Is Beauty Best? Highly Versus Normally Attractive Models in Advertising

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Several studies investigating the positive effects of including highly attractive models (HAMs) in advertising have failed to unilaterally support their use. This paper explores the differential effects of pairing highly versus normally attractive models with different types of attractiveness-relevant products. Contrary to past research (Kahle and Homer 1985; Kamins 1990), the results suggest that HAMS are not the most effective choice for all categories of attractiveness-relevant products. This research also explores the method by which the match between model attractiveness and product type influences advertising effectiveness. Results suggest that a match between a model and a product improves ad effectiveness not necessarily through the elicitation of product arguments from model appearance, but instead by heightening perceptions of the model's expertise about the product.

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The inconsistent support for the use of highly attractive models (HAMs) in advertising has led one group of researchers to state that "physical attractiveness seems to have been granted greater influence than can be supported empirically" (Caballero, Lumpkin, and Madden 1989, p.21). To better understand these inconsistencies, researchers have explored the importance of a convergence between the product and the message communicated by a model's image, that is, a model-product type match-up (e.g., Baker and Churchill 1977; Caballero and Solomon 1984; Joseph 1982; Kahle and Homer 1985; Kamins 1990; Park and Young 1986; Peterson and Kerin 1977). Although prior research has argued that HAMs are most effectively matched with attractiveness-relevant products (e.g., Kahle and Homer 1985; Kamins 1990; Peterson and Kerin 1977), the mixed results from HAM-attractiveness-relevant product match-ups may be because there are different types of attractiveness-relevant products (Bloch and Richins 1992) that may not all be appropriate for use with highly attractive people. Furthermore, much of the past model-product type match-up research has tended to compare HAMs with unattractive models (e.g., Caballero and Solomon 1984; Kahle and Homer 1985; Kamins 1990) instead of considering more realistic, normally attractive models (NAMs) as counterpoints. The sparse use of unattractive people in advertising (Caballero and Solomon 1984) and the greater usage of NAMs suggest comparing HAMs with NAMs is more ecologically valid.

The purpose of the present research is two-fold. First, the different attractiveness-relevant product types (Bloch and Richins 1992) are incorporated into the model-product type match-up literature, and the types of attractiveness-relevant products that are most effectively paired with HAMs or NAMs are delineated. Because beautiful people may be perceived as having better lives that are free of the problems of normal people (Dion, Berscheid, and Walster 1972; Kanner 1994), advertisements for problem-solving attractiveness-relevant products may be more effective if the models are normal looking. Second, this research attempts to determine whether model-product type match-ups influence ad effectiveness either directly, through the elicitation of product arguments from the picture, or indirectly, through his or her perceived credibility. Previous research has explored the effect of model-product type match-up on perceptions of model credibility (Kamins 1990; Maddux and Rogers 1980), product evaluations, purchase intentions,

or other measures of ad effectiveness (Caballero, Lumpkin, and Madden 1989; Kahle and Homer 1985; Kamins 1990). However, the relationship between spokesperson credibility and ad effectiveness (i.e., product evaluations, purchase intentions) has not been explored under match-up conditions.

Literature Review

Highly Versus Normally Attractive Models

The appearances of HAMs are both idealized and unrealistic and have been called "haunting images of perfection" (Richins 1991, p. 71). The elements of HAM beauty include a beautiful facial appearance (Richins 1991), as well as thinness (Striegel-Moore, Silberstein, and Rodin 1986). Contrary to these icons of flawlessness, "normal" attractiveness is defined here as a more average or moderate weight, height, and facial beauty, that is, more representative of a "real" woman. Normally attractive models are considered attractive but not beautiful in the idealized manner of HAMs. An important difference between HAMs and NAMs is in the attributions made about each. Highly attractive models tend to be associated with the "what is beautiful is good" stereotype, in that beautiful people are believed to have more positive life outcomes (e.g., more successful careers, better marriages) and not suffer from the problems of "normal" people (Dion, Berscheid, and Walster 1972; Kanner 1994; Walster et al. 1966). Whereas NAMs are considered to be somewhat attractive, they are perceived to be normal people to whom these more positive life outcomes are not attributed.

Problem-Solving Versus Enhancing Products

Attractiveness-relevant product types are introduced into the match-up literature to delineate not only those that are best paired with HAMs, but also those that may be best paired with NAMs. A major distinction that can be drawn between types of attractiveness-relevant products is whether the product is associated with a potentially problematic area of life and appearance (Bloch and Richins 1992). One group of attractiveness-relevant products (called problem-solving products) serves to fix or hide beauty liabilities or flaws such as acne or dandruff. Other products (called enhancing products) serve more aesthetic purposes by enhancing beauty (e.g., jewelry, lipstick, perfume) instead of masking defects. Enhancing products either may be inherently beautiful (e.g., jewelry) or may enhance beauty through their

application to the user (e.g., lipstick). Regardless of their method of enhancing beauty though, the use of enhancing products is not catalyzed by the existence of a beauty problem. A product's classification depends on whether the product-related body attribute is perceived positively or negatively (e.g., a consumer may use mascara either to thicken puny eyelashes or to enhance beautiful eyes).

Advantages of Normally Attractive Models?

Prior research suggests that the match-up between product type and model beauty may be more important than the model's attractiveness alone and that a NAM may sometimes be more effective. Kahle and Homer (1985) demonstrate that a "well-matched" celebrity endorser for an attractiveness-relevant product should be physically attractive (versus unattractive) to convey information about the quality and benefits of that product. Kamin's (1990) findings also indicate that physically attractive (versus unattractive) celebrities are best matched with attractiveness-relevant (versus irrelevant) products. Although these findings do not take into account the advantages of NAMs or recognize the important distinctions between different kinds of attractiveness-relevant product types, both Kahle and Homer (1985) and Kamins (1990) support the importance of matching spokesperson image with product characteristics. Similarly, Baker and Churchill (1977) find that when the product is related to romance (e.g., perfume), men had higher purchase intentions when the female model was attractive. However, when the product was unrelated to romance (e.g., coffee), male subjects indicated greater purchase intent if the model was less attractive. In a study by Caballero and Solomon (1984), more tissues were purchased when they were paired with an unattractive (versus attractive) model. Although the authors proposed that this response was due to the unusual (for advertising) and perhaps more noticeable nature of the model, an alternative explanation may be that an unattractive appearance may be more convergent with sickness. Consumers may not perceive the HAM as suffering from such mundane problems as an illness that requires tissues, whereas the less attractive model's more realistic appearance may have made her a more credible spokesperson.

HAM Versus NAM Match-Ups

Some of the research investigating model-product type match-ups has assessed match-up effectiveness by measuring spokesperson credibility (Kamins 1990; Maddux and Rogers 1980). Two components of spokes-

person credibility typically recognized are source expertise and trustworthiness. Expertise refers to the perceived ability of a source to make valid claims, whereas trustworthiness pertains to the believed willingness of the spokesperson to make those claims (Hovland, Janis, and Kelley 1953; Ohanian 1990).

Model Attractiveness and Trustworthiness. There is evidence to suggest that NAMs may be perceived as more trustworthy than HAMs because of consumers' perceived similarity between themselves and the NAMs. Deshpandé and Stayman (1994) demonstrate that enhanced identification and similarity with a source can increase perceptions of source trustworthiness. If a woman perceives herself to be physically more similar to a NAM, a greater perceived attitudinal similarity between the receiver and the source may drive the receiver to like the source more (O'Keefe 1990; see also Berscheid 1985; Byrne 1969). A greater liking for the source may influence source trustworthiness positively (e.g., O'Keefe 1990; Simons, Berkowitz, and Moyer 1970), which may in turn influence the consumer to like and trust the source more. Therefore,

> H1: NAMs are perceived to be more trustworthy than HAMs.

There is no hypothesized relationship or interaction between product type and model condition on trustworthiness. Trustworthiness pertains to a personality trait of the endorser, regardless of the endorsed product.

Model Attractiveness-Product Type Match-Up and Model Expertise. Models may be more credible if they either have some physical characteristic that is associated with a product schema or demonstrate some characteristic that indicates that the product has accomplished what it claims, which thus suggests expertise based on experience (Lynch and Schuler 1994). Stemming from their attributions about beautiful people, consumers may believe that HAMs know more about the presentation and elements of a beautiful image, including the kinds of products used to enhance beauty. In addition, HAMs may be perceived as having more experience accentuating beautiful features or surrounding themselves with aesthetic things. Thus,

> H2: HAMs are perceived to have greater source expertise for enhancing products than are NAMs.

Highly attractive models may not be perceived as having the problems that purportedly are solved by problem-solving products (e.g., Dion, Berscheid, and Walster 1972; Kanner 1994) and therefore are believed to have little expertise using such products. Alternatively, consumers may be more likely to believe that a NAM has struggled with and, as evidenced in the ad, "conquered" the problem using the advertised product. Therefore, NAMs may be more

congruous with the schema associated with enhancing products (Lynch and Schuler 1994).

> H3: NAMs are perceived to have greater source expertise for problem-solving products than are HAMs.

Model Attractiveness–Product Type Match-Up and Product Evaluations. If a viewer can convert the visual imagery of an endorser into product information, the model's image may serve as an argument for product efficacy (Bloch and Richins 1992; Downs and Harrison 1985; Kahle and Homer 1985; Lynch and Schuler 1994; see also Rossiter and Percy 1980). There is general evidence that product arguments may be elicited from pictures (e.g., Mitchell and Olson 1981) and that, in high involvement situations, pictures containing product-relevant information can strengthen product beliefs and result in more positive product attitudes than can pictures that only influence affect (Miniard et al. 1991). If a viewer believes that a model possesses some physical characteristic that indicates the model has improved his or her appearance with the product, then the viewer may believe that the product was responsible for that improvement (Lynch and Schuler 1994). The pairing of an enhancing product and a HAM may serve to reinforce the argument for product quality and efficacy for enhancing beauty by demonstrating the enhancer's ability to highlight beautiful features (Petty and Cacioppo 1980). This stronger argument for product quality may enhance ad efficacy by improving evaluations of the product and heightening product purchase intentions (Caballero, Lumpkin, and Madden 1989; Kahle and Homer 1985; Kamins 1990). Therefore,

> H4: Ads for enhancing products that include HAMs will be more effective than those that include NAMs.

Specifically, we expect that ads for enhancing products that include HAMs will result in greater product evaluations and higher purchase intentions than will those ads containing NAMs.

With regard to problem-solving products, it might initially appear that a HAM could serve as a more positive argument for a product's effectiveness. The more beautiful appearance of the HAM (versus NAM) might make the product appear as if it is more effective in heightening the user's beauty. However, for the efficacy of problem-solving products to be assessed from the model's photo, the viewer must first believe that the model had a beauty problem prior to product use. Because HAMs are not perceived as having the problems of normal people (e.g., Dion, Berscheid, and Walster 1972; Kanner 1994), consumers may not believe that the HAM suffered from a beauty problem

that required the use of the advertised product. In contrast, consumers may believe that NAMs are more likely to have experienced beauty problems (e.g., Dion, Berscheid, and Walster 1972; Kanner 1994).

According to attribution theory, if an outcome occurs despite the presence of something that might have prevented that outcome (an inhibitory cause), a consumer may give more weight to the cause that is perceived to be responsible for that outcome (the facilitative cause; Kelley 1972). A HAM's overall appearance might suggest multiple facilitative causes for the model's superior appearance in the product-related attribute, and the greater the number of other potential causes for the overall superior appearance, the more the problem-solving product may be discounted as responsible for solving the beauty problem (Kelley 1972). However, a NAMs' overall typical appearance might suggest that, prior to product use, the appearance of the NAM's product-related attribute was normal. Because the product (facilitative cause) may be responsible for a beautiful product-related physical attribute in the face of the inhibitory cause of the model's "normalcy," the perceived efficacy of the problem-solving product is augmented. With this improvement in product evaluations and likely improvement in purchase intentions (Caballero, Lumpkin, and Madden 1989; Kahle and Homer 1985; Kamins 1990), the following hypothesis is offered:

> H5: Ads for problem-solving products that include NAMs will be more effective than those that include HAMs.

Specifically, we expect that ads for problem-solving products that include NAMs will result in greater product evaluations and higher purchase intentions than will those ads containing HAMs.

The Mediating Role of Source Credibility

Although model–product type match-up effectiveness has measured both spokesperson credibility and other measures of ad effectiveness, such as product evaluations or purchase intentions, no relationship between these two constructs has been examined. Past credibility research has suggested that greater spokesperson credibility (i.e., expertise and trustworthiness) tends to generate greater attitude change (e.g., Dholakia and Sternthal 1977; Harman and Coney 1982; Hovland, Janis, and Kelley 1953; Sternthal, Dholakia, and Leavitt 1978). Therefore, any influence that a model-product type match-up may have on spokesperson credibility subsequently might affect product evaluations or other measures of ad effectiveness. Therefore,

> H6A: Spokesperson expertise will mediate the effects of model-product match-up on ad effectiveness.
> H6B: Spokesperson trustworthiness will mediate the effects of model beauty on ad effectiveness.

Study 1

Pretests

Two pretests were conducted to select product and model stimuli. The purpose of the first pretest (n=25) was to select two products to represent enhancing products and two to represent problem-solving products. Subjects were asked to categorize a list of products according to the provided definitions of each product type. The two products selected to represent the problem-solving category were acne concealer and acne medicine because of their categorization as problem-solving products (100% and 92%, respectively). With regard to enhancing products, 88% of people categorized lipstick and jewelry as enhancers. Because acne medicine, acne concealer, and lipstick all pertain to the face, the jewelry selected for use as stimuli in this experiment was earrings (i.e., the only widely accepted jewelry associated with the face).

For the second pretest, two judges selected full-color model photographs from popular women's magazines on the basis of subjective criteria of which photos might represent each model condition. Photos intended to represent NAMs were selected from "Reader Makeover" issues of the magazines so that, while the physical features of the NAMs were still moderately attractive, the hair and makeup were professionally styled. Two undergraduate classes viewed five photos of NAMs (n=72) while two other classes evaluated five photos of HAMs (n=65). Respondents were asked to complete five questions regarding the beauty and four items assessing the normalcy of the model (all seven-point scales), and each set of items subsequently was summed. The HAM photo was selected on the basis of beauty extremity (M=29.37) and subjects' beliefs that she was leading a less-than-normal life (M=13.31). The NAM photo was selected on a rating of moderate beauty (M=22.06; $p<.001$ versus HAM) and stronger beliefs about the normalcy of her life (M=20.87; $p<.001$ versus HAM). The two models also had the same hair and eye color, thus decreasing potential confounds.

Subjects and Procedure

The main study consisted of 251 female respondents. Female students either completed the survey

themselves or gave it to another woman, whereas male students were told to have a woman complete the survey. Students were given a "subject awareness" form and told that the female subjects needed to include their name, signature, and telephone number for the student to get credit. Eighty-three percent of the respondents were white, 84% were single, and the average age was 22 years.

The study consisted of a 2 (model condition) × 4 (two products per product type) between-subjects experimental design. Each subject was given a folder that contained the instructions, an ad including the product and model manipulations, and the questionnaire containing the measures of interest. A cover sheet attached to the front of the folder explained the advertising study. On the left-hand side of the opened folder was the advertisement, and the measurement instrument was on the right-hand side. Subjects were told in the cover sheet's instructions to open the folder, view the ad as they would normally view an advertisement in a magazine, and then respond to the questions on the right-hand side. Feelings of subject confidentiality were encouraged by telling subjects to seal the folders upon completion.

Measures

Ohanian's (1990) five-item, seven-point semantic differential scale was used to assess model beauty (e.g., unattractive/attractive, not classy/classy). Coefficient α for the beauty construct was .85. Four seven-point Likert-type items assessed the perceived normalcy of the model (e.g., "This model is an example of an ordinary woman," or "I would consider this model to be normal-looking"). Coefficient α for the normalcy items was .83. The product type manipulation check consisted of three Likert-type items asking whether the product might be used to correct a problem (e.g., "This is the kind of product I would use to 'fix' a beauty problem," or "This product would improve the appearance of an unsatisfactory physical feature."). Coefficient α for the product type manipulation check was also .83. Product evaluations were used to assess advertising effectiveness. Subjects evaluated the product using a seven-item, seven-point semantic differential scale with endpoints of ineffective/effective, like/dislike, bad/good, weak/strong, unfavorable/favorable, and negative/positive. Coefficient α for the product evaluation construct was .92. As with model beauty, Ohanian's (1990) five-item, seven-point semantic differential scales assessed trustworthiness and expertise. Examples of the trustworthiness items include dishonest/honest and untrustworthy/trustworthy, and the coefficient α for the trustworthiness construct was .92. The exper-

tise items included unknowledgeable/knowledgeable and not an expert/expert and had a coefficient α of .91.

Results

Manipulation Checks. The HAM was significantly more attractive (26.07 versus 20.87, $p<.001$) and less normal (13.38 versus 18.67, $p<.001$) than the NAM. The products differed in the extent to which they were associated with problem solving (F=23.96, $p<.001$). The two products representing problem-solving products (acne cover M=11.46 and acne treatment M=9.69) were both more strongly associated with problem solving than were the products representing enhancing products (earrings M=5.92 and lipstick M=7.13; all $p<.003$, all Bonferonni adjusted).

Source Trustworthiness and Model Condition. A 2 (model condition) × 4 (two products per product type) ANOVA with trustworthiness as the dependent variable indicated no main effect of model condition on trustworthiness, thereby failing to support H1. As expected, there was no interaction effect between the model and product conditions on trustworthiness. Results for this and remaining ANOVA analysis are contained in Table 1.

Model Condition × Product Type Interaction and Expertise. Hypotheses 2 and 3 pertain to those product type conditions in which a HAM or NAM would be perceived as having greater expertise. As in Table 1, there is a significant effect of the model condition × product type interaction on perceived source expertise (F=3.30, $p=.021$). As shown in Table 2, HAMs were perceived as having greater expertise than NAMs when associated with enhancing products (earrings $p=.05$; lipstick $p<.001$), in support of H2. Although NAMs were not perceived to be more expert than HAMs with regard to problem-solving products (which would have supported H3), it is worth noting that HAMs were not perceived to be more expert.

Model Condition × Product Type Interaction and Product Evaluation. H4 and H5 pertain to the direct effect of model-product type match-up on product evaluations. The interaction between model and product condition has a significant effect on product evaluation (F=2.62, $p=.052$), as shown in Table 1. In Table 2, a HAM pairing resulted in higher evaluations for enhancing products (earrings $p=.026$; lipstick $p=.002$), in support of H4. Although there was no significant difference between model conditions with regard to the problem-solving products (i.e., acne cover or acne treatment), and thus fail to support H5, it is again worth noting that these products were not evaluated more positively when associated with HAMs than when associated with NAMs.

Table 1
Study 1: Effects of Model Beauty and Model-Product Match-Up on
Trustworthiness, Expertise, and Product Evaluations

ANOVA Analysis

Dependent Variables	Model Condition F (df)	Model Condition p value	Product Type F (df)	Product Type p value	Model Condition × Product Type F (df)	Model Condition × Product Type p value
Trustworthiness	1.33 (1)	.251	4.38 (3)	.005	.29 (3)	.831
Product evaluation	8.34 (1)	.004	1.85 (3)	.139	2.62 (3)	.052
Expertise	11.20 (1)	.001	9.75 (3)	<.001	3.30 (3)	.021

Regression Analysis

	Expertise Standardized Beta	Expertise T value	Expertise p value
Product evaluation	.385	6.51	<.001

ANCOVA Analysis

	Expertise (covariate) F (df)	Expertise (covariate) p value	Model Condition F (df)	Model Condition p value	Product Type F (df)	Product Type p value	Model Condition × Product Type F (df)	Model Condition × Product Type p value
Product evaluation	31.73 (1)	<.001	3.36 (1)	.068	1.99 (3)	.117	1.08 (3)	.360

Mediation of Model Condition × Product Type Interaction by Source Credibility. H6A-B assert that the components of source credibility (expertise and trustworthiness) will mediate the effects of model-product match-up (in the case of expertise) and model beauty (in the case of trustworthiness) on product evaluations. However, because model beauty was unrelated to trustworthiness, it cannot serve as a mediator of its effects. Therefore, H6B is not supported, and trustworthiness is not included in further mediation analysis. The mediation of the model–product match-up was assessed by means of the steps recommended by Baron and Kenny (1986) using the model condition × product type interaction term as the independent (mediated) variable (see Table 1 for results). The two previously discussed 2 × 4 ANOVAs already indicate that there is a significant interaction effect of model condition × product type on product evaluation (p=.052) and expertise (p=.021). In addition, a mul-tiple regression indicates that expertise explains a significant proportion of variance in product evaluation (β=.385, t=6.51, p<.001). When expertise is included in a 2 × 4 ANCOVA as the covariate, the previously significant effect of model condition × product type interaction on product evaluation becomes nonsignificant (F=1.08, p=.360), which suggests that expertise mediates the model condition × product type interaction on product evaluation.

Discussion. The expectations generally were supported by the first study. The model condition × product type interaction suggests that advertisers must consider the type of attractiveness-relevant product in making ideal match-ups with HAMs. Contrary to the expectations of past research (e.g., Kamins 1990), though HAMs are best associated with enhancing products, there is no advantage in pairing problem-solving products with HAMs instead of NAMs. The mediation analysis suggests that the model-product match-up influ-

Table 2
Study 1: Moderating Effects of Product Type

Dependent Variable	Product Category	Product Stimuli	Model Condition Means (Standard Deviations)		p value
			HAMs	NAMs	
Expertise	Enhancing	Earrings	24.38 (5.01)	20.52 (6.36)	.050
		Lipstick	26.63 (5.07)	20.56 (7.64)	<.001
	Problem-solving	Acne cover	21.97 (6.94)	21.57 (5.96)	.402
		Acne treatment	17.71 (6.15)	17.82 (5.59)	.464
Product Evaluation	Enhancing	Earrings	34.88 (6.93)	30.35 (10.26)	.026
		Lipstick	33.41 (8.20)	25.93 (10.16)	.002
	Problem-solving	Acne cover	31.11 (9.73)	31.33 (7.56)	.460
		Acne treatment	29.81 (7.72)	29.00 (7.10)	.337

ences ad effectiveness (in this case, product evaluations) through its effect on beliefs about model expertise and not due to any direct effect on product evaluations.

There were some limitations of this first study. First, the expectation that subjects would elicit information about either the model or product from the model-product match-up instead of simply using the model as a peripheral cue assumes that subjects are somewhat involved. Specifically, though model appearance may serve as a persuasive argument in higher involvement conditions, it is likely that in lower involvement conditions, appearance serves as a peripheral cue (e.g., Miniard et al. 1991; Petty et al. 1988). Consequently, in higher levels of involvement, the match-up between the model and the product becomes more important, whereas with lower involvement, the mere level of physical attractiveness of the model should be more influential in ad effectiveness. The lack of support for the expectations that NAMs may be more effective endorsers in certain conditions may be due to the unmeasured involvement variables.

Second, source trustworthiness was not related to model attractiveness, which indicates that model beauty may not be related to beliefs about a model's willingness to give valid information. The hypothesis that a NAM would be more trustworthy was based on the expectation that subjects would believe the NAM to

be more similar to themselves (as per Deshpandé and Stayman 1994). Because similarity measures were not assessed in the first study, it is impossible to determine the validity of this assumption about similarity.

Third, with only one model representing each of the model conditions, the generalizability of these results remains in question. Therefore, a second study similar to the first was performed that included measures for involvement and similarity, as well as two different models and products. In addition, whereas product evaluations were used to assess ad effectiveness in the first study, purchase intentions were included as a more direct measure of advertising effectiveness. Unless otherwise noted, the second study's procedure and measures were identical to those in the first study.

Study 2

Procedure and Measures

A pretest similar to the first study was conducted to select a HAM perceived to be more beautiful (30.69 versus 19.00; *p*<.001) and less normal (11.92 versus 14.31, *p*<.005) than a NAM. The products selected to represent enhancing (perfume) and problem-solving (dandruff shampoo) products were selected on the basis of researcher insight.

The second study was a 2 (model condition) × 2 (product type) between-subjects experimental design. To tighten experimental control, the questionnaire was administered to one group of 145 female subjects at the same time. Subjects within a row were given the identical conditions to limit the extent to which neighbors might be able to view a different condition. All subjects were between 17 and 22 years of age (average age of 19) and unmarried, and 99% were white.

To assess the influence of individual differences, measures for involvement with the product and perceived similarity to the model were included. Involvement was measured using four seven-point semantic differentials that asked subjects to indicate the extent to which they believed the product to be, for example, "unimportant to me/important to me" or "of no concern to me/of concern to me" (McQuarrie and Munson 1991). Coefficient α was .90. Perceived similarity to the model was assessed using three seven-point Likert items (e.g., "I feel that the model in the advertisement and I are very much alike"), and coefficient α was .74. Purchase intentions were assessed using six seven-point Likert type items, including "I intend to try this product" and "I would consider purchasing this product," and coefficient α for this construct was .90. Coefficient α for model beauty (.86), normalcy (.79), expertise (.94), trustworthiness (.93), and the problem-solving capacity of the product (.76) were acceptable.

Results

Manipulation Checks. The HAM (M=25.10) was significantly more attractive than the NAM (M=17.47; $p<.001$), and the NAM (M=19.58) was perceived to be more normal than the HAM (M=14.60; $p<.001$). Furthermore, the dandruff shampoo (M=8.76) was more strongly related to problem solving than was the perfume (M=4.42, $p<.001$).

Involvement. A median split on the summed involvement items was performed to compare the differences between those of higher and lower involvement in their use of the HAMs and NAMs. Fifty-four percent of subjects were considered to have been highly involved with the product category, and the resulting involvement means were 13.05 for the high-involvement category and 4.35 for the low-involvement category ($p<.001$). Analyses were conducted within each separate group. Because the hypothesized match-up effects were expected to exist in conditions of relatively higher involvement, the model condition × product type interaction was expected to be significant in conditions of high involvement. In lower involvement situations, the HAM was expected to serve as a posi-

tive peripheral cue (i.e., model condition main effect) rather than matching up with the product types (i.e., no interaction effects).

Source Trustworthiness and Model Condition. H1 was tested with a 2 (model) × 2 (product type) ANOVA using trustworthiness as the dependent variable (see Table 3 for ANOVA results). There is no main effect of model condition on trustworthiness with regard to the low-involvement group. For higher involvement, there was a main effect for model condition, but the HAM (22.21) was perceived to be more trustworthy than the NAM (19.03; $p=.007$), contrary to H1. Although the NAM was expected to be more trustworthy because of her perceived similarity to the subject, a t-test of the HAM (M=6.91) and NAM (M=7.67) indicates there is no significant difference in the perceived similarity of the subject to either model.

Model Condition × Product Type Interaction and Expertise. H2 and H3 hypothesize the conditions in which a HAM or NAM would be perceived as having greater expertise. As evidenced in the ANOVA analysis in Table 3, with lower levels of involvement, there is not a significant effect of the model condition × product interaction on source expertise. The significant main effect (F=28.04, $p<.001$) and the expertise means of the HAM (M=25.01) and NAM (M=15.25) suggest that, as per Petty and colleagues (1988), lower-involvement subjects tend to use the HAM's attractiveness as a peripheral cue. However, there is a significant interaction effect on source expertise (F=5.59, $p=.021$) when subjects have higher levels of involvement, which suggests that higher-involvement subjects consider the importance of the match-up. In support of H2, subjects exposed to the HAM (M=24.96) believed model expertise of perfume to be higher than did those seeing the NAM (M=16.64, $p<.001$). There is no difference in the perceived expertise of the HAM (M=19.94) or NAM (M=17.76) with regard to the dandruff shampoo. Although this fails to support H3, it is again worth noting that HAMs were not perceived to be more expert with regard to this attractiveness-relevant product.

Model Condition × Product Type Interaction and Purchase Intentions. Hypotheses 4 and 5 pertain to the direct effect of model-product type match-up on ad effectiveness. Again from Table 3, in lower levels of involvement, there is not a significant model condition × product type interaction effect on purchase intentions. The significant main effect (F=4.96, $p=.030$) and the purchase intentions means of the HAM (M=9.56) and NAM (M=7.35) again suggest that lower-involvement subjects tend to use the HAM's attractiveness as a peripheral cue. With higher levels of involve-

Table 3
Study 2: Effects of Model Beauty and Model-Product Match-Up on Trustworthiness, Expertise, and Purchase Intentions*

ANOVA Results

Dependent Variable	Involvement Level	Model Condition F	Model Condition p value	Product Type F	Product Type p value	Model Condition × Product Type F	Model Condition × Product Type p value
Trustworthiness	High	6.42	.013	.33	.566	1.03	.314
	Low	2.74	.103	.20	.658	1.13	.293
Expertise	High	16.36	<.001	2.26	.137	5.59	.021
	Low	28.04	<.001	3.20	.079	1.41	.239
Purchase intentions	High	1.89	.173	1.80	.184	6.15	.015
	Low	4.96	.030	.20	.165	.01	.945

Regression Analysis

	Involvement Level	F	p value	Expertise Standardized Beta	Expertise t value	Expertise p value	Trustworthiness Standardized Beta	Trustworthiness t value	Trustworthiness p value
Purchase intention	High	4.59	.013	.406	2.85	.006	-.147	-1.04	.304

ANCOVA Analysis

	Involvement Level	Expertise (covariate) F	Expertise (covariate) p value	Model Condition F	Model Condition p value	Product Type F	Product Type p value	Model Condition × Product Type F	Model Condition × Product Type p value
Purchase intention	High	5.60	.021	.12	.729	2.80	.099	3.01	.087

*All df = 1.

ment, the significant interaction effect on purchase intentions ($F=6.15$, $p=.015$) supports the assertion that subjects consider the importance of the match-up. In support of H4, subjects in the perfume condition exposed to the HAM ($M=15.73$) had greater purchase intentions than did those exposed to the NAM ($M=10.07$, $p=.002$). There is no significant difference between the HAM ($M=14.06$) and the NAM ($M=15.68$) with regard to purchase intentions toward the dandruff shampoo. Although this fails to support H5, it is worth noting that HAMs were not perceived to be more expert.

Mediation of Model-Product Match-Up by Source Credibility. H6A asserts that expertise mediates the effects of model–product match-up, and H6B states that trustworthiness mediates the effects of model beauty on ad effectiveness. Because the model-prod-uct match-up only exists in conditions of high involvement, the mediation analysis includes only the highly involved subjects, and the results are contained in Table 3. A multiple regression indicates that only expertise explains a significant proportion of variance of purchase intentions ($\beta=.406$, $t=2.85$, $p=.006$), and the variance inflation factor (1.69) suggests that collinearity is not a substantial problem. Because trustworthiness is not related to purchase intentions, H6B is again not supported and trustworthiness is not included in further analysis. The previously discussed two separate 2 × 2 ANOVAs contained in Table 3 indicate a significant interaction effect of model condition × product type on purchase intentions and expertise. When expertise is included in a 2 × 2 ANCOVA as the covariate, the previously significant

effect of model condition × product type interaction on purchase intentions becomes nonsignificant (F=3.01, p=.087), which indicates that expertise mediates the model condition × product type interaction on purchase intentions. Similar to the first study, this mediation suggests that the model-product match-up influences ad effectiveness through its effect on expertise, not due to any direct effect of match-up on purchase intentions.

Discussion and Future Research

These studies generally demonstrate that, though HAMs are well suited to pairings with enhancing, attractiveness-relevant products, HAMs are not more effective than NAMs in ads for problem-solving products. Whereas Kahle and Homer (1985) demonstrate that attractive celebrities were more effective for razors than were unattractive celebrities, these findings would suggest that (assuming razors are problem-solving products) NAMs would be equally as effective as endorsers for razors as would HAMs. With regard to the match-up portion of this research, the primary contribution is in the discovery of further limiting conditions of the advantages of HAMs, as well as comparing HAMs with more ecologically valid counterpoints—NAMs.

An implication of this match-up finding is that it is important for marketers to understand whether an attractiveness-relevant product is perceived to enhance appearance or solve appearance problems, particularly when consumers are involved with that product category. Whether a highly involved segment perceives hair conditioner as a dry hair solution or as a boost to generally problem-free hair will indicate whether an advertiser would benefit from including a HAM instead of a NAM in an advertisement. Furthermore, future research is needed to understand the differences or advantages of including one type of model in an ad for problem-solving products over another. For example, the lack of difference between the NAM and HAM may mean that both are perceived to have some expertise but for different reasons. Subjects may believe that the NAM experienced and solved the beauty problem through product use (i.e., expertise gained through usage; Lynch and Schuler 1994), whereas the HAM was perceived to be an expert regarding all things associated with beauty and beauty improvement (i.e., expertise gained through interest; Lynch and Schuler 1994). Future research might investigate potential advantages of one basis of expertise versus another.

Contrary to the expectation that subjects would find the NAM more similar to themselves and therefore more trustworthy, there was no relationship between model appearance and similarity. Furthermore,

in high involvement conditions, the HAM is perceived to be more trustworthy. This finding may be explained by Miller's (1970) suggestion that attractive people are believed to act out of their own volition without influence from others, whereas unattractive individuals may be more easily coerced. Similarly, Patzer (1983) finds a monotonic relationship between model attractiveness (at levels of low, moderate, and high) and trustworthiness, though the single item assessing trustworthiness should be regarded with some caution. Kamin's (1990) results parallel the findings here that model-product match-up may influence expertise, whereas model beauty has a positive main effect on trustworthiness. He finds that the attractive celebrity was more believable than the unattractive celebrity and that believability was unaffected by model-product match-up, but spokesperson credibility was affected by an interaction between model and product. Perhaps stemming from the use of single items to measure believability and credibility, Kamin's (1990) items may tap into the same constructs as our measurement of trustworthiness and expertise, respectively. However, with the lack of a relationship between trustworthiness and purchase intentions found in the present research, the link between attractiveness and trustworthiness may be unimportant. Additional research is called for with regard to the relationship between attractiveness and trustworthiness.

Prior research has examined the potential for eliciting product arguments from attractive models, as well as the effect of model-product type match-up on perceptions of model expertise (e.g., Kahle and Homer 1985; Kamins 1990; Petty et al. 1988). However, the results of the mediation analysis conducted here essentially pit picture-based product arguments against perceptions of expertise to determine if both have direct influences on advertising effectiveness. Although product arguments may be elicited in high involvement conditions, the mediation by expertise of model- product match-up suggests that the advantage of a match-up may be that consumers can determine the expertise of the model. This also suggests a potential difference between match-ups with a product using pictures of spokespeople versus pictures of nonendorsers (e.g., rainbows or kittens, as per Mitchell and Olsen 1981). A match-up might elicit product arguments from photos of nonpeople, but the role of a whole person in an advertisement may be somewhat different. For example, if the advertised product is shampoo, the inclusion of the model's face might suggest her as an expert spokesperson. However, showing only her hair without presenting her face might limit consumers to only eliciting product arguments

from the beautiful hair, without considering model expertise. Future research might explore the differences in match-ups using photos of spokespeople versus body parts for the advertising of attractiveness-relevant products, as well as the advantages of product-based versus expertise-based ad effectiveness.

Kamins (1990) finds that there was no difference between attractive and unattractive endorsers for an attractiveness-irrelevant product. Similar to the types of attractiveness-relevant products, there are also types of attractiveness-irrelevant products associated with problem solving, such as the tissues in Caballero and Solomon's (1984) study. The use of NAMs in association with these products may benefit the product, in that though the models are attractive, they are not "so beautiful that they don't look like they don't blow their noses" (Kanner 1994, p. 8D). Future research may want to investigate the advantages of matching attractiveness-irrelevant products such as cold medicine and other problem-related products with NAMs.

Solomon, Ashmore, and Longo (1992) suggest that there are multiple types of HAM attractiveness that may be appropriately matched to convey certain brand images. These different types of attractiveness might also be paired advantageously with various types of attractiveness-relevant products. For example, the "girl next door" type might bear with it the advantages of HAM appearance as well as such NAM advantages as accessibility and normalcy. Future research might explore the advantages of pairing problem-solving products with certain types of HAM attractiveness.

The generalizability of the findings is somewhat limited until the hypotheses are tested with regard to other products and under other conditions. However, they provide a further test of match-ups by supporting the expectations that only a certain kind of attractiveness-relevant products is appropriately paired with HAMs. Future research must determine further limiting conditions of HAM pairings.

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