Characteristics Attributed to Individuals on the Basis of Their First Names

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ABSTRACT. Characteristics connoted by first names were explored in 7 studies. Four factors were identified: Ethical Caring, Popular Fun, Successful, and Masculine–Feminine (Study 1, N = 165). Men's names connoted more masculine characteristics, less ethical caring, and more successful characteristics than did women's names (Study 2, N = 274). Nicknames connoted less successful characteristics, more popular fun, and less ethical caring characteristics than did given names (Study 3, N = 289). Androgynous names connoted more popular fun and less masculine characteristics for men and more popular fun, less ethical caring, and more masculine characteristics for women than did gender-specific names (Study 4, N = 378). Less conventionally spelled names connoted uniformly less attractive characteristics (Study 5, N = 145). For men only, longer names connoted more ethical caring, less popular fun, more successful, and less masculine characteristics (Study 6, N = 620). More anxiety and neuroticism were attributed to those with less common names and more exuberance was attributed to those with more attractive names (Study 7, N = 137).

Key words: attractiveness, impressions, names, personality, psychopathology

THE ATTRACTIVENESS OF NAMES has been an important variable in the study of psychological reactions to, or characteristics of, individuals with different names. Typically, name attractiveness has been described with global variables of liking, preference, or desirability (Busse & Seraydarian, 1978, 1979; Erwin & Calev, 1984; Garwood, Cox, Kaplan, Wasserman, & Sulzer, 1980; Harari & McDavid, 1973; West & Shults, 1976).

The semantic differential technique (Osgood, Suci, & Tannenbaum, 1957) has been used as an alternative to global assessments of name attractiveness and has provided more differentiated assessments of reactions to names. In this approach, names are rated on the evaluation (good–bad), activity (active–passive),

and potency (strong–weak) factors of the semantic differential (Buchanan & Bruning, 1971; Lawson, 1971, 1980, 1986). The Pleasure-Arousal-Dominance (PAD) Emotion Model (Mehrabian, 1995) has also been used to obtain differentiated assessments of impressions conveyed with a first name (Mehrabian, 1992) and to characterize emotional qualities projected by product names (Mehrabian & de Wetter, 1987).

The PAD model is related to the semantic differential, with pleasure–displeasure as the emotional counterpart of stimulus evaluation, arousal–nonarousal as the correlate of stimulus activity, and dominance–submissiveness as the opposite of stimulus potency. In this approach, the model provides general yet differentiated assessments of the emotional qualities of others (e.g., happy, disdainful, anxious, hostile, dependent, relaxed) as inferred from their names.

In a third approach to assessing impressions generated by names, Mehrabian (1990, 1997a) focused primarily on attractive and unattractive characteristics of others as inferred from their names. Respondents were asked to imagine they were about to meet a man (or a woman) with a particular first name and then to describe that person using the following six factors of the Name Connotation Profile (NCP): Successful (ambitious, intelligent), Moral (trustworthy, loyal), Healthy Popular (good looking, athletic, confident), Warm (loving, kind), Cheerful (friendly, playful), and Masculine–Feminine.

I was motivated to undertake the present series of seven studies when, as I report in Study 1, factor analysis of attractive and unattractive characteristics underlying the NCP yielded a more parsimonious set of four factors. The NCP had been used to investigate differential reactions to names of men versus women, nicknames versus given names, conventionally versus unconventionally spelled names, and long versus short names. I used the revised, four-factor NCP here to reassess all the latter findings and also to explore differential reactions to androgynous versus gender-specific names. In addition, I investigated relations between the PAD and revised NCP dimensions in the final study of the series.

Study 1: Factors of Attractive Characteristics Connoted by Names

I had used 38 attractive–unattractive characteristics (e.g., creative, sincere, playful, popular) to develop the original NCP (Mehrabian, 1990, 1994, 1997a). Study 1 was designed to reassess the factorial composition of the 38 characteristics.

Method

Participants and materials. One hundred sixty-five University of California undergraduates (80 men, 85 women) participated in the study in partial fulfillment of a course requirement.

I selected 550 (268 men's and 282 women's) first names randomly from a more comprehensive list of approximately 2,400 names. A list of 38 attractive

characteristics (e.g., warm, humorous, loyal, successful, athletic, polite) that had been identified in an earlier study (Mehrabian & Valdez, 1990) was presented along with the names. A 9-point scale was provided for rating each name on each of the characteristics. The two extremes of the scale were 0 (none of the characteristic) and 8 (extremely high degree of the characteristic).

Procedure. Names were rated by participants in small groups of up to 11 in each group. Each participant was asked to imagine a man (or a woman) with a given first name and, based on that name only, to rate the individual on each of the 38 characteristics supplied. Specific instructions were (a) to rate each name as exactly spelled, (b) not to rate their own names, and (c) not to think of someone they knew who had the name they were rating but instead to imagine a stranger with that name whom they were about to meet. Each name was given to 3 different participants for rating and each participant received 10 different names to rate.

Results and Discussion

Name connotation factors. Participants rated each name on the 38 attractive characteristics implied by the names. There were some missing data, most often because of the instruction that participants not rate their own names. Altogether, 1,513 sets of observations (across participants and names) were available for analysis. I factor analyzed the 1513 × 38 data matrix and obtained a principal components solution. The scree test was applied to the eigenvalue plot and resulted in the extraction of 4 factors that accounted for 63% of the total variance. Oblique rotation of the four factors yielded the following groups of attractive qualities inferred from names. Factor loadings for each characteristic are given in parentheses.

1. Ethical Caring: trustworthy (.85), loyal (.82), sincere (.82), kind (.81), generous (.81), honest (.80), respectful (.80), caring (.79), polite (.76), patient (.75), warm (.71), moral (.70), obedient (.70), sensitive (.69), responsible (.68), religious (.66), loving (.66), congenial (.62).

2. Popular Fun: playful (.80), humorous (.79), popular (.76), cheerful (.75), outgoing (.73), good-looking (.67), adventurous (.67), friendly (.65), athletic (.60), healthy (.56), curious (.43).

3. Successful: successful (.79), ambitious (.69), intelligent (.62), independent (.60), confident (.55), assertive (.48), creative (.47).

4. Masculine–Feminine: masculine (.96), feminine (–.96).

Factor intercorrelations are given in Table 1. Noteworthy correlations were the negative relation between ethical caring and masculine–feminine, the positive relation between successful and masculine–feminine, and the positive relation between popular fun and successful.

Two factors identified here (Successful, Masculine–Feminine) were similar

TABLE 1
Factor Intercorrelations in Study 1

Factor	2	3	4
1. Ethical Caring	−.03	.08*	−.24*
2. Popular Fun		.25*	.03
3. Successful			.19*
4. Masculine–Feminine			

Note. Correlations were computed using 1,513 sets of observations.
*$p < .01$.

to those reported by Mehrabian (1990). The Ethical Caring factor extracted here corresponded approximately to a combination of two factors, Moral and Warm, in Mehrabian's (1990) study. Also, the Popular Fun factor here corresponded approximately to a combination of two factors, Healthy Popular and Cheerful, in Mehrabian's (1990) study. Overall, then, the present results were similar to those reported by Mehrabian but differed from the earlier study in that they provided a more concise formulation of attractive versus unattractive individual characteristics implied by names.

Internal consistencies of the name connotation factors. To compute alpha reliability coefficients, I treated all characteristics subsumed within a given factor as composing a single scale. Thus, for instance, scores on successful, ambitious, intelligent, independent, confident, assertive, and creative formed a single scale labeled *Successful.* The following alpha reliability coefficients for the resulting four scales were highly satisfactory: Ethical Caring (.95), Popular Fun (.91), Successful (.81), and Masculine–Feminine (.92).

Study 2: Attractiveness of Characteristics Implied
by Male and Female Names

Factors of the Revised Name Connotation Profile (RNCP; Mehrabian 1997b), Ethical Caring, Popular Fun, Successful, and Masculine–Feminine, derived in Study 1, were used in Study 2 as dependent measures to investigate possible differences in impressions created by men's and women's names. Mehrabian and Valdez (1990) found that, compared with women's names, men's names connoted less moral, less warm, less cheerful, more successful, and more masculine characteristics. Insofar as Morality and Warmth in the original NCP corresponded approximately to the Ethical Caring factor in the RNCP and Cheerfulness in the original NCP was part of the Popular Fun factor in the RNCP, I hypothesized that men's names connoted less ethical caring, less popular fun, more successful, and more masculine characteristics than did women's names.

Method

Participants. Two hundred seventy-four participants (142 men, 132 women) were recruited by 14 laboratory assistants from among their relatives, friends, and acquaintances. Only U.S.-born individuals aged 18 years or older were asked to participate. Although demographic data were not collected, experience in our laboratory with similarly recruited volunteers has shown that age and socioeconomic characteristics are far more diverse in samples collected in this manner than in samples drawn from university student populations.

Materials. I selected 261 first names (132 men's and 129 women's) randomly from a more comprehensive list of approximately 2,400 names, and I used the RNCP (Mehrabian, 1997b), which was founded on findings reported in Study 1. Respondents were asked to imagine a man (or a woman) with a given first name and, based on that name only, to rate the individual on each of four characteristics (factors). Respondents were cautioned (a) to rate each name as exactly spelled and without alteration, (b) not to rate their own names, (c) not to think of someone they knew who had the name they were rating but instead to imagine a stranger with that name who they were about to meet, (d) to keep in mind the gender associated with the name, (e) to consider all adjectives describing each factor as a group in assigning ratings, (f) to assign higher scores for masculinity and lower scores for femininity when rating names on masculinity–femininity, and (g) to concentrate and give carefully measured answers. Details of instruction (e) above emphasized that each of the four characteristics (factors) was defined by a list of highly interrelated adjectives that together defined a more basic and general characteristic. Respondents were given the four factor labels and the full list of attractive qualities associated with each factor, as supplied in Study 1, but factor loadings were excluded.

Four spaces labeled *Ethical Caring, Popular Fun, Successful,* and *Masculine–Feminine* were provided alongside each name for recording judgments. Respondents were directed to select one name at random from the names given them, rate it, then select another name at random from the list, rate it, and proceed in this way until all names were rated. They were given a 9-point rating scale that ranged from 0 (*none of the characteristic*) to 8 (*extremely high degree of the characteristic*) and included verbal descriptions for each numerical score (e.g., a value of 4 was defined as *moderate degree of the characteristic*).

Procedure

Each participant used the RNCP to rate anywhere from 16 to 22 names consisting of nearly equal numbers of men's and women's names. Men's and women's names were grouped separately and identified as such with labels. Each name was rated by 20 participants, composed of nearly equal numbers of men and women. Participants either completed the form in the presence of the labo-

ratory assistant who had recruited them or took it away and returned the completed form to the laboratory assistant within a few days.

Results and Discussion

Dependent measures in the study were the four name connotation scores corresponding to the four factors of Ethical Caring, Popular Fun, Successful, and Masculine–Feminine. For each name, I computed average scores on each of the four factors using data from all male raters. The same was done for ratings of each name provided by female raters. This yielded two sets of 261 averaged connotation (consensus) ratings corresponding to the 261 names investigated.

I used a multivariate analysis of variance (MANOVA) to explore possible contributions of name gender (i.e., gender of the person named, as designated on each name list), rater gender, and the interaction of Name Gender × Rater Gender on the dependent measures (i.e., the four name connotation factors).

The MANOVA yielded significance for name gender, $F(4, 515) = 495.68$, $p < .05$. Significant .05-level univariate effects showed that, compared with women's names, men's names implied less ethical caring, $F(1, 518) = 17.76$, more successful, $F(1, 518) = 6.68$, and more masculine, $F(1, 518) = 1892.11$, qualities.

Rater gender did not achieve significance, $F(4, 515) = 1.03$, $p > .05$. However, Name Gender × Rater Gender did achieve significance, $F(4, 515) = 2.63$, $p < .05$. Only the univariate effect for masculinity was significant, $F(1, 518) = 9.30$, $p < .05$. Although raters of both genders judged women's names to be less masculine than men's names, this effect was more pronounced for male raters who judged women's names to be even less masculine, or more feminine, than men's names, $t(256) = 3.07$, $p < .05$.

Overall, findings were highly consistent in showing that raters of both genders were in general agreement regarding attractive characteristics implied by men's and women's names. The hypothesis regarding greater connotation of popular fun characteristics by women's, than by men's, names was not supported. However, the three remaining hypotheses were confirmed. Name gender (scored 1 for female names, 2 for male names) correlated positively with the masculine connotation of names, $r(259) = .88$, $p < .05$, correlated negatively with the ethical caring connotation, $r(259) = -.18$, $p < .05$, and correlated positively with the success connotation, $r(259) = .11$, $p < .05$, showing that men's names were judged as connoting more masculine, less ethical caring, and more successful characteristics than women's names.

Study 3: Attractiveness of Characteristics Implied
by Nicknames and Given Names

Busse (1983) found that 55% of the boys and 40% of the girls in a U.S. high school had nicknames. The nicknames were either shortened forms of the sur-

name or alluded to physical characteristics of the persons named. Joubert (1985a) found that college students with unusual names were more likely to have nicknames, and those who were known by their nicknames expressed less liking for their first and middle names. Skipper (1984) proposed that the use of nicknames implied feelings of intimacy with the person named. He suggested that, historically, major league baseball players were perceived as folk heroes with whom fans felt intimate, whereas recently they were perceived as impersonal entrepreneurs. Data showing declines in usage of nicknames for major league baseball players over the past few decades were consistent with the hypothesis. Cornog (1986) also suggested that, although naming a partner's sexual body parts could serve as a euphemism, such made-up names were also motivated by a desire to enhance feelings of intimacy.

Leirer, Hamilton, and Carpenter (1982) found that different personality characteristics were inferred from nicknames than from given names. Mehrabian and Piercy (1993b) used the NCP to pursue the latter direction of research and to highlight specific patterns of differences in impressions created by nicknames versus given names. Their findings showed that, compared with given names, nicknames connoted more popular and cheerful, and less successful and moral, characteristics. The latter results were consistent with Skipper's (1984) and Cornog's (1986) hypotheses in showing that nicknames suggested characteristics that invited intimacy (popularity, cheerfulness), whereas given names were more likely to suggest characteristics associated with respectability. Accordingly, for Study 3, I hypothesized that, compared with given names, nicknames connote more popular fun, but less ethical caring and less successful, characteristics.

Method

Participant recruitment, materials (excepting the specific names investigated), and procedure were the same as for Study 2. In Study 3, however, the 289 participants (139 men, 150 women) were recruited by 17 laboratory assistants. The 390 names selected included 205 men's names consisting of 90 given names and 115 corresponding nicknames. The 185 women's names consisted of 80 given names and 105 nicknames. An attempt was made to include the most common nickname variants of each given name. Participants rated either men's names only or women's names only. Each participant received a total of 24 to 31 given names and nicknames, intermixed and presented in a single list. Several given names and their nickname variants were combined within each of the lists. Thus, for instance, Diane and Di or Ann and Annie were included on the same list.

For rating, each name was given to 20 participants, composed of nearly equal numbers of men and women. However, some nicknames were associated with more than one given name (e.g., Al as a nickname for Albert and for Alfred) and thus were rated by more than 20 participants.

Results

Dependent measures were the four name connotation scores corresponding to the factors of Ethical Caring, Popular Fun, Successful, and Masculine–Feminine. For each name, average scores were computed on each of the four factors using data from all raters. This yielded 390 sets of averaged connotation (consensus) ratings corresponding to the 390 names investigated. A MANOVA was used to explore possible contributions of name gender (i.e., gender of the person named), name type (nickname versus given name), and the interaction of Name Gender × Name Type on the dependent measures (i.e., the four name connotation factors).

The MANOVA yielded significance for name type, $F(4, 383) = 83.92$, $p < .05$. Significant .05-level univariate effects showed that, compared with given names, nicknames implied less ethical caring, $F(1, 386) = 51.81$, more popular fun, $F(1, 386) = 64.62$, and less successful, $F(1, 386) = 124.48$, characteristics.

The name gender effect, though significant, $F(4, 383) = 299.61$, $p < .05$, was not considered in detail, because it had been investigated thoroughly in Study 2, in which names were sampled specifically to explore the effect. The Name Gender × Name Type interaction was significant, $F(4, 383) = 4.33$, $p < .05$, and yielded significance for the univariate analysis of masculinity, $F(1, 386) = 12.77$, $p < .05$. Cell mean comparisons showed that men's nicknames and given names did not imply a significant difference in masculinity, $t(203) = .77$, $p > .20$. However, women's nicknames connoted more masculinity than women's given names, $t(183) = 4.38$, $p < .05$.

Discussion

As with other elements of nonverbal communication, names and nicknames convey impressions in subtle and implied ways rather than in overt or verbalized ways (Mehrabian, 1981). The present findings showed that distinct sets of subtle inferences were suggested by nicknames versus given names. Nicknames versus given names (scored 1 for given names, 2 for nicknames) correlated negatively with the success connotation of names, $r(388) = -.41$, $p < .05$, correlated positively with the popular fun connotation, $r(388) = .33$, $p < .05$, and correlated negatively with the ethical caring connotation, $r(388) = -.26$, $p < .05$. Thus, nicknames, compared with given names, connoted less successful, more popular fun, and less ethical caring characteristics.

Overall, findings confirmed Skipper's (1984) hypothesis that nicknames suggest characteristics that invite intimacy in contrast to the less approachable characteristic of respectability (success, ethical caring quality) conveyed by given names. The present findings therefore indicate that given names are more suitable for professional and business settings in which an image of reliability, morality, trustworthiness, success, and intelligence is an asset. Nicknames may

be more suitable when one attempts to project an image of friendliness, playfulness, and a good sense of humor along with an image of health, vitality, confidence, and assertiveness.

Study 4: Attractiveness of Characteristics Implied
by Androgynous Versus Gender-Specific Names

Few studies have dealt with the psychological impact of androgynous versus gender-specific names. Rickel and Anderson (1981) found no relationship between the sexual ambiguity of first names and social class, family tradition, school grades, or self-concept. Also, Ellington, Marsh, and Critelli (1980) found no personality or adjustment differences between college women with androgynous versus gender-specific names. However, among women with more masculine names, those who were known more by their masculine names tended to be better adjusted.

Only indirect evidence is available regarding attractive versus unattractive impressions created by androgynous first names compared with gender-specific first names. More common men's names were found to convey greater masculinity, whereas more common women's names were found to convey greater femininity (Joubert, 1995). Name commonness and desirability tend to be positively correlated (Busse & Seraydarian, 1978; Karlin & Bell, 1995; Lawson, 1971; Mehrabian, 1992; West & Shults, 1976). Thus, Joubert's (1995) findings suggest that more common and, according to our inference, more attractive names imply gender-specific characteristics, namely, masculinity in men and femininity in women.

In another study, more unconventional spelling of names yielded less positive impressions. Also, more unconventional spelling produced less masculine attributions to men and less feminine attributions to women (Mehrabian & Piercy, 1993c). Thus, it appears that masculinity (femininity) was an attractive attribute for men (women) and more unconventional name spelling uniformly diminished all attractive characteristics inferred from the names. Joubert's (1995) results, noted in the preceding paragraph and related and more general findings by Spence (1991), have shown that violations of gender-specific norms are often perceived negatively. Mehrabian and Piercy's (1993c) findings thus led to a tenuous inference (but not a formal hypothesis) that greater desirability is attributed to more masculine men's names and to more feminine women's names.

Also, instead of focusing on the overall attractiveness of androgynous names, I designed Study 4 to provide a reasonably broad-based and differentiated assessment of attractive versus unattractive characteristics conveyed by androgynous versus gender-specific names. Impressions of others derived from their names were assessed using four dimensions of the RNCP: ethical caring, popular fun, successful, and masculine–feminine (Mehrabian, 1997b).

Because there are few findings bearing on androgynous versus gender-

specific names and, particularly, because of the absence of findings relating androgynous names to dimensions of the NCP, I proposed only a single hypothesis: Androgynous names connote less masculinity for men, whereas they connote greater masculinity (or less femininity) for women.

Method

Participant recruitment, materials (excepting the specific names investigated), and procedure were the same as for Study 2. In Study 4, however, the 378 participants (182 men, 196 women) were recruited by 19 laboratory assistants. I investigated 268 men's names (32 androgynous and 236 gender-specific) and 224 women's names (32 androgynous and 192 gender-specific). The same 32 androgynous names were used for men and women and included the following: Blair, Carey, Chris, Dale, Dana, Erin, Jamie, Jan, Lee, Leslie, Marion, Merle, Morgan, Pat, Robin, Ronnie, Sandy, Shelley, Stacy, Terry, Wesley.

Participants rated either men's names only or women's names only. Each participant received a total of 23 to 32 names for rating and each name was given to 20 participants, composed of nearly equal numbers of men and women.

Results

The dependent measures were the four name connotation scores corresponding to the four factors of Ethical Caring, Popular Fun, Successful, and Masculine–Feminine. For each name, average scores were computed on each of the four factors using data from all raters. A MANOVA was used to explore possible contributions of name androgyny (i.e., androgynous versus gender-specific), name gender (gender of the person named), and interaction of Name Androgyny × Gender on the dependent measures (i.e., the four name connotation factors).

The MANOVA yielded significance for name androgyny, $F(4, 485) = 3.49$, $p < .05$. A significant univariate main effect showed that androgynous, compared with gender-specific, names connoted more popular fun, $F(1, 488) = 12.01$, $p < .05$, characteristics.

The name gender effect, although significant, $F(4, 485) = 502.63$, $p < .05$, was not considered in detail because it had been investigated more thoroughly and with a more appropriate sample of names in Study 2. The MANOVA showed significance for Name Androgyny × Name Gender, $F(4, 485) = 28.36$, $p < .05$. Corresponding univariate analyses showed a .05-level of significance for three of the dependent variables: ethical caring, $F(1, 488) = 9.26$, successful, $F(1, 488) = 5.36$, and masculine–feminine, $F(1, 488) = 108.60$.

I compared cell means using two-tailed t tests, because specific hypotheses had not been offered. For men, the Name Androgyny × Name Gender effect on connotations of ethical caring characteristics showed no significant difference for androgynous versus gender-specific names, $t(266) = 1.72$, $p > .05$. However, for

women, androgynous names connoted significantly less ethical caring character-
istics than gender-specific names, $t(222) = 2.57$, $p < .05$. Although Name An-
drogyny × Name Gender was significant for connotations of successful charac-
teristics, androgynous versus gender-specific names of men (or of women) did
not differ significantly in these connotations.

The Name Androgyny × Name Gender effect on connotations of masculini-
ty–femininity was consistent with proposed hypotheses and showed opposing ef-
fects of name androgyny for men and women. For men, androgynous names con-
noted significantly less masculinity (or more femininity) than gender-specific
names, $t(266) = 6.20$, $p < .05$. In contrast, for women, androgynous names con-
noted significantly more masculinity (or less femininity) than gender-specific
names, $t(222) = 5.89$, $p < .05$.

Discussion

For men, androgynous, compared with gender-specific, names connoted
more popular fun and less masculine characteristics. For women, androgynous,
compared with gender-specific, names connoted more popular fun, less ethical
caring, and more masculine characteristics. There were two distinct sources of
influence on connotations of androgynous names.

The gender effect. A framework was needed to explain the diverse findings for
name androgyny as summarized in the preceding paragraph. One part of this
framework was provided by the findings obtained in Study 2 for effects of gen-
der. Men's names were found to connote less ethical caring, more successful
characteristics, and more masculine characteristics than women's names.

I proposed a corresponding post hoc gender effect hypothesis, according to
which androgynous, compared with gender-specific, men's names reflect fewer
of the connotations of men's names and more of the connotations of women's
names (i.e., they connote more ethical caring, less successful, and less masculine
characteristics). Conversely, androgynous, compared with gender-specific,
women's names reflect less ethical caring, more successful characteristics, and
more masculine characteristics. The latter hypothesis was consistent with find-
ings showing that preadolescents were more likely to assign an androgynous
name to a boy exhibiting feminine behaviors than to one exhibiting masculine
behaviors (Lobel, 1994; Lobel, Bempechat, Gewirtz, & Shoken-Topaz, 1993).

The nickname effect. In itself, the gender effect hypothesis did not provide a suf-
ficiently adequate fit to results obtained here. An additional hypothesis was need-
ed and related to the fact that many androgynous names are nicknames (e.g.,
Bobby, Chris, Lou, Pat, Ronnie, Sandy, Terry, Tony). The sample of 32 identical
androgynous names for men and women consisted of 12 (38%) nicknames, 19
(59%) given names, and one name (3%) that could not be categorized as a nick-

name or as a given name. In line with the findings in Study 3, I proposed a post hoc nickname effect hypothesis, according to which androgynous names connote less ethical caring, more popular fun, and less successful characteristics than gender-specific names.

The nickname effect hypothesis was tested specifically with the present sample of 31 androgynous names, excluding the single androgynous name that could not be categorized as a nickname or given name. There were 62 observations, because there were two sets of data for each name (i.e., for men's names and, separately, for women's names). Nicknames versus given names (scored 1 for given names, 2 for nicknames) were correlated negatively with the ethical caring connotation, $r(60) = -.39$, $p < .05$, were correlated positively with the popular fun connotation, $r(60) = .27$, $p < .05$, and were correlated negatively with the successful connotation of names, $r(60) = -.40$, $p < .05$.

The sample of observations used here was much smaller than the corresponding sample in Study 3. Nevertheless, despite the small sample, as expected from the nickname effect hypothesis, nicknames, compared with given names, connoted less ethical caring, more popular fun, and less successful characteristics.

Predictions of the gender effect and nickname effect hypotheses are summarized in Table 2, wherein plus and minus signs indicate differences in name connotations of androgynous versus gender-specific names. Table 2 shows that neither hypothesis, in itself, provided an adequate account of the obtained data. However, a combination of the two hypotheses provided an excellent fit to results obtained here. For men, the combined hypotheses fit obtained findings for connotations of ethical caring, popular fun, and masculine characteristics. Although the combined hypotheses also included a prediction of lower success connotations for men's androgynous, compared with gender-specific, names, no significant effect was observed favoring or opposing the latter prediction. In sum, for men's names, the combined hypotheses were correct in three of four predictions and provided no predictions contrary to results.

For women, the combined hypotheses were correct in every instance and fit obtained findings for name connotations of ethical caring, popular fun, successful, and masculine characteristics. For women's names, then, the combined hypotheses were correct in four of four predictions.

Overall, then, the combined hypotheses and obtained results were congruent in seven of eight instances. It is also noteworthy that the combined hypotheses never predicted a result that was the opposite of an obtained finding. Thus, in the single disconfirmation of the combined hypotheses for successful connotations of men's names, the prediction of the hypotheses had no matching (but also no opposing) result in the obtained data.

Considering these statistics, attractive versus unattractive impressions conveyed by androgynous names are best described in terms of a combination of two distinct influences. Androgynous men's names reflect more characteristics generally inferred from women's names and, conversely, androgynous women's

TABLE 2
Comparisons of Predictions Derived From a Combination
of Two Hypotheses With Actual Results

Source of influence	Ethical Caring	Popular Fun	Successful	Masculine
Men's names				
Hypotheses				
Gender effect	+	0	–	–
Nickname effect	–	+	–	0
Combination of both	0	+	–	–
Results	0	+	0	–
Women's names				
Hypotheses				
Gender effect	–	0	+	+
Nickname effect	–	+	–	0
Combination of both	–	+	0	+
Results	–	+	0	+

Note. Plus and minus signs indicate differences in name connotations of androgynous versus gender-specific names. Thus, the first row of signs summarizes the gender effect hypothesis for men's names and shows that, for men, androgynous names connote more ethical caring, less successful, and less masculine characteristics than gender-specific names. The two rows marked "Combination of both" combine predictions from the gender effect and nickname effect hypotheses. The rows marked "Results" summarize results obtained in Study 4.

names convey more of the characteristics generally inferred from men's names. Furthermore, the nickname-like quality of some androgynous names imparts connotations to these names resembling connotations conveyed by nicknames.

Study 5: Attractiveness of Characteristics Implied
by Conventionally and Unconventionally Spelled Names

Studies of unusual versus common names are relevant here because a deliberately misspelled name is essentially an unusual variant of the name (e.g., Dyan vs. Diane, Kortney vs. Courtney, Myque vs. Mike, or Darin vs. Darren). With few exceptions, results have shown that more unusual names tend to be judged less attractive and, through association, result in the attribution of less attractive characteristics to the persons named (e.g., Anderson, 1985; Busse & Seraydarian, 1978; Joubert, 1985b; Mehrabian, 1992; West & Shults, 1976). Basic findings showing that people tend to have less liking for less familiar others (Colman, Hargreaves, & Sluckin, 1980) can help explain the observed positive relation between name commonness (or familiarity) and name attractiveness.

In the present study I used the RNCP (Mehrabian, 1997b) to provide a differentiated assessment of attractive versus unattractive characteristics implied

about individuals by one variant of unusual names, the unconventionally spelled name. In line with findings with unusual names and with results from a corresponding study by Mehrabian and Piercy (1993c), I hypothesized that, compared with conventionally spelled names, unconventionally spelled names imply uniformly more negative characteristics about the individuals so named. Additionally, based on Mehrabian and Piercy's (1993c) findings, I also hypothesized that unconventional spelling of names reduces masculinity attributed to men and reduces femininity attributed to women.

Method

Participant recruitment, materials (excepting the specific names investigated), and procedure were the same as for Study 2. In Study 5, however, the 145 participants (71 men, 74 women) were recruited by 8 laboratory assistants and the 159 names selected consisted of 56 men's names (25 conventionally spelled and 31 corresponding and unconventionally spelled) and 103 women's names (45 conventionally spelled and 58 corresponding and unconventionally spelled). More women's names were used because unconventional spelling appeared to be more prevalent for women's names. Participants rated either men's names only or women's names only. Each participant received a total of 20 to 27 given names that included unconventionally spelled variants of names together with the conventionally spelled names. Each name was rated by 20 participants, composed of nearly equal numbers of men and women.

Results

Dependent measures were the four name connotation scores corresponding to the four factors of Ethical Caring, Popular Fun, Successful, and Masculine–Feminine. For each name, average scores were computed on each of the four factors using data from all raters. A MANOVA was used to explore possible contributions of name type (unconventionally vs. conventionally spelled), name gender (gender of the person named), and interaction of Name Type × Name Gender on the dependent measures (the four name connotation factors).

The MANOVA yielded significance for name type, $F(4, 152) = 15.91$, $p < .05$. Significant .05-level univariate main effects showed that, compared with conventionally spelled names, unconventionally spelled names connoted less ethical caring, $F(1, 155) = 27.37$, less popular fun $F(1, 155) = 19.90$, and less successful $F(1, 155) = 35.84$, characteristics.

The name gender effect, although significant, $F(4, 152) = 193.74$, $p < .05$, was not considered in detail because it had been investigated more thoroughly and with a more appropriate sample of names in Study 2. The MANOVA also showed significance for Name Type × Name Gender, $F(4, 152) = 6.33$, $p < .05$. Univariate analyses showed that this interaction was significant for only one of

the dependent variables: masculine–feminine, $F(1, 155) = 24.87$, $p < .05$. Cell means were compared using one-tailed t tests, because specific hypotheses had been offered. As predicted, for men, unconventionally spelled names connoted less masculinity than conventionally spelled names, $t(54) = 5.01$, $p < .05$. Also, as predicted, for women, unconventionally spelled names connoted more masculinity (less femininity) than conventionally spelled names, with the difference approaching significance, $t(101) = 1.62$, $p < .08$.

Discussion

As noted in the proposed hypotheses for the present study, (a) unconventionally spelled names are less familiar or less common and (b) the weight of available evidence shows that less attractive characteristics are attributed to less common names. Results were in line with this rationale and corresponding hypotheses, showing that less attractive characteristics were attributed to individuals with less conventionally spelled names. Listed in descending strength of effect sizes, less conventionally spelled names connoted less successful, less ethical caring, and less popular fun characteristics. In addition, unconventional, compared with conventional, spelling connoted less masculinity for men and more masculinity (less femininity) for women, with the latter effect only approaching significance.

The unconventional spelling of names is often motivated by the desire to make names interesting, noticeable, or different, or simply to make a personal statement of individuality cr creativity. The present findings showed that unconventionally spelled names were indeed different or distinctive but achieved this distinction at the cost of conveying unflattering and unattractive characteristics.

Finally, it is also interesting to note that, insofar as unconventionally and conventionally spelled variants of a name are highly similar except for spelling, comparisons of these two categories of names can provide a convenient paradigm for the controlled study of common versus unusual names.

Study 6: Attractiveness of Characteristics Implied by Name Length

Few studies are available regarding attributions of attractive versus unattractive characteristics to others on the basis of the length of their names. Two studies dealing with surnames showed that shorter names were considered more attractive (Arthaud, Hohneck, Ramsey, & Pratt, 1948; Broom, Beem, & Harris, 1955). Slater and Feinman's (1985) results bearing on first names also showed that names by which individuals preferred to be called, as distinct from their given names, tended to be shorter than their given names. Use of the original NCP, however, showed that longer names conveyed positive as well as negative characteristics. For women, longer names connoted less warmth; for men, longer names connoted more moral, less popular, less cheerful, more successful, and less masculine (or more feminine) characteristics (Mehrabian & Piercy, 1993a).

The latter results can be interpreted in reference to choices of pronouns and other forms of address used with familiar versus unfamiliar persons (e.g., *tu* versus *vous* in French or *John* versus *Mr. John Keating* or *Supervisor Keating* in English). Longer, more elaborate, and plural forms are more likely to be used with unfamiliar persons, whereas shorter, less elaborate, and singular forms are used with familiar and more approachable others (Brown, 1965, chap. 2; Brown & Gilman, 1960).

Understandably, then, greater morality and success (i.e., respectable and somewhat distant characteristics) were associated with longer names, whereas greater popularity and cheerfulness (i.e., more casual and approachable qualities) were associated with shorter names. Similar name length/familiarity relations were not evident, however, for women's names, possibly because some women's names are lengthened variants of men's names that impart feminine, diminutive, or approachable qualities to the names (e.g., Roberta, Stephanie, Ronnette).

Drawing on findings by Mehrabian and Piercy (1993a) and related interpretations noted here, I hypothesized that, for men, longer names imply more ethical caring, more successful, but less popular fun, characteristics. No hypotheses were offered for women's names.

Method

Materials (excepting the specific names investigated) were the same as for Study 2. In Study 6, however, the 620 participants (306 men, 314 women) were University of California undergraduates who participated in partial fulfillment of a course requirement. I used 863 (422 men's and 441 women's) given names. To avoid confounding of effects of short names and those of nicknames, I excluded nicknames from the list of names used.

Participants were instructed in groups, numbering up to 18 in each group. They rated either men's names or women's names only. Each participant received a total of 25 to 32 names for rating and each name was given to 20 participants, composed of nearly equal numbers of men and women.

Results and Discussion

For each name, average scores were computed for each of the four factors using data from all raters. Correlations were used to assess relations of name length (measured in number of letters and number of syllables) with the dependent measures.

Table 3 shows that results differed substantially for men's and women's names. For women's names, no significant relations were obtained between name length, assessed with either of the two measures of length, and the four connotation factors. In contrast, for men's names, name length assessed with either measure, correlated positively with ethical caring, negatively with popular

TABLE 3
Correlations of Name Length With Attractive
Characteristics Connoted by Names

Factor	Men's names		Women's names	
	Length in syllables	Length in letters	Length in syllables	Length in letters
Ethical Caring	.14*	.19*	−.08	−.05
Popular Fun	−.23*	−.17*	−.07	.01
Successful	.04	.17*	.01	.06
Masculine	−.18*	−.18*	−.06	−.08

Note. Numbers are intercorrelations between characteristics connoted by names (e.g., ethical caring) and name length measured in number of syllables or number of letters.
*$p < .05$.

fun, and negatively with masculine characteristics. Also, name length assessed with the number of letters, but not syllables, correlated positively with connotations of success. Overall, then, results were consistent with the hypotheses in showing that, for men only, shorter names connoted more informal and approachable characteristics.

The negative relation between name length and masculinity was also consistent with findings showing that men's names (mean number of syllables = 1.96, mean number of letters = 5.85) were shorter than women's names (mean number of syllables = 2.38, mean number of letters = 6.12), $t(861) = 9.7, p < .05$, for length in syllables and $t(861) = 2.8, p < .05$ for length in number of letters. It is not surprising, therefore, that restaurant names derived from men's names were found to be shorter than those based on women's names (Nilsen, 1995).

I performed additional analyses to examine possible distinctive connotations of women's names that were lengthened variants of men's names (e.g., Roberta versus Robert, Cornelia versus Cornell, Gabrielle versus Gabriel, Henrietta versus Henry). Of the 441 women's names, 61 were categorized as "transformed" in this way and 380 as "original" women's names. For each category of women's names (i.e., transformed vs. original), the correlations of name length with the four name connotation factors were obtained (see Table 4).

For the transformed women's names, correlations of name length with the four name connotation factors yielded one significant and one near-significant result: Name length assessed with syllables correlated positively with the ethical caring connotation, $r(59) = .27, p < .05$, and correlated negatively with the popular fun connotation, $r(59) = −.20, p < .10$. For these transformed names, name length, as assessed with number of letters, did not correlate significantly with any of the four name connotation factors. For the original women's names, name length assessed with syllables correlated negatively with the ethical car-

TABLE 4
Correlations of Name Length With Attractive Characteristics Connoted by Names for Transformed and Original Women's Names

Factor	Transformed names		Original names	
	Length in syllables	Length in letters	Length in syllables	Length in letters
Ethical Caring	.27**	.02	−.12**	−.06
Popular Fun	−.20*	−.09	−.07	.00
Successful	.03	.01	−.03	.02
Masculine	−.07	.10	−.07	−.13**

Note. "Transformed" women's names (*n* = 61) were lengthened variants of men's names (e.g., Stephanie). "Original" women's names were not variants of men's names (*n* = 380). Numbers are intercorrelations between characteristics connoted by names (e.g., ethical caring) and name length measured in number of syllables or number of letters.
*$p < .10$. **$p < .05$.

ing connotation, $r(378) = -.12$, $p < .05$. Also, name length assessed with the number of letters correlated negatively with masculine connotation, $r(378) = -.13$, $p < .05$.

Results showed that the transformed women's names (possibly because they were variants of men's names) tended to mirror findings obtained for men's names: The longer names, as measured in syllables, conveyed impressions of more ethical caring and less popular fun characteristics for women. In contrast, results for the original women's names did not fit this pattern and produced one significant result contrary to the pattern: Longer original women's names conveyed less of the ethical caring quality and this was consistent with findings by Mehrabian and Piercy (1993a) showing that longer women's names connoted less warmth. However, consistent with findings for men's names, longer original women's names conveyed less masculine (or more feminine) connotations.

In an additional set of correlations, women's names were scored 2 if they were transformed and 1 if they were original. Correlations of these scores with the four name connotation factors yielded a single significant result showing that women's names that had been transformed from men's names through lengthening tended to have greater success connotations than original women's names, $r(439) = .15$, $p < .05$. The latter was consistent with findings in Study 2 showing that men's names connoted more success than did women's names. It also reinforced the interpretation here suggesting that the transformed women's names tended to mirror some of the connotations of men's names.

Because the sample of names used in the present study was the largest of samples in the series of seven studies, the present data were used to sort names and illustrate high and low scoring names on each of the four name connotation

TABLE 5
Sample Names of Men and Women With High or Low Ratings
on the Four Factors of the Name Connotation Profile

Factor/rating	Names			
	Men			
Ethical Caring				
High	Moses	Jonah	Lincoln	Jacob
Low	Adolph	Buck	Zeke	Aldo
Popular Fun				
High	Scott	Chad	Eric	Keith
Low	Herman	Melvin	Filbert	Orville
Success				
High	Madison	Charles	Thomas	Alexander
Low	Elmo	Rufus	Butch	Skipp
Masculinity				
High	Duke	Bruno	Tyrone	Kyle
Low	Shannon	Prentice	Angel	Darcy
	Women			
Ethical Caring				
High	Hope	Emily	Thelma	June
Low	Bliss	Musette	Roxanne	Brandy
Popular Fun				
High	Brooke	Holly	Kimberly	Tiffany
Low	Eula	Muriel	Edwina	Abigail
Success				
High	Katherine	Lauren	Margaret	Alexandra
Low	Bonnie	Bertha	Sadie	Edith
Femininity[a]				
High	Maria	Bridget	Sally	Crystal
Low	Zelda	Olga	Lee	Beryl

[a]Low masculinity.

factors. Sample high and low scoring men's names on each of the four factors are shown in Table 5. Analogous examples of women's names are also given.

Study 7: Relations Among Factors of the Name Connotation Profile, the PAD Dimensions, and Self-Reports of Temperament

Study 7 included reanalyses of findings originally reported by Mehrabian (1992) and additional new data on relations between connotations of names according to the RNCP and connotations of names derived using the PAD emotion

model (Mehrabian, 1995). Three basic dimensions of affect in the PAD emotion model were pleasure–displeasure (positive versus negative affective states), arousal–nonarousal (a combination of levels of mental alertness and physical activity), and dominance–submissiveness (feeling that one is in control of an ongoing situation versus feeling controlled by others or circumstances).

The three dimensions of the PAD model define a three-dimensional emotion space and provide a general and highly differentiated characterization of affect (Mehrabian, 1995). Using +P and –P for pleasure and displeasure, +A and –A for high and low arousal, and +D and –D for dominant and submissive, respectively, yields the following four diagonals in this emotion space:

Exuberant (+P+A+D)	vs.	Bored (–P–A–D)
Dependent (+P+A–D)	vs.	Disdainful (–P–A+D)
Relaxed (+P–A+D)	vs.	Anxious (–P+A–D)
Docile (+P–A–D)	vs.	Hostile (–P+A+D)

More specific examples of each of the eight categories are as follows: exuberant (excited, bold); bored (sad, fatigued); dependent (fascinated, grateful); disdainful (unconcerned, indifferent); relaxed (comfortable, satisfied); anxious (in pain, distressed); docile (protected, consoled); and hostile (insolent, angry). Any emotional state can be described precisely in terms of its pleasure, arousal, and dominance values, respectively, as in the following examples in which numerical values range from –1 to +1: curious (.22, .62, –.01), dignified (.55, .22, .61), elated (.50, .42, .23), inhibited (–.54, –.04, –.41), sleepy (.20, –.70, –.44), and violent (–.50, .62, .38).

The four connotation factors for names identified in Study 1 referred in part to emotional characteristics attributed to individuals on the basis of their names. One objective of Study 7 was to identify the PAD correlates of each of these four factors. To describe specific positioning of each of the four name connotation factors in PAD space, I used regression analyses to define simultaneous relations of the PAD measures with each factor.

The 1992 study I performed involved three non-overlapping samples of participants in three studies. The 167 participants (63 men, 104 women) in my Study 1 (Mehrabian, 1992) were the primary focus of all three studies. They recorded the first names they used habitually and provided self-reports of their temperaments using the PAD Temperament Scales (Mehrabian, 1978). The 117 participants in Study 2 rated the uniqueness and attractiveness of the names of participants in Study 1. The 520 participants in Study 3 used the PAD Emotion Scales to rate the emotional characteristics they inferred for participants in Study 1 on the basis of the names of those individuals.

In the present Study 7, a new group of participants, using the RNCP, rated characteristics of participants in Mehrabian's (1992) Study 1 as implied by the first names of those participants. Thus, it was possible to investigate relations among the variables assessed across the four studies for the 167 participants in Mehrabian's

(1992) Study 1 and, in particular, to focus on relations between the two differing systems (NCP vs. PAD) for describing impressions derived from names.

Method

Participant recruitment, materials (excepting the specific names investigated), and procedure were the same as for Study 2. In Study 7, however, the 137 participants (72 men, 65 women) were recruited by 7 laboratory assistants, and they rated the 130 distinct names from Mehrabian's (1992) Study 1. Each participant received a total of 16 to 23 first names for rating and each name was given to 20 participants, composed of nearly equal numbers of men and women.

Results

For each name, average scores, based on data from all raters, were computed for each of the major variables in the study. Averaged ratings were thus obtained for name uniqueness, name attractiveness, characteristic levels of pleasure–displeasure, arousal–nonarousal, and dominance–submissiveness connoted by names and by Ethical Caring, Popular Fun, Successful, and Masculine–Feminine factors of the RNCP.

Two regression analyses were used to explore name uniqueness and name attractiveness as functions of the pleasant–unpleasant (P), aroused–unaroused (A), and dominant–submissive (D) characteristics inferred about others on the basis of the others' names. Unless otherwise specified, the resulting regression equations and all remaining equations in Study 7 were written for standardized variables and .05-level effects.

$$\text{Name Uniqueness} = -.53\,P +.15\,A -.32\,D \tag{1}$$
$$\text{Name Attractiveness} = .56\,P +.12\,A +.63\,D \tag{2}$$

Multiple correlation coefficients for Equations 1 and 2 were .45 and .53, respectively. The .12A effect in Equation 2 achieved only the .10-level of significance but was also included for comparison with the .15A effect in Equation 1. As noted, in the PAD emotion model, anxious (e.g., feeling distressed, in pain, insecure, bewildered, aghast) corresponds to the combination of unpleasant, aroused, and submissive feelings (–P+A–D). Temperament characteristics, as distinct from emotional states, of trait anxiety and neuroticism have also been found to include unpleasant, arousable, and submissive qualities (Mehrabian, 1996).

Thus, results in Equation 1 showed that unique or uncommon names were more likely to connote anxious and/or neurotic emotional characteristics (i.e., temperament) for the persons named. Stated otherwise, uncommon names were more likely to suggest that the individual named characteristically or typically experienced unpleasant, aroused, and/or submissive feelings.

A second basic type of emotion, exuberant (e.g., carefree, admired, bold, ex-

cited, mighty, triumphant) corresponds to the combination of pleasant, aroused, and dominant feelings (+P+A+D) in the PAD model. Equation 2 showed that attractive names were more likely to connote exuberant temperament characteristics about the persons named. In other words, attractive names were more likely to suggest that the individual named characteristically or typically experienced pleasant, aroused, and/or dominant feelings.

Related findings from a study of physical attractiveness are relevant here. Participants in Mehrabian and Blum's (1997) study rated the physical attractiveness of others (targets) depicted in photographs. Participants also rated their own emotional reactions to each target using the PAD emotion scales. Relations between participant emotional reactions and target physical attractiveness were summarized by Mehrabian and Blum (Equation 5). For present purposes, those findings are restated in terms of emotional characteristics projected by the targets: physical attractiveness = (.40 P +.16 A +.24 D). Thus, as with more attractive names, individuals with attractive physical features were more likely to convey feelings of pleasure, arousal, and dominance, that is, exuberance. Also, as in the case of names, the arousing quality of physical characteristics was the weakest of the PAD correlates of attractiveness.

The following analyses were designed to help position the RNCP factors in PAD emotion space. Four regression analyses were used to explore each of four RNCP factors as functions of the pleasant–unpleasant (P), aroused–unaroused (A), and dominant–submissive (D) characteristics participants inferred about others on the basis of the others' names. Results are given in Equations 3 through 6.

Ethical Caring	=	.31 P		−.16 D	(3)
Popular -Fun	=	.61 P	+.16 A	+.49 D	(4)
Successful	=	.41 P		+.48 D	(5)
Masculine	=		−.37 A	+.67 D	(6)

Multiple correlation coefficients were .43, .50, .38, and .68 for Equations 3 through 6, respectively. The constellation of emotions in Equation 3 (+P–D) may be associated with either dependent (+P+A–D) (e.g., fascinated, grateful, impressed, amazed, loved, respectful) or docile (+P–A–D) (e.g., protected, sleepy, consoled, reverent, tranquilized) basic emotion types in the PAD model. Thus, names that imply more ethical caring characteristics are also more likely to imply dependent and/or docile temperament qualities about the individuals named.

Equation 4 shows that exuberant emotional characteristics (e.g., carefree, admired, bold, excited) are connoted by names that rate highly on the Popular Fun factor. Names connoting higher levels of success tend to connote either exuberant (+P+A+D) or relaxed (+P–A+D) (comfortable, satisfied, unperturbed, secure, at ease) emotional characteristics (Equation 5). Also, names connoting higher levels of masculinity tend to connote either relaxed (+P–A+D) or disdainful (–P+A+D) (indifferent, selfish–uninterested, uncaring, unconcerned) temperament qualities (Equation 6). Conversely, names that give the impression of

greater femininity tend to connote either anxious (–P+A–D) or dependent (+P+A–D) qualities about the person named.

Findings summarized here were helpful in interrelating individual personality and emotional characteristics implied by (or inferred from) names. The obtained moderate relations between these two distinct aspects of name connotation showed that personality traits implied by names did in fact have correlated connotations about the emotional characteristics of the individuals named.

I performed two additional regression analyses to explore name uniqueness and name attractiveness as functions of factors of the RNCP. Results were as follows:

Name Uniqueness   = –.29 Ethical Caring –.31 Popular Fun –.26 Successful (7)
Name Attractiveness =   .36 Popular Fun   +.47 Successful (8)

Multiple correlation coefficients were .64 and .71 for Equations 7 and 8, respectively. The results show that less common names were less likely to convey an impression of an ethical caring, popular fun, or successful person (Equation 7). Also, more attractive names were more likely to convey an impression of a popular fun and successful individual (Equation 8).

Considerably more names have been rated on the RNCP factors than on the PAD emotion dimensions. Thus, the following analyses were done to facilitate approximate translation of name RNCP ratings into name PAD ratings. Specifically, three regression analyses explored pleasant–unpleasant, aroused–unaroused, and dominant–submissive characteristics of persons, as suggested by their names, as functions of RNCP factors. Results were as follows:

Pleasantness =   .51 Ethical Caring +.31 Popular Fun –.29 Successful (9)
Arousal   = –.21 Ethical Caring +.20 Popular Fun –.25 Masculine   (10)
Dominance   = –.45 Ethical Caring +.31 Successful   +.40 Masculine   (11)

Multiple correlation coefficients were .51, .32, and .68 for Equations 9, 10, and 11, respectively. Results show that more pleasant characteristics were suggested for individuals whose names implied more ethical caring, more popular fun, and less successful qualities. Greater habitual levels of arousal (mental alertness and physical activity) were suggested for those whose names implied less masculine, less ethical caring, and more popular fun characteristics. Finally, more dominant (or less submissive) qualities were suggested for those whose names implied less ethical caring, more masculine, and more successful characteristics.

Results given in Equations 9 through 11 can be used to assess PAD connotations of names when RNCP survey data are available on the names. When Equations 9 through 11 are used in this way, magnitudes of the multiple correlation coefficients for these equations indicate that inferences of dominance, pleasantness, and arousal can be made with decreasing levels of confidence.

Participants in Mehrabian's (1992) Study 1 had been administered an early version of the PAD Temperament Scales (Mehrabian, 1978) and, thereby, had provided self-reports of their own habitual and/or characteristic emotional qual-

ities. Specifically, the three PAD scores derived from these self-reports were indicative of Trait Pleasure–Displeasure (generalized emotional predisposition toward positive vs. negative affective states, shown to be a very general indicator of psychological adjustment or maladjustment; Mehrabian, 1996), Trait Arousal–Nonarousal (generalized emotional predisposition toward high vs. low levels of physical and/or mental activity), and Trait Dominance–Submissiveness (generalized predisposition to feeling in control of one's relationships and life circumstances vs. feeling controlled and influenced by situations and others).

Trait Arousal–Nonarousal and Trait Dominance–Submissiveness scores did not yield significant relations with either the PAD or RNCP name connotation factors. However, Trait Pleasure–Displeasure scores correlated positively with pleasant characteristics connoted by names, $r(164) = .23$, $p < .05$. This result showed that individuals whose names implied they had more pleasant temperaments were indeed likely to have more pleasant and adjusted temperaments. Despite the relatively low strength of the relation, the positive relation between an impression derived from a name with the level of psychological adjustment is remarkable and consistent with findings reported elsewhere (Anderson, 1985; Ellis & Beechley, 1954).

Considering the importance of pleasure–displeasure as connoted by names, men's and women's names used in Study 7 were ranked separately on this variable. For men, names connoting high pleasure were Bobby, Eddie, Charlie, Albert, Andy, Bird, and Chris; names connoting low pleasure were Ang, Horse, JC, Ray, Rick, Kevin, and Giancarlo. For women, names connoting high pleasure were May, Suzy, Robin, Laura, Jennie, Judy, Marie, Julia, and Tia; names connoting low pleasure were Roksana, Jila, Bob (a gender-inappropriate name), Devora, Dominique, Miri, Laine, Greta, Rima, and KK.

Summary and Conclusions

I performed seven studies dealing with characteristics that are attributed to individuals on the basis of their names. Study 1 produced a concise reformulation of the original NCP (Mehrabian, 1990, 1994), showing that impressions derived from names could be described in terms of four factors: Ethical Caring (trustworthy, kind, sincere, loving, generous, warm, honest), Popular Fun (playful, humorous, outgoing, friendly, athletic, good-looking), Successful (ambitious, intelligent, independent, confident, creative), and Masculine–Feminine.

Studies 2 through 6 explored major determinants of variability on each of the RNCP factors. Results of Study 2 showed that men and women raters formed similar impressions from names. Listed in descending magnitude of effect sizes, they rated men's names as connoting more masculine, less ethical caring, and more successful characteristics than women's names.

Study 3 compared impressions generated by nicknames versus given names. Findings showed that, listed in descending magnitude of effect sizes, nicknames,

compared with given names, connoted less successful, more popular fun, and less ethical caring characteristics about the individuals named. Thus, nicknames tended to generate impressions of informal and approachable characteristics, whereas given names conveyed impressions of more substantial qualities. Accordingly, the use of one's nickname can help impart an informal and inviting image (e.g., in sales, public relations, politics), whereas given names may be better suited to professional and business management situations where being liked and befriended, though desirable, may be subordinate to being trusted and judged competent.

Study 4 dealt with impressions generated by androgynous versus gender-specific names. Complex findings were summarized effectively using two post hoc hypotheses:

1. Androgynous, compared with gender-specific, men's names convey less of the connotations of men's names and more of the connotations of women's names, as identified in Study 2. Similarly, androgynous, compared with gender-specific, women's names convey less of the connotations of women's names and more of the connotations of men's names.

2. Insofar as a substantial percentage of androgynous names are nicknames, androgynous, compared with gender-specific, names convey impressions similar to those imparted by nicknames, as identified in Study 3. The combination of these two hypotheses explained seven of eight results summarized in Table 2. For men, androgynous and gender-specific names did not produce significantly different images for ethical caring or successful characteristics; however, androgynous names connoted more popular fun and less masculine characteristics. For women also, androgynous and gender-specific names did not produce significantly different images on the success factor; however, androgynous names connoted less ethical caring, more popular fun, and more masculine (less feminine) characteristics.

Study 5 dealt with the unconventional spelling of names. Findings were highly consistent in showing that less conventionally spelled names conveyed less attractive impressions and, furthermore, connoted lower masculinity for men and lower femininity for women. Because unconventional spelling produces less common variants of names, results were interpreted in reference to more general findings showing that less common names were less attractive and, through association, implied less attractive characteristics about the individuals named. Thus, although unconventionally spelled names may be more noticeable, different, or distinctive, they achieve this distinction at the cost of conveying unflattering and unattractive characteristics about the individuals named.

Study 6 dealt with differential impressions generated by name length, as assessed by the number of syllables or number of letters. Longer men's names connoted more ethical caring, less popular fun, more successful, and less masculine characteristics. The first two of these effects were interpreted in terms of findings

showing that longer or more elaborate forms of address (e.g., "Ladies and gen-tlemen" vs. "Friends," or "Mr. Smith" vs. "John") were associated with more for-mal and less intimate relationships (e.g., Brown & Gilman, 1960). Shorter men's names connoted greater masculinity, and this finding was consistent with results showing that men's names were shorter than women's names. Overall, for women's names, significant patterns of name length/name connotation relations were lacking. However, separate analyses showed that women's names that were lengthened transformations of men's names (e.g., Roberta, Stephanie) did mirror in part the name length/name connotations relations reported for men's names.

Study 7 expanded on findings reported by Mehrabian (1992). Self-reports of temperament had been obtained for a focal group of participants whose names were the subject of investigation. Interrelations among ratings of those names on uniqueness, attractiveness, four factors of the RNCP, and three factors of the PAD emotion model (Mehrabian, 1995) were assessed. Findings showed that more unique names connoted less pleasant, more aroused, and/or less dominant (i.e., more anxious or neurotic) characteristics about the individuals named (Equation 1); more attractive names connoted more pleasant, more aroused, and/or more dominant (i.e., more exuberant) characteristics (Equation 2). Relations with the RNCP factors showed that more unique names connoted less ethical caring, less popular fun, and less successful characteristics (Equation 7); more attractive names connoted more popular fun and more successful characteristics (Equation 8).

Relations between the RNCP and PAD factors were summarized in terms of four regression equations. Ethical caring corresponded to dependent (e.g., fasci-nated, grateful, impressed, amazed, loved, respectful) and/or docile (e.g., pro-tected, sleepy, consoled, reverent, tranquilized) emotion constellations in the PAD model (Equation 3); that is, persons judged as ethical and caring on the basis of their names were likely to be viewed as having dependent and/or docile emotional characteristics or temperaments. Persons judged as having popular fun characteristics on the basis of their names were likely to be seen as having exu-berant (e.g., carefree, admired, bold, excited, mighty, triumphant) temperaments (Equation 4). Those seen as being successful on the basis of their names were also likely to be judged as having exuberant and/or relaxed (e.g., comfortable, satisfied, unperturbed, secure, at ease) temperaments (Equation 5). Persons judged as more masculine (less feminine) on the basis of their names were also likely to be viewed as having relaxed and/or disdainful (e.g., indifferent, self-ish–uninterested, uncaring, unconcerned) temperaments (Equation 6).

The original NCP and its revision (the RNCP), as described in Study 1, have been used in extensive surveys to ascertain characteristics attributed to others on the basis of their names (Mehrabian, 1990). Because of the availability of these data, it seemed useful to also provide a means to infer the semantic differential or PAD equivalents of name connotations identified in the surveys. Therefore, I computed Equations 9 through 11 and provided the PAD equivalents of the RNCP factors.

Study 7 also included findings relating self-reports of temperament to impressions generated by the names of those providing the self-reports. Trait arousal (i.e., habitual levels of physical and/or mental activity) and trait dominance (i.e., habitual feelings of control vs. lack of control) scores were unrelated to impressions conveyed by the names of those whose temperaments were assessed. However, I obtained a significant positive relation (r = .23) between impressions of pleasant–unpleasant characteristics derived from names and trait pleasure–displeasure (a very general index of psychological adjustment–maladjustment in the PAD temperament model; Mehrabian, 1996). Thus, results were consistent with available findings showing that individuals with less attractive names were more likely to be maladjusted (Anderson, 1985; Ellis & Beechley, 1954).

In sum, the first objective of the studies reported here was to provide a revised and more parsimonious set of factors to describe attractive and unattractive characteristics connoted by first names. Four new name-connotation factors (Ethical Caring, Popular Fun, Successful, and Masculine–Feminine) were identified in Study 1 and replaced the original set of six factors reported by Mehrabian (1990, 1997a). These new connotation factors were used in the remaining six studies to explore connotation differences of some common variants of names.

The second objective was to use the revised name-connotation factors and identify differences in connotations of men's versus women's names (Study 2), nicknames versus given names (Study 3), androgynous versus gender-specific names (Study 4), conventionally versus unconventionally spelled names (Study 5), and long versus short names (Study 6). Studies 2, 3, 5, and 6 paralleled corresponding studies using the original set of six name-connotation factors; here more concise formulations of connotation differences were identified. Data on androgynous versus gender-specific names were not available for the original six factors; thus, Study 4 yielded new information bearing on this contrasting quality of names.

Study 7 dealt with the third objective of identifying relations between two different sets of characterizations of name connotations. New data obtained in Study 7 yielded information on relations between the PAD (pleasant, arousing, and dominant) qualities of names on the one hand and the ethical caring, popular fun, successful, and masculine–feminine qualities on the other hand. Substantial data have been accumulated on name connotations using the four factors. Thus, Study 7 results can now be used to also pinpoint PAD connotations for names that already have been described using the four factors.

Some Fruitful Avenues of Future Research

A major area for future research is the study of relations between individual characteristics connoted by names (e.g., the four name connotation factors identified in Study 1 or, alternatively, emotions projected by names, as assessed with the PAD in Study 7) and psychological adjustment and maladjustment. Thus, for

instance, personality and emotional characteristics connoted by names can be studied in relation to measures of trait anxiety, depression, or personality (e.g., antisocial) disorders. Alternatively, name connotations can be studied in relation to personality traits that are indicative of psychological adjustment (e.g., self-esteem, optimism, nurturance, emotional empathy).

Future studies can also use the sum of standardized scores on ethical caring, popular fun, and successful connotations imparted by names to estimate overall desirability of characteristics implied by names. Such a summary index can be studied in relation to psychological adjustment or maladjustment or investigated in relation to an individual's popularity or social standing. For instance, popularity ratings obtained with sociometric measures can be related to the overall desirability of characteristics implied by the names of elementary school children.

A second equally important area for future research is the study of relations between individual characteristics connoted by names and work and career. Do individual characteristics implied by names influence a person's choice of career or level of success at work? Are individuals whose names connote more ethical caring qualities more likely to seek careers with strongly prosocial elements (e.g., social work, nursing, child care)? Can names that connote more successful characteristics (defined and measured in Study 1 to include creativity and intelligence) facilitate higher levels of actual success at work (measured with salary, promotions, or supervisor ratings)?

Specifically focused research might examine the relation between name connotations and political orientation or political campaigns. For instance, connotations of the names of elected representatives to the U.S. Congress or to state houses can be studied in relation to summary ratings of their actual voting records on conservatism or liberalism. Political campaigns and campaign slogans favored by different candidates also can be studied in relation to the names of the candidates. Connotations of candidates' names competing for elected office can be examined in relation to election outcomes. These are only a few of the many interesting and useful avenues of research that can be pursued using the name connotation measures identified in the present series of studies.

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