

The Importance of Attraction in Everyday Life:
The Cultural-Ecological Moderation Hypothesis in Consumer Context

By
Stephanie L. Anderson

Submitted to the graduate degree program in Psychology and the Graduate Faculty of the University of Kansas in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Chairperson Dr. Glenn Adams

Dr. Monica Biernat

Dr. Christian Crandall

Dr. Omri Gillath

Dr. Adrienne Kunkel

Date Defended: December 7, 2012

The Dissertation Committee for Stephanie L. Anderson
certifies that this is the approved version of the following dissertation:

The Importance of Attraction in Everyday Life:
The Cultural-Ecological Moderation Hypothesis in Consumer Context

Chairperson Glenn Adams

Date approved: _____

Abstract

Research documents the importance of attraction in everyday life, such that life outcomes are more positive for good-looking people than less good-looking people. Theory and research in cultural psychology provide evidence that this relationship between appearance and outcomes varies as a function of cultural and ecological circumstances. In particular, the cultural-ecological moderation hypothesis suggests that engagement with cultural models that promote a construction of relationship as choice amplify the importance of attraction and attractiveness in everyday life. The present work tests this hypothesis by investigating the effect of consumerism context on judgments about life outcomes of people with good-looking and less good-looking appearance (appearance discrimination). In Study 1, appearance discrimination was greater among participants who completed measures in the presence of images depicting technology-related consumer products than participants in a non-consumer control condition. Results of Study 2 revealed no statistically significant variations in appearance effects as a function of experimental conditions. In Study 3, appearance discrimination in evaluations of personality traits was greater among older participants who completed the survey near a shopping mall (consumer context) than among older participants who completed the survey in a park (non-consumer context). Additionally, appearance discrimination in evaluation of anticipated life outcomes was greater among young participants than among older participants. Although results provide some evidence for the cultural-ecological moderation hypothesis, conclusive experimental evidence awaits further research.

Acknowledgements

I wish to express my sincere gratitude to Dr. Glenn Adams for the guidance and encouragement he has provided throughout my quest. I am so very fortunate to have had the opportunity to work with and learn from him. In addition, I would also like to thank the members of the Social Psychology Program and the Culture and Psychology Research Group at the University of Kansas for their valuable input during various stages of my research. I am especially grateful to Susanne Bruckmüller for her collaboration on this project, as well as Juwon Lee and Tuğçe Kurtiş for their assistance with Study 2.

Table of Contents

Introduction	1
A Brief History of Attractiveness Research in Social Psychology	2
Propinquity	3
Similarity	4
Reciprocity	4
Physical Appearance	5
Summary	8
Benefits of Beauty: The Importance of Appearance in Everyday Life	8
A Cultural-Psychological Perspective on Attraction	10
Cultural Variation in Beauty Bias	13
Variation in content of PAS: What is beautiful is culturally good.....	14
Variation in relevance of appearance: Effects of context.....	15
Appearance and actual outcomes: A cross-national comparison.....	17
Appearance and actual outcomes: A cross-cultural comparison	18
Appearance and expected outcomes: A cross-national, cross-cultural, and experimental comparison	21
Summary of research to date.....	22
Extension of the Cultural-Ecological Moderation Hypothesis: Consumer Context	24
Study 1	28
Method	28
Results	31
Discussion	38
Study 2	40
Method	41
Results	43
Discussion	47
Study 3	49
Method	51
Results	52
Discussion	60

General Discussion	63
Evaluation of Evidence for the Cultural-Ecological Moderation Hypothesis.....	64
Alternative Explanations	66
Future Directions	67
Intersections with Other Work	69
Conclusions	70
References	72
Appendix A	83
Study 1: Target Photos	83
Study 1: Dependent Measures	84
Appendix B	86
Study 2: Target Photos	86
Study 2: Dependent Measures	87
Appendix C	89
Study 3: Target Photos	89
Study 3: Dependent Measures	90

The Importance of Attraction in Everyday Life:

The Cultural-Ecological Moderation Hypothesis in Consumer Context

Appearances may be misleading, but they are big business. From rigorous diet and exercise programs to elaborate grooming rituals, people spend a great deal of time and money trying to make their appearance more appealing. Some people even choose to permanently alter their looks through cosmetic surgery. A cursory review of the research in social psychology quickly yields an explanation for this emphasis on appearance: pretty pays. People with a pleasant or appealing appearance are judged more positively and accrue more positive treatment than do people with a less pleasant or unappealing appearance (Langlois et al., 2000). When preferences or judgments find expression in behavior, the result is appearance discrimination: the tendency for people to allocate more favorable outcomes to people with a pleasant appearance than people with a less pleasant appearance (Umberson & Hughes, 1987; Webster & Driskell, 1983).

Appearance discrimination is just one example of the importance of attraction (and attractiveness) in everyday life. People who possess attractive qualities—whether similar attitudes, dynamic personality, or pleasant appearance—are likely to have better social outcomes in part because they receive better treatment than do people who possess less attractive qualities. Although research in psychology tends to describe the importance of attraction in everyday life (including appearance discrimination) as a context-general law, I propose that it is the more particular product of worlds that afford the experience of choice in relationship.¹ I refer to this idea as the *cultural-ecological*

¹ In this paper, I use “attractive” (and related terms, such as physical attractiveness and attraction) to refer to a general process—and qualities of any sort—whereby one person might desire to approach another person. This is in contrast to the common but more restricted use of “attractive” to refer to good-looking appearance.

moderation hypothesis: exposure to contextual models that valorize or promote opportunity for choice—in other words, settings that promote relational mobility (Yuki et al., 2007)—will result in stronger expectations that people who possess attractive qualities will benefit on important life outcomes than people who possess less attractive qualities.

In previous research, I have evaluated this hypothesis by comparing the relationship between appearance and outcomes across settings—US and Ghana, urban and rural—that vary in affordances (i.e., qualities of a situation or environment that enable or constrain particular forms of perception and action; Gibson, 1979) for experience of relationship as choice. In this paper, I report three studies that explore another form of cultural-ecological variation: affordances for choice associated with a context of consumerism. To the extent that consumer contexts activate an identity of the self as one who makes choices, then one can expect they will afford greater appearance discrimination relative to the non-consumer context.

A Brief History of Attraction Research in Social Psychology

Attraction may refer to any features that lead a perceiver to prefer or approach an object or person by appealing to their particular preferences. Indeed, an online dictionary defines *attract* as “to cause to approach or adhere; to draw by appeal to natural or excited interest, emotion, or aesthetic sense” (<http://www.merriam-webster.com/dictionary/attract>) and *attraction* as “the act, process, or power of attracting; something that attracts or is intended to attract people by appealing to their desires and tastes” (<http://www.merriam-webster.com/dictionary/attraction>). A plethora of research on interpersonal attraction has identified several factors that increase the likelihood of approach behaviors. These

include propinquity, similarity, reciprocity, and physical appearance. Although a complete review is beyond the scope of this paper, this section provides a brief history of social-psychological research on these features.

Propinquity

Propinquity, or physical nearness, is among the most important forces contributing to preferential affiliation across relationship forms. Classic research examining the propinquity effect examined both physical and functional distance between students who were randomly assigned to apartment buildings in the Westgate Housing Project on the campus of MIT (Festinger, Schachter, & Back, 1950). Researchers asked residents to indicate their closest friends in the housing project. Results indicated greater likelihood of friendship formation among residents sharing close physical and functional proximity, with 65% of the mentioned friends living in the same building; within buildings, 41% of friends lived next door, 22% lived two doors apart, and only 10% lived at the opposite end of the hall. In another early study, proximity emerged as the most powerful determinant of interpersonal attraction among police trainees (assigned rooms and seats in the academy based on alphabetical order of their last names) who identified their closest friends on the force, with nearly 45% selecting an individual whose last name was adjacent to their own (Segal, 1974). A recent study provided additional evidence for the propinquity effect, finding that an initial chance encounter among college freshmen in an introductory psychology class (specifically, random assignment to an adjacent seat or merely in the same row, as compared with no perceivable physical relation) enhanced liking and led to higher ratings of friendship intensity one year later, even when controlling for initial attraction (Back, Schmukle, & Egloff, 2008). The

strength of proximity effects are so strong that they can promote attraction and desire for interaction in the absence of similarity (Nahemow & Lawton, 1974)—an important source of attraction to which I turn next.

Similarity

In addition to proximity, people are also drawn toward others on the basis of similarity. Indeed, the positive linear relationship between attitudinal similarity and interpersonal attraction is so robust that some researchers have deemed it a lawful phenomenon (Byrne, 1997; Byrne & Nelson, 1965). More recent work qualifies this “law”, noting that attitude similarity toward superficial categories appears to affect only initial attraction, whereas similarities of personality and values better predict lasting relationships (Neimeyer & Mitchell, 1988). Moreover, a recent meta-analysis evaluating laboratory and field investigations of similarity and attraction notes that perceived similarity—rather than actual similarity—accounts for attraction in existing relationships; actual similarity mattered only for interactions of limited scope (Montoya, Horton, & Kirchner, 2008; see also Montoya & Horton, 2013). Some researchers have suggested and found support for an alternate hypothesis: dissimilarity leads to repulsion (Rosenbaum, 1986). In any case, similarity (at least perceived)—or a lack thereof—is clearly an important factor that fosters attraction.

Reciprocity

People also tend to like others who express liking for them. In one early study, researchers found that, at least initially, same-sex participants randomly assigned to groups of strangers and led to believe that some of the other members would be especially attracted to them expressed greater desire to work with the likers as team

members (Backman & Secord, 1959). Other work has demonstrated that merely telling people that others like them on the basis of a personal encounter can lead to a variety of behaviors (e.g., self-disclosure, pleasantness) that result in actual liking (Curtis & Miller, 1986). In the more specific domain of romantic attraction, research examining reciprocal liking in the context of speed dating has documented positive effects for both romantic desire and “chemistry” when one person specifically expressed romantic desire toward a participant rather than toward the general pool of potential partners (Eastwick, Finkel, Mochon, & Ariely, 2007).

Physical Appearance

As the opening paragraph of the paper suggests, appearance is another determinant of attraction, preference, and selection for positive outcomes. Consider the wide variety of outcomes on which good-looking people benefit from preferential selection. Early in life, mothers respond differently to their babies based on their appearance, engaging in more affectionate behaviors toward pleasant-looking newborns (Langlois, Ritter, Casey, and Sawin, 1995). Young children benefit too; teachers hold more positive beliefs about good-looking students, including expectations of intelligence and likelihood to progress (Clifford & Walster, 1973). In high school, good-looking students earn higher grades (French, 2009). Parents of overweight girls (a significant component of judgments about good-looking appearance in North American settings; for a brief discussion, see Plaut, Adams, & Anderson, 2009) are less likely to contribute toward their daughters’ college education (Crandall, 1995). Better-looking instructors receive higher ratings on teaching evaluations (Hamermesh & Parker, 2005). Good-looking employees enjoy a “beauty premium”, earning 5% more than their less good-

looking coworkers, while individuals who are below-average in appearance experience a “plainness penalty” of 9% (Hamermesh & Biddle, 1994).

As the above paragraph indicates, research has documented the importance of appearance as a determinant of attraction and preferential selection across a variety of everyday life outcomes. However, much of the recent literature has focused on the role of appearance as a determinant of attraction and preferential selection for mating outcomes. Physical appearance—and particularly sexually desirable appearance—appears to be a more important determinant of mating preferences for men than for women; however, research suggests that it is an increasingly important determinant of women’s preferences, too (Buss, Shackelford, Kirkpatrick, & Larsen, 2001). Both heterosexual and homosexual men and women value "good looks" in potential mating partners (Ha, van den Berg, Rutger, & Lichtwarck-Aschoff, 2012). People generally agree about who is and is not good looking, both within and across cultural and ethnic groups (Cunningham, Roberts, Barbee, Druen, & Wu, 1995; Zebrowitz, Montepare, & Lee, 1993). This suggests the existence of some universal standards by which people assess appearance.

Indeed, research has identified attributes that people across diverse settings commonly consider “good-looking” or sexually desirable. For instance, participants from varied cultural backgrounds rate female faces more positively when they possess expressive (e.g., dilated pupils, high eyebrows, and large smiles with a full lower lip), neonate (e.g., large eyes and a small nose), and sexually mature characteristics (e.g., prominent cheekbones, a narrow face, thin cheeks, and a small chin) (see Cunningham et al., 1995). Additional features of desirable appearance include those associated with

fertility (e.g., youthfulness, small waist-to-hip ratio in women) and health (e.g., facial averageness and symmetry). According to mate-selection theory, these traits signal reproductive fitness and are thus desirable in a partner (see Berry, 2000, for a thorough review on this topic).

Other research suggests that aspects of what is considered desirable appearance do seem to vary across time and place. This is especially true for malleable characteristics of appearance (e.g., body ornamentation and scarification). For instance, body weight and shape ideals in the West are markedly different now than they were in the past. An evaluation of Playboy centerfold models and Miss America Pageant contestants throughout the 1960's and 1970's revealed evidence of a gradual shift away from more voluptuous figures toward a thin, "tubular" body shape (Garner, Garfinkel, Schwartz, & Thompson, 1980). Research has confirmed this trend toward more slender centerfolds into the 1980's and 1990's, as well (Sypeck et al., 2006). Ethnic differences between European-American, African-American, and Asian-American men and women exist for eating behaviors, attitudes, and body dissatisfaction, with European-American participants reporting more disordered eating and dieting behaviors and attitudes and greater body dissatisfaction than either African-American or Asian-American participants (Akan & Grilo, 1995). This finding suggests that ethnic differences in desired body type exist, too, leading European-American participants to strive toward a thinner ideal. Indeed, when asked to rank female silhouettes of varying size, European-American men preferred thinner figures than did African-American men (Greenberg & LaPorte, 1996). Thus, even though many of the characteristics that constitute desirable appearance hold universal appeal, some appealing qualities are culturally specific.

Summary

A complete history of social psychology and related work on (determinants of) attraction is beyond the scope of this paper. Instead, I end this section by emphasizing two points. First, it is important to note that, especially in long-term perspective, research on interpersonal attraction has been about the broad processes of approach and/or preference for affiliation with one person or target. Only more recently have discussions of general interpersonal attraction become virtually synonymous with the phenomenon of mating.² Second, my use of physical appearance in this research is consistent with the enduring and broad practice over the history of social psychological research of considering determinants of interpersonal affiliation, rather than the more recent and narrow focus on physical appearance as a determinant of mate selection.

Benefits of Beauty: The Importance of Appearance in Everyday Life

Much of the research examining the benefits of appearance has documented a physical appearance stereotype (PAS)³: a tendency to evaluate good-looking people more positively than less good-looking people (Eagly, Ashmore, Makhijani & Longo, 1991; Feingold, 1992; Langlois et al., 2000). In a seminal study evaluating the PAS, researchers presented undergraduate students with photographs of relatively good-looking, average, and unappealing male and female faces (Dion, Berscheid, & Walster, 1972). The participants evaluated the stimulus photos on several personality traits (e.g., sociability, trustworthiness) and also indicated the likelihood of the targets experiencing

² This sexualization of attraction is one manifestation of a larger sexualization of relationship research (with a focus on mate selection rather than relationship forms—such as family connections—that imply constructions of love as obligation) associated with the particular, androcentric imagination of evolutionary psychology (Kurtis & Adams, in press).

³ Previous research refers to this phenomenon as the “physical attractiveness stereotype”. I am deviating from conventional usage, substituting “appearance” for “attractiveness” (“physical appearance stereotype”) to avoid confusion and maintain consistency with the more broad usage of the terms “attractiveness” and “appearance” throughout the paper.

happiness or success in various life domains (e.g., marriage, occupation). Participants judged good-looking targets more positively on a composite measure of socially desirable personality traits; in addition, they also expected the good-looking targets to experience more positive life outcomes (e.g., obtain more prestigious jobs, have better marriages, and lead more satisfying social and professional lives) than their less good-looking peers. This pattern led the researchers to dub PAS the “what is beautiful is good” effect.

Since this early study, a steady stream of research has documented the benefits of a pleasant appearance. In a meta-analytic review that remains the standard authority in this field, Langlois and colleagues (2000) describe the effects of facial beauty as “robust and pandemic” (p. 404), noting advantages in nearly every measured domain of judgment, treatment, and behavior, regardless of age, familiarity or gender. Good-looking adults receive more attention, positive social interaction, and help from others than do less good-looking 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 (Langlois et al., 2000).

Effects of PAS are especially evident for traits associated with social skills. In one meta-analytic review, differences in ratings of more and less good-looking persons were greatest for personality traits associated with social competence—sociability, popularity, and so on—followed by social dominance, adjustment, and intellectual competence (Eagly, Ashmore, Makhijani & Longo, 1991). Another meta-analysis confirmed these findings, noting large effects of physical appearance on sexual warmth and social skills, followed by intermediate effects on sociability, dominance, and general mental health (Feingold, 1992). This tendency to ascribe positive characteristics to good-

looking individuals has been replicated for ratings of children (e.g., Dion, 1973) and even infants (e.g., Stephan & Langlois, 1984). Moreover, good-looking infants and children experience better treatment (Bakalar, 2005).

Patterns of PAS are evident not only in individuals' embodied associations, but also in materially inscribed associations implicit in cultural products. For example, a study of popular American films across five decades revealed a bias such that a random sample of films portrayed good-looking characters more positively than other characters in terms of both moral goodness and subsequent happiness. This pattern was evident regardless of production decade or character sex (Smith, McIntosh, & Bazzini, 1999). Moreover, results of the same study suggest that exposure to cultural products that carry the PAS affords subsequent PAS. Participants who viewed a film that portrayed good-looking characters more positively than other characters subsequently exhibited an increased likelihood to ascribe positive characteristics to physically appealing targets. This study not only demonstrated the existence of PAS in cultural representations but also that the strength of PAS effects can vary with exposure to different representations.

A Cultural-Psychological Perspective on Attraction

Implicit in work on the relationship between physical appearance and outcomes is the idea that differences in outcomes arise, at least in part, because of differences in treatment (Langlois et al., 2000). That is, good-looking people experience better outcomes than others because other people “select” them to receive those good outcomes, particularly in the domain of social relations (Dion & Berscheid, 1974; Hamermesh, 2011; Snyder, Tanke, & Berscheid, 1977; Walster, Aronson, Abrahams, & Rottman, 1966; Zakin, 1983). In turn, the notion that differences in appearance are the source of

different outcomes implies a pervasive and powerful role of choice in the construction and experience of social relations. In other words, even if features of targets—defined according to attitude similarity, beauty, compatible personality, or whatever features create differences in preferences—do lead others to differ in preference or approach orientation, these differences in preference will not result in differential outcomes unless actors can translate their preferences into choices that allocate good outcomes to some people and less good outcomes to others.

Instead of taking choice for granted, a cultural psychology perspective highlights the extent to which the construction and experience of choice in social relationship is the product of particular cultural and ecological affordances. Cultural psychology is not an emphasis on diversity, *per se*, but instead on the historical and material affordances for psychological experience. This perspective draws from the work of Markus and Kitayama (1991), which delineates independent (fundamentally separate) and interdependent (fundamentally connected) constructions of self and the implications of either construction. For instance, beliefs and realities of fundamental separateness afforded by independence (such as the freedom to seek and form new relationships, and the opportunities to do so) results in larger friendship networks than the beliefs and realities of fundamental connection afforded by interdependence (which may emphasize obligations of support for existing relationships; Adams & Plaut, 2003). From this perspective, the importance of physical appearance for positive life outcomes is not just a natural or inevitable feature of human experience. Instead, this supposedly “standard” pattern depends upon the particular constructions of reality that inform relationship life.

Specifically, the theory my colleagues and I (Adams et al., 2004; Anderson et al.,

2008) elaborate differentiates two means of explaining connection—*voluntaristic-independent* and *embedded-interdependent* constructions of relationship—that differ primarily in the affordance of choice in relationship construction.⁴ In settings where *voluntaristic-independent* constructions of relationship prevail (e.g., middle-class North American settings), everyday life affords an experience of self as an inherently separate entity, a unique being set apart from other persons and the social context at large (Markus & Kitayama, 1991). This independence compels autonomous selves to voluntarily forge and dissolve connections with others (Adams et al., 2004; Anderson et al., 2008).

In settings where *embedded-interdependent* constructions of relationship are prominent (e.g., West African or rural and working-class settings within the USA), everyday life promotes the experience of relation to other persons and the social context (Markus & Kitayama, 1991). This experience of embeddedness affords an emphasis on management of preexisting connections in densely interconnected networks associated with situations of limited mobility (Adams et al., 2004; Anderson et al., 2008).

If (as in the case of embedded-interdependent constructions of relationship) social networks exist apart from the individual self, making connection the product of environmental affordance, then attraction assumes less importance as a determinant of life outcomes. After all, if one has little choice in his or her relationship ties, then beauty, similarity, warm personality, mate value, or any other appealing quality that might promote attraction does not have much of an opportunity to matter. Attraction and appealing qualities matter more when (as in the case of voluntaristic-independent constructions of relationship) everyday realities promote an experience of relationship as

⁴ One closely related notion is that of relational mobility (Schug, Yuki, Horikawa, & Takemura, 2009; Yuki et al., 2007).

the product of choice. To the extent that people experience relationship as a discretionary product based on personal choice, personal preference (as a determinant of choice) and attraction (as a basis of preference) are important determinants in relationship formation.

Evidence for this idea emerges from a large-scale cross-cultural study in which investigators found a strong positive relationship between greater freedom of choice in selection of a spouse and several attractiveness-related factors: “impractical” grounds for choice (which could include physical appearance), feelings of affection and courtly love, and sex as a basis of attraction (Rosenblatt & Cozby, 1972). Appealing attributes—like beauty—assume greater value when people have opportunities and are compelled to make decisions regarding relationship partners. Thus, appealing physical appearance becomes an important commodity on the market of interpersonal relationship. People who possess desirable attributes (like physical beauty) will be in higher demand and better able to contract satisfying connections (Sangrador & Yela, 2000). In short, voluntaristic-independent constructions of relationship not only promote the expectation that good-looking people will lead more satisfying lives than less good-looking people, but also provide increased opportunity for beauty to determine outcomes.

Cultural Variation in Beauty Bias

The vast majority of the literature on attraction and physical appearance treats the “what is beautiful is good” effect as a fundamental feature of human nature; however, this “truth” emerges from research conducted in a particular historical context (Henrich, Heine, & Norenzayan, 2010). Applying a cultural psychology analysis can be useful for discovering cultural variation in psychological processes, but the primary benefit of such an approach is to “turn the analytic lens” (Adams & Salter, 2007, p. 542) and consider the

typically invisible constructions of reality that might account for familiar “standard” patterns. Is there evidence that PAS might be associated with particular worlds rather than universally applicable? Research on cultural variation in PAS effects has generally considered two different ideas.

Variation in content of PAS: What is beautiful is culturally good. One perspective on cultural variation in attractiveness effects maintains that the tendency to ascribe positive characteristics to beautiful people occurs to an equal extent across settings, but the traits that people consider valuable and therefore associate with pleasing physical appearance vary. Because people value different traits in different settings, the particular dimensions on which one will observe PAS effects will vary depending on context; in other words, "what is beautiful is *culturally* good" (Chen, Shaffer, & Wu, 2000; Shaffer, Crepaz, & Sun, 2000; Wheeler & Kim, 1997). Noting from the literature that good-looking targets are evaluated positively on characteristics that are typically considered valuable in North American settings, Wheeler and Kim (1997) proposed that Korean participants would rate good-looking targets higher in integrity and concern for others but lower in potency as compared with less good-looking targets, reflecting the differential endorsement of these values in individualist and collectivist settings. They asked Korean participants to judge photos of Korean targets on social competence, adjustment, potency, intellectual competence, integrity, concern for others, sexual interest/warmth, and modesty. Participants judged good-looking targets more positively than other targets for all categories except potency (strong, self-assertive, and dominant) and modesty. They then compared effect sizes obtained from two previous meta-analyses (Eagly et al., 1991; Feingold, 1992) of the effects of appearance on trait ratings among

North American samples with the effect sizes that they calculated on trait ratings among their Korean sample. Unlike the North American participants represented in the meta-analyses, Korean participants rated good-looking targets higher in integrity and concern for others—but not potency—than less good-looking targets.

In my previous work I found some support for this idea (Anderson et al., 2008). My colleagues and I exposed Ghanaian and American participants to photos of Black and White faces and asked them to judge the targets on Ghanaian-valued (e.g., *sensitive*, *modest*) and American-valued (e.g., *genuine*, *spontaneous*) traits. (We derived these traits from a pretest among an independent sample of Ghanaian and American students.) Consistent with PAS research, we observed that American participants rated good-looking targets more positively than less good-looking targets. Consistent with the “what is beautiful is *culturally* good” perspective, this pattern was especially true for American-valued traits. At the same time, we found no evidence for this hypothesis among Ghanaian participants. That is, Ghanaian participants did not rate good-looking targets more positively, even for Ghanaian-valued traits. These results are inconsistent with the “what is beautiful is culturally good” perspective (Wheeler & Kim, 1997).

Variation in relevance of appearance: Effects of context. A different view on cultural variation in attractiveness effects focuses on the relevance of appearance for social judgment. An early articulation of this idea comes from the work of Dion and colleagues (Dion, 1986; Dion, Pak, & Dion, 1990). These researchers proposed that, if physical appearance serves as a heuristic cue about a target’s defining essence, then one can expect the tendency to ascribe positive attributes to good-looking individuals to be stronger in settings that promote a focus on personal characteristics as the essence of identity (i.e.,

settings associated with individualism). In this context, beauty serves as a cue that a target's essential nature is good, a cue that extends to judgments about other traits. In contrast, the tendency to stereotype on the basis of appearance will be weaker in settings that promote a focus on ascribed social locations (e.g., roles, family connection, and group identities) as the essence of identity (i.e., settings associated with collectivism). In this context, good looks provide little information about the target's essential nature, leading perceivers to ignore this (irrelevant) information when making judgments about other traits. Instead of variation in the contents on which the process of attraction operates (i.e., conceptions of beauty or good), Dion and colleagues argued that the process of associating beauty with good itself varies across context. Consistent with this notion, their work revealed less evidence of PAS among Chinese-Canadian participants who were highly involved in their local Chinese community and cultural life (and presumably had greater exposure to collectivism and interdependent selfways) than among less involved participants, particularly for ratings of traits reflecting social morality (Dion, Pak, & Dion, 1990).

In a similar fashion, my colleagues and I have proposed that the relevance of appearance (or any other determinant of attractiveness) for everyday life outcomes will vary across settings, in this case as a function of affordances for choice in relationship. This research considers neither variation in the determinants of attractiveness, nor the question of whether looks affect preferences in the same way across settings (although both are interesting questions). Rather, the issue at hand is whether preferences have the opportunity to affect choice. The cultural-ecological moderation hypothesis suggests that the positive association between appearance and life outcomes is stronger or more

evident in contexts characterized by constructions of relationship as the product of personal choice than the product of environmental affordance. We found support for this idea in a series of three studies in which we examined the relationship between appearance and life outcomes.

Appearance and actual outcomes: A cross-national comparison. Our first study on this topic focused on actual life outcomes, as we investigated the relationship between participants' satisfaction with their own life outcomes and judges' ratings of participants' appearance (Anderson et al., 2008; Study 1). This study included a cross-national comparison between students at two North American universities (settings in which voluntaristic-independent constructions of relationship are prominent) and a West African university in the country of Ghana (where more embedded-interdependent constructions of relationship prevail). In addition, we included a comparison of relationship contexts. To the extent that friendship is the prototypical "chosen" relationship (Palisi & Ransford, 1987) and kinship is the prototypical "given" relationship, one can expect that the relationship between appearance and outcomes will be greater for the former than the latter. As mating relationship entails an intermediate degree of choice—specifically, it allows more personal discretion than kinship, but is more exclusive and therefore provides less opportunity for the repeated exercise of choice than friendship—one can expect the association between appearance and outcomes for mating relationship to fall somewhere between associations for friendship and kinship.

Participants in this study first rated their satisfaction with various life outcomes (e.g., *I am satisfied with my achievements; I am happy overall; Other people like me*). In addition to the overall measure of general life outcomes, we also included measures of

outcomes (*practical support, emotional support, quality, closeness/intimacy*) within three general relationship types: friend, mating, and kin relationship. Finally, we took a head-and-shoulders photograph of each participant, which a separate sample of opposite-sex, same-nationality students later rated for appearance (Anderson et al., 2008).

The cultural-ecological moderation hypothesis suggests that the positive association between appearance and life outcomes 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, the prototypical “chosen” relationship) than the product of environmental affordance (i.e., in Ghanaian settings and kinship, the prototypical “given” relationship). We observed support for the hypothesis on measures of both general life outcomes and particular relationship contexts. For the measure of general life outcomes, the relationship between appearance and life outcomes was positive among American participants but negative among Ghanaian participants. Although good-looking Americans reported more positive outcomes than less good-looking Americans, the reverse pattern was true of Ghanaian participants.⁵ For the measure of particular relationship contexts, results revealed no association between appearance and relationship outcomes in either the non-voluntary context of kinship or the semi-voluntary context of mating relationship. In contrast, results did reveal a positive association between appearance and outcomes in the voluntary context of friendship, but only among participants in American settings (Anderson et al., 2008).

Appearance and actual outcomes: A cross-cultural comparison. In a second

⁵ Although the theoretical perspective and associated hypothesis anticipated a difference in the relationship between appearance and outcomes across cultural settings, I did not necessarily expect this relationship to be negative in Ghanaian spaces. One explanation for this pattern is a mismatch in expectations: Ghanaian participants may report less satisfaction with their life outcomes because they compare them to anticipated outcomes, informed by global cultural discourse, that turn out to be unrealistic given the embedded interdependence of everyday life in their local environment. In any case, the negative relationship observed among Ghanaian participants in this study is certainly worthy of further research and awaits replication.

study, we focused again on actual life outcomes (Plaut, Adams, & Anderson, 2009). Specifically, we investigated the relationship between participants' ratings of own appearance, social connectedness, and well-being in a cross-cultural comparison of archival survey data from residents of urban settings and rural settings. 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), we hypothesized that urban and rural settings differ in the extent to which they afford the experience of relationship as a product of choice. Urban settings typically foster greater relative social mobility (due to fewer constraints), anonymity, and a larger pool of potential interaction partners. This promotes a "free market" of relationship, in which personal choice—and the qualities, like appearance, that influence choice—can become important determinants of relationship outcomes. In contrast, the structure of life in rural settings—limited social and geographic mobility (due to greater constraints) and a circumscribed pool of potential interaction partners with whom one may have substantial duties or obligations (e.g., kin) provides less opportunity for choice in relationship (Beggs, Haines, & Hurlbert, 1996). In these settings, appearance effects may be less evident, as there is relatively little opportunity (or necessity) for personal preferences or qualities that constitute beauty to influence relationship outcomes.

We analyzed data from the National Survey of Midlife Development in the United States (MIDUS; MacArthur Research Network on Successful Midlife Development). We limited the analysis to female respondents who indicated rural or city residence. Based upon research suggesting waist-to-hip ratio (WHR) as an indicator of female beauty

(Streeter & McBurney, 2003), we utilized this variable as our measure of good looks. Our composite measure of well-being included participants' responses to items concerning life satisfaction, positive affect, self-acceptance, and environmental mastery. Our composite measure of social connectedness included participants' responses to items concerning contact with friends, social integration, support from friends, and strain from friends. We controlled on all analyses for age, household income, and marital status, as well as Body Mass Index (for details, see Plaut et al., 2009).

The cultural-ecological moderation hypothesis suggests that the positive association between appearance and well-being is stronger or more evident in contexts characterized by constructions of relationship as the product of personal choice (i.e., urban settings) than the product of environmental affordance (i.e., rural settings). More specifically, we expected that the positive relationship between good looks (low WHR) and well-being would be present in urban settings but absent in rural settings because good looks (low WHR) are also associated with better social connectedness in urban settings but not rural settings. Results confirmed the hypothesis. The relationship of WHR and well-being was negative among urban, but not rural, participants. The relationship of WHR and social connectedness was also negative among urban, but not rural, participants. More importantly, we observed support for the guiding hypothesis in the form of mediated moderation, such that social connectedness mediated the moderating effect of urban-rural background on the relationship between WHR and well-being. In other words, good-looking women experienced better well-being than less good-looking women in urban settings, but not rural settings, in part because good-

looking women experience better social connections than less good-looking women in urban settings, but not rural settings (Plaut et al., 2009).

Appearance and expected outcomes: A cross-national, cross-cultural, and experimental comparison. In a third study, we focused on judgments about the life outcomes of others, similar to much of the existing research on PAS (Anderson et al., 2008; Study 2). This study again included a cross-national comparison between students at universities in the USA and Ghana. We also included a cross-cultural comparison between students from urban and rural backgrounds.

In addition to the “cross-cultural” comparisons, we introduced an experimental manipulation of relationship constructions (Anderson et al., 2008). Participants first described either their three most meaningful personal characteristics (to influence them to experience themselves as a decontextualized bundle of traits; voluntaristic-independent condition) or their three most meaningful personal relationships (to influence them to experience themselves as embedded in connection with others; embedded-interdependent condition). They then received photos of Black and White, male and female, good-looking and less good-looking faces. Participants rated the likelihood of each target experiencing various life outcomes (e.g., *be liked by others, have monetary success, get what he/she wants in life*) (Anderson et al., 2008).

The cultural-ecological moderation hypothesis suggests that the divergence in expected outcomes of good-looking and less good-looking targets is stronger or more evident in settings associated with voluntaristic-independent constructions of relationship as discretionary product (i.e., among American participants, urban participants, and participants in the voluntaristic-independent condition) than in settings associated with

embedded-interdependent constructions of relationship as environmental affordance (i.e., among Ghanaian participants, rural participants, and participants in the embedded-interdependent condition). We observed support for the hypothesis along all three dimensions of variation in relationship construction. Appearance effects (i.e., the discrepancy between expected life outcomes of good-looking and less good-looking targets) were greater for American participants than for Ghanaian participants, for urban participants than for rural participants, and—though only among Ghanaian participants⁶—for participants in the voluntaristic-independent condition than for participants in the embedded-interdependent condition (Anderson et al., 2008).

Summary of research to date. In sum, my previous research in collaboration with colleagues has provided triangulating evidence from a variety of sources that discrepant life outcomes on the basis of appearance vary as a function of cultural and ecological circumstances. Our interest has not been cross-cultural, per se (i.e., we do not aim to simply discover cultural differences), but rather we have chosen to examine contextual variation as a means to test an overarching theory. The present research does

⁶ There are at least two plausible explanations for this moderating effect of context (versus main effect of manipulation). First, 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 (Pike, 1954). 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 may have promoted a relatively voluntaristic-independent form of relationship that accentuated the importance of attractiveness. Consistent with this explanation, results indicate a non-significant trend such that the influence of target attractiveness on American participants' expectations about life outcomes was greater in the interdependent condition than 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).

not address the specific features men and women consider good-looking, or even why; instead, I am interested in the phenomenon of attraction itself, and variation in the extent to which attraction—whatever its determinants—is a force directing judgments and outcomes in people’s everyday lives.

Although I have been discussing the role of choice in the domain of relationship, recent work (since my earlier, reported work) has applied the same ideas to other kinds of selection outside the affiliation domain. For instance, Savani and colleagues (2008) compared North American and Indian college students’ personal preferences and choices for consumer items (e.g., chairs, shoes, pens). Participants in both settings were equally fast at constructing nonrandom preference ratings, but Indian participants were slower to make personal choices among consumer items, indicating that they may not draw upon preferences to make choices to the same extent as American participants. Furthermore, American participants’ choices more often reflected their preferences than did Indian participants’ choices for both hypothetical and actual items. And, when allowed to freely choose between options, American participants expressed greater liking for their chosen item than when simply given an item, whereas Indian participants liked their items equally well regardless of whether they chose it (according to personal preference) or the researcher chose for them, indicating differences in motivation to express preference through choice. They explain differential assumptions about and emphasis on choice as reflective of different models of agency (Savani, Markus, & Conner, 2008).

In their examination of models of agency across cultural settings, Savani and colleagues (2010) assert that sociocultural systems of meaning and practice—particularly, models of agency—significantly affect the nature of actions (whether they are

meaningful and important) and whether or not they are construed as the product of choice. They suggest that this emphasis on choice, fostered by particular sociocultural settings (where disjoint models of agency are prevalent), as well as repeated experiences to practice choosing among alternatives, contributes to a conception of the “self as chooser” (Savani, Markus, Naidu, Kuman, & Berlia, 2010; p. 397). In the present paper, I consider the implications of constructing the self in this manner (as chooser) on appearance discrimination. To do so, I turn to the consumer context, where the cultivation or training of tastes developed through practices of repeated choosing and reflection on preferences provides an additional and thought-provoking avenue to test ideas regarding the cultural-ecological moderation hypothesis.

Extension of the Cultural-Ecological Moderation Hypothesis: Consumer Context

The present work extends previous research on the differential effects of appearance across contexts by examining another form of cultural participation: engagement with contexts of consumerism. Consumer cues are abundant in the modern world, yet the extent to which they shape culture oftentimes remains outside conscious awareness (Jhally, 1990). Indeed, one expert (Jhally, 1990) describes the marketplace as the major structuring institution of contemporary society, dominating nearly every aspect and domain of experience through advertising and focusing attention on a world of commodities. Associated with this shift, a wealth of research has documented various harmful psychological consequences of consumerism. Kasser (2010) has argued that the self-enhancing, materialistic values of Anglo-capitalism lead to behaviors that diminish both personal autonomy and other people’s experience of autonomy. In addition to the negative effects of localized materialism, researchers have documented consequences for

situational materialism as well. Commonplace environmental cues can activate consumerism and trigger materialistic concerns that result in heightened negative affect, reduced social involvement, materialistic concerns, competitiveness, and selfishness (Bauer, Wilkie, Kim, & Bodenhausen, 2012).

In a highly commercialized world, consumption becomes integral to one's self-concept ("the commodified self", Murphy & Miller, 1997). Engagement with consumer context and the repeated opportunities for choice these contexts provide can both create and reinforce an experience of the self as chooser (Savani et al., 2010), whose choices reflect preferences (Savani et al., 2008), and whose possessions may even be viewed as reflective of oneself (Morrison & Johnson, 2011). Despite differing goals in the consumption experience, consumers share a desire to express authenticity, and their choices allow them to assert an authentic self (Beverland & Farrelly, 2009). Through the process of consumption—deciding when, how, and whether or not to purchase a particular product, picking one brand over another, and considering the varieties and options of a given item—consumers become active agents, making choices that both reflect personal preferences and values and direct the construction of personal identity to an increasingly greater extent (Keefer, 2012).

Rather than an exhaustive review of work on the psychological impact of consumerism, I will focus on an illustrative example that is especially relevant for the present research. Using a post-decisional dissonance paradigm, Murphy and Miller (1997) proposed that dissonance would be greater for decisions relevant to consumption (specifically in this case, image-magazines, which contain information relevant to a commodity self) than for other decisions and for individuals highly oriented toward

consumerism. After rating the quality and desirability of news and image magazines, researchers required American participants to choose between their third and fourth most highly rated magazines. They then reevaluated the magazines on an additional set of more specific quality dimensions as well as desirability and completed a measure of consumer ideology. Results revealed more dissonance in the image-magazine condition than in the news-magazine condition, especially for individuals with strong orientation toward consumerism. The researchers then compared results of Americans in the image-magazine condition to a sample of Finnish participants. (At the time, Finland did not have weekly or monthly news magazines, hence the elimination of that particular comparison.). On one hand, urban Finland is a modern commercialized society with a high standard of living and thus comparable to the United States of America. On the other hand, Finland does not share the long history of industrialization or the pervasive consumer ideology (including conspicuous commercialization, advertising, and consumption) that permeates American settings. Therefore, researchers predicted and observed lower post-decisional dissonance among Finnish participants than American participants. Furthermore, levels of dissonance were more strongly related to scores on consumer ideology scales for American participants than for Finnish participants. The most relevant point of this work for the present studies is that the experience of the consumer setting—in addition to any or even many other consequences—is likely to promote an experience of neoliberal individualist subjectivity associated with voluntaristic-independent constructions of relationship. Exposure to consumerism and associated constructions of relationship affords and demands choice-making in regard to products—and people—based on personal preference.

A thorough review of the rapidly expanding field of research on the psychological consequences of consumerism is beyond the scope of this paper. The relevance of consumerism for the present work is not as the focus of investigation in its own right, but instead as a mechanism to test the cultural-ecological moderation hypothesis. In light of the emphasis consumer culture places on choice, this context provides an additional opportunity to test hypotheses about the role of attraction in everyday life. The cultural-ecological moderation hypothesis suggests that exposure to contextual models that valorize or promote opportunity for choice will result in stronger expectations that people who possess attractive qualities will benefit from selection by others for important life outcomes, but people who do not possess attractive qualities will suffer because others do not select them for important life outcomes. To the extent that consumer contexts activate an identity of self as chooser, making choice relevant and desirable, then one can expect that (people's judgments of) the importance of attractive qualities as a determinant of life outcomes will be in greater in the consumer context relative to the non-consumer context.

To test these propositions, I conducted a series of studies in which I exposed participants to consumer-related products and contexts. Based on existing theory and research that document the importance of choice as a moderator of attraction processes, one can hypothesize that appearance discrimination—specifically, the tendency to anticipate better life outcomes for good-looking people than for less good-looking people—will be greater among participants in consumerist contexts than non-consumerist contexts. I tested this hypothesis in a laboratory experiment, an online experiment, and a field study.

Study 1

The cultural-ecological moderation hypothesis suggests that engagement with cultural models that privilege choice—specifically in the present research, exposure to consumer context—will enhance discrimination of expected life outcomes for good-looking and less good-looking targets. Study 1 tested the cultural-ecological moderation hypothesis via experimental manipulation. Specifically, my collaborators and I manipulated consumer context by asking participants to complete measures in the presence of photos depicting either non-consumer objects or consumer products.⁷ To the extent that consumer contexts promote the relevance of preference and choice (Murphy & Miller, 1997), the cultural-ecological moderation hypothesis suggests that appearance effects—that is, variation in expected life outcomes as a function of physical appearance—will be more prominent when participants are immersed in a context where material manifestations of consumerism are more rather than less prominent.

Method

Participants. Fifty-three students (17 women, 35 men; 1 unspecified; $M_{\text{age}} = 19.26$, $SD = 1.16$) from a large mid-western American university participated in the study for partial course credit. I excluded four additional participants who did not complete the study materials.

Stimuli selection. My collaborators and I compiled a set of 12 high-quality, color, head-and-shoulders photographs of friendly-looking, young adults. To minimize possible variance due to factors (e.g., racial discrimination) that were not the topic of present research, we selected only faces with stereotypically European phenotypic features. In addition, because some research suggests that appearance matters more for

⁷ Collaborators for Study 1 included Glenn Adams and Susanne Bruckmüller.

judgments of women than men (Bar-Tal & Saxe, 1976), we selected only photos of women to maximize the likelihood of appearance effects.⁸ We obtained the photographs from a variety of online sources. Women in the photographs wore casual attire and did not have distinguishing features such as glasses, braces, or unconventional hairstyles. We presented the photos to a sample of 33 young adults, who rated the physical appearance of these targets. We selected the two photographs with the highest ratings and the two photos with the lowest ratings for inclusion as stimuli in Study 1.⁹

Materials and procedure. Researchers invited students in introductory level psychology courses to participate in a study of interpersonal perception. Students who agreed to participate received partial course credit. All participants completed the study individually in the laboratory.

Students arrived at the lab where a researcher greeted them and led them into an individual room. The researcher turned on the lights, revealing a large posterboard lying on a desk and covered with images of either (a) flowers (i.e., beautiful items that are not related to consumerism) from a gardening magazine, (b) technology-related consumer products (iPods, TVs, furniture, etc.) from advertisements in lifestyle magazines that target young adults; or (c) beauty-related consumer products (jewelry, make-up, fashion products, etc.) from advertisements in lifestyle magazines that target young adults. None of the images included text or people. Scissors, glue, and additional magazine clippings belonging to the same category as those on the board lay dispersed over the desk to create

⁸ The reader should note, however, that meta-analytic reviews of research examining gender as a moderator of physical appearance stereotyping have not supported the notion that appearance effects are greater for women than men (see Eagly, Ashmore, Makhijani, & Longo, 1991, and Langlois et al., 2001).

⁹ Due to researcher error, I did not retain mean ratings of the stimulus photos from the prestudy selection process for any of the reported studies (1-3). However, ratings of the good-looking photos differed significantly from ratings of the less good-looking photos in all cases.

the impression that somebody had been working on a project but failed to clean up afterward. Acting surprised and apologizing for the mess, the researcher shifted the loose clippings to the side of the desk, propped the board on a chair that was ostensibly out of the way but in direct line of sight for the participant, and placed materials for the present study on the desk.

Participants received 4 target photos of females (2 good-looking, 2 less good-looking), presented in 1 of 2 random orders. (See Appendix A for target photo stimuli and dependent measures). Participants rated each target from 1 (negative item) to 7 (positive item) on a series of 14 personality trait dimensions derived from previous research (Chen et al., 1997; Dion et al., 1972; Dion et al., 1990; Wheeler & Kim, 1997): *stupid—intelligent; stingy—generous; modest—vain**; *lazy—ambitious; unhelpful—cooperative; honest—dishonest**; *rude—polite; kind—mean-spirited**; *cheerful—depressed**; *boring—funny; independent—dependent**; *confident—insecure**; *unreliable—responsible*, and *obedient—rebellious** (*reverse-scored). The mean of these 14 ratings provided a composite measure of trait judgments (with α 's ranging between .67 and .83 for the different targets).

Next, participants rated the likelihood from 1 (*unlikely*) to 7 (*likely*) of each target experiencing various life outcomes (Anderson et al., 2008; cf. Dion et al., 1990; Dion et al., 1972): *be happy, overall; have satisfying romantic relationships; get what he/she wants in life; be lonely**; *earn a good living; get along with people around him/her; be respected by others; get a divorce**; *earn a promotion in a job/career; make friends easily; enjoy life; be a good parent; and go to jail/prison** (*reverse-scored). The mean of these 13 ratings provided a composite measure of outcome expectations (α 's ranging

between .86 and .91 for the different targets).

After participants rated expected outcomes for all targets, they rated the appearance of each target on a scale of 1 (*unattractive*) to 10 (*attractive*). Participants then provided demographic information. Finally, the researcher thanked the participant and administered the debriefing protocol. Although most participants vaguely recalled the content of the posterboard to which we exposed them at the beginning of the study (i.e., consumer: fashion/beauty or non-fashion/beauty related products; non-consumer: floral images), none made a connection between the posterboard and the rating task that they had just completed.

Results

To the extent that consumer contexts activate the relevance of preference and choice, then one can expect that they will afford greater appearance effects relative to the non-consumer context. In other words, the cultural-ecological moderation hypothesis predicts that exposure to consumer products (technology and fashion/beauty-related) will result in greater appearance effects relative to the (neutral) control condition.

Although the cultural-ecological moderation hypothesis suggests that appearance effects will be greater in contexts that promote the experience of choice, it is silent on the relative effects of different product content. In contrast, a focus on content might lead one to anticipate appearance effects to be greater for beauty-relevant products than for non-beauty-relevant products. The comparison between beauty-relevant (fashion) and beauty-irrelevant (technology) products permitted an exploration of this idea.

Attractiveness ratings. Before assessing hypotheses directly, I first calculated mean attractiveness ratings for the two good-looking targets and the two less good-

looking targets and conducted a 2 x 2 x 3 x 2 mixed-model ANOVA with participant gender (female, male), presentation order (good-looking first, less good-looking first), and context (control non-consumer, technology consumer, beauty/fashion consumer) as the between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor.¹⁰ This analysis revealed the anticipated main effect of appearance, such that participants rated the women whom we had selected as good-looking targets to be significantly more attractive ($M = 7.59$, $SD = 1.33$) than the women whom we had selected as less good-looking targets ($M = 4.58$, $SD = 1.65$), $F(1, 40) = 56.31$, $p < .001$, $\eta_p^2 = .585$.

However, this effect was qualified by a two-way interaction between gender and appearance, $F(1, 40) = 4.68$, $p = .04$, $\eta_p^2 = .105$, as well as a three-way interaction between gender, context, and appearance, $F(1, 40) = 4.68$, $p = .04$, $\eta_p^2 = .105$ (See Table 1). To decompose the three-way interaction, I analyzed the two-way interaction between gender and appearance separately by context. The two-way interaction between gender and appearance was not significant in either the technology or fashion/beauty context, $F_s < 1$, but results revealed a marginally significant two-way interaction between gender and appearance in the control condition, $F(1, 12) = 3.77$, $p = .08$, $\eta_p^2 = .239$. To decompose this interaction, I examined appearance effects separately within each level of gender. Both men and women in the control condition rated good-looking targets as more attractive than less good-looking targets, but the difference was significant and pronounced among men (good-looking: $M = 7.74$, $SD = 1.22$; less good-looking: $M =$

¹⁰ I included order of photo presentation as a factor only in Study 1. In Study 1, we presented photos in 1 of 2 random orders, either good-looking or less good-looking target first, followed by alternating less good-looking and good-looking targets. We did not collect information regarding presentation order in either Studies 2 or 3 because the procedures for both subsequent studies utilized complete randomization.

Table 1

Mean Appearance Ratings by Participant Gender and Condition

		Physical Appearance	
		Less	Good-Looking
Condition		Good-Looking	Good-Looking
Control	Female	6.00 (2.55)	6.75 (2.07)
	Male	3.81 (1.31)	7.94 (1.08)
Technology	Female	4.58 (0.58)	8.00 (0.63)
	Male	4.54 (1.75)	7.79 (1.09)
Beauty	Female	4.50 (1.46)	7.00 (1.58)
	Male	4.42 (1.55)	7.58 (1.48)

4.33, $SD = 1.57$; difference = 3.41), $F(1, 12) = 13.15$, $p = .003$, $\eta_p^2 = .523$, but not women (good-looking: $M = 7.26$, $SD = 1.55$; less good-looking: $M = 5.06$, $SD = 1.78$; difference = 2.20), $F < 1$.

Trait ratings. To test the cultural-ecological moderation hypothesis in the context of trait ratings, I conducted a 2 x 2 x 3 x 2 mixed-model ANOVA with participant gender (female, male), presentation order (good-looking first, less good-looking first), and context (control non-consumer, technology consumer, beauty/fashion consumer) as the between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor. Overall, participants did not expect good-looking targets to possess more positive characteristics ($M = 4.41$, $SD = .59$) than less good-looking targets ($M = 4.55$, $SD = 0.56$), $F < 1$. However, a significant two-way

interaction between order and appearance qualified this conclusion, $F(1, 40) = 6.35, p = .016, \eta_p^2 = .137$. To decompose this interaction, I examined appearance separately within each level of order. Among participants who rated less good-looking targets first, trait ratings were more positive for less good-looking targets ($M = 4.66, SD = .50$) than for good-looking targets ($M = 4.27, SD = .63$); $F(51) = 7.93, p = .007, \eta_p^2 = .135$. In contrast, among participants who rated a good-looking target first, there were no differences in trait ratings as a function of the appearance factor (good-looking: $M = 4.51, SD = .57$; less good-looking: $M = 4.40, SD = .61$; difference = .11), $F < 1$.

Besides hypothesis-relevant results involving interactions with the appearance dimension (i.e., indicating moderation of appearance effects), analyses revealed two significant interactions. First, there was a Gender x Context interaction, $F(2, 40) = 3.80, p = .031, \eta_p^2 = .160$. To decompose this interaction, I examined participant gender separately within each level of context. Results indicated no effect of gender on trait ratings in either the control (women: $M = 4.22, SD = .46$; men: $M = 4.51, SD = .61$), $F(1, 46) = 1.95, p = .169, \eta_p^2 = .041$, or fashion/beauty conditions (women: $M = 4.38, SD = .19$; men: $M = 4.31, SD = .25$), $F < 1$, but a significant effect in the technology condition, such that women provided higher trait ratings ($M = 5.02, SD = .55$) than did men ($M = 4.53, SD = .27$), $F(1, 46) = 6.52, p = .014, \eta_p^2 = .124$.

Second, there was a Gender x Order interaction, $F(1, 40) = 4.18, p = .048, \eta_p^2 = .095$. To decompose this interaction, I examined gender separately within each level of order. Women ($M = 4.37, SD = .35$) and men ($M = 4.57, SD = .44$) rated the targets' traits similarly when the good-looking target appeared first, $F(1, 48) = 1.36, p = .250, \eta_p^2 = .027$. When the less good-looking target appeared first, women provided higher trait

ratings ($M = 4.75$, $SD = .68$) than did men ($M = 4.34$, $SD = .27$), $F(1, 48) = 5.35$, $p = .025$, $\eta_p^2 = .100$.

Outcome ratings. To test the cultural-ecological moderation hypothesis in the context of outcome ratings, I conducted a $2 \times 2 \times 3 \times 2$ mixed-model ANOVA with participant gender (female, male), presentation order (good-looking first, less good-looking first), and context (control non-consumer, technology consumer, beauty/fashion consumer) as between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor. Overall, participants expected good-looking targets to experience better life outcomes ($M = 5.16$, $SD = 0.64$) than less good-looking targets ($M = 4.88$, $SD = 0.62$), $F(1, 40) = 13.08$, $p = .001$, $\eta_p^2 = .246$. A significant two-way interaction between order and appearance qualified these effects, $F(1, 40) = 8.80$, $p = .005$, $\eta_p^2 = .180$. To decompose this interaction, I analyzed effects of appearance on outcome ratings separately within each level of appearance. Appearance effects were stronger when participants had rated a good-looking target first (good-looking: $M = 5.27$, $SD = .59$; less good-looking: $M = 4.83$, $SD = .68$; difference = .45), $F(1, 51) = 13.92$, $p < .001$, $\eta_p^2 = .214$, than when they had rated a less good-looking target first (good-looking: $M = 5.05$, $SD = .68$; less good-looking: $M = 4.95$, $SD = .56$; difference = .11), $F < 1$.

Most importantly, the expected Context x Appearance interaction was significant, $F(2, 40) = 4.96$, $p = .012$, $\eta_p^2 = .199$. To decompose this interaction, I examined appearance effects separately within each level of context. Consistent with the cultural-ecological moderation hypothesis, participants who had completed their ratings in the presence of technology-related advertisements expected good-looking targets to

experience much better life outcomes ($M = 5.51$, $SD = 0.48$) than less good-looking targets ($M = 5.00$, $SD = 0.60$), $F(1, 50) = 13.56$, $p = .005$, $\eta_p^2 = .213$ (see Figure 1). This difference in ratings of good-looking and less good-looking targets was smaller and non-significant in the control condition, among participants who completed their ratings in the presence of non-consumer images, $F < 1$. Contrary to expectation, the difference in ratings of good-looking and less good-looking targets was also small and non-significant among participants who completed ratings in the presence of beauty/fashion-related advertisements, $F < 1$. This absence of a significant difference in the beauty/fashion consumer context is inconsistent with the cultural-ecological moderation hypothesis.

In addition to hypothesis relevant results, analyses revealed a significant

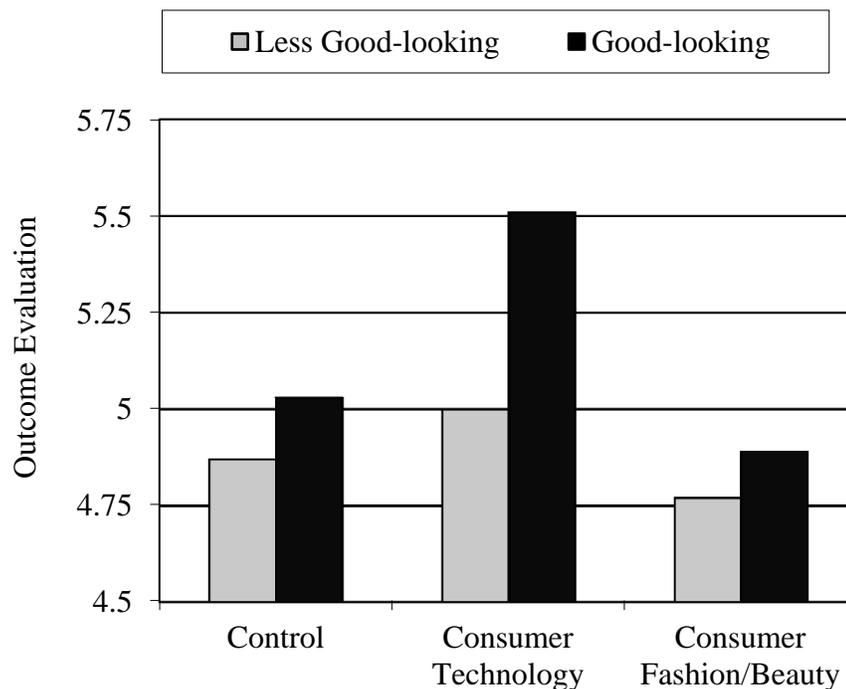


Figure 1. Outcome evaluation of good-looking and less good-looking targets by context

interaction between gender and order, $F(1, 40) = 9.85, p = .003, \eta_p^2 = .198$. To decompose this interaction, I examined gender separately within each level of order. Women ($M = 4.82, SD = .58$) and men ($M = 5.17, SD = .46$) rated the targets' traits similarly when the good-looking target appeared first, $F(1, 48) = 2.76, p = .103, \eta_p^2 = .054$. When the less good-looking target appeared first, men ($M = 4.82, SD = .52$) judged the outcomes more positively than did women ($M = 4.42, SD = .53$), $F(1, 48) = 7.50, p = .009, \eta_p^2 = .135$.

Alternative (correlational) analyses. Although participants generally rated good-looking targets as more attractive than less good-looking targets, I conducted a secondary, alternative analysis in which I examined the correlation between participants' own ratings of physical attractiveness and both their trait judgments and expectations about life outcomes for each target. To the extent that appearance weighs more heavily in the presence of consumer cues, one would expect greater within-participant correlations between appearance ratings and both traits and outcomes for participants in the consumer (technology and fashion/beauty-related) conditions than for participants in the (neutral) control condition.

To examine this hypothesis, I first rank-ordered (1-4) each participant's ratings of the targets' physical appearance, traits, and expected life outcomes. I used these rankings to compute two Spearman correlations per participant, which I then subjected to Fisher- z transformations (although I report data in terms of untransformed, mean Spearman correlations; see Table 2).

Specifically, I conducted a $2 \times 2 \times 2$ ANOVA on the z -transformed correlations

Table 2

Rank Order Correlations between Appearance and Dependent Measures

	Appearance	
	Traits	Outcomes
Control (Neutral)	.01 (.54)	.59 (.38)
Consumer (Technology)	.03 (.64)	.56 (.51)
Consumer (Fashion/Beauty)	-.19 (.63)	.33 (.64)

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

between participants' own ratings of target appearance and traits, utilizing participant gender (female, male), presentation order (good-looking first, less good-looking first), and context (control non-consumer, technology consumer, beauty/fashion consumer) as between-participants variables. This analysis yielded no significant results, $F_s < 2$.

I also conducted a 2 x 2 x 2 ANOVA on the z -transformed correlations between participants' own ratings of target appearance and outcomes, utilizing participant gender (female, male), presentation order (good-looking first, less good-looking first), and context (control non-consumer, technology consumer, beauty/fashion consumer) as between-participants variables. This analysis yielded no significant results, $F_s < 2$.

Discussion

The cultural-ecological moderation hypothesis suggests that the importance of appearance (and other attractive qualities) in everyday life depends heavily on the extent

to which cultural-ecological circumstances afford the exercise of preference via choice. In the present study, this implies that participants who completed materials in a consumer context (i.e., in the presence of consumer products) would demonstrate greater effects of appearance on expected life outcomes compared to participants who completed materials in a non-consumer context (i.e., in the presence of floral images).

Results provide some support for the hypothesis; specifically, the effect of appearance on expected outcomes was greater among participants in the technology-related consumer context than participants in the non-consumer control condition. However, contrary to hypothesized patterns, the difference in ratings of good-looking and less good-looking targets was small and non-significant among participants who completed ratings in the presence of beauty/fashion-related consumer context. Furthermore, alternative analyses of within-participant correlations between attractiveness ratings and outcomes revealed no evidence of moderation by condition.

What might account for the unanticipated absence of appearance effects on ratings of expected outcomes in the beauty/fashion products condition? One speculative possibility is that exposure to fashion/beauty-related consumer products sensitized participants to physical appearance and triggered some form of reactance. Another possibility is that exposure to products related to appearance led participants to raise the standard for appearance effects (such that they did not consider targets in the “good-looking” condition to be particularly good-looking). In any case, a conclusive account of the failure of the beauty/fashion products context to produce the hypothesized increase in appearance effects awaits additional research.

Despite abundant literature documenting physical attractiveness stereotyping, the present study failed to produce any evidence for appearance discrimination on the measure of trait ratings. Given the appearance discrimination observed for outcomes, this null effect seems especially surprising. One speculative explanation follows from the idea that “what is beautiful is *culturally* good” (Wheeler and Kim, 1997). That is, participants may have considered some of the trait dimensions that I measured in the present study (e.g., obedient) in rather ambivalent fashion.

Given the limited evidence for the cultural-ecological moderation hypothesis in Study 1, the purpose of Study 2 was to test this idea with a different methodology. In addition, the procedure for Study 2 introduced another theoretically relevant factor in the design.

Study 2

The cultural-ecological moderation hypothesis suggests that engagement with cultural models that privilege choice—specifically in the present research, exposure to consumer context—will enhance discrimination in judgments of expected life outcomes on the basis of target appearance. In Study 2, I attempted to test this hypothesis using a more engaging manipulation than in Study 1. In Study 1, participants completed measures while exposed to different types of images. In contrast to this relatively passive form of engagement with the consumer context, the design of Study 2 required participants to make decisions about different types of images. Moreover, Study 2 extended the procedure of Study 1 by introducing another factor, specifically by manipulating the type of decision—similarity or preference judgments—that participants

made about different types of images prior to indicating expectations about targets' outcomes.

The primary focus of the present study concerns the salience of choice. Therefore, I hypothesized that participants who had the opportunity to express personal preference (activating “self as chooser”) would demonstrate heightened expectations for good-looking targets to experience positive life outcomes in comparison to participants asked to make judgments unrelated to preference. Participants in the experimental (preference) condition completed a series of judgments, selecting between three images the one they most preferred. In contrast, participants in the control (similarity) condition completed a series of judgments regarding similarity, a task requiring a decision that was presumably unrelated to preference and therefore unlikely to activate a sense of self as chooser. The images that participants rated consisted of either consumer-related products (specifically, neutral products relevant to student life; e.g., pens, notebooks) or non-consumer images (specifically, landscape scenery). As in Study 1, I expected that participants exposed to consumer-related products would demonstrate greater appearance discrimination than participants exposed to non-consumer images.

To summarize, the design for Study 2 included two factors: personal preference and consumer context. Participants made choices concerning either similarity or preference regarding images depicting either non-consumer landscape scenery or consumer products. I then examined the effect of these experimentally manipulated factors on the expected life outcomes of good-looking and less good-looking targets.¹¹

Method

Participants. Seventy-four students from a small mid-western American

¹¹ Collaborators for Study 2 included Glenn Adams, Juwon Lee, and Tuğçe Kurtiş.

community college (53 women, 21 men; $M_{\text{age}} = 24.72$, $SD = 10.10$) participated in the study for partial course credit. I excluded two additional participants: one who did not complete the study materials and another who scored six standard deviations from the mean on outcome measures.

Stimuli Selection. My collaborators and I compiled a set of 38 high quality color head-and-shoulders photographs of friendly-looking young adults. As in Study 1, we selected only women with stereotypically European phenotypic features. We obtained the photographs from various websites. People in the photographs wore athletic attire and did not have distinguishing features such as glasses, braces, or unconventional hairstyles. Prestudy participants (10 young adults) rated the physical appearance of these targets (order counterbalanced). We selected 4 targets for the main study (2 with relatively low and 2 with high appearance ratings).

Materials and procedure. Researchers invited students in introductory level psychology courses to participate in a study of social perception. Students who agreed to participate received extra credit. All participants completed the study individually online.

Participants first viewed a series of 10 trials of 3 photos each, featuring sets of either consumer products related to student life (e.g., notebooks, pens, calculators) or neutral photographs of landscape scenery (e.g., mountains, forests, beaches). In each trial, participants made judgments of either similarity (*Which of these products/scenes is least like the other 2?*) or preference (*Which of these products/scenes do you prefer the most?*). None of the images included faces or text.

Participants then viewed 4 target photos (head-and-shoulder images of females, 2 good-looking and 2 less good-looking, presented in random order), one at a time. (See

Appendix B for target photo stimuli and dependent measures). Participants rated the likelihood from 1 (*unlikely*) to 7 (*likely*) that each target would experience various life outcomes (Anderson et al., 2008; cf. Dion et al., 1990; Dion et al., 1972): *be happy, overall; have satisfying relationships; earn a good living; get what he/she wants in life; be lonely**; *get along with others; experience social rejection**; *be respected/admired by others; receive plenty of social support/help from others; experience betrayal by friends**; *have many friends; make friends easily; enjoy life; be disliked by others**; *receive lots of positive attention from others; earn promotions in a job/career; get in trouble**; *receive invitations to social events; and experience betrayal from romantic partners** (*reverse scored). The mean of these 19 ratings provided a composite measure of outcome expectations (α 's ranging between .87 and .93 for the different targets).

Immediately after completing the outcome measures, participants rated each target's physical appearance on a scale of 0 (*unattractive*) to 10 (*attractive*). Participants then provided demographic information and received electronic communication containing debriefing information following data collection, supplemented by three in-person mass debriefing sessions.

Results

The cultural-ecological moderation hypothesis implies that one can expect greater appearance effects on ratings of traits and (especially) expected life outcomes in contexts that make an identity of self as chooser salient than in contexts that do not make personal preference and choice salient. In the present study, the hypothesis suggests that expression of preference (relative to similarity judgments) will result in greater effects of target appearance on expected life outcomes. Exposure to consumer-related products

should likewise result in greater effects of target appearance on ratings of life outcomes relative to the non-consumer condition.

Attractiveness ratings. Before assessing hypotheses directly, I first calculated mean attractiveness ratings for the two less good-looking targets and the two good-looking targets and conducted a 2 x 2 x 2 x 2 mixed-model ANOVA with participant gender (female, male), judgment type (similarity, preference), and context (non-consumer, consumer) as between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor. This analysis revealed only the anticipated main effect of appearance, such that participants rated the women whom we had selected as good-looking targets to be significantly more attractive ($M = 8.03$, $SD = 1.08$) than the women whom we had selected as less good-looking targets ($M = 3.77$, $SD = 1.67$), $F(1, 67) = 360.36$, $p < .001$, $\eta_p^2 = .843$.

Outcome ratings. To test the cultural-ecological moderation hypothesis in the context of outcome ratings, I conducted a 2 x 2 x 2 x 2 mixed-model ANOVA with participant gender (female, male), judgment type (similarity, preference), and context (non-consumer, consumer) as between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor. Overall, participants expected good-looking targets to experience better life outcomes ($M = 5.69$, $SD = 0.56$) than less good-looking targets ($M = 4.65$, $SD = 0.71$), $F(1, 66) = 108.82$, $p < .001$, $\eta_p^2 = .622$. However, neither the predicted interactions of context and appearance, $F(1, 66) = 1.09$, $p = .301$, $\eta_p^2 = .016$, nor judgment and appearance, $F < 1$, met conventional criteria for significance (see Figure 2 for means by condition).

Alternative (correlational) analysis. As in Study 1, I conducted a secondary,

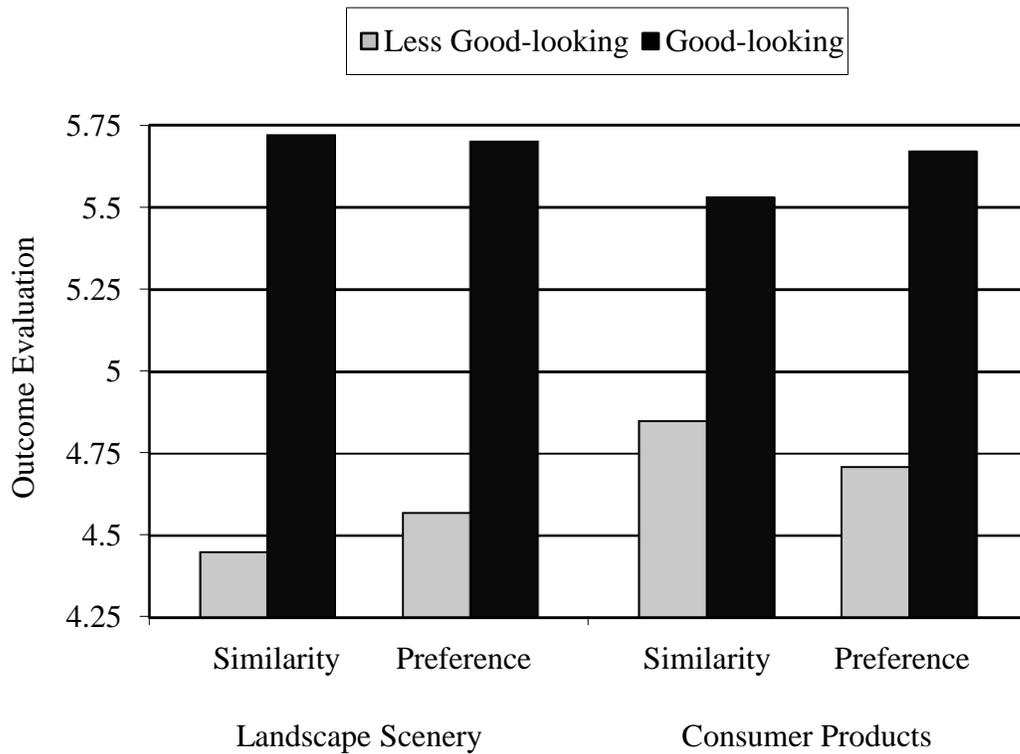


Figure 2. Outcome evaluation of good-looking and less good-looking targets by condition

alternative analysis in which I examined the correlation between participants' own ratings of physical attractiveness and their expectations about life outcomes for each target. To the extent that variation as a function of appearance is greater in the presence of consumer cues, one would expect the within-participant correlations between attractiveness ratings and outcomes to be greater (a) for participants in the consumer condition than for participants in the control condition and (b) for participants in the preference judgment condition relative to the similarity judgment condition (see Table 3

Table 3

Rank Order Correlations between Appearance and Dependent Measure

		Outcomes	
		Landscape Scenery	Consumer Products
Men	Similarity	.93 (.09)	.77 (.06)
	Preference	.19 (.74)	.91 (.10)
Women	Similarity	.93 (.10)	.60 (.50)
	Preference	.81 (.16)	.71 (.36)

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

for untransformed, mean Spearman correlations).

I conducted a 2 x 2 x 2 ANOVA on the z -transformed correlations between participants' own ratings of target appearance and outcomes, utilizing participant gender (female, male), judgment type (similarity, preference), and context (non-consumer, consumer) as between-participants variables. This analysis yielded a significant Context x Judgment Type interaction, $F(1, 66) = 10.28, p = .002, \eta_p^2 = .135$. It also yielded a significant Context x Gender interaction, $F(1, 66) = 8.39, p = .005, \eta_p^2 = .113$. A marginally significant three-way interaction of context, judgment type, and gender qualified these findings, $F(1, 66) = 3.40, p = .070, \eta_p^2 = .049$. To decompose the three-way interaction, I analyzed the two-way interaction between context and judgment type separately by gender. Among women, a significant main effect of context emerged, $F(1,$

49) = 6.05, $p = .018$, $\eta_p^2 = .110$. Contrary to the hypothesis, variation in judgments of expected outcomes as a function of appearance was weaker among women exposed to consumer images than among women who viewed landscape scenery. Among men, results revealed a significant Context x Judgment Type interaction, $F(1, 17) = 7.27$, $p = .015$, $\eta_p^2 = .300$. To decompose this interaction, I examined context separately within each level of judgment type. Men in the preference judgment showed the hypothesized moderating effect of context, as the relationship between appearance and outcomes was greater in the consumer context than non-consumer context, $F(1, 17) = 9.48$, $p = .007$, $\eta_p^2 = .358$. Men in the similarity judgment condition showed no evidence of the hypothesized moderating effect of context, $F < 1$.

Discussion

The cultural-ecological moderation hypothesis suggests that discrepancy in expectations of life outcomes as a function of appearance will be greater in cultural and ecological circumstances that afford exercise of personal preference via choice. Accordingly, the cultural-ecological moderation hypothesis suggests that effects of target appearance on judgments of expected outcomes will be greater among participants whom I induced to make personal preference judgments than among participants whom I induced to make similarity judgments. In addition, the hypothesis suggests that appearance effects will be greater among participants who completed materials in a consumer context (i.e., after viewing student-related consumer products) than participants who completed materials in a non-consumer context (i.e., after viewing landscape scenery). Results of the main analysis did not support the hypotheses; results of the alternative analysis provided some support, but only as a function of product type in the

preference condition among men.

The similarity/preference manipulation did not moderate effects of appearance on ratings of expected outcomes. Informal discussions with participants during debriefing provide one speculative possible explanation. Many participants described making “choices”, but few recalled the nature of those choices (i.e., whether they selected dissimilar or preferred photos). Because I did not include an item to check the success of this manipulation, I could not screen participants as a function of correct recall of condition. An additional explanation for the failure of this manipulation concerns the consequences of making a decision. That is, the mere act of making any decision—similarity or preference—may be enough to activate an experience of self as chooser, rendering these two cells in the design inseparable.

The manipulation of consumer context also failed to moderate effects of appearance on ratings of expected outcomes (with the limited exception of men in the preference condition in analyses of within-participant correlations). A speculative possible explanation for this failure concerns the appeal of the photos. The landscape scenery depicted spectacular views of picturesque settings; the consumer products depicted ordinary objects against drab backgrounds. Perhaps the consumer products did not capture participants’ attention. Alternatively, the student-related products (e.g., pens, notebooks) may have induced mild anxiety among participants as the study took place around midterm. Either explanation may have resulted in lower engagement, thus diminishing effects of the consumer context manipulation on the magnitude of appearance effects.

Besides engagement, another explanation for the failure of the consumer context manipulation is that the landscape scenery might have activated notions of beauty among participants. If so, then the scenery condition may have heightened participants' sensitivity to appearance cues, contributing to greater discrimination on the basis of physical appearance than would otherwise have been the case. Given the lack of appearance effects on targets' outcomes in the fashion/beauty-related product condition in Study 1, this possibility seems somewhat unlikely. Alternatively, the act of making judgments about the beautiful scenery may have activated a consumerist orientation, even in the ratings of natural landscapes (and a corresponding commodification of the environment as a product for personal consumption), rendering the manipulation of consumer context meaningless.

Study 1 provided mixed support for the hypothesis; Study 2 provided almost no support for the hypothesis. Rather than conduct another experiment with subtle manipulations of consumer context, I conducted a field study in which I examined appearance effects across existing contexts that vary in the relevance of consumer ideology.

Study 3

The cultural-ecological moderation hypothesis suggests that engagement with cultural models that privilege choice—specifically in the present research, exposure to consumer context—will increase variation in judgments of expected life outcomes as a function of target appearance. In contrast to the subtle manipulations of context in the design of Studies 1 and 2, the design of Study 3 provided an opportunity to test the cultural-ecological moderation hypothesis via a field study comparison of different

ecological settings. I hypothesized that the positive association between appearance and expected life outcomes would be stronger among participants immersed in a consumer setting (specifically, a shopping mall; Bloch, Ridgway, & Dawson, 1994) than among participants in a neutral, non-consumer setting (specifically, a public park).

In addition to collecting data in two distinct contexts (consumer and non-consumer), the design of Study 3 also permitted the introduction of another variable of theoretical significance: age group (young and older). The cultural ecology of young people's lives includes several features that are likely to promote the importance of attraction—whether due to attitude similarity, appearance, or whatever dimension—for everyday life. First, today's pervasive consumerism is an especially prominent feature of contemporary youth, who find themselves the “epicenter” of the consumer culture (Schor, 2004). The unprecedented access to and impact on the marketplace today's adolescents experience exerts a powerful influence over identity formation (Shim, Serido, & Barber, 2011). One consequence of this consumer-media culture is the formation of youth whose commodified selves are “artefacts of consumption” (Brookes & Kelly, 2009). Second, young people are more likely than older people to inhabit situations of high residential and relational mobility associated with voluntaristic independent constructions of relationship. Either of these features suggests that the conception of relationship as choice—and thus the importance of appearance for everyday life—is greater among young adults than among older adults. Accordingly, the cultural-ecological moderation hypothesis anticipates larger effects of appearance on ratings of life outcomes among young adults than among older adults.¹²

¹² Collaborators for Study 3 included Glenn Adams, Susanne Bruckmüller, and Daniela Hafner.

Method

Participants. Researchers recruited 161 participants, 82 “young” participants under the age of 35 years (42 women, 40 men; $M_{\text{age}} = 22.40$, $SD = 2.91$, age range: 15-31) and 79 “older” participants over the age of 55 years (42 women, 37 men; $M_{\text{age}} = 67.95$, $SD = 8.79$, age range: 55-90 years) in a medium-sized German city. I excluded data from one additional participant who completed the survey incorrectly.

Stimuli selection. My collaborators and I compiled a set of 20 high quality color head-and-shoulders photographs of friendly-looking middle-aged adults (10 men, 10 women) of White racial identity. As in Studies 1 and 2, we again selected only faces with stereotypically European phenotypic features. In contrast to Studies 1 and 2, we opted to include photographs of male targets in addition to female targets. We obtained the photographs from websites for local-level politicians in other areas of Germany. People in the photographs wore business attire and did not have distinguishing features such as braces or unconventional hairstyles. Prestudy participants (16 young and 17 older adults) rated the physical appearance of these targets (order counterbalanced) and estimated their age. We selected 8 targets for the main study, including 4 women (2 with relatively low and 2 with high appearance ratings) and 4 men (2 low and 2 high) whom prestudy participants estimated to be between 35 and 45 years old and whom younger and older adults rated as equally good-looking.

Materials and procedure. Researchers recruited participants around the exit of a shopping mall located in a pedestrian shopping zone (consumer context) or in a public park (non-consumer context) located in the same inner-city area. Researchers approached potential participants alone or in couples or groups and invited them to

participate in a study of impressions. Researchers offered participants candy upon completion of the questionnaire as a token of appreciation. All participants completed the study individually (in German) in the field setting.

Participants received 4 target photos of either men or women (2 good-looking, 2 less good-looking) in random order. (See Appendix C for target photo stimuli and dependent measures). Participants then completed a subset of the items from Studies 1 and 2, the number of which we reduced to increase the likelihood that people in shopping malls and public parks would participate. Participants rated the likelihood from 1 (*not at all*) to 7 (*very*) of each target possessing various personality traits (*friendly, determined, helpful, competent*) or experiencing various life outcomes (*popular, satisfied with his/her relationships, satisfied with his/her life, successful in his/her job*). The mean of these ratings provided composite measures of trait (α 's ranging between .53 and .67 for the different targets) and outcome expectations (α 's ranging between .69 and .74 for the different targets). Finally, participants rated each of the target photos on a scale of 1 (*rather unattractive*) to 7 (*very attractive*) and provided demographic information about themselves.

Results

The cultural-ecological moderation hypothesis suggests that effects of target appearance on ratings of their traits and outcomes will be greater among participants who complete materials in a consumer context (i.e., the shopping mall) than participants who complete materials in a neutral, non-consumer context (i.e., the park). Similarly, the cultural-ecological moderation hypothesis anticipates that effects of target appearance on ratings of traits and expected outcomes will be greater among young adults than among

older adults.

Attractiveness ratings. Before assessing hypotheses directly, I first calculated mean attractiveness ratings for the two good-looking targets and the two less good-looking targets and conducted a 2 x 2 x 2 x 2 x 2 mixed-model ANOVA with target gender (female, male), participant gender (female, male), age group (young, older), and context (neutral, consumer) as between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor. As expected, participants rated attractiveness to be significantly greater for targets whom my colleagues and I had selected as good-looking ($M = 4.64$, $SD = 1.30$) than for targets whom we had selected as less good-looking ($M = 2.82$, $SD = 1.27$), $F(1, 135) = 210.58$, $p < .001$, $\eta_p^2 = .609$.

Results also revealed a significant main effect of context, $F(1, 135) = 4.92$, $p = .03$, $\eta_p^2 = .035$. Attractiveness ratings for all targets were higher when participants completed the materials outside the shopping mall ($M = 3.93$, $SD = 1.07$), $t(70) = 10.75$, $p < .001$, than in the park ($M = 3.56$, $SD = .93$), $t(79) = 9.24$, $p < .001$.

Results also revealed a significant main effect of target gender, $F(1, 135) = 4.25$, $p = .041$, $\eta_p^2 = .031$, moderated by a two-way interaction of target gender and appearance, $F(1, 149) = 13.03$, $p < .001$, $\eta_p^2 = .088$. To decompose this interaction, I examined attractiveness ratings separately within each level of target gender. Attractiveness ratings differed more for female targets (good-looking: $M = 5.03$, $SD = 1.11$; less good-looking: $M = 2.79$, $SD = 1.20$), $F(1, 149) = 162.05$, $p < .001$, $\eta_p^2 = .521$, than for male targets (good-looking: $M = 4.24$, $SD = 1.37$; less good-looking: $M = 2.86$, $SD = 1.35$), $F(1, 149) = 58.38$, $p < .001$, $\eta_p^2 = .282$.

In addition, results revealed a significant main effect of age group, $F(1, 135) = 20.69, p < .001, \eta_p^2 = .133$, moderated by a two-way interaction of age group and appearance, $F(1, 135) = 15.20, p < .001, \eta_p^2 = .101$. To decompose this interaction, I examined attractiveness ratings separately within each level of age group. Attractiveness ratings differed more among young participants (good-looking: $M = 4.53, SD = 1.25$; less good-looking: $M = 2.25, SD = .95$), $F(1, 149) = 170.343, p < .001, \eta_p^2 = .533$, than among older participants (good-looking: $M = 4.76, SD = 1.36$; less good-looking: $M = 3.43, SD = 1.29$), $F(1, 149) = 55.83, p < .001, \eta_p^2 = .273$.

Trait ratings. To test the cultural-ecological moderation hypothesis in the context of trait ratings, I conducted a $2 \times 2 \times 2 \times 2 \times 2$ mixed-model ANOVA with target gender (female, male), participant gender (female, male), age group (young, older), and context (neutral, consumer) as between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor. Overall, participants ascribed more positive traits to good-looking ($M = 4.77, SD = 0.74$) than to less good-looking targets ($M = 4.51, SD = 0.67$), $F(1, 143) = 20.22, p < .001, \eta_p^2 = .124$. A hypothesized interaction with context moderated this effect of appearance, $F(1, 143) = 3.85, p = .052, \eta_p^2 = .026$. To decompose this interaction, I examined appearance effects separately within each level of context. Appearance effects were greater among participants who completed the measures outside a shopping mall (good-looking: $M = 4.82, SD = 0.79$; less good-looking: $M = 4.46, SD = 0.76$), $F(1, 157) = 20.72, p < .001, \eta_p^2 = .117$, than among participants who completed the measures in a public park (good-looking: $M = 4.71, SD = 0.69$; less good-looking: $M = 4.56, SD = 0.58$), $F(1, 157) = 20.22, p = .056, \eta_p^2 = .023$.

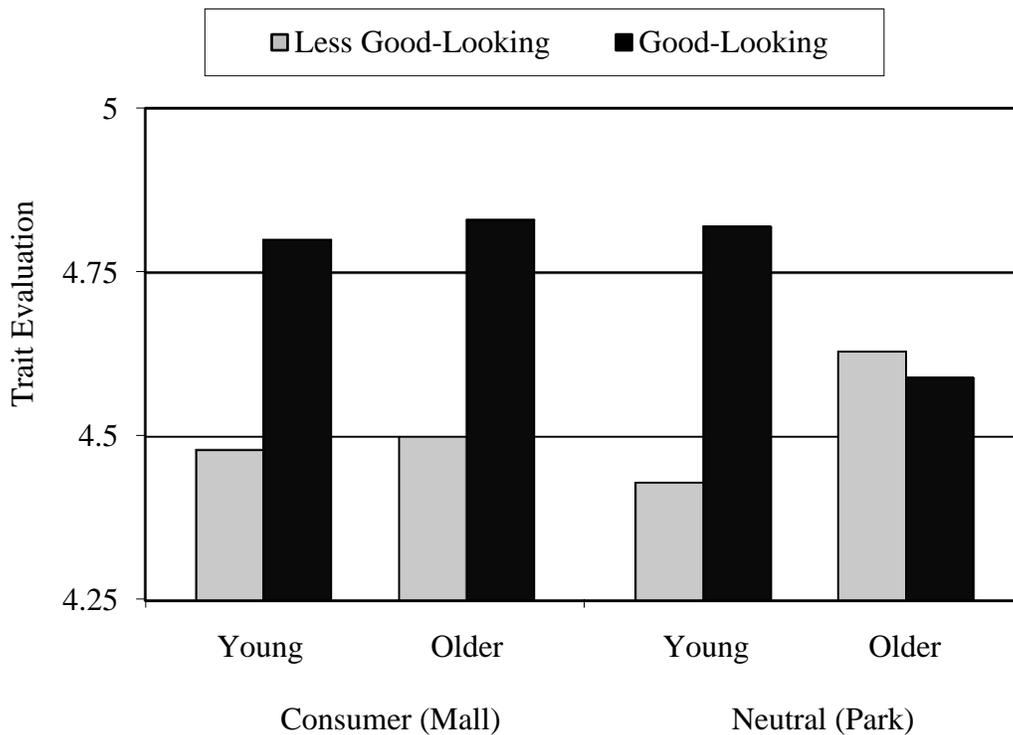


Figure 3. Trait evaluation of good-looking and less good-looking targets by age group and context

In turn, a three-way interaction of age group, context, and appearance moderated this effect, $F(1, 143) = 4.29, p = .04, \eta_p^2 = .029$ (see Figure 3). To decompose the three-way interaction, I analyzed the two-way interaction between context and appearance separately by age group. The two-way interaction between context and appearance was not significant among young participants, $F < 1$. In other words, context did not moderate appearance effects among young participants, who rated good-looking targets more positively than less good-looking targets regardless of context. In contrast, results did reveal the hypothesized, cultural-ecological moderation effect among older

participants in the form of a two-way interaction between context and appearance, $F(1, 12) = 10.62, p = .002, \eta_p^2 = .123$. To decompose this interaction, I examined appearance effects separately within each level of context. Consistent with the cultural-ecological moderation hypothesis, older participants did not show appearance effects for trait ratings in the public park context, $F < 1$, but they did rate good-looking targets ($M = 4.82, SD = 0.83$) more positively than less good-looking targets ($M = 4.43, SD = 0.81$) in the shopping mall context, $F(1, 76) = 17.37, p < .001, \eta_p^2 = .186$.

In addition to hypothesis-relevant results, analyses revealed a significant three-way interaction of target gender, participant gender, and context, $F(1, 143) = 6.89, p = .01, \eta_p^2 = .046$. To interpret this effect, I decomposed the three-way interaction by examining the two-way interaction of target gender and participant gender separately within each context. No significant effects emerged in the public park context, $F < 1$. Results revealed a significant interaction between target gender and participant gender in the shopping mall context, $F(1, 78) = 8.95, p = .004, \eta_p^2 = .107$. To decompose this interaction, I examined target gender separately within each level of participant gender. Among participants in the shopping mall context, results indicated that women did not differ significantly in their ratings of male ($M = 4.84, SD = .59$) and female targets ($M = 4.45, SD = .86$), $F(1, 75) = 3.6, p < .062, \eta_p^2 = .046$.; however, men rated women ($M = 4.86, SD = .36$) more positively than they rated men ($M = 4.36, SD = .84$), $F(1, 75) = 5.39, p = .023, \eta_p^2 = .067$.

Life outcomes. To test the cultural-ecological moderation hypothesis in the context of outcome ratings, I conducted a $2 \times 2 \times 2 \times 2 \times 2$ mixed-model ANOVA with target gender (female, male), participant gender (female, male), age group (young, older),

and context (neutral, consumer) as the between-participants variables and appearance (good-looking, less good-looking) as the within-participant (or repeated measures) factor. Overall, participants expected good-looking targets to experience more positive life outcomes ($M = 4.68, SD = 0.74$) than less good-looking targets ($M = 4.21, SD = 0.80$), $F(1, 143) = 54.74, p < .001, \eta_p^2 = .277$. A significant interaction with age group moderated the appearance effect, $F(1, 143) = 17.36, p < .001, \eta_p^2 = .108$ (see Figure 4). To decompose this interaction, I examined appearance effects separately within each level of age group. Although both young and older participants expected good-looking targets to experience more positive outcomes than less good-looking targets, this effect of appearance was greater among young participants, $F(1, 157) = 70.34, p < .001, \eta_p^2 =$

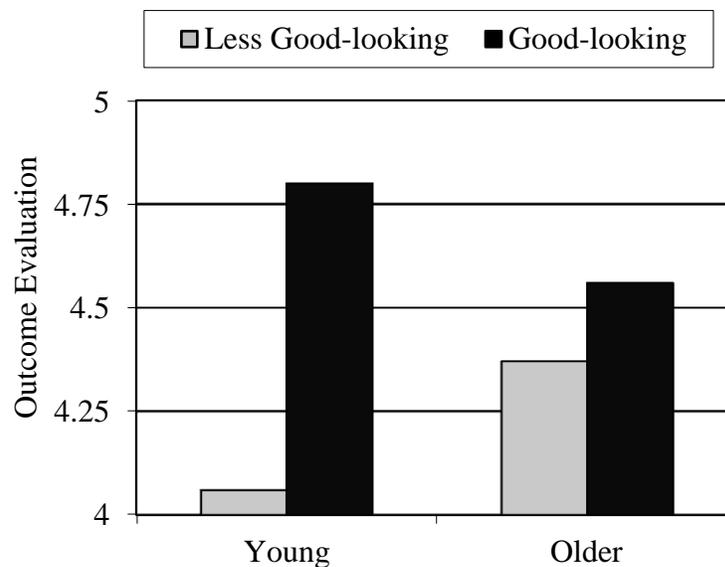


Figure 4. Outcome evaluation of good-looking and less good-looking targets by age group

.309, than among older participants, $F(1, 157) = 4.68, p = .032, \eta_p^2 = .029$. In contrast to results for trait ratings, there were no effects of context on outcome ratings, either as a main effect or in interaction with other variables, $F_s < 1$.

Alternative (correlational) analyses. Recall that the discrepancy between physical attractiveness ratings of good-looking and less good-looking targets was greater among young participants (M difference = 2.28) than among older participants (M difference = 1.33). On one hand, this pattern reflects theoretically interesting differences in perception. Discrimination of and attention to physical appearance is greatest precisely among participants for whom one would expect choice to matter most. As a result, this pattern may reflect the very phenomenon that the study seeks to address. Older participants may have shown less discrimination of and attention to physical appearance because it is less relevant than in life situations that afford greater exercise of preference via choice.

On the other hand, this pattern complicates interpretation of results. If one observes smaller mean differences as a function of target appearance among participants in conditions where the manipulation was less strong, then it is difficult to know whether these differences reflect (a) hypothesized differences in the importance of physical appearance for judgments about life outcomes or (b) mere differences in perceptions of target appearance. To address this possibility, I conducted an alternative analysis (as in Studies 1 and 2) in which I examined the correlation between participants' ratings of physical attractiveness and their expectations about life outcomes for each target. To the extent that physical appearance weighs more heavily in the presence of consumer cues, one would expect the within-participant correlations between attractiveness ratings and

Table 4

Rank Order Correlations between Appearance and Dependent Measures

		Appearance	
		Traits	Outcomes
Mall	Overall	.44 (.52)	.49 (.51)
	Young	.35 (.50)	.56 (.42)
	Older	.52 (.54)	.42 (.59)
Park	Overall	.28 (.58)	.47 (.50)
	Young	.38 (.54)	.55 (.49)
	Older	.16 (.61)	.38 (.51)

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

traits and outcomes to be greater for young participants than for older participants and for participants outside the shopping mall than for participants in the park (see Table 4 for untransformed, mean Spearman correlations). In general, analyses of z -transformed correlations mirrored analyses reported above.

I conducted a 2 x 2 x 2 x 2 ANOVA on the z -transformed correlations between participants' ratings of target attractiveness and traits, utilizing target gender (female, male), participant gender (female, male), age group (young, older), and context (neutral, consumer) as between-participants variables.¹³ This analysis yielded a significant

¹³ I removed 11 participants from the data, 2 for rating all photos identically on appearance and 9 for not providing attractiveness ratings.

Context x Age Group interaction, $F(1, 128) = 4.11, p = .045, \eta_p^2 = .031$. To decompose this interaction, I examined effects of context separately within each level of age group. Results revealed no difference in trait ratings as a function of context among young participants, $F < 1$, but a significant difference in the hypothesized direction among older participants, $F(1, 140) = 7.10, p = .009, \eta_p^2 = .048$. Specifically, the mean, within-participant association between appearance and trait ratings was stronger among older participants who completed the materials outside the shopping mall than those who completed the materials in a park. No other significant effects emerged.

I also conducted a 2 x 2 x 2 x 2 ANOVA on the z -transformed correlations between participants' own ratings of target appearance and outcomes, utilizing target gender (female, male), participant gender (female, male), age group (young, older), and context (neutral, consumer) as the between-participants variables. A marginally significant main effect of age group emerged such that the mean, within-participant association between appearance and outcome ratings was stronger among young participants ($M\rho = .56, SD = .46$), than among older participants, ($M\rho = .40, SD = .55$), $F(1, 140) = 3.53, p = .062, \eta_p^2 = .027$. No significant main effects of or interactions with context emerged, nor did gender of target or participant matter.

Discussion

The cultural-ecological moderation hypothesis suggests that context moderates the effect of appearance (or any other determinant of attraction) on outcome ratings, such that these effects will be stronger in cultural and ecological circumstances that afford exercise of personal preference and choice. Accordingly, I expected that appearance effects on trait judgments and expectations about life outcomes would be greater among

participants who completed materials in a consumer context (i.e., the shopping mall) than among participants who completed materials in a neutral, non-consumer context (i.e., the park). As a secondary prediction, I expected that effects on appearance on ratings of targets would be greater among young participants than older participants, because of both greater immersion in consumer culture and greater relational mobility, among the former than the latter.

Results provide qualified support for the hypothesis on trait ratings. Cultural-ecological context moderated appearance effects among older participants, such that the effect of appearance on trait ratings was greater among older participants who completed the survey near a shopping mall than among older participants who completed the survey in a park. Context did not moderate appearance effects among young participants, who showed strong tendencies to favor good-looking targets over less good-looking targets in both contexts. One speculative explanation why context did not moderate effects of appearance on trait ratings among young adults concerns the focus of advertising efforts on this population. Constant bombardment with advertising may make the context of consumerism chronically accessible for young adults, and changes in location may be insufficient to moderate this chronic accessibility. Results for outcome judgments were consistent with this interpretation. Specifically, young participants provided more discrepant evaluations of good-looking and less good-looking targets than did older participants. However, context did not moderate differences in outcome ratings of good-looking and less good-looking targets.

One issue in the present study concerns differential ratings of appearance by young and older participants and across condition. I have already considered

implications of this pattern for interpretation of results. Here I consider a theoretical implication. Specifically, the observation that older participants showed less discrimination of physical appearance may reflect the hypothesized irrelevance of attraction for everyday outcomes in contexts that do not afford the exercise of choice. To the extent that some worlds (e.g., non-consumer settings) do not afford as much personal choice, people who inhabit them may have fewer occasions to practice making appearance judgments and therefore less “skill” at making such judgments. Moreover, there may be little motivation to use this skill in contexts that do not afford choice. This may also be true of persons (e.g., older adults) who occupy social worlds that de-emphasize choice. These results for appearance ratings are potentially remarkable given research in psychology, which highlights the importance of attraction processes. From this perspective, people have evolved tendencies to discriminate on the dimension of physical appearance 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 appearance, the present results suggest that both the motivation and consequences of doing so might vary. Rather than a context-invariant feature of human psychology, this may be more of an evoked potential.

Although a field study provides an ecologically valid method for testing the cultural-ecological hypothesis, it is accompanied by methodological shortcomings. Most notable in the present study, I did not randomly assign participants to different context conditions. As a result, the modest influence of context on trait ratings may reflect a self-selection effect, whereby people who are motivated by consumerism or have strong taste

preferences may direct themselves to shopping malls rather than public parks. If so, then observed effects of context may be more about people who seek out shopping malls (versus public parks) rather than affordances of the contexts, per se. The absence of an experimental manipulation makes interpretation of the relationship between context and appearance discrimination ambiguous. Either way, modest variation in ratings as a function of context—whether located in setting or people—is consistent with the hypothesis regarding the effects of consumerism, and construction of relationship as choice, as a moderator of appearance effects and the importance of attraction for everyday life more generally.

General Discussion

The importance of physical appearance for life outcomes is among the most frequently cited phenomena in social psychological literature. Theory and research from a cultural psychology perspective suggest that the prominence of appearance—or any other quality (e.g., similarity) that promotes attraction to or preference for one target over another—as a determinant of outcomes is a somewhat coincidental consequence of the particular realities that disproportionately inform the social-psychological knowledge base. This perspective suggests that the importance of appearance in everyday life is not a natural law of human sociality, but instead depends on worlds that promote or afford voluntaristic-independent constructions of relationship as the product of choice.

Existing evidence for this idea comes primarily from research that has compared the relationship between appearance and outcomes across different cultural-ecological settings. In the present research, I attempted to investigate the cultural-ecological moderation hypothesis using methods from the toolkit of experimental social psychology.

In order to render the phenomenon more amenable to experimental manipulation, I extended the investigation of the hypothesis to a new context: consumerism.

Engagement with consumer contexts provides a multiplicity of opportunities for choosing between alternatives, creating and reinforcing an experience of self as one who makes choices on the basis of preferences (Savani et al., 2008; Savani et al., 2010) and for whom consumption becomes central (Murphy & Miller, 1997). Thus, given this emphasis on choice, the cultural-ecological moderation hypothesis suggests that consumer contexts will amplify the relationship between appearance and outcomes, such that exposure to consumer context will afford greater appearance discrimination relative to non-consumer context.

Evaluation of Evidence for the Cultural-Ecological Moderation Hypothesis

Results provide only modest evidence for the hypothesis. In Study 1, the discrepancy in evaluations of good-looking and less good-looking targets' expected life outcomes was greater among participants in the technology-related consumer condition than participants in the non-consumer control condition. In Study 3, the discrepancy in evaluations of good-looking and less good-looking targets' personality traits was greater among older participants who completed the survey near a shopping mall (consumer context) than among older participants who completed the survey in a park (non-consumer context). Results of Study 3 also provided limited support for the hypothesis on outcome judgments, revealing a larger discrepancy in evaluations of targets on the basis of appearance among young participants than among older participants.

More generally, though, results failed to support the hypothesis. Results of Study 2 revealed no statistically significant variations in appearance effects as a function of

experimental conditions. Moreover, although results of Study 1 revealed strong, hypothesis-consistent effects of appearance on outcome ratings of participants exposed to technology-related products, these results showed no evidence for hypothesized effects of appearance among participants exposed to beauty/fashion-related products. Finally, results of Study 3 provided evidence of hypothesized variation in appearance judgments as a function of consumer context, but these emerged only for older participants on the measure of trait ratings; consumer context did not moderate the relatively attenuated effects of appearance on older participants' ratings of life outcomes, nor did they moderate effects of appearance on young adult participants' ratings of either traits or outcomes.

What accounts for the inconsistency of results across studies? One manifestation of inconsistency concerns variation in support of the cultural-ecological moderation hypothesis across dependent measures of traits and life outcomes. In previous research, my colleagues and I observed support for the cultural-ecological moderation hypothesis primarily for life outcomes (Anderson et al., 2008; Plaut et al., 2009). In Study 1, results revealed appearance discrimination as a function of consumer context only for life outcomes. In Study 3, results revealed appearance discrimination as a function of consumer context only for ratings of traits. Due to methodological limitations (specifically, a need to be brief in the field study setting), I used different traits and outcomes in Studies 1 and 3, which makes comparison between the two less than ideal. Study 3 included only a few traits and outcomes, which were interspersed in the measure, rather than presented in separate blocks. Whether this procedural difference or some other factor is the source of inconsistency remains a topic for future research.

Another important point to note is variation in design across studies. The strongest support for the hypothesis emerged in Study 3, which was a quasi-experimental comparison of participants from different age groups across naturally occurring settings. Although the lack of control and absence of random assignment do not allow conclusions about causation, one might reasonably argue that field studies—examinations of behavior in the context of everyday life in ordinary habitats—are the most appropriate method for assessing hypotheses about cultural-ecological variation. Motivated by the desire to investigate a causal hypothesis (and methodological imperatives in the field of experimental social psychology), I attempted to investigate the cultural-ecological moderation hypothesis in Studies 1 and 2 by imposing subtle variation in local ecology via manipulation of cultural products that constituted local ecology. This use of experimental manipulation to approximate long-term engagement with different cultural worlds (specifically in this case, consumer or non-consumer contexts) provides convenient rhetorical evidence—especially for an audience of experimental social psychologists—when the manipulation works as intended. However, failure to find effects via particular experimental manipulations is not very informative about the broader cultural-ecological variation one designs them to mimic. Instead, what is true in general is especially true regarding experimental manipulations to mimic cultural-ecological variation: specifically, failure to observe significant effects of the manipulation does not provide support for the null hypothesis.

Alternative Explanations

The cultural-ecological moderation hypothesis suggests that exposure to contextual models that valorize or promote opportunity for choice will result in stronger

expectations that people who possess attractive qualities (e.g., similarity, pleasant personality, good-looking appearance) will benefit from others' preferential treatment and therefore have better outcomes in important life domains. To assess this hypothesis, I drew upon research on implications of consumption ideology for experience of self (Murphy & Miller, 1997). However, recent research has considered other implications of consumption ideology (or consumer contexts) that might constitute alternative explanations for the modest instances of support for the cultural-ecological moderation hypothesis. For instance, people who occupy consumer habitats may be more financially advantaged; the greater agency associated with monetary wealth could promote greater affordance for acting on preferences and thus greater appearance discrimination (Kraus & Stephens, 2012). Alternatively, the consumer setting may arouse desires, leading people to reference preferences to a greater extent than in less desire-arousing situations and resulting in a corresponding increase in beneficial outcomes for good-looking persons. Taken in broader perspective, these are not necessarily alternative explanations, but rather more specific delineations of the same idea. That is, the former explanation offers people more opportunity to engage in choice making (on the basis of preference), and the latter explanation encourages people to do so to a greater extent (on the basis of desire). Again, though, these ideas only figure as alternative explanations in cases where I observed significant effects of consumer context. They do not account for failure to observe those effects.

Future Directions

Previous research on the cultural-ecological moderation hypothesis has proceeded by using "choice" specifically as it relates to relationship (Anderson et al., 2008; Plaut et

al., 2009). In an attempt to extend this research in the present studies, I examined the effects of choice as it relates to the consumer context. Although choice is certainly relevant to both consumer and relationship contexts, the psychological experience of choice may be different in these domains. The varieties of choice that are most relevant for appearance discrimination are those most closely related to relationship constructions, and the experience of choice in consumer contexts may be too distant, psychologically, to produce anticipated variation. In my future work on this topic, I plan to explore other means to manipulate experience of choice, instead of consumerism context.

Results of the current studies suggest some additional avenues for future investigation. Past work on PAS suggests some traits (specifically, traits regarding social skills or traits that are highly valued within a culture) may be more susceptible to this effect than others (Eagly et al., 1991; Feingold, 1992; Langlois et al., 2000; Wheeler & Kim, 1997). In similar fashion, future work might investigate the specific types of outcomes to which appearance discrimination applies. In my previous work (e.g., Anderson et al., 2008; Plaut et al., 2009), I have documented variation in judgments about social and broader life outcomes (e.g., life satisfaction). However, the preferential selection processes that give rise to the importance of attraction in everyday life—and especially when activated as the result of an experimental manipulation of consumerism context—may be greater for some domains (e.g., social and relational) than others (e.g., academic performance). An exploration of this possibility awaits future research.

A similar consideration is variation in appearance effects as a function of relational context (i.e., relationship type). In prior research, I found discrepancies on the basis of appearance to be larger within more voluntary or high-mobility relational forms

(e.g., friendship) than less voluntary or lower mobility forms (mating or kinship; Anderson et al., 2008; Study 1). In the present work, I did not include comparison of different relational forms. The possibility remains that manipulations of consumerism contexts may have effects on different relational forms that deviate from patterns I observed in earlier research. Again, an exploration of this possibility awaits further research.

Intersections with Other Work

Drawing upon earlier work on the cultural-psychological foundations of relationship (e.g., Adams et al., 2004), my colleagues and I anticipated cultural-ecological moderation of attractiveness effects as one implication of a broader distinction between voluntaristic-independent and embedded-interdependent constructions of relationship. The essence of this distinction is the extent to which day-to-day realities promote an experience of connection as the product of choice. In the intervening period since we articulated that distinction, Masaki Yuki and his colleagues (Schug et al., 2009; Yuki et al., 2007) have introduced a similar idea that they refer to as relational mobility. In their framework, relational mobility refers to a person's belief about the opportunities that the surrounding social environment provides for meeting new relationship partners or creating new relationships. Beyond noting this similarity in theoretical conceptions, the concept is noteworthy because Yuki and his colleagues have developed a measure of relational mobility (Yuki et al., 2007). To the extent that this measure taps the distinction between different constructions of relationship that is the focus of the present research, an interesting direction for future research will be to determine whether the importance of

attractiveness for ratings of life outcomes is greater among people who score high in relational mobility than among people who score low in relational mobility.

It is important to emphasize again the ways in which the present research deviates from recent trends in research on the phenomena of attraction and attractiveness. Although research on interpersonal attraction has generally considered the broad processes of approach and/or preference for affiliation with one person or target, most recent work has focused on the importance of appearance as a determinant of mating preferences. Rather than investigate the effects of appearance on potential determinants of mate choice, the present research resonates with the broader historical scope of social psychological research in its focus on the extent to which attraction, whatever its determinants, affect judgments and outcomes for people's everyday lives. No matter what the features of targets that create differences in preferences (e.g., similarity, beauty), differential outcomes in treatment will only result if actors can translate these preferences into choices that allocate good outcomes to some people and less good outcomes to others. Implicit in the idea that attractiveness matters in everyday life is a conception of a choiceful world that that affords opportunities for preferential selection. Instead of assuming a choiceful world, a cultural psychology perspective highlights the extent to which the construction and experience of choice in social relationship—and opportunities for preferential selection—are the product of particular cultural and ecological affordances.

Conclusions

I have referred to the idea in the previous sentence as the cultural-ecological moderation hypothesis. In previous research, my colleagues and I have documented

support for this hypothesis primarily in comparisons across settings that vary in affordances for choice (or relational mobility; e.g., Yuki & Schug, 2012). In the present research, I tested this hypothesis via attempts to manipulate more micro-contextual affordances for choice, in the form of consumer context. Results provided modest support for this hypothesis, revealing some evidence of appearance discrimination as a function of consumer context. However, my more general conclusion—based not only on empirical results, but also conceptual (re)considerations—is that consumerism is not an optimal way to investigate contextual variation in the importance of attraction as a determinant of everyday life outcomes. In my future work on this topic, I will abandon the manipulation of consumer context for other methods of testing the cultural-ecological moderation hypothesis. The broader goal of that project is not simply to examine contextual (i.e., “superficial”) variation in an allegedly basic phenomenon, but instead, to illuminate a basic phenomenon in its own right: namely the resonance of human psychology with ecological affordances of particular cultural worlds—an important source of social psychological influence on human experience.

References

- Adams, G., Anderson, S. L., & Adonu, J. K. (2004). The cultural grounding of closeness and intimacy. In D. J. Mashek & A. Aron (Eds.), *The handbook of closeness and intimacy* (pp. 321-339). Mahwah, NJ: Lawrence Erlbaum Associates.
- Adams, G., & Plaut, V. C. (2003). The cultural grounding of personal relationship: Friendship in North American and West African worlds. *Personal Relationships, 10*, 333-347.
- Adams, G., & Salter, P. S. (2007). Health psychology in African settings: A cultural-psychological analysis. *Journal of Health Psychology, 12*, 539-551.
- Aguilar, M. I. (1999). Localized kin and globalized friends: Religious modernity and the "educated self" in East Africa. In S. Bell & S. Coleman (Eds.), *The anthropology of friendship* (pp. 169-184). Oxford, UK: Berg.
- Akan, G.E. & Grilo, C.M. (1995). Socio-cultural influences on eating attitudes and behaviors, body image and psychological functioning: A comparison of African-American, Asian-American and Caucasian college women. *International Journal of Eating Disorders, 18*, 181-187.
- Anderson, S. L., Adams, G., & Plaut, V. C. (2008). The cultural grounding of personal relationship: The importance of attractiveness in everyday life. *Journal of Personality and Social Psychology, 95*, 352-368.
- Arnett, J. J. (2002). The psychology of globalization. *American Psychologist, 57*, 774-783.
- Attract. (n.d.). In *Merriam-Webster's online dictionary*. Retrieved from <http://www.merriam-webster.com/dictionary/attract>

- Attraction. (n.d.). In *Merriam-Webster's online dictionary*. Retrieved from <http://www.merriam-webster.com/dictionary/attraction>
- Back, M. D., Schmukle, S. C., & Egloff, B. (2008). Becoming friends by chance. *Psychological Science, 19*, 439-440.
- Backman, C. W., & Secord, P. F. (1959). The effect of perceived liking on interpersonal attraction. *Human Relations, 12*, 379-384.
- Bakalar, N. (2005, May 3). Ugly children may get parental short shrift. *New York Times*. Retrieved from www.nytimes.com/2005/05/03/health/03ugly.html
- Bar-Tal, D., & Saxe, L. (1976). Physical attractiveness and its relationship to sex-role stereotyping. *Sex Roles, 2*, 123-133.
- Bauer, M. A., Wilkie, J. E. B., Kim, J. K., & Bodenhausen, G. V. (2012). Cuing consumerism: Situational materialism undermines personal and social well-being. *Psychological Science, 23*, 517-523.
- Beggs, J., Haines, V., & Hurlbert, J. (1996). Revisiting the rural-urban contrast: Personal networks in nonmetropolitan and metropolitan settings. *Rural Sociology, 61*, 306-305.
- Berry, D. S. (2000). Attractiveness, attraction, and sexual selection: Evolutionary perspectives on the form and function of physical attractiveness. *Advances in Experimental Social Psychology, 32*, 273-342.
- Beverland, M. B., & Farrelly, F. J. (2009). The quest for authenticity in consumption: Consumers' purposive choice of authentic cues to shape experienced outcomes. *Journal of Consumer Research, 36*, 838-856.
- Bloch, P. H., Ridgway, N. M., & Dawson, S. A. (1994). The shopping mall as consumer

- habitat. *Journal of Retailing*, 70, 23-42.
- Brookes, F., & Kelly, P. (2009). *Dolly girls: tweenies as artefacts of consumption. Journal of Youth Studies*, 12, 599-613.
- Buss, D. M., Shackelford, T. K., Kirkpatrick, L. A., & Larsen, R. J. (2001). A half century of mate preferences: The cultural evolution of values. *Journal of Marriage and the Family*, 63, 491-503.
- Byrne, D. (1974). Attraction as a linear function of proportion of positive reinforcements. *Journal of Personality and Social Psychology*, 1965, 659-663.
- Byrne, D., & Nelson, D. (1965). Attraction as a linear function of proportion of positive reinforcements. *Journal of Personality and Social Psychology*, 1, 659-663.
- Chen, N. Y., Shaffer, D. R., & Wu, C. (1997). On physical attractiveness stereotyping in Taiwan: A revised sociocultural perspective. *Journal of Social Psychology*, 137, 117-124.
- Clifford, M. M., & Walster, E. (1973). The effect of physical attractiveness on teacher expectations. *Sociology of Education*, 46, 248-258.
- Crandall, C. S. (1995). Do parents discriminate against their heavyweight daughters? *Personality and Social Psychology Bulletin*, 21, 724-735.
- Cunningham, M. R., Roberts, A. R., Barbee, A. P., Druen, P. B., & Wu, C.-H. (1995). "Their ideas of beauty are, on the whole, the same as ours": Consistency and variability in the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology*, 68, 261-279.
- Dion, K. K. (1973). Young children's stereotyping of facial attractiveness. *Developmental Psychology*, 9, 183-188.

- Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, *24*, 285-290.
- Dion, K. K. (1986). Stereotyping based on physical attractiveness: Issues and conceptual perspectives. In C. P. Herman, M. P. Zanna, & E. T. Higgins (Eds.), *Physical appearance, stigma, and social behavior: The Ontario Symposium on Personality and Social Psychology* (Vol. 3, pp. 7-21), Hillsdale, NJ: Lawrence Erlbaum.
- Dion, K. K., & Berscheid, E. (1974). Physical attractiveness and peer perception among children. *Sociometry*, *37*, 1-12.
- Dion, K. K., Pak, A. W.-P., & Dion, K. L. (1990). Stereotyping physical attractiveness: A sociocultural perspective. *Journal of Cross-Cultural Psychology*, *21*, 158-179.
- Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but...: A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin*, *110*, 109-128.
- Eastwick, P. W., Finkel, E. J., Mochon, D., & Ariely, D. (2007). Selective versus unselective romantic desire: Not all reciprocity is created equal. *Psychological Science*, *18*, 317-319.
- Feingold, A. (1992). Good-looking people are not what we think. *Psychological Bulletin*, *111*, 304-341.
- Festinger, L., Schachter, S., & Back, K. (1950). *Social Pressures in Informal Groups: A Study of Human Factors in Housing*. Stanford, CA: Stanford University Press.
- Fink, B., & Penton-Voak, I. (2002). Evolutionary psychology of facial attractiveness. *Current Directions in Psychological Science*, *11*, 154-158.
- French, M. T. (2009). Effects of physical attractiveness, personality, and grooming on

- academic performance in high school. *Labour Economics*, 16, 373-382.
- Garner, D. M., Garfinkel, P. E., Schwartz, D., & Thompson, M. (1980). Cultural expectations of thinness in women. *Psychological Reports*, 47, 483-491.
- Gibson, J. J. (1979). *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.
- Greenberg, D.R. & LaPorte, D.J. (1996). Racial differences in body type preferences of men for women. *International Journal of Eating Disorders*, 19, 275 - 278.
- Ha, T., van den Berg, J. E. M., R. C. M. E. Engels, & Lichtwarck-Aschoff, A. (2012). Effects of attractiveness and status in dating desire in homosexual and heterosexual men and women. *Archives of Sexual Behavior*, 41, 673-682.
- Hamermesh, D. S. (2011). *Beauty Pays: Why Attractive People Are More Successful*. Princeton, NJ: Princeton University Press.
- Hamermesh, D. S., & Biddle, J. E. (1994). Beauty and the labor market. *American Economic Review*, 84, 1174-1194.
- Hamermesh, D. S., & Parker, A. (2005). Beauty in the classroom: Instructors' pulchritude and putative pedagogical productivity. *Economics of Education Review*, 24, 369-376.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466, 29.
- Hong, Y., Morris, M. W., Chiu, C. Y., & Benet-Martínez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, 55, 709-720.
- Jhally, S. (1990, July). Image-based culture: Advertising and popular culture. *The World*

- and I*, 7. Retrieved from <http://www.worldand.com>. Article 17591
- Kasser, T. (2011). Capitalism and autonomy. In V. I. Chirkov, R. M. Ryan, & K. M. Sheldon (Eds.), *Human autonomy in cross-cultural context: Perspectives on the psychology of agency, freedom, and well-being*, (pp. 191-206). New York: Springer.
- Keefer, L. A. (2012). *Consumer activity and identity: Consumer agency constrains personal identity*. Unpublished manuscript, Department of psychology, University of Kansas, Lawrence, Kansas.
- Kraus, M. W., & Stephens, N. M. (2012). A road map for an emerging psychology of social class. *Social and Personality Psychology Compass*, 6, 642-656.
- Kurtis, T., & Adams, G. (in press). A cultural psychology of relationship: Toward a transnational feminist psychology. In M. K. Ryan & N. R. Branscombe (Eds.), *The SAGE Handbook of Gender and Psychology*. London: SAGE Publications.
- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hallam, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, 126, 390-423.
- Langlois, J. H., Ritter, J. M., Casey, R. J., & Sawin, D. B. (1995). Infant attractiveness predicts maternal behaviors and attitudes. *Developmental Psychology*, 31, 464-472.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Markus, H. R., Ryff, C. D., Curhan, K. B., & Palmersheim, K. A. (2004). In their own words: Well-being at midlife among high school-educated and college-educated

- adults. In O. G. Brim, C. D. Ryff, & R. C. Kessler (Eds.), *How healthy are we?: A national study of well-being at midlife* (pp. 273-319). Chicago: University of Chicago Press.
- Montoya, R. M., & Horton, R. S. (2013). A meta-analytic investigation of the processes underlying the similarity-attraction effect. *Journal of Social and Personal Relationships, 30*, 64-94.
- Montoya, R. M., Horton, R. S., & Kirchner, J. (2008). Is actual similarity necessary for attraction? A meta-analysis of actual and perceived similarity. *Journal of Social and Personal Relationships, 25*, 889-922.
- Morrison, K. R., & Johnson, C. S. (2011). When what you have is who you are: Self-uncertainty leads individualists to see themselves in their possessions. *Personality and Social Psychology Bulletin, 37*, 639-651.
- Murphy, P. L., & Miller, C. T. (1997). Postdecisional dissonance and the commodified self-concept: A cross-cultural examination. *Personality and Social Psychology Bulletin, 23*, 50-62.
- Nahemow, L., & Lawton, M. P. (1975). Similarity and propinquity in friendship formation. *Journal of Personality and Social Psychology, 32*, 205-213.
- Neimeyer, R. A., & Mitchell, K. A. (1988). Similarity and attraction: A longitudinal study. *Journal of Social and Personal Relationships, 5*, 131-148.
- Palisi, B. J., & Ransford, H. E. (1987). Friendship as a voluntary relationship: Evidence from national surveys. *Journal of Social and Personal Relationships, 4*, 243-259.
- Pike, K. L. (1954). *Language in relation to a unified theory of the structure of human behavior*. Dallas, TX: Summer Institute of Linguistics.

- Plaut, V. C., Adams, G., & Anderson, S. L. (2009). Does attractiveness buy happiness? "It depends on where you're from". *Personal Relationships, 16*, 619-630.
- Plaut, V. C., Markus, H. R., & Lachman, M. E. (2002). Place matters: Consensual features and regional variation in American well-being and self. *Journal of Personality and Social Psychology, 83*, 160-184.
- Rosenblatt, P. C., & Cozby, P. C. (1972). Courtship patterns associated with freedom of choice of spouse. *Journal of Marriage and the Family, 34*, 689-695.
- Sangrador, J. L., & Yela, C. (2000). "What is beautiful is loved": Physical attractiveness in love relationships in a representative sample. *Social Behavior and Personality, 28*, 207-218.
- Savani, K., Markus, H. R., & Conner, A. L. (2008). Let your preference be your guide? Preferences and choices are more tightly linked for North Americans than for Indians. *Journal of Personality and Social Psychology, 95*, 861-876.
- Savani, K., Markus, H. R., Naidu, N. V. R., Kumar, S., & Berlia, N. (2010). What counts as a choice? U.S. Americans are more likely than Indians to construe actions as choices. *Psychological Science, 21*, 391-398.
- Schor, J. B. (2004). *Born To Buy: The Commercialized Child and the New Consumer Culture*. New York, NY: Scribner.
- Schug, J., Yuki, M., Horikawa, H., & Takemura, K. (2009). Similarity attraction and actually selecting similar others: How cross-societal differences in relational mobility affect interpersonal similarity in Japan and the USA. *Asian Journal of Social Psychology, 12*, 95-103.
- Segal, M. W. (1974). Alphabet and attraction: An unobtrusive measure of the effect of

- propinquity in a field setting. *Journal of Personality and Social Psychology*, 30, 654-657.
- Shaffer, D. R., Crepaz, N., & Sun, C. (2000). Physical attractiveness stereotyping in cross-cultural perspective: Similarities and differences between Americans and Taiwanese. *Journal of Cross-Cultural Psychology*, 31, 557-582.
- Shim, S., Serido, J., & Barber, B. L. (2011). A consumer way of thinking: Linking consumer socialization and consumption motivation perspectives to adolescent development. *Journal of Research on Adolescence*, 21, 290-299.
- Smith, S. M., McIntosh, W. D., & Bazzini, D. G. (1999). Are the beautiful good in Hollywood? An investigation of the beauty-and-goodness stereotype on film. *Basic and Applied Social Psychology*, 21, 69-80.
- Snyder, M., Berscheid, E., & Tanke, E. D. (1977). Social perception and interpersonal behavior: on the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 35, 656-666.
- Stephan, C. W., & Langlois, J. H. (1984). Baby beautiful: Adult attributions of infant competence as a function of infant attractiveness. *Child Development*, 55, 576-585.
- Streeter, S. A., & McBurney, D. (2003). Waist-hip ratio and attractiveness: New evidence and a critique for a "critical test." *Evolution and Human Behavior*, 24, 88-98.
- Sypeck, M. F., Gray, J. J., Etu, S. F., Ahrens, A. H., Mosimann, J. E., & Wiseman, C. V. (2006). Cultural representations of thinness in women, redux: *Playboy* magazine's depiction of beauty from 1979 to 1999. *Body Image*, 3, 229-235.
- Umberson, D., & Hughes, M. (1987). The impact of physical attractiveness on

- achievement and psychological well-being. *Social Psychology Quarterly*, 50, 227-236.
- Vandello, J. A., & Cohen, D. (1999). Patterns of individualism and collectivism across the United States. *Journal of Personality and Social Psychology*, 77, 279-292.
- Walster, E., Aronson, V., Abrahams, D., & Rottman, L. Importance of physical attractiveness in dating behavior. *Journal of Personality and Social Psychology*, 4, 508-516.
- Webster, M., Jr., & Driskell, J. E., Jr. (1983). Beauty as status. *American Journal of Sociology*, 89, 140-165.
- Wheeler, L., & Kim, Y. (1997). What is beautiful is culturally good: The physical attractiveness stereotype has different content in collectivistic cultures. *Personality and Social Psychology Bulletin*, 23, 795-800.
- Yuki, M. & Schug, J. (2012). Relational mobility: A socio-ecological approach to personal relationships. In O. Gillath, G.E. Adams, & A.D. Kunkel (Eds.), *Relationship science: Integrating evolutionary, neuroscience, and sociocultural approaches* (pp. 137-152). Washington D.C.: American Psychological Association.
- Yuki, M., Schug, J., Horikawa, H., Takemura, K., Sato, K., Yokota, K., & Kamaya, K. (2007). Development of a scale to measure perceptions of relational mobility in society. CERSS Working Paper 75, Center for Experimental Research in Social Sciences, Hokkaido University.
- Zakin, D. F. (1983). Physical attractiveness, sociability, athletic ability, and children's preference for their peers. *The Journal of Psychology*, 115, 117-122.

Zebrowitz, L. A., Montepare, J. M., & Lee, H. K. (1993). They don't all look alike:

Individuated impressions of other racial groups. *Journal of Personality and Social*

Psychology, 65, 85-101.

Appendix A

Study 1: Target Photos

Good-looking Targets



Less Good-looking Targets



Study 1: Dependent Measures*

Outcomes

PERSON # _____

What is the likelihood that this person will experience the following outcomes?

	<u>UNLIKELY</u>							<u>LIKELY</u>
Be happy, overall	1	2	3	4	5	6	7	7
Have satisfying romantic relationships	1	2	3	4	5	6	7	7
Get what he/she wants in life	1	2	3	4	5	6	7	7
Be lonely	1	2	3	4	5	6	7	7
Earn a good living	1	2	3	4	5	6	7	7
Get along with people around him/her	1	2	3	4	5	6	7	7
Be respected by others	1	2	3	4	5	6	7	7
Get a divorce	1	2	3	4	5	6	7	7
Earn promotions in a job/career	1	2	3	4	5	6	7	7
Make friends easily	1	2	3	4	5	6	7	7
Enjoy life	1	2	3	4	5	6	7	7
Be a good parent	1	2	3	4	5	6	7	7
Go to jail/prison	1	2	3	4	5	6	7	7

Traits

PERSON # _____

Below are a number of characteristics that a person can possess. What do you think this person is like?

Stupid	1	2	3	4	5	6	7	Intelligent
Stingy	1	2	3	4	5	6	7	Generous
Modest	1	2	3	4	5	6	7	Vain
Lazy	1	2	3	4	5	6	7	Ambitious
Unhelpful	1	2	3	4	5	6	7	Cooperative
Honest	1	2	3	4	5	6	7	Dishonest
Rude	1	2	3	4	5	6	7	Polite
Kind	1	2	3	4	5	6	7	Mean-spirited
Cheerful	1	2	3	4	5	6	7	Depressed
Boring	1	2	3	4	5	6	7	Funny
Independent	1	2	3	4	5	6	7	Dependent
Confident	1	2	3	4	5	6	7	Insecure
Unreliable	1	2	3	4	5	6	7	Responsible
Obedient	1	2	3	4	5	6	7	Rebellious

Appendix B

Study 2: Target Photos

Good-looking Targets



Less Good-looking Targets



Appendix C

Study 3: Target Photos

Good-looking Targets



Less Good-looking Targets



Study 3: Dependent Measures*

Outcomes & Traits

	not at all	very
How friendly is this person?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	
How successful is this person in their job?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	
How determined is this person?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	
How satisfied is this person with their relationship?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	
How helpful is this person?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	
How popular is this person?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	
How competent is this person?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	
How satisfied is this person with their life?	① - ② - ③ - ④ - ⑤ - ⑥ - ⑦	

Attractiveness

Now please go back through the photos one more time and assign a **number between 1 and 7** with **1** meaning that you consider the pictured person **rather unattractive** and **7** meaning that you consider the person **very attractive**.

Demographics

Age: _____

Sex: female male

What is your highest level of education? _____

What is your current profession? _____

*Note: Participants rated all four targets, one at a time, on *Outcomes & Traits*. Then, participants rated all four targets, one at a time, on *Attractiveness*. Finally, participants provided demographic information.

(Two researchers translated the materials independently and then reconciled differences.)