 72 urban Ghanaian participants (M = 6.87, SD = 2.04).

#### Results

Preliminary analyses revealed no main effects or interactions involving presentation order (Black or White faces first) among either Ghanaian or American participants. Consequently, we eliminated this variable from the analyses that follow. We set a relatively conservative criterion of p < .01 for reporting effects to control for inflated Type I error from the large number of tests across analyses (including fully crossed designs with up to six factors).

#### Manipulation Checks

Relationship constructions. To assess the effectiveness of the manipulation, we conducted a 2 (participant nationality: Ghanaian or American)  $\times$  2 (participant gender: female or male)  $\times$  2 (participant URB: rural or urban) × 2 (experimental condition: interdependent or independent) analysis of variance (ANOVA) on participants' ratings of the degree to which they considered themselves to be independent of or connected to other people. This analysis yielded a main effect of condition, F(1, 185) = 7.06, p <.01,  $\eta_p^2 = .04$ , qualified by a Nationality × Condition interaction,  $F(1, 185) = 7.35, p < .01, \eta_p^2 = .04$ . Simple-effects tests indicated that the effect of condition was significant among Ghanaian participants, F(1, 108) = 17.68, p < .001,  $\eta^2 = .14$ ; participants in the interdependent condition (M = 5.23, SD = 1.49) indicated greater connection to (and less independence from) others than did participants in the independent condition (M = 3.87, SD = 1.69). American participants did not differ across conditions (respective Ms = 4.13 and 4.21, SDs = 1.74 and 1.57; F < 1).

Target attractiveness. To determine whether study participants discriminated between attractive and unattractive targets (as

<sup>&</sup>lt;sup>8</sup> Although potentially interesting, it is beyond the scope of this article to examine effects of target race and target gender. Moreover, because photo stimuli included only one attractive and one unattractive representative from each race-gender combination (e.g., Black women, White women, Black men, and White men), apparent effects of target race or target gender could be due to idiosyncratic features of the target representative rather than differential judgments as a function of the broader race or gender category. In any case, to provide some indication of whether aggregate effects were true across all combinations of target race and target gender, we conducted analyses separately for each pair. With respect to the pattern of greatest interest, the reported interaction of Attractiveness × Nationality × Condition on ratings of life outcomes held true across each of the four target pairs at p < .08; the reported interaction of Attractiveness  $\times$ URB was limited to White male targets. For trait ratings, the reported interaction of Attractiveness × Source × Nationality was limited to Black male targets.

determined on the basis of pretest ratings from independent samples), we conducted a 2 (target attractiveness: low or high)  $\times$  2 (participant nationality: Ghanaian or American)  $\times$  2 (participant gender: female or male) × 2 (participant URB: rural or urban) × 2 (experimental condition: interdependent or independent) mixedmodel, repeated-measures ANOVA on participants' ratings of target physical attractiveness.9 This analysis yielded main effects of attractiveness, F(1, 185) = 286.89, p < .001,  $\eta_p^2 = .61$ , and nationality,  $F(1, 185) = 73.26, p < .001, \eta_p^2 = .28$ , qualified by an Attractiveness  $\times$  Nationality interaction, F(1, 185) = 163.76, p <.001,  $\eta_p^2 = .47$ . Although all participants rated attractive targets more highly than they did unattractive targets, the difference was greater for Americans (respective Ms = 7.83 and 3.91, SDs = 1.02and 1.18), F(1, 90) = 848.93, p < .001,  $\eta_p^2 = .90$ , than it was for Ghanaians (respective Ms = 7.35 and 6.47, SDs = 1.43 and 1.64),  $F(1, 109) = 17.47, p < .001, \eta_p^2 = .14.$ 

Similarly, results revealed a main effect of condition, F(1, 185) = 15.60, p < .001,  $\eta_p^2 = .08$ , qualified by a marginally significant (given our conservative criterion) Attractiveness  $\times$  Condition interaction, F(1, 185) = 3.93, p = .05,  $\eta_p^2 = .02$ . The difference in ratings of attractive and unattractive targets was greater for participants in the independent condition (respective Ms 7.46 and 5.08, SDs 1.43 and 1.83) than it was for participants in the interdependent condition (respective Ms 7.71 and 5.63, SDs 1.03 and 2.03). Finally, results revealed a similarly marginal Attractiveness  $\times$  URB interaction, F(1, 185) = 4.54, p = .03,  $\eta_p^2 = .02$ , indicating that the difference in ratings of attractive and unattractive targets was greater for participants from urban backgrounds (respective Ms 7.69 and 5.31, SDs 1.39 and 1.85) than it was for participants from rural backgrounds (respective Ms 7.38 and 5.31, SDs 1.07 and 2.06).

#### Tests of Hypotheses

Study 2 tested the hypothesis that judgments of attractive and unattractive people differ more in contexts where voluntaristic-independent constructions of relationship (as personal choice) are prominent than they do in contexts where embedded-interdependent constructions of relationship (as environmental affordance) are prominent. We tested this hypothesis for two outcomes. The first was the primary focus of the present research: expectations about life outcomes. The second has been the focus of past research: ratings about personality traits.

Expected life outcomes. We conducted a 2 (target attractiveness: low or high)  $\times$  2 (participant nationality: Ghanaian or American)  $\times$  2 (participant gender: female or male)  $\times$  2 (participant URB: rural or urban)  $\times$  2 (experimental condition: interdependent or independent) mixed-model, repeated-measures ANOVA for scores on the composite measure of expected life outcomes. This analysis revealed main effects of attractiveness,  $F(1, 185) = 121.86, p < .001, \eta_p^2 = .40$ , and nationality,  $F(1, 185) = 57.48, p < .001, \eta_p^2 = .24$ , qualified by the hypothesized Attractiveness  $\times$  Nationality interaction,  $F(1, 185) = 36.22, p < .001, \eta_p^2 = .16$ , indicating that attractiveness effects were greater for American than for Ghanaian participants.

In turn, the higher order Attractiveness  $\times$  Nationality  $\times$  Condition interaction was also significant, F(1, 185) = 10.77, p = .001,  $\eta_p^2 = .06$  (see Figure 2). To interpret this interaction, we examined the Attractiveness  $\times$  Condition interaction separately

within nation. Among American participants, this interaction was not significant (F < 1); instead, the analysis revealed only a main effect of attractiveness, F(1, 89) = 131.61, p < .001,  $\eta_p^2 = .60$ . Regardless of experimental condition, American participants expected attractive targets to experience more positive outcomes than unattractive targets would. Among Ghanaian participants, the analysis revealed the hypothesized Attractiveness  $\times$  Condition interaction, F(1, 108) = 25.20, p < .001,  $\eta_p^2 = .19$ . The influence of attractiveness on expected life outcomes was greater among Ghanaian participants in the independent condition, t(69) = 7.17, p < .001, than it was among Ghanaian participants in the interdependent condition (t < 1).

Finally, results revealed modest evidence for the hypothesis that URB moderates the relationship between attractiveness and outcomes. Specifically, results revealed a marginally significant (given our conservative criterion) Attractiveness  $\times$  URB interaction, F(1, 185) = 4.77, p = .03,  $\eta_p^2 = .03$ . Regardless of nationality, participants from rural and urban backgrounds expected attractive targets to experience more positive outcomes than unattractive targets would. However, attractiveness effects were greater among participants who reported that they occupied primarily urban settings (respective Ms = 5.16 and 4.59, SDs = 0.66 and 0.48), t(121) = 10.80, p < .001, than they were among participants who reported that they occupied primarily rural settings (respective Ms = 5.04 and 4.62, SDs = 0.63 and 0.50), t(78) = 5.70, p < .001.

Ratings of personality traits. We conducted a 2 (target attractiveness: low or high)  $\times$  2 (trait source: Ghanaian valued or American valued)  $\times$  2 (participant nationality: Ghanaian or American)  $\times$  2 (participant gender: female or male)  $\times$  2 (participant URB: rural or urban)  $\times$  2 (experimental condition: interdependent or independent) mixed-model, repeated-measures ANOVA on participants' ratings of the extent to which targets possessed a series of traits. This analysis revealed a main effect of trait source, F(1, 185) = 9.10, p < .01,  $\eta_p^2 = .05$ , qualified by a Source  $\times$  Nationality interaction, F(1, 185) = 15.29, p < .001,  $\eta_p^2 = .08$ , indicating that American participants rated targets higher on American-valued traits than on Ghanaian-valued traits, t(90) = 4.45, p < .001, but Ghanaian participants rated targets equally high on American-valued and Ghanaian-valued traits (t < 1). More

<sup>&</sup>lt;sup>9</sup> Prior to conducting focal analyses, we conducted preliminary analyses in which we added target gender as a within-participant factor to the overall model for ratings of attractiveness, life outcomes, and personality traits. Consistent with the idea that attractiveness is more important for outcomes of women than for outcomes of men (e.g., Buss, 1989; Frayser, 1985), results revealed a moderating effect of target gender on discrimination of attractiveness such that ratings of unattractive and attractive photos diverged more for female targets than for male targets. However, consistent with perspectives that predict greater importance of attractiveness among male perceivers than female perceivers (see Buss, 1989), this pattern was evident only among male participants; among female participants, results revealed main effects of both attractiveness and target gender such that participants rated female targets as more attractive than male targets. Likewise, the moderating effect of target gender on discrimination of attractiveness was evident only among American participants; it was not evident among Ghanaian participants who discriminated between attractive and unattractive targets to a relatively modest degree regardless of target gender.

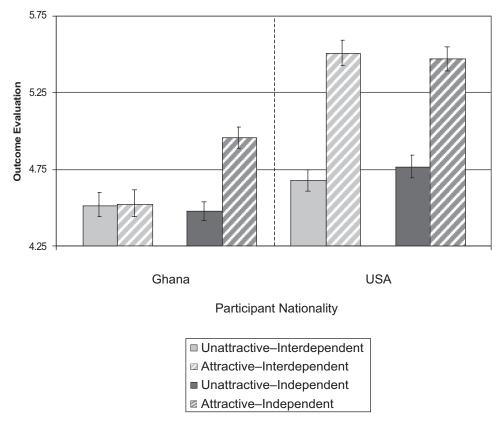


Figure 2. Outcome evaluation of attractive and unattractive targets by experimental condition and participant nationality.

important, results revealed a main effect of attractiveness, F(1, 185) = 7.15, p < .01,  $\eta_p^2 = .04$ , qualified by an Attractiveness  $\times$  Nationality interaction, F(1, 185) = 10.47, p = .001,  $\eta_p^2 = .05$ . As hypothesized and as observed for ratings of expected outcomes, attractiveness effects for traits were greater among American participants, t(90) = 4.25, p < .001, than among Ghanaian participants (t < 1; see Figure 3).

Finally, both interactions were qualified by a marginally significant (given our conservative criterion), but theory-relevant, Attractiveness  $\times$  Source  $\times$  Nationality interaction, F(1, 185) = 6.03, p = .02,  $\eta_p^2 = .03$  (see Figure 3). To interpret this interaction, we examined the Attractiveness × Source interaction separately within nation. Among American participants, this analysis revealed a significant Attractiveness  $\times$  Source interaction, F(1,90) = 10.59, p < .01,  $\eta_p^2 = .11$ . Consistent with the hypothesis that "what is beautiful is culturally good," the tendency for American participants to rate attractive targets more positively than they do unattractive targets was stronger for American-valued traits, t(90) = 4.65, p < .001, than for Ghanaian-valued traits, t(90) =2.91, p < .01. Among Ghanaian participants, the main effects and interaction of attractiveness and source were not significant, Fs(1,109) < 1.42, ps > .24. Inconsistent with the hypothesis that "what is beautiful is culturally good" (but not inconsistent with the present framework), there was no evidence that attractiveness influenced Ghanaian participants' ratings, even for Ghanaianvalued traits. 10

Correlational analyses. Recall that although Ghanaian participants did discriminate attractiveness of targets in a manner consistent with the manipulation, the discrepancy between ratings of attractive and unattractive targets was much less than it was for American participants. Similarly, discrimination of attractiveness ratings tended to be smaller for participants in the interdependent condition and those who reported rural background than for participants in the independent condition and those who reported urban background. On one hand, these patterns reflect theoretically interesting differences in perceptions of attractiveness. The failure to discriminate physical attractiveness is greatest precisely in those conditions where one would expect embedded-interdependent constructions of relationship. As a result, this pattern may reflect the very phenomenon that the study seeks to address. People may show less discrimination of physical attractiveness because it is less relevant in settings where embedded-interdependent constructions are prominent.

On the other hand, this pattern complicates interpretation of results. If one observes smaller mean differences as a function of target attractiveness among participants in conditions where the

 $<sup>^{10}</sup>$  Results also revealed a five-way Attractiveness  $\times$  Source  $\times$  Gender  $\times$  URB  $\times$  Condition interaction,  $F(1, 185) = 8.83, p < .01, \eta_p^2 = .05$ . Because this interaction neither qualifies reported results no yields a theoretically relevant interpretation, we do not discuss it further.

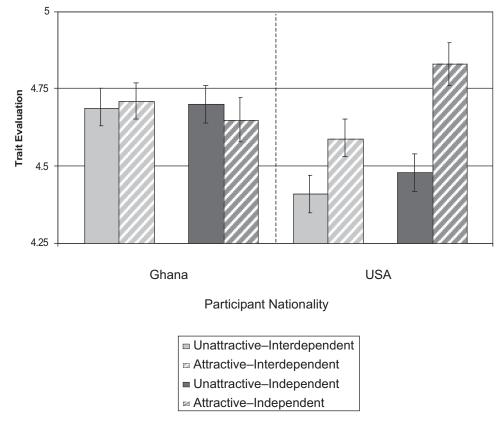


Figure 3. Trait evaluation of attractive and unattractive targets by trait source and participant nationality.

manipulation appeared to fail, then it is difficult to know whether these differences reflect (a) hypothesized differences in the importance of physical attractiveness for judgments about life outcomes or (b) mere differences in perceptions of target attractiveness. To address this possibility, we conducted an alternative analysis in which we examined the correlation between participants' own ratings of physical attractiveness and their expectations about life outcomes for each target. To the extent that physical attractiveness weighs more heavily in settings where voluntaristic-independent constructions of relationship (as the product of choice) are prominent, one would expect the within-participant correlations between attractiveness ratings and outcomes to be greater for American participants than for Ghanaian participants, for participants from urban backgrounds than for participants from rural backgrounds, and for participants in the independent condition than for participants in the interdependent condition.

To examine this hypothesis, we first rank-ordered (1–8) each participant's ratings of the targets' physical attractiveness and their judgments about the targets' (a) life outcomes, (b) Americanvalued traits, and (c) Ghanaian-valued traits. We used these rankings to compute three Spearman correlations per participant, which we then subjected to Fisher-z transformations (although we report data in terms of untransformed, mean Spearman correlations; see Table 2). In general, analyses of z-transformed correlations mirrored analyses reported above.

Specifically, we conducted a 2 (participant nationality: Ghanaian or American)  $\times$  2 (participant gender: female or male)  $\times$  2

(participant URB: rural or urban)  $\times$  2 (experimental condition: interdependent or independent) ANOVA on the z-transformed correlations between participants' own ratings of target attractiveness and life outcomes. Results revealed the hypothesized effect of nationality, F(1, 185) = 58.34, p < .001,  $\eta_p^2 = .24$ , such that the mean within-participant association between attractiveness and outcome ratings was more positive among American participants ( $\rho_{\rm m}$  = .59, SD = .34) than among Ghanaian participants ( $\rho_{\rm m}$  = .17, SD = .45), t(199) = 7.50, p < .001. In addition, results revealed a higher order Nationality  $\times$  Condition interaction, F(1,185) = 8.00, p < .01,  $\eta_p^2 = .04$ . Among American participants, the mean association between attractiveness and outcome ratings did not differ as a function of condition (independent:  $\rho_{\rm m}$ = .57, SD = .32; interdependent:  $\rho_{\rm m}=.62, SD=.36; t<1$ ). However, the manipulation did have the hypothesized effect on Ghanaian participants, such that the mean association between attractiveness and outcome ratings was more positive in the independent condition ( $\rho_{\rm m}=.25,~SD=.47$ ) than it was in the interdependent condition ( $\rho_{\rm m} = .01$ , SD = .38), t(108) = 3.12, p < .01. The previously marginal effect of URB was evident only as a nonsignificant trend, F(1, 185) = 2.54, p = .11,  $\eta_p^2 = .01$ , such that the mean association between attractiveness and outcome ratings was more positive among participants from urban backgrounds ( $\rho_m$  = .38, SD = .47) than it was for those from rural backgrounds ( $\rho_{\rm m} =$ .32, SD = .44).

Likewise, we conducted a 2 (trait source: Ghanaian valued or American valued)  $\times$  2 (participant nationality: Ghanaian or Amer-

Participants	PA and general outcomes		PA and American-valued traits		PA and Ghanaian-valued traits	
	Interdependent	Independent	Interdependent	Independent	Interdependent	Independent
Ghanaian						
Overall	.01 (.38)	.25 (.47)	.02 (.44)	.01 (.44)	.03 (.36)	.02 (.43)
Women	05(.40)	.37 (.48)	.05 (.48)	.05 (.43)	.04 (.30)	.15 (.46)
Men	.07 (.35)	.14 (.44)	01(.41)	03(.46)	.02 (.41)	10(.37)
American						
Overall	.62 (.36)	.57 (.32)	.29 (.46)	.21 (.39)	.19 (.48)	.21 (.42)
Women	.61 (.40)	.62 (.26)	.35 (.49)	.27 (.34)	.20 (.46)	.21 (.42)
Men	.63 (.35)	.54 (.36)	.25 (.44)	.16 (.43)	.18 (.50)	.20 (43)

Table 2
Rank-Order Correlations Between Physical Attractiveness (PA) and Dependent Measures

Note. Cells contain mean (SD) Spearman correlations calculated for each participant across ratings of the eight targets.

ican)  $\times$  2 (participant gender: female or male)  $\times$  2 (participant URB: rural or urban)  $\times$  2 (experimental condition: interdependent or independent) ANOVA on z-transformed correlations between participants' ratings of target attractiveness and personality traits. Results revealed a main effect of nationality, F(1, 185) = 8.97, p < .01,  $\eta_p^2 = .05$ . The mean within-participant association between attractiveness and trait ratings was more positive among American participants ( $\rho_m = .22$ , SD = .36) than among Ghanaian participants ( $\rho_{\rm m} = .02$ , SD = .37), t(199) = 3.93, p < .001. However, neither the main effect of source nor the Source X Nationality interaction was significant (Fs < 1). In contrast to the idea that "what is beautiful is culturally good" (as observed in the analysis of mean ratings), PAS effects among American participants were equally strong for American-valued ( $\rho_{\rm m}=.25, SD=$ .43) and Ghanaian-valued traits ( $\rho_{\rm m}$  = .20, SD = .45). Consistent with the present framework, PAS effects among Ghanaian participants were equally absent for American-valued ( $\rho_{\rm m}$  = .01, SD = .44) and Ghanaian-valued traits ( $\rho_m = .03$ , SD = .40).

#### Discussion

Study 2 investigated the hypothesis that physical attractiveness has greater influence on expectations about life outcomes in contexts that promote voluntaristic-independent constructions of relationship as a product of personal choice than in contexts that promote embedded-interdependent constructions of relationship as an environmental affordance. Results provided support for the hypothesis along three sources of variation in constructions of relationship. The strongest support emerged along the dimension of cross-national differences. Consistent with theory and research regarding the relative prominence of voluntaristic-independent constructions of relationship (see Adams et al., 2004), the influence of target attractiveness in expectations about life outcomes was much more evident among American participants than it was among Ghanaian participants.

Additional support emerged along a more ecological dimension of cultural influence: URB. Consistent with work linking urban residence and social class to voluntaristic constructions of relationship (e.g., Fischer, 1982; Mirande, 1970; Palisi & Ransford, 1987), the influence of target attractiveness in expectations about life outcomes was greater among participants from relatively affluent, urban settings than it was among participants from less affluent, rural settings. However, the effect of URB was only

marginally significant (given our conservative criterion) in conventional analyses and was not significant in complementary analyses of correlations.<sup>11</sup>

The third source of support for the hypothesis emerged along the dimension of experimentally manipulated differences in constructions of relationship. The influence of target attractiveness on expectations about life outcomes was evident among Ghanaian participants who completed an instrument that prompted experience of self in terms of personal characteristics (i.e., independent condition) but not among Ghanaian participants who completed an instrument that prompted experience of self in terms of personal relationship (i.e., interdependent condition).

# Differential Effectiveness of the Experimental Manipulation

The experimental manipulation did not have similar effects among American participants. We consider two explanations for this pattern that have interesting implications for theory.

A first possibility concerns the distinction between *etic* (i.e., context-general) and *emic* (i.e., context-specific) constructions of relationship (Pike, 1954). Although we intended the manipulation to activate an etic construction of relationship as environmentally afforded connection, it instead may have primed locally variable, emic constructions of relationship. Among Ghanaian participants, the instruction to think about important relationships appears to have had the intended result: a relatively embedded-interdependent construction of relationship that de-emphasized the importance of attractiveness. Among American participants, the same instruction

<sup>&</sup>lt;sup>11</sup> A possible reason for weaker effects of URB is that, although structural affordances for relationship may differ, rural and urban settings within a nation share cultural models of relationship prominent in the larger national context. For example, although the structure of everyday life in rural settings may afford less choice in relationship than it does in urban settings, people in rural and urban America share exposure to the voluntaristic-independent constructions of relationship that prevail in American culture at large. The present study may lack statistical power necessary to detect this relatively subtle relationship. In contrast, analyses of data from a large survey of American adults provide clear evidence for the hypothesis that the relationship between attractiveness and life outcomes is stronger among participants in urban settings than participants in rural settings (Plaut, Adams, & Anderson, 2007).

may have promoted a relatively voluntaristic-independent form of relationship that accentuated the importance of attractiveness. Consistent with this explanation, results indicate a nonsignificant trend such that the influence of target attractiveness on American participants' expectations about life outcomes was greater in the interdependent condition than it was in the independent condition.

Another explanation for the differential effect of the manipulation concerns implications of globalization for bicultural identity (Arnett, 2002). Specifically, the effect of the manipulation may have been greater among Ghanaian participants because they inhabit worlds where competing constructions of relationship are prominent. On one hand, they inhabit worlds associated with traditional patterns in which constructions of relationship are of the embedded-interdependent variety. On the other hand, they also inhabit worlds associated with university culture in which the constructions of relationship experienced are of a more voluntaristic-independent variety (see Adams et al., 2004; Aguilar, 1999). This familiarity with competing constructions of relationship may explain why these participants show greater responsiveness to experimental manipulation (see Arnett, 2002; Hong et al., 2000).

# Trait Ratings

Besides expectations about life outcomes, we also included trait ratings to examine the notion that humans across cultural and historical settings associate physical attractiveness with locally desirable traits (Wheeler & Kim, 1997). Results provide evidence for this "what is beautiful is culturally good" hypothesis but only among American participants in analyses of mean ratings (not in analyses of correlations, for which there were overall attractiveness effects not limited to locally valued traits). Although American participants rated attractive targets more positively than they did unattractive targets on all traits, they did so to a greater extent for American-valued traits than they did for Ghanaian-valued traits. In contrast, there was no evidence that Ghanaian participants rated attractive targets more positively than they did unattractive targets, even for Ghanaian-valued traits.

How is one to account for the divergence of Ghanaian patterns from patterns observed among similarly "collectivist" East Asian participants (Chen et al., 1997; Shaffer et al., 2000; Wheeler & Kim, 1997)? One explanation is that differences in results reflect differences in research settings. Rather than an etic dimension of "collectivism" that serves as "other" to the Western, individualist self (and homogenizes settings as diverse as East Asian and West African worlds in the process; cf. Appiah, 1992; Piot, 1999; Said, 1978; Shaw, 2000), the present results may reflect emic varieties of interdependence typical of West African worlds. These West African varieties of interdependence may differ from those that are prominent in East Asian settings, especially in the extent to which they promote the experience of embeddedness (cf. Adams & Dzokoto, 2003).

Also of relevance are the conceptions of culture that inform research programs. Previous research has examined culture mainly as relatively explicit beliefs or value ideology. In contrast, the present investigation applies a conception of culture as patterns (Adams & Markus, 2004). Rather than compare individualist cultures and collectivist cultures that differ in value ideology, the present study compares settings that vary in the extent to which

implicit cultural patterns afford an experience of relationship as something embedded in the structure of everyday worlds. From this perspective, patterns of PAS noted in cross-cultural research are not necessarily evidence for the importance of attractiveness in collectivist cultures. Instead, these patterns may reflect the setting of research in worlds—associated with university life or urban residence—that promote voluntaristic-independent constructions of relationship as the product of personal choice. These implicit constructions of relationship can promote an emphasis on attractiveness in (expectations about) life outcomes, regardless of explicit ideologies about relationship.

Although not consistent with research concluding that "what is beautiful is culturally good," results for Ghanaian participants are consistent with earlier research that has demonstrated cultural variation in the influence of attractiveness on judgments about life outcomes (Dion et al., 1990). The authors of that earlier research assessed cultural engagement via a measure—level of involvement in the everyday life of the local Chinese Canadian community—that resonates closely with the conception of culture that informs the present research. This suggests that future researchers may likewise observe small or nonexistent PAS effects, even for culturally valued traits, when they conceptualize culture in terms of engagement with everyday worlds.

#### Attractiveness Ratings

An interesting result from Study 2 was that Ghanaian participants (and to some extent participants in the interdependent condition and participants from rural backgrounds) indicated only moderate tendencies to discriminate physical attractiveness of targets that we had selected to be extreme on this dimension. We have already considered implications of this pattern for interpretation of results. Here we consider a theoretical implication. Specifically, the observation that these participants showed only moderate discrimination of physical attractiveness may reflect the hypothesized irrelevance of this dimension for everyday outcomes in contexts where embedded-interdependent constructions of relationship are prominent. To the extent that local worlds do not afford personal choice in relationship, people who inhabit these worlds may have few occasions to practice making attractiveness judgments and therefore less "skill" at making such judgments. Moreover, even among people who have acquired the cultural skill associated with attractiveness judgments, results among Ghanaian participants suggest that there may be little motivation to use this skill in contexts that do not afford personal choice in relationship.

These results for attractiveness ratings are remarkable given research in psychology, which emphasizes the importance of attraction processes. From this perspective, people have evolved tendencies to discriminate on the dimension of physical attractiveness because it serves as an observable indicator of health and reproductive fitness in prospective mates (Fink & Penton-Voak, 2002). However, even though humans' psychological inheritance may include the tendency to make fine discriminations on the basis of physical attractiveness, the present results suggest that both the motivation and consequences of doing so vary as a function of the worlds that people inhabit. Rather than a fixed feature of human psychology, PAS may be more of an evoked potential: a set of genetically encoded tendencies that become relevant when people

inhabit worlds that promote a construction of relationship as the product of choice.

#### General Discussion

The effect of physical attractiveness on social judgment is among the most frequently cited phenomena in the field of social psychology. Numerous studies have indicated that physically attractive people experience more positive outcomes than do unattractive people. The present research examines the implicit constructions of reality that underlie this phenomenon.

Most research on attractiveness effects has occurred in North American settings and university campuses, cultural worlds that promote voluntaristic-independent constructions of relationship as the product of personal choice. Consistent with this research, results of Study 1 revealed a positive association between attractiveness and self-reported outcomes among students in two American universities; however, there was no evidence of a positive association between physical attractiveness and self-reported outcomes among students in a West African university. Moreover, consistent with hypotheses about contextual influences on relationship outcomes, results also indicated that the positive association between attractiveness and outcomes was true only in the voluntary relationship context of friendship among American participants; it was not true in the more embedded relationship context of kinship for either American or Ghanaian participants.

Study 2 yielded similar patterns. Consistent with previous research, the tendency to rate expected outcomes of attractive targets more positively than those of unattractive targets was strongly evident among participants—including students at an American university and Ghanaian participants who received instructions to describe important personal characteristics—in contexts that promote independent constructions of relationship as the product of choice. In contrast, reflecting greater embeddedness of relationship, the tendency to discriminate in judgments of expected life outcomes was attenuated among Ghanaian participants who received instructions to describe important personal relationships. Together with the results of Study 1, these patterns suggest that the association between attractiveness and desirable outcomes is not inevitable but instead reflects particular constructions of relationship as the product of choice.

# Attractiveness in Ghanaian Settings: Positive, Negative, or Neutral?

Results of Study 1 revealed a negative relationship between attractiveness and self-reported life outcomes among Ghanaian participants. Results of Study 2 provide evidence that informs interpretation of this pattern. Among Ghanaian participants in the independent condition, mean ratings indicated a tendency to expect more positive outcomes for attractive targets than for unattractive targets. Among Ghanaian participants in the interdependent condition, mean ratings indicated no difference in expected outcomes of attractive and unattractive targets. In neither case did Ghanaian participants expect more negative outcomes for attractive targets. So, even if these Ghanaian participants were aware of the ambivalence regarding attractiveness in many West African settings, they apparently did not believe that the outcomes of attractive people would necessarily be negative. In contrast, results of Study

2 are consistent with the possibility that the negative association between attractiveness and outcomes among Ghanaian participants in Study 1 reflects a mismatch in expectations. That is, attractive Ghanaian participants may report less satisfaction with their life outcomes (as in Study 1) because they compare them to anticipated outcomes, informed by participation in global cultural discourse, that turn out to be unrealistic given the embedded interdependence of everyday life in their local environment.

#### The Cultural Grounding of Psychological Science

Given the realities that prevail in North American worlds (and constitute the implicit, common ground of mainstream psychological science), it may seem straightforward that personal choice and self-determination, whether in relationship or other domains, are something akin to natural rights that are necessary for optimal human experience (e.g., Ryan & Deci, 2000; cf. Iyengar & Lepper, 2002). From this perspective, one might conclude that the embedded interdependence of many Ghanaian worlds is a burden to the extent that it prevents people in general, but especially those with attractive attributes, from contracting satisfying relationships.

In contrast, a cultural psychology analysis holds that one should attempt to step outside mainstream constructions and instead adopt the perspective of marginalized others. Applied to the present case, this suggests a rethinking of the attractiveness-outcome relationship that (a) resonates more closely with embedded-interdependent constructions of relationship and (b) provides a more balanced account of worlds that afford a construction of relationship as the product of personal choice. From this perspective, the positive association between attractiveness and life outcomes characteristic of independence-affording settings means not only that attractive people are free to contract maximally satisfying relationships but also that unattractive people are somewhat doomed to have less satisfying outcomes. Likewise, a negative association between attractiveness and life outcomes characteristic of interdependenceaffording settings means not only that attractive people are constrained from pursuing maximally satisfying relationships (and thereby compelled to work harder at maintaining existing relationships) but also that unattractive people are liberated from the loneliness and low self-regard that accompanies rejection on the free relationship market. Thus, it is not clear that either world of relationship is more adaptive than the other; instead, each has its own set of benefits and costs.

Given the deviation of results for Ghanaian participants from patterns reported in previous research, it makes sense to focus on their responses as the phenomenon that requires explanation. However, this focus perpetrates a form of cultural bias. Prevailing accounts portray patterns observed in mainstream research as a default standard that, because they are "just natural," do not require deeper explanation. In contrast, the present research "turn[s] the analytic lens" (Adams & Salter, 2007, p. 542) to consider the constructions of reality that underlie commonly reported patterns. Rather than natural facts of human psyche, these patterns reflect particular constructions of relationship as the product of personal choice. In this way, our research helps to reveal a broader process—the cultural grounding of personal relationship—that is typically invisible when knowledge is grounded in a small set of settings. A comprehensive science requires greater attention to this process not only when describing exotic others but especially in the more typical case of mainstream research—conducted among North American undergraduates and reported in the most prestigious journals of the field—in which this process tends to remain invisible.

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