

The Contributions of Appearance to Occupational Outcomes in Civilian and Military Settings¹

MARY ANN COLLINS² AND LESLIE A. ZEBROWITZ
Brandeis University

Two archival studies examined the impact of people's appearance on the status and type of civilian and military jobs they hold. Study 1 found that, although appearance was not related to job status, taller men had higher incomes. Additionally, appearance was significantly related to the type of jobs people held. Attractive women and tall men held jobs requiring traits more consistent with the attractiveness halo, while babyfaced women and short men held jobs more consistent with the babyface stereotype. These effects remained after controlling for job-relevant personality and educational variables, suggesting an unjustified bias toward people with certain appearances. Study 2 found that heavier men had lower job status, as reflected in military rank attainment. However, this relationship was eliminated when controlling for intelligence and dependability. Also, babyfaced men achieved higher status through being marginally more likely to win a military award. This unexpected effect was attributed to the contrast between heroic actions and the babyface stereotype. Finally, appearance affected the type of military experience men had. Heavier men were more likely to be in situations involving gunfire or casualties. These studies make an important contribution by extending laboratory findings to the real world, exploring the effects of appearance on job type as well as status, and providing evidence that appearance effects are not solely due to covariation with bona fide job qualifications.

A note in the *Harvard Law Review* ("Facial discrimination," 1987) argued that the Rehabilitation Act of 1973 "should be construed to protect people against employment discrimination on the basis of largely immutable aspects of bodily and facial appearance" (p. 2035). In keeping with this recommendation, the Equal Employment Opportunity Commission has fought unjustified height and weight job requirements. However, it has never challenged discrimination on the basis of facial appearance. Such a challenge would be difficult to

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²Correspondence concerning this article should be addressed to Mary Ann Collins, Psychology Department, Brandeis University, P.O. Box 9110, Waltham, MA 02254-9110.

make since, if such discrimination exists, it is not likely to be manifested in explicit job requirements. Rather, it would have to be detected in employment patterns which favored people with certain facial qualities for certain occupations.

The present research investigated whether facial appearance—attractiveness or babyfacedness—is, in fact, related to occupational outcomes. Unlike past studies, which have typically examined simulated personnel decisions, the present research focused on real people in real jobs. Moreover, it was designed to shed some light on the mechanisms by which any observed effect of appearance occurs. There is a variety of explanations for an association of appearance with occupation. For example, genetic or environmental factors, such as self-fulfilling prophecies, may produce correlations between attractiveness and intelligence, education, or certain personality traits, and these correlations may make attractive individuals more suited to certain jobs. Alternatively, employers may have a bias toward attractive people, quite apart from their intellectual or dispositional qualifications for a job. The plausibility of these two explanations was assessed in the present research by examining the relationship of appearance to occupational outcomes with ability and personality controlled.

Attractiveness

Halo effect. The potential for an employer bias in favor of attractive individuals is revealed in the attractiveness halo effect, whereby attractive individuals are perceived more positively on a variety of dimensions. In a recent meta-analytic review, Eagly and her colleagues observed that some attributes seem to be more strongly associated with attractiveness than others (Eagly, Ashmore, Makhijani, & Longo, 1991). Attractiveness appears to have the greatest impact on ratings of social competence; a moderate influence on ratings of dominance, adjustment, and intellectual competence; and little effect on ratings of integrity or concern for others. Eagly also reported that the effect of attractiveness is strongest on first impressions and is attenuated when individuating information is provided. Additionally, Gillen (1981) has suggested that attractiveness may have some differential effects for men and women.

The attractiveness halo has been found to extend to occupational contexts. For instance, photos of attractive teachers tend to be rated more positively on dimensions such as warmth, instructive ability, and communication ability (Goebel & Cashen, 1979; Lombardo & Tocci, 1979), although there is some evidence that providing additional information, such as teaching style, may reduce or eliminate this effect (Buck & Tiene, 1989). Numerous studies have

also found that photos of attractive counselors are rated more favorably than unattractive counselors, although providing subjects with demographic or personal disclosures by the counselor again attenuates the effect (Cash, Begley, McCown, & Weise, 1975; Cash & Kehr, 1978; Cash & Salzbach, 1978; Lewis & Walsh, 1978; Paradise, Cohl, & Zweig, 1980).

Whereas the halo effect may bias employers, there is also some evidence to indicate that it may accurately reflect the attributes of attractive individuals. More attractive people are more outgoing and popular than are their less attractive peers. They are also somewhat more dominant and well-adjusted. Finally, attractive women show slightly greater intellectual competence, as indexed by their grades (Berry, 1991; Feingold, 1992). These real differences between attractive and unattractive individuals may render them differentially qualified for various occupations.

Occupational findings. Several simulation studies have examined the effects of attractiveness on promotion and other occupational status variables. Although attractive applicants tend to be offered higher starting salaries (Dipboye, Fromkin, & Wiback, 1975; Waters, 1985), there is no consistent evidence showing a benefit of attractiveness for job advancement (Heilman & Stopek, 1985; Jackson, 1983; Spencer & Taylor, 1988). Similarly, the results of studies investigating the effects of appearance on the occupational status and income of real people are mixed. A recent study by Hammermesh and Biddle (1994) found that attractive people earn about 10% more than do unattractive people. Other studies have found a positive relationship between attractiveness and occupational status (Ross & Ferris, 1981), while some have found no relationship (Dickey-Bryant, Lautenschlager, Mendoza, & Abrahams, 1986; Sparacino, 1980), and one study has even found a negative relationship (Udry & Eckland, 1984). Since none of these studies has controlled for the effects of education or personality, it is possible that the inconsistent results reflect a differential impact of these other variables across the various studies.

Even if attractiveness has no consistent effects on job status, it may influence the type of occupation people secure. Heilman (1983) has proposed a lack of fit model in which expectations about a person's performance in a particular job "are determined by the fit between the perception of an individual's attributes and the perception of the job's requirements in terms of skills and abilities" (p. 278). Although Heilman uses this model primarily to explain gender discrimination in the workplace, she does acknowledge its extension to other groups about whom stereotypes are held. Implicit in the model also is a goodness of fit concept whereby individuals whose stereotypical attributes seem to provide a good fit with the job requirements would be more likely to be assessed favorably. Thus, for example, attractive individuals may be

avored for jobs requiring good social skills because they are perceived to have such skills, rather than because they are generally favored over the less attractive.

There is some evidence supporting this goodness of fit model. For example, hiring preferences for attractive people are eliminated for jobs that involve little face-to-face contact with others and thus do not require the social skills that are stereotypically associated with attractive individuals (Beehr & Gilmore, 1982). Additionally, attractive people have been described as more effective in certain roles or occupations, particularly those that require good social skills and intelligence. For instance, attractive communicators are experienced as more persuasive than are unattractive communicators (Chaiken, 1979). Finally, attractive women are evaluated more favorably for feminine but not for masculine jobs; there is no similar effect for men (Cash, Gillen, & Burns, 1977; Heilman & Saruwatari, 1979).

Since attractiveness may play its strongest role in initial impression formation, it may have more impact on whether a person gets hired for a particular position than on how high a person rises within a particular occupational niche. The present studies investigated whether attractive people end up in different types of jobs than do less attractive people. It also investigated whether attractive people are more likely to end up in higher status or higher paying jobs. In contrast to past research, other potential predictors of occupational outcomes were controlled in these studies, in order to see whether attractiveness per se has an effect or whether it has an effect by virtue of covariation with personality or education.

Babyfacedness

Overgeneralization effect. Another potential source of employer bias is the babyface overgeneralization effect whereby people with facial features similar to those of infants (i.e., relatively large eyes, high thin eyebrows, small nose bridges, round faces) are perceived as having more childlike traits (Berry & McArthur, 1985, 1986; McArthur & Apatow, 1983-1984). Although these stereotypes may bias employers, there is also some evidence for their accuracy. More babyfaced people are perceived as weaker, warmer, and more honest, even by those who are acquainted with them (Berry, 1990). Also, more mature-faced people describe themselves as more aggressive (Berry, 1991). These real differences between babyfaced and mature-faced individuals could be bona fide job qualifications.

Occupational findings. In contrast to the large experimental literature on the implications of attractiveness, few studies have examined the relevance of babyfacedness to job outcomes. Mazur, Mazur, and Keating (1984) reported

that West Point cadets with dominant, mature faces achieved higher ranks during their time at the academy, although this relationship did not hold for their rank later in their career. Experimental studies also have provided evidence that babyfacedness influences the type of job for which a person is preferred (Zebrowitz, Tenenbaum, & Goldstein, 1991). Consistent with Heilman's (1983) model, babyfaced applicants were preferred for jobs described as requiring the traits that fit their appearance—submissiveness and warmth—while mature-faced applicants were preferred for jobs described as requiring dominance and shrewdness. The present study extends this laboratory simulation by looking for effects of babyfacedness in real-life settings. We also investigate the possibility that babyfaced people are preferred for certain jobs because they really do provide a better fit with the job requirements as a result of their personality characteristics or their educational achievement.

Height and Weight

Facial features are not the only physical attributes that influence impression formation; height and weight do so also. A number of impressions were found to be stereotypically related to height by Jackson and Ervin (1992). Taller men were perceived as higher in attractiveness, professional status, personal adjustment, athletic orientation, and masculinity. Taller women were perceived as higher in professional status and attractiveness, although the finding for attractiveness is not consistent with other studies (Chaiken, 1981). In general, shortness appeared to be a liability, leading to more negative assessments on each of these characteristics; tall people were not perceived more favorably than were people of average height. In a review of the literature, Roberts and Herman (1981) suggested height may be related to actual differences in personality or intelligence. Taller people describe themselves as more likable, more self-directive, and less warm; there is mixed evidence suggesting that taller people may be more dominant. There also tends to be a moderate correlation between height and IQ.

Whereas short stature is a liability, perceptions of overweight people seem to include both positive and negative characteristics. They are frequently perceived as being less attractive (e.g., Harris, Harris, & Bochner, 1982), less intelligent, and more lonely and lazy (see DeJong & Kleck, 1981, for review). Overweight people also are seen as possessing some childlike traits, such as being warm-hearted, agreeable, dependent, and trusting (Kiker & Miller, 1967; Sleet, 1969; Wells & Siegal, 1961).

Both height and weight may have implications in the occupational arena as well. Height has been found to affect performance assessments, hiring, and

salary (Frieze, Olson, & Good, 1990; Hensley & Cooper, 1987; Lester & Sheehan, 1980; Ross & Ferris, 1981). Weight also has been found to impact hiring as well as evaluations of performance and expertise in simulation studies (Jasper & Klassen, 1990; Larkin & Pines, 1979; McKee & Smouse, 1983). For these reasons, height and weight were included as predictors of job outcomes.

Study 1

Study 1 investigated relationships between appearance and real-life occupational outcomes in civilian settings. The influence of appearance on job status, income and type of job was assessed and compared to the influence of the more rational predictors of educational attainment and personality traits. This design enabled us to compare three possible outcomes. The first possibility was that appearance would have no effect on people's occupational outcomes. A second possibility was that appearance has an effect on occupational outcomes that is due to covariation with education and/or personality. Third, appearance may have an effect on occupational outcomes that is not totally explained by covariation with education and/or personality.

Occupational Status and Income

Consistent with perceptions of attractive people and tall people as more intelligent and more dominant, we expected that they might have higher status jobs and higher incomes. Although previous studies of appearance and occupational status have not shown consistent results, we expected that these effects might emerge once education and personality were controlled. Consistent with perceptions of babyfaced people and overweight people as dependent and naive, we predicted that they would hold lower status jobs and have lower incomes. People with higher education, more assertiveness, and greater dependability were expected to hold higher status jobs and to earn higher incomes.

The only income variable available for the sample used in this study was total family income, which may be biased more by the spouse's income for women than for men. Although analyses predicting income were done only for people with jobs, it must be recognized that the effects for women may reflect, in part, how well they have married. Indeed, attractive women tend to marry upward in social status (Elder, 1969; Taylor & Glenn, 1976; Udry & Eckland, 1984).

Attractive people were predicted to be employed in occupations that provide a good fit with the attractiveness halo effect—those requiring social and

intellectual competence, dominance, and psychological adjustment. Taller men were also expected to be employed in jobs consistent with the attractiveness stereotype, while overweight people were expected to hold jobs less consistent with the stereotype. Additionally, people who actually possess characteristics of the attractiveness stereotype, specifically higher education or an outgoing personality, were expected to hold jobs more consistent with the attractiveness halo. Babyfaced people were expected to be employed in occupations that provide a good fit with the babyface stereotype—those requiring warmth, submissiveness, and low physical strength. Shorter people and overweight people were also expected to hold jobs more consistent with the babyface stereotype. People with personality characteristics matching the babyface stereotype, specifically warmth, were predicted to hold jobs fitting the stereotype, while those with characteristics matching perceptions of mature-faced people, specifically assertiveness or dependability, were expected to hold jobs less consistent with the stereotype. Effects of appearance were expected to add significantly to the variance explained by education and personality, indicating that they are not solely due to the accuracy of people's stereotypical perceptions.

Method

Subjects

The subjects for this study were people whose pictures were included in the Intergenerational Studies of Development and Aging, a combination of three longitudinal studies begun between 1928 and 1933 and archived at the University of California Berkeley Institute of Human Development (IHD). Three samples were used: Berkeley Guidance, Berkeley Growth, and Oakland Growth, hereafter referred to, respectively, as Guidance, Berkeley, and Oakland. The original 248 people in the Guidance sample were born between 1928 and 1929 in Berkeley, California. Family educational status was above the average for the general U.S. population (Eichorn, 1981). Most were from white, Protestant families, and 60% came from middle-class homes (Caspi, Elder, & Bem, 1987). The Berkeley sample consisted of 61 healthy, white, full-term infants born in Berkeley between September 1928 and May 1929. Over the next 3 years, an additional 13 infants were added to augment the sample. Most of the families were middle class and Protestant (Eichorn, 1981). The first measures for the original 212 subjects in the Oakland sample were taken in 1932, when the subjects ranged in age from 10-12 years. Therefore, they were, on average, 7.75 years older than either the Guidance or Berkeley subjects. Most of the families were white, a reasonable

representation of the population attending Oakland schools at that time (Eichorn, 1981).

Slides of subjects' faces at five age levels were rated previously on both attractiveness and babyfacedness (Zebrowitz, Olson, & Hoffinan, 1993). The particular sample used in this study was composed of subjects for whom both facial appearance and job measures were available in middle adulthood ($M = 55.99$, $SD = 3.50$). This sample consisted of 101 males and 81 females.

Criterion Variables

Two measures of status were utilized. Occupational status was measured by each subject's score on the Duncan Socio-Economic Index (SEI), computed from their 1970 Occupational Census classification. Total family income before taxes was also used as a measure of status. Two qualitative measures of job outcome were created by the researchers: job babyfacedness and job attractiveness. Nine judges used a 5-point scale to rate each occupation (obtained from 1970 occupational census code) on how much it required traits consistent with the babyface stereotype (Berry & McArthur, 1985) and the attractiveness stereotype (Eagly et al., 1991). Raters were provided with a description of each constellation of traits and were asked to make ratings separately for male and female employees. Reliabilities of these ratings ranged from .81 (for occupational attractiveness-males) to .91 (for occupational attractiveness-females). Thus, a mean for each assessment was computed across judges.

In order to help validate these two qualitative measures, we obtained relevant psychosocial measures by linking each individual's occupational code with data obtained from three national Surveys of Working Conditions conducted throughout the late 1960s and 1970s (Schwartz, Pieper, & Karasek, 1988).³ The variables obtained through this technique were assessments of decision authority, coworker support, and amount of physical exertion.

Appearance Predictors

Ratings on 7-point scales of attractiveness and babyfacedness from photographs taken in middle adulthood were used because this was when occupation

³This procedure yields a mean score for each job on each measure as well as an adjusted mean score for each individual, which takes into account covariates such as age, education, place of residence, and race. The unadjusted mean score was used because we were concerned with the characteristics of particular jobs and how well these characteristics match the employee's characteristics. Moreover, using the mean score is a more conservative measure and will provide a stricter test of our hypotheses.

was assessed. The reliabilities for ratings of babyfacedness were .75 for males and .79 for females; the reliabilities for ratings of attractiveness were .84 for males and .91 for females. Subjects' height in meters and weight in kilograms at middle adulthood were available for most subjects. In cases where these data were not available, data from early adulthood or late adolescence were substituted. A ratio of weight to height, the Body Mass Index ($\text{kg weight}/\text{m height}^2$), was used as the measure of relative weight (Ross & Mirowsky, 1983).

Rational Predictors

A composite measure of educational attainment was created for each of the subjects. For Guidance and Oakland subjects, the Eichorn scale of educational attainment was used. This scale ranges from *did not complete elementary school* (1) to *PhD, MD, DDS, LLB, EdD, DD* (10). Data for Berkeley subjects did not include the Eichorn measure. Instead, these subjects only had scores on the Hollingshead education scale, which ranges from *professional training* (1) to *under 7 years of school* (7). Because the Eichorn scale discriminates more between various levels of education, particularly at the high end, the data of those subjects who only had Hollingshead scores were converted to comparable scores on the Eichorn scale. In all but two cases, the Hollingshead value was equivalent to a value on the Eichorn scale (e.g., Hollingshead value of 3 = some college = Eichorn value of 6), and subjects were simply reassigned the appropriate value from the Eichorn scale. Subjects who *had a high school graduate, some business or vocational school* (4) on the Hollingshead scale were given a 4.5 on the new scale because they fell in between category *completed high school* (4) and category *high school + vocational or business school* (5) on the Eichorn scale. Subjects who received a *professional training* (1) on the Hollingshead scale were assigned a score of *college graduate + extra credential* (8) on the Eichorn scale. As a result, these particular subjects may have an underestimation of their education on the new scale because it was impossible to discern whether they had completed masters or doctoral work (values of 9 and 10, respectively, on the Eichorn scale). Nonetheless, the creation of this new measure enabled us to retain the discrimination afforded by the Eichorn scale for the majority of the subjects.

Personality variables considered to be conceptually relevant to babyfaced or attractive job outcomes were obtained from clinicians' sorting of the 73-item longitudinal California Q Sort items⁴ based on interviews of the subjects in

⁴The 73-item longitudinal Q-set was used instead of the original 100-item Q-set because the former is pertinent to personality at multiple time periods, which permitted the use of the same scales in Studies 1 and 2.

middle adulthood (Block, 1971).⁵ The average item reliabilities were .61 for males and .58 for females. Component analysis had been previously used to generate six scales (Haan, Millsap, & Hartka, 1986; Millsap & Meredith, 1988). The four scales used in this study assessed the degree to which the subjects were assertive versus submissive, dependable, warm versus hostile, and outgoing versus aloof.

Results

Construct Validity

We first assessed the construct validity of the ratings of occupational babyfacedness and occupational attractiveness. Correlations between these measures and the qualitative job assessments obtained from the Job Content Questionnaire provided some evidence for validity. Consistent with the baby-face stereotype, more babyfaced jobs held by both men and women had lower status, $r(120) = -.24, p < .01$, for men, $r(93) = -.19, p < .10$, for women; and less decision authority, $r(119) = -.14, ns$, for men, $r(88) = -.25, p < .05$, for women. There was also a nonsignificant tendency for men's babyfaced jobs to be characterized by greater coworker support, $r(102) = .14, ns$, as expected, but this trend was not evident in jobs held by women. Surprisingly, more babyfaced jobs were higher in physical demands for men, $r(119) = .19, p < .05$, although they were lower in physical demands for women, $r(87) = -.19, p < .10$, as expected. Also as expected, male and female jobs that were rated as fitting the attractiveness halo had higher status, $r(120) = .34, p < .001$, for men, $r(93) = .37, p < .001$, for women; and greater decision authority, $r(119) = .40, p < .001$, for men, $r(88) = .49, p < .001$, for women. Attractive female jobs were also higher in coworker support, $r(69) = .32, p < .01$.

Consistent with perceptions of babyfaced men as warm, submissive, naive, and low in physical strength, the four most babyfaced male jobs were child-care worker, elementary school teacher, teacher aide, and clergy, while the jobs rated as least babyfaced were judge, truck driver, policeman, and foreman.

⁵Because photographs were provided to Q-sort raters in middle adulthood, there was some concern expressed by reviewers that the personality measures might be biased by appearance. If clinicians' ratings were strongly biased by appearance, one would expect to find significant correlations between facial appearance and several personality ratings. However, only one personality measure, outgoing/aloof, was correlated with facial appearance, and this held true only for women (Table 1). While these correlations could indicate bias on the part of the raters, they could also represent true relationships between personality and appearance. Evidence against the bias explanation was provided by the finding of similar correlations between women's appearance at middle adulthood and Q-sort ratings of outgoing/aloof made 10 years earlier when photographs were not available to raters.

Ratings of female jobs on babyfacedness were also consistent with the stereotypes, with the four jobs rated highest on occupational babyfacedness being elementary-school teacher, pre-K or kindergarten teacher, teacher aide, and nursing aide, while those rated lowest in babyfacedness were computer systems analyst, law teacher, athlete, and foreman. Ratings of occupational attractiveness produced some mixed results, with the most attractive jobs including not only jobs that fit the perception of attractive people as socially skilled, intelligent, dominant, and well-adjusted, but also jobs that seemed to provide an aesthetic fit with attractive people. For instance, the most attractive male jobs included painter/sculptor, as well as lawyer, physician, and bartender. The most attractive female jobs were writer/artist/entertainer, designer, painter/sculptor, and art/drama/music teacher. The next most attractive female jobs seemed to provide a somewhat better fit with the attractiveness halo, at least with regard to higher social skills. These jobs included sales associate, receptionist, secretary, and registered nurse. The least attractive male jobs were garbage collector, janitor/sexton, accountant, and machinist, and the female jobs rated lowest on attractiveness were bus driver, cleaner/charwoman, machine operative, and bookkeeper.

Correlations and Regressions

Correlations among all predictor variables are shown in Table 1. There was a slight trend for attractive men to be better educated, and taller men were significantly more assertive. Taller women were significantly better educated, while babyfaced women and attractive women were significantly more outgoing. Correlations between the criterion variables and the initial blocks of predictors are shown in Table 2. Nine percent of men and 5% of women were missing data on education, while 1% of men were missing data on height and relative weight. In these cases, means were substituted for the missing values.⁶

Regression analyses predicting each occupational outcome were performed separately for men and women. Blocks of appearance and rational predictors were entered separately into forced entry regression models predicting each outcome. Initial appearance predictors were babyfacedness, attractiveness, height, and relative weight. Initial rational predictors were education, assertive/submissive, dependability, outgoing/aloof, and warm/hostile. Three predictors,

⁶In order to assure that mean substitution was not attenuating the effects of these variables, all correlations were computed with and without substitution of means for missing values. Comparison revealed no change in the significance of the correlations. The same held true for Study 2.

Table 1

Correlations Among Predictor Variables: Study I

	1	2	3	4	5	6	7	8	9
Men (<i>n</i> = 101)									
1. Babyfacedness		.36***	-.19†	.22*	-.03	.05	.05	.02	.03
2. Attractiveness			.02	-.13	.19†	.00	.00	-.04	-.02
3. Height				-.29**	.11	.21*	.15	-.04	-.15
4. Relative weight					-.04	.02	-.02	.11	.02
5. Education							.18†	-.05	.01
6. Assertive/submissive							.27**	.03	-.50***
7. Dependability								-.17	-.07
8. Outgoing/aloof									.38***
9. Warm/hostile									
Women (<i>n</i> = 81)									
1. Babyfacedness		.48***	.13	.16	.04	.02	.01	.23*	.05
2. Attractiveness			.08	-.32**	.07	.03	.09	.26*	-.04
3. Height				-.09	.39***	.08	.13	-.09	-.12
4. Relative weight					.11	.13	-.13	-.06	.08
5. Education						.11	.04	-.08	-.19†
6. Assertive/submissive							.30**	.10	-.43***
7. Dependability								.02	-.13
8. Outgoing/aloof									.32**
9. Warm/hostile									

† $p < .01$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2
Correlations Between Criterion and Predictor Variables: Study 1

	Babyface- ness	Attractive- ness	Height	Relative weight	Education	Assertive/ submissive	Depend- ability	Outgoing/ aloof	Warm/ hostile
Men (<i>n</i> = 101)									
Occupational babyfacedness	.14	-.01	-.30**	.14	-.01	-.21*	-.30**	.01	.03
Occupational attractiveness	.06	-.02	.25*	.05	.31**	.09	.16	.06	.03
Status	.00	.06	.10	-.03	.46***	-.10	.32**	-.03	-.05
Income (<i>n</i> = 74)	-.10	.04	.27*	-.13	.33**	.06	.31*	-.01	-.04
Women (<i>n</i> = 81)									
Occupational babyfacedness	.30**	.16	-.03	-.06	-.12	-.25*	-.09	-.05	.10
Occupational attractiveness	.18†	.22*	-.06	-.09	.11	.08	.09	.07	-.15
Status	.06	.13	.21†	.02	.42***	.27*	.17	.01	-.13
Income (<i>n</i> = 57)	.10	.20	.11	.00	.05	.38**	.24†	.13	-.02

†*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

Table 3

Regressions Predicting Occupational Status From Appearance Variables, Rational Variables, and All Variables Combined for Female Subjects

Predictor	β	t	p
	Block 1: Appearance predictors		
Height	.21 (.20)	1.87 (1.78)	.07 (.08)
	F(1, 79) = 3.49, $p = .07$, $R^2 = .04$		
	Block 2: Rational predictors		
Education	.39 (.39)	3.89 (3.87)	.00 (.00)
Assertive/submissive	.22 (.19)	2.21 (1.84)	.03 (.07)
	F(2, 78) = 11.11, $p = .000$, $R^2 = .22$		
	Block 3: Combined variable model		
Height	.04	.39	.70
Education	.37	3.43	.00
Assertive/submissive	.22	2.18	.03
	F(3, 77) = 7.38, $p = .000$, $R^2 = .22$		

Note. Values for the untrimmed models are in parentheses.

relative weight, outgoing/aloof, and warm/hostile, showed no relationship with any of the criterion variables either in the zero-order correlations or in the regression analyses, and they were therefore trimmed from all further regression models in order to increase degrees of freedom. Other predictors were trimmed from particular blocks when $t < 1$. The trimmed blocks were entered in separate regression models and then together in a combined model.

Occupational status. For men, no appearance variables predicted occupational status. The block of rational predictors remained untrimmed and accounted for 28% of the variance in occupational status, $F(3, 97) = 12.75$, $p = .000$. Men who were more highly educated ($\beta = .39$, $p = .00$) or more dependable ($\beta = .28$, $p = .00$) had higher status jobs, as one would expect. Assertiveness was not a significant predictor of job status, $\beta = -.14$.

For women, the only appearance variable in the trimmed block was height, which explained a marginally significant 4% of the variance in occupational status (Table 3). There was a trend for taller women to have higher status jobs, as predicted. The trimmed block of rational predictors explained 22% of the variance, with women who were more highly educated or more assertive having higher status jobs. The combined model added significantly only to the block of appearance predictors, contributing 18%

Table 4

Regressions Predicting Income From Appearance Variables, Rational Variables, and All Variables Combined for Male Subjects

Predictor	β	t	p
Block 1: Appearance predictors			
Height	.27 (.25)	2.35 (2.13)	.02 (.04)
$F(1, 72) = 5.53, p = .02, R^2 = .07$			
Block 2: Rational predictors			
Education	.29 (.31)	2.68 (2.71)	.01 (.01)
Dependability	.27 (.26)	2.52 (2.25)	.01 (.03)
$F(2, 71) = 7.82, p = .001, R^2 = .18$			
Block 3: Combined variable model			
Height	.24	2.27	.03
Education	.28	2.61	.01
Dependability	.27	2.52	.01
$F(3, 70) = 7.24, p = .000, R^2 = .24$			

Note. Values for the untrimmed models are in parentheses.

more to the variance explained, $p < .001$. The marginal relationship between height and occupational status was eliminated after controlling for the rational predictors. This was probably due to the relationship between height and education ($r = .39$).

Income. For men, the only appearance variable included in the trimmed analysis predicting income was height, with taller men earning higher incomes. This accounted for 7% of the variance (Table 4). The trimmed block of rational variables included education and dependability, which combined to account for 18% of the variance. Both men with better educations and more dependable men earned higher incomes, as expected. The combined model accounted for 24% of the variance in income and was a significant improvement over both appearance, $p < .05$, and rational predictors alone, $p < .01$. All predictors remained significant.

For women, attractiveness was the only appearance variable retained in the trimmed block, but it was not a significant predictor of income (Table 5). The trimmed block of rational variables included only assertive/submissive, which accounted for 14% of the variance in income. Assertive women had significantly higher incomes. The combined model added 13% to the variance explained by appearance alone, $p < .01$, but did not add significantly to the

Table 5

Regressions Predicting Income From Appearance Variables, Rational Variables, and All Variables Combined for Female Subjects

Predictor	β	t	p
	Block 1: Appearance predictors		
Attractiveness	.20 (.21)	1.51 (1.24)	.14 (.22)
	$F(1, 55) = 2.27, p = .14, R^2 = .04$		
	Block 2: Rational predictors		
Assertive/submissive	.28 (.41)	3.05 (2.51)	.00 (.02)
	$F(1, 55) = 9.29, p = .004, R^2 = .14$		
	Block 3: Combined variable model		
Attractiveness	.16	1.31	.19
Assertive/submissive	.36	2.92	.01
	$F(2, 54) = 3.57, p = .006, R^2 = .17$		

Note. Values for the untrimmed models are in parentheses.

Table 6

Regressions Predicting Occupational Babyfacedness From Appearance Variables, Rational Variables, and All Variables Combined for Male Subjects

Predictor	β	t	p
	Block 1: Appearance predictors		
Height	-.30 (-.27)	-3.08 (-2.78)	.00 (.01)
	$F(1, 99) = 9.47, p = .003, R^2 = .09$		
	Block 2: Rational predictors		
Assertive/submissive	-.14 (-.14)	-1.43 (-1.38)	.16 (.17)
Dependability	-.27 (-.27)	-2.69 (-2.66)	.01 (.01)
	$F(2, 98) = 6.14, p = .003, R^2 = .11$		
	Block 3: Combined variable model		
Height	-.24	-2.51	.01
Assertive/submissive	-.10	-1.00	.32
Dependability	-.24	-2.50	.01
	$F(3, 97) = 6.40, p = .001, R^2 = .17$		

Note. Values for the untrimmed models are in parentheses.

Table 7

Regressions Predicting Occupational Babyfacedness From Appearance Variables, Rational Variables, and All Variables Combined for Female Subjects

Predictor	β	t	p
	Block 1: Appearance predictors		
Babyfacedness	.30 (.30)	2.80 (2.43)	.01 (.02)
	$F(1, 79) = 7.84, p = .01, R^2 = .09$		
	Block 2: Rational predictors		
Assertive/submissive	-.25 (-.25)	-2.32 (-2.05)	.02 (.04)
	$F(1, 79) = 6.26, p = .01, R^2 = .07$		
	Block 3: Combined variable model		
Babyfacedness	.31	2.95	.00
Assertive/submissive	-.26	-2.50	.01
	$F(2, 78) = 7.31, p = .001, R^2 = .16$		

Note. Values for the untrimmed models are in parentheses.

variance explained by the personality variables. Assertiveness remained the only significant predictor.

Occupational babyfacedness. For men, height was the only variable retained in the trimmed model, and it accounted for 9% of the variance in occupational babyfacedness. As predicted, shorter men had more babyfaced jobs (Table 6). The block of rational predictors, including assertive/submissive and dependable accounted for 11% of the variance. Less dependable men had more babyfaced jobs, as predicted. The combined model was a significant improvement over both previous models, adding 8% to the variance explained by appearance alone ($p < .05$) and 5% to that explained by the rational predictors ($p < .05$). The effects of height and dependability remained significant.

For women, appearance alone accounted for 9% of the variance; the only variable included in the trimmed model was babyfacedness (Table 7). Consistent with predictions, more babyfaced women had more babyfaced occupations. Rational predictors accounted for 7% of the variance in occupational babyfacedness, with assertive/submissive the only variable remaining in the trimmed model. As predicted, more assertive women had less babyfaced occupations. The combined model retained significant effects of both variables and contributed significantly to the variance explained by each individual block,

Table 8

Regressions Predicting Occupational Attractiveness From Appearance Variables, Rational Variables, and All Variables Combined for Male Subjects

Predictor	β	t	p
Block 1: Appearance predictors			
Babyfaceness	.12 (.15)	1.1 (1.36)	.24 (.18)
Height	.28 (.28)	2.78 (2.84)	.01 (.01)
$F(2, 98) = 4.08, p = .02, R^2 = .08$			
Block 2: Rational predictors			
Education	.31 (.31)	3.28 (3.14)	.00 (.00)
$F(1, 99) = 10.73, p = .002, R^2 = .10$			
Block 3: Combined variable model			
Babyfaceness	.12	1.23	.22
Height	.24	2.54	.01
Education	.29	3.07	.00
$F(3, 97) = 6.10, p = .001, R^2 = .16$			

Note. Values for the untrimmed models are in parentheses.

adding 7% to the variance explained by appearance ($p < .01$) and 9% to that explained by rational predictors ($p < .01$).

Occupational attractiveness. For men, the trimmed block of appearance variables, including height and babyfaceness, accounted for 8% of the variance in occupational attractiveness (Table 8). Height was the only significant predictor, with taller men in more attractive occupations, as expected. The only rational predictor retained in the trimmed block was education, which accounted for 10% of the variance. More highly educated men had occupations more consistent with the attractiveness halo. The combined model was a significant improvement both over appearance alone, adding 8% of explained variance ($p < .01$), and over rational predictors alone, adding 6% to variance explained ($p < .05$). Tall men and well-educated men continued to hold more jobs consistent with the attractiveness halo in the combined model.

For women, the only predictor of occupational attractiveness was attractiveness, accounting for 5% of the variance, $F(1, 79) = 4.07, p < .05$. As predicted, attractive women held jobs having requirements more consistent with the attractiveness halo, $\beta = .22, p < .05$. All other appearance predictors and all rational predictors were trimmed from the model.

Discussion

Although appearance variables did not significantly predict the status of people's occupations, they did play a role in predicting men's family income. Taller men were found to have higher incomes, independent of the effects of education and personality. Rational variables also yielded a number of significant effects on job status and income. Education was particularly important in predicting occupational status for both men and women, and income for men, albeit not for women. Dependable men and assertive women also had higher status jobs as well as higher incomes. The findings for education and dependability replicate Clausen's work on occupational attainment using this sample (Clausen, 1993). It is noteworthy that the effect of height on men's income was almost as large as the effects of education or dependability.

Appearance also had significant effects on the type of jobs people held. Facial appearance was particularly important in predicting job type for women. As predicted, more babyfaced women held jobs that required the traits associated with the babyface stereotype, replicating the hiring simulation results reported by Zebrowitz et al. (1991). The effect of babyfacedness remained strong, even when controlling for the personality variable of assertiveness, which itself showed a strong negative relationship to employment in babyfaced jobs. Moreover, the strength of the babyface effect was comparable to that of assertiveness. Similarly, more attractive women had jobs that required the traits associated with the attractiveness halo, an effect that also was not attributable to more rational predictors. Indeed, the rational predictors had no significant effects on this job outcome. These findings provide real-world support for Heilman's lack of fit model (Heilman, 1983), and they suggest that the women, their employers, or both perceive a fit between babyfaced or attractive women and certain occupations even when that fit is not supported by their actual education level or personality traits.

Whereas facial appearance predicted job type for women, height was a better predictor of job type for men. As predicted, taller men held jobs that required the traits associated with the attractiveness halo, and shorter men held jobs requiring traits associated with babyfacedness. As for women, these effects not only remained significant after controlling for education and personality, but they were also of comparable magnitude to the rational predictors, which included low dependability as a predictor of babyfaced jobs and higher education as a predictor of attractive jobs. Again, taller men may seem to provide a better fit to certain types of jobs, either in their own eyes or in the eyes of employers.

The finding that facial appearance is important in determining women's occupational outcomes, while height is important for men, cannot be attributed

to gender differences in the range of these predictors. The measures of height and facial appearance showed similar variability for men and women. The greater effects of facial appearance for women also cannot be attributed to gender differences in the strength of the facial stereotypes, since the attractiveness halo and the babyface overgeneralization effect are equivalent for male and female targets (Eagly et al., 1991; Feingold, 1982; Zebrowitz & Montepare, 1992). On the other hand, the greater occupational consequences of facial appearance for women than men is consistent with other evidence that appearance has greater social consequences for women (Jackson, 1992). Surprisingly, weight did not seem to affect occupational outcomes for either men or women.

In summary, appearance variables seem to be as important as education and personality in determining outcomes in the workplace. Appearance influences how much money people make: Taller men had higher incomes, an effect that was independent of their education or personality, and equal in magnitude to the latter effects. Appearance also plays a significant role in determining the type of jobs people hold—a role that is equal to that played by more rational predictors. More babyfaced women and shorter men had jobs rated as requiring more warmth, submissiveness, naiveté, and less physical strength. Moreover, these effects were comparable in magnitude to the effects of significant personality predictors—low dependability for men and low assertiveness for women. More attractive women and taller men had jobs rated as requiring more intelligence, social skills, and dominance. While the effect for men was similar in strength to that of education, attractiveness was the only determinant of occupational attractiveness for women. As Heilman (1983) points out, these effects of appearance may be due to self-selection by individuals deciding that their perceived attributes match those of certain jobs, or they may be due to selection by employers who believe that certain attributes communicated by appearance fit the job for which they are hiring. Regardless of what employees or employers may believe, the present findings provide evidence that differential employment patterns based on appearance are not justified by differences in bona fide job qualifications, such as personality and education.

Study 2

Study 2 examined the impact of appearance on four measures of military service. The only outcome investigated in previous studies of appearance and military service was exit rank. These studies provided some evidence for a relation between appearance and rank for men while attending a military academy, but not during actual military service (Dickey-Bryant et al., 1986; Mazur et al., 1984). The present study attempted to predict the exit rank of a

more general sample of servicemen, including a number of draftees; it also went beyond previous studies by controlling for rational predictors of military outcomes, such as intelligence and personality. Although entry rank is unlikely to be biased by appearance, we expected that a person's advancement through the ranks might be influenced by their appearance, since that advancement is partially based on higher ranking officers' subjective assessments. We also included a second measure of military status or achievement, receipt of a military citation or award. Although some awards are given on a unit basis, individual awards are also given based on officers' recommendations, which could potentially be influenced by appearance.

In addition to looking at status measures, we investigated how appearance might impact the experiences people have while in the military. Although it is conceivable that appearance could influence the amount of combat experience people had by affecting assignments made during training (e.g., men who have a military bearing may be assigned to the drill corps), this is likely to be a rare event. Decisions to send people to combat areas were usually made for entire units by officers who were not in personal contact with the units. Thus, we did not expect to find a significant effect of appearance on amount of combat experience. On the other hand, we thought appearance might have more impact on the intensity of men's combat experience, as measured by their exposure to gunfire and casualties. Although assignment to responsibilities within a combat unit is heavily influenced by people's experiences and skills, the officers in charge of assigning people to tasks may be influenced by the fit between a person's appearance and the task.

As in Study 1, we compared the effects of appearance variables to the effects of more rational predictors of military experience, such as intelligence and personality. We also included a number of military control variables—entry rank, time in service, amount of combat experience, and whether the person had ever been wounded. Again, three possible outcomes existed for the effects of appearance on military outcomes: (a) no effect of appearance, (b) an effect of appearance due to covariation with rational predictors, (c) an effect of appearance over and above the rational predictors.

Consistent with the attribution of more dominance to mature-faced and attractive individuals, such men were expected to achieve higher ranks in the military and to be more likely to receive an award. Taller men were also predicted to achieve higher ranks and to be more likely to receive an award. Overweight men, perceived as less dominant, were expected to achieve lower ranks. Also, men who actually possess characteristics associated with these physical qualities—intelligence, assertiveness, and dependability—were expected to attain higher exit ranks and to be more likely to receive an award.

Consistent with the attribution of more warmth and weakness to babyfaced individuals, such men were expected to have less intense combat experience, with less exposure to gunfire and casualties. Also, if taller men are perceived to be more dominant or more physically fit, they may have more intense combat experience. To the extent that attractive men are perceived as more dominant, they may also have more intense combat experience; however, to the extent that they are more likable because of their perceived social competence, they may be less likely to be assigned to intense combat missions. Finally, assertive men were also expected to have more intense combat experience, while warm men were expected to have less.

Method

Subjects

Seventy-four male subjects from this archival data set who had both military experience and photos taken in late adolescence were used in this study. The average age at entry into the military was 21.51 years, while the average age at exit was 24.65 years. (Nine subjects reentered the military; their average age at exit was 33.89.)

Criterion Variables

A number of military outcome variables were assessed in a 1985 follow-up of the three longitudinal samples (Elder & Clipp, 1988a, 1988b, 1989). For this study, we were concerned with two types of variables: achieved status in the military, and type of service experience. Measures of the men's status were rank at time of exit from the military, and whether they had received any award or citation. Measures of the type of service experience the men had were amount and intensity of combat experience. Amount of combat experience was indexed by duration of time spent in a combat area. Intensity of combat was assessed by summing responses to five questions asking whether the individual had ever fired at the enemy, had ever been fired upon, had ever killed anyone, had seen enemy casualties, or had been in the presence of American casualties.

Appearance Predictors

Ratings of subjects' babyfaceness and attractiveness at late adolescence were employed as predictors in this study because these appearance ratings were closest to the time at which most subjects completed their military service.

Both ratings were quite reliable, with $\alpha = .86$ for babyfacedness and $\alpha < .87$ for attractiveness. Subjects' height and relative weight at age 18 were also used as appearance predictors. As in Study 1, any subjects who were missing height or weight at this point in time were assigned values from early to middle adulthood, if available.

Rational Predictors and Control Variables

Intelligence and personality measures were included in all blocks of rational predictors. Intelligence was included, rather than education level, for two reasons. First, intelligence measures were available for a greater percentage of subjects, resulting in less missing data. Second, we believed that since subjects might not have completed their educations at the time of their military service, assessments of education in middle adulthood may not have been an accurate reflection of their education level at time of service. Personality variables from clinicians' sorting of the 73-item longitudinal California Q-set in early adulthood were also included in all analyses. As in Study 1, these personality variables were assertive/submissive, dependability, outgoing/aloof, and warm/hostile. Entry rank, time served in the military, amount of combat experience, and whether the individual had ever been wounded were used as control variables, when appropriate.

Results

Correlations among the predictor variables are shown in Table 9. Taller men were less outgoing and less likely to be wounded. Heavier men were more outgoing, more likely to be wounded, and showed a marginal tendency to have more combat experience. Surprisingly, we found a moderate negative relationship between relative weight and entry rank. Because of this, entry rank was added as a measure of military status and was included as a criterion variable in regression analyses. There were also marginally significant tendencies for attractive men to be more intelligent and to have less combat experience. Correlations among predictor and criterion variables are shown in Table 10. Six percent of subjects were missing data on intelligence, while 22% were missing data on personality. In these cases, means were substituted for the missing values (Footnote 6).

As before, appearance and rational predictors were entered in separate blocks in regressions predicting military outcome variables. The initial block of appearance variables included babyfacedness, attractiveness, height, and relative weight. The block of rational variables included IQ, assertive/submissive, dependability, outgoing/aloof, and warm/hostile. Military control

Table 9

Correlations Among Predictor Variables: Study 2

	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>n</i> = 74													
1. Babyfacedness		-.07	-.25*	.05	.07	.09	.14	.16	.09	-.06	.02	-.11	.02
2. Attractiveness			.00	-.17	.21†	.10	-.07	-.20†	.02	-.17	.10	-.15	.16
3. Height				-.18	.11	.01	-.07	-.19	-.24*	-.05	.10	-.24*	-.01
4. Relative weight					-.23*	-.24*	.03	.21†	.23*	-.07	-.18	.30**	.02
5. Intelligence						.31**	.14	.00	.14	.09	.18	-.13	.13
6. Entry rank							-.13	.11	.06	.06	.18	-.03	.01
7. Time served								.17	.00	-.09	-.06	-.06	-.08
8. Combat experience									.30**	.20†	.11	.09	-.20†
9. Wounded										.15	-.34**	.06	-.16
10. Assertive/submissive											.07	.29*	-.47***
11. Dependability												-.18	-.02
12. Outgoing/aloof													-.07
13. Warm/hostile													

†*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

Table 10

Correlations Between Predictor and Criterion Variables - Study 2

	Exit rank (<i>n</i> = 74)	Award (<i>n</i> = 73)	Combat experience (<i>n</i> = 74)	Combat intensity (<i>n</i> = 73)
Babyfacedness	.04	.24*	.16	.12
Attractiveness	.17	.08	-.20†	-.26*
Height	.10	-.15	-.19	-.30**
Relative weight	-.23*	.07	.21†	.46***
Intelligence	.36**	-.08	.00	-.09
Entry rank	.55***	-.21†	.11	.01
Time served ^a	.26*	.21†	.17	.23*
Combat experience	.14	.33**		.79***
Wounded	-.05	.09	.30**	.43***
Assertive/submissive	.12	.15	.20†	.15
Dependability	.34**	.02	.09	-.12
Outgoing/alooof	.03	.07	.11	.25*
Warm/hostile	.05	-.19	-.20†	-.17

^aOne subject was missing data on this variable.

†*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

variables were entered in the rational block and included entry rank and time served (in all analyses), amount of combat experience (in analyses predicting award and combat intensity), and whether the person had been wounded (in analyses predicting award). Military variables were not used in predictions of entry rank. Predictors with *t* < 1 were trimmed from the blocks, and each block was then reentered separately and then together in a combined model.

Military Job Status

Entry rank. Relative weight, the only appearance variable retained in the trimmed model, accounted for 6% of the variance in entry rank, with heavier men having lower entry ranks (Table 11). The trimmed block of rational variables included IQ and dependability and accounted for 12% of the variance in entry rank, although only IQ was significant. The combined model added

Table 11

Regressions Predicting Entry Rank From Appearance Variables, Rational Variables, and All Variables Combined

Predictor	β	t	p
Block 1: Appearance predictors			
Relative weight	-.24 (-.23)	-2.10 (-1.96)	.04 (.05)
$F(1, 72) = 4.39, p = .01, R^2 = .06$			
Block 2: Rational predictors			
IQ	.29 (.30)	2.56 (2.47)	.01 (.02)
Dependability	.13 (.14)	1.16 (1.15)	.25 (.26)
$F(2, 71) = 5.16, p = .000, R^2 = .12$			
Block 3: Combined variable model			
Relative weight	-.16	-1.40	.17
IQ	.26	2.23	.03
Dependability	.11	.95	.35
$F(3, 70) = 3.77, p = .01, R^2 = .14$			

Note. Values for the untrimmed models are in parentheses.

significantly only to the variance explained by appearance alone ($p < .05$). The effect of relative weight was eliminated, indicating that it was due to heavier men being less intelligent and slightly more dependable.

Exit rank. Appearance alone accounted for 9% of the variance in exit rank. Although both attractiveness and relative weight were included in the trimmed model, the only significant predictor was relative weight, with heavier men having lower exit ranks (Table 12).

Of the rational and control variables, IQ, entry rank, time served, and all personality variables except outgoing/aloof combined to explain 58% of the variance in exit rank. Both control variables were significant predictors, with men who had served longer in the military and those with higher entry ranks earning higher exit ranks. In addition, assertive and dependable men were more likely to achieve higher exit ranks. The combined model added significantly to the variance explained by appearance alone ($p < .001$). The effect of relative weight was eliminated, due to the fact that heavier men had lower entry ranks. The pattern of rational predictors remained the same.

Award. The only appearance variable in the trimmed model was baby-faceness, which accounted for 6% of the variance in whether the individual received an award while in the military (Table 13). Contrary to prediction,

Table 12

Regressions Predicting Exit Rank From Appearance Variables, Rational Variables, and All Variables Combined

Predictor	β	t	p
Block 1: Appearance predictors			
Attractiveness	.12 (.13)	1.05 (1.09)	.30 (.28)
Relative weight	-.26 (-.25)	-2.26 (-2.12)	.03 (.04)
$F(2, 70) = 3.61, p = .03, R^2 = .09$			
Block 2: Rational predictors			
Entry rank	.53 (.52)	6.13 (5.95)	.00 (.00)
Time served	.35 (.35)	4.18 (4.01)	.00 (.00)
IQ	.09 (.10)	1.05 (1.08)	.30 (.28)
Assertive/submissive	.17 (.16)	1.89 (1.60)	.07 (.11)
Dependability	.30 (.31)	3.71 (3.64)	.00 (.00)
Warm/hostile	.10 (.10)	1.09 (1.05)	.28 (.30)
$F(6, 66) = 15.16, p = .000, R^2 = .58$			
Block 3: Combined variable model			
Attractiveness	.10	1.14	.26
Relative weight	.10	-1.15	.26
Entry rank	.51	5.89	.00
Time served	.36	4.35	.00
IQ	.06	.63	.53
Assertive/submissive	.19	2.04	.05
Dependability	.29	3.53	.00
Warm/hostile	.10	1.07	.29
$F(8, 64) = 11.92, p = .000, R^2 = .60$			

Note. Values for the untrimmed models are in parentheses.

babyfaced men were more likely to receive an award. All rational predictors were trimmed from the analysis, but military control variables accounted for 18% of the variance. (The initial block of predictors for this equation also included whether the individual had been wounded, but this variable was trimmed from the model.) Men with more combat experience were more likely to receive an award, while those with high entry rank were less likely to be decorated. The combined model added 17% to the variance explained by appearance alone ($p < .01$), and 4% to the variance explained by the control variables ($p < .10$). The same pattern of predictors remained in the combined model, although the effect of babyfacedness was reduced slightly.

Table 13

Regressions Predicting Award From Appearance Variables, Rational Variables, and All Variables Combined

Predictor	β	t	p
Block 1: Appearance predictors			
Babyfacedness	.24 (.23)	2.09 (1.90)	.04 (.06)
$F(1, 70) = 4.38, p = .04, R^2 = .06$			
Block 2: Rational predictors			
Entry rank	-.24 (-.23)	-2.13 (-1.84)	.03 (.07)
Time served	.12 (.14)	1.09 (1.15)	.28 (.26)
Combat experience	.33 (.29)	2.94 (2.27)	.00 (.03)
$F(3, 68) = 5.14, p = .003, R^2 = .18$			
Block 3: Combined variable model			
Babyfacedness	.21	1.87	.07
Entry rank	-.25	-2.32	.02
Time served	.10	.87	.39
Combat experience	.30	2.75	.00
$F(4, 67) = 4.87, p = .002, R^2 = .23$			

Note. Values for the untrimmed models are in parentheses.

Military Job Quality

As expected, there were no significant predictors of amount of combat experience, suggesting that neither appearance nor rational predictors play a role in determining how much combat a soldier sees.

Combat intensity. The trimmed block of appearance variables, including attractiveness, height, and relative weight accounted for 30% of the variance in the intensity of combat experience (Table 14). Surprisingly, heavier men had more intense combat experiences, while more attractive men, as well as taller men, had less intense combat experience. The effect of attractiveness was only marginally significant. The block of rational and control variables accounted for 69% of the variance in the intensity of combat experience. The most important predictor of intensity was the amount of combat experience, but more outgoing men and less dependable men were also more likely to have more intense combat experiences. The combined model added 45% to the variance explained by appearance alone ($p < .001$), and added 6% to the variance explained by the rational and control variables ($p < .01$). The effects of attractiveness and height were eliminated after accounting for personality

Table 14

Regressions Predicting Combat Intensity from Appearance Variables, Rational Variables, and All Variables Combined

Predictor	β	<i>t</i>	<i>p</i>
Block 1: Appearance predictors			
Attractiveness	-.19 (-.19)	-1.84 (-1.80)	.07 (.08)
Height	-.22 (-.21)	-2.08 (-1.90)	.04 (.06)
Relative weight	.39 (.39)	3.72 (3.71)	.00 (.00)
$F(3, 68) = 9.69, p = .000, R^2 = .30$			
Block 2: Rational predictors			
Time served	.11 (.11)	1.56 (1.45)	.12 (.15)
Combat experience	.76 (.77)	10.87(10.33)	.00 (.00)
Dependability	-.15 (-.14)	-2.17 (-1.91)	.03 (.06)
Outgoing/aloof	.15 (.15)	2.12 (2.00)	.04 (.05)
$F(4, 67) = 36.95 p = .000, R^2 = .69$			
Block 3: Combined variable model			
Attractiveness	-.05	-.70	.49
Height	-.09	-1.29	.20
Relative weight	.24	3.47	.00
Time served	.10	1.61	.11
Combat experience	.69	10.15	.00
Dependability	-.11	-1.72	.09
Outgoing/aloof	.07	1.02	.31
$F(7, 64) = 27.40, p = .000, R^2 = .75$			

Note. Values for the untrimmed models are in parentheses.

and military variables. The effect of outgoing/aloof was also eliminated while the impact of dependability was reduced to a trend. The only remaining significant predictors were relative weight and amount of combat experience.

Discussion

Although Mazur et al. (1984) found a positive relationship of military rank with facial maturity among men in a military academy, no significant relationship was found during their years of service, which parallels the nonsignificant effect of babyfacedness on exit rank in the present investigation. On the other hand, babyfacedness did predict military status as indexed by the receipt of an

award. Surprisingly, however, it was the more babyfaced men who were marginally more likely to earn an award. This finding could reflect a contrast effect, whereby whatever courageous actions babyfaced men took were more salient because they did not fit the perception of babyfaced individuals as being warm, dependent, and submissive. Consistent with this reasoning, prior research has revealed that babyfaced individuals may receive greater punishments for intentional or serious harmdoing (Berry & Zebrowitz-McArthur, 1988; Zebrowitz, Kendall-Tackett, & Fafel, 1991), behaviors that are equally out of the perceived character of babyfaced people.

Relative weight, which did not play any role in Study 1, was found to predict both status and type of military experience in Study 2. As predicted, heavier men had lower exit ranks. However, this outcome does not seem to reflect bias against overweight individuals, since it was eliminated when controlling for entry rank. Moreover, the lower entry ranks of heavier men appeared to be due to their personality and lower intelligence. Heavier men were also found to have more intense combat experiences, even after controlling for personality and military variables. This unpredicted effect could reflect bias against overweight men. Alternatively, it could reflect the inadequacy of the Body Mass Index as a measure of overweight when it is applied to a population that is likely to include many individuals who are high in muscle mass. Indeed, obesity researchers have recognized problems with standard measures of relative weight in certain populations, such as athletes (Schachter, 1971; Welham & Behnke, 1942). Finally, attractive men and tall men were less likely to engage in intense combat, although these effects were eliminated after controlling for personality and military variables. Contrary to prediction, more babyfaced men were not less likely to engage in intense combat.

Unlike Study 1, in which appearance variables were frequently as important as rational predictors in influencing civilian occupational outcomes, intelligence, personality, and military experience were much more important than appearance in determining military outcomes in Study 2. Nevertheless, even in a setting like the military that prides itself on making personnel decisions based on merit and qualifications, appearance played a role that was not always totally accounted for by covariation with intelligence or personality. Such an impact of appearance was apparent in one type of military achievement: Babyfaced men were more likely to be honored with a military award or citation. Appearance also influenced men's exposure to hazardous military activities, with heavier men having more exposure to gunfire and casualties.

Conclusion

These studies took several important steps in looking for effects of

appearance on occupational outcomes. First, they focused on the appearance of real people in real jobs, continuing an important tradition of extending laboratory findings to the real world. Second, they went beyond an examination of income and occupational status, identifying the effects of appearance on the types of occupations and occupational experiences people have. Finally, they compared appearance effects to more rational predictors of occupational outcomes. Interestingly, different appearance variables were found to be important for men and women in the study of civilian occupations, suggesting a fruitful area for future investigations. The finding that the occupational consequences of appearance added significantly to those of ability and personality, particularly in civilian settings, suggests a nonjustifiable bias. As such, the results support the Harvard Law Review's argument that the Rehabilitation Act of 1973 should be construed to protect people against employment discrimination on the basis of facial or bodily appearance.

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