# Social Perception of Nasal Dorsal Contour in Male Rhinoplasty

Type of Study: Original Investigation

Brian Nuyen MD[1], Cherian K. Kandathil MD[1], Mikhail Saltychev MD PhD[2], Sam P. Most MD[1]

[1] Division of Facial Plastic and Reconstructive Surgery, Department of Otolaryngology-Head & Neck Surgery, Stanford University School of Medicine, Stanford, California

[2] Department of Physical and Rehabilitation Medicine, Turku University Hospital and University of Turku, Turku, Finland

**Address for correspondence**

Sam P. Most MD

Division of Facial Plastic and Reconstructive Surgery

Department of Otolaryngology-Head & Neck Surgery

Stanford University School of Medicine

801 Welch Road, Stanford, CA 94305.

smost@stanford.edu

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**Tweet:** Let's ask the Internet. What nose shape in men appears most attractive, intelligent, and youngest? Here are some answers. #socialperception #rhinoplasty #malebeauty

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**Abstract**

**Importance:** The social perception of nasal dorsal modification for male rhinoplasty is poorly understood.

**Objective:** Using a web-based survey to investigate the effect of modifying the male nasal dorsum on the perception of such social attributes as youth, approachability, healthiness, masculinity/femininity, intelligence, successfulness, and leadership.

**Design:** Using computer simulation software, twelve images with varied combinations of the nasal dorsal shape, nasofrontal angle (NFA), and nasolabial angle (NLA) were generated from a consented photograph of a male volunteer's face in profile. These photographs were then sent to participants blinded to the purpose of the study, which asked them to value different social attributes regarding the face in the photograph.

**Setting and Participants:** University clinic. English-speaking adult web-users.

**Exposures:** Twelve photographs embedded in a sixteen-question survey as described above.

**Main Outcomes and Measures:** Population proportions of responses. Chi square test and graphical analysis based on 95% confidence intervals.

**Results:** The 503 respondents (survey return rate 100%) had a median age of 46 years, interquartile range 32 to 61 years. The man with ski-slope shape, NFA of $130^0$, NLA of $97^0$ was often associated with frequently perceived positive characteristics; specifically he was judged to be most attractive ($p < 0.0001$). Participants also often associated superlative youth ($p < 0.0001$), approachability ($p = 0.0017$), and femininity ($p < 0.0001$) with dorsal contours that did not feature a dorsal hump. The man with a dorsal hump, NFA of $140^0$, NLA of $105^0$ was associated by the highest proportion of participants as the oldest ($p < 0.0001$), least approachable ($p < 0.0001$), least attractive ($p < 0.0001$), and least healthy ($p < 0.0001$). Subset analyses also revealed statistically-significant dorsal contour preferences by observers' age, gender, and race/ethnicity.

**Conclusions and Relevance:** A reduced dorsal slope combined with more acute NFA and NLA angles were associated with positively perceived social attributes. The results may be of interest to rhinoplasty surgeons and their male patients when planning changes to nasal dorsal contour.

**Key Points:**

Question

What are the social perception consequences of male rhinoplasty when specific modifications of the male nasal dorsal contour are carried out?

Findings

Using a web-based, crowd-sourced survey featuring twelve different computer-simulated nasal dorsal contours of a male volunteer, the man in the photograph featuring the nose with the ski-slope dorsal shape, nasofrontal angle of $130^0$, and nasolabial angle of $97^0$ was deemed most attractive, and this profile was also among the most frequently selected for other positive characteristics. Subset analyses also revealed statistically-significant dorsal contour preferences by observers' age, gender, and race/ethnicity.

Meaning

This study's results may potentially better inform rhinoplasty surgeons and their male patients on how changes to the nasal dorsal contour may not only affect overall perception of a man's social attributes, but also perception by observers' age, gender, and race/ethnicity.

## Introduction

The specific role of nasal dorsal modification and its effect for gender-specific rhinoplasty has been widely discussed[1,2], especially for female and feminizing rhinoplasty[2,3]. Existing guidance for nasal dorsal modification in male rhinoplasty is often shared from cumulative descriptive experience of master rhinoplasty surgeons with lifetime career expertise[4,5]. Naini et al. have published a series of quantitative studies on manipulating a variety of cephalometric angles in two-dimensional silhouettes, including the nasofacial, nasofrontal, and mentolabial angles and its effect on perceived attractiveness[6–8]. However, the interaction of the dorsal hump with these cephalometric angles and its effect on not just perceived attractiveness, but also other perceived social attributes like masculinity, age, health, success, leadership ability, intelligence, has not been studied in photographed men.

There are several published papers in addition to the Naini et al. group that set precedents for using third-party perception as a measurement of outcomes for facial plastic and reconstructive surgeries; specifically, web-based methods to capture public perception have been previously validated. A study using a web-based survey of casual observers evaluating unique patient faces before and after rhinoplasty found that patients postoperatively appeared more attractive, healthier, and more successful[9]. A prior study from our research group using similar methods specifically examined the relative contributory effects of tip rotation and dorsal reduction on perception for patients in general with dorsal hump and tip ptosis[10]. However, to our knowledge, there are no prior studies applying web-based public perception as a tool to measure the effect of nasal dorsal modification of male faces on masculinity and other social attribute outcomes.

The objective was to investigate the effect of modifying male nasal dorsum on perception of such social attributes as youth, approachability, healthiness, masculinity/femininity, intelligence, successfulness, and leadership ability.

**Methods**

Four male patient volunteers consented to provide their pre-operative photograph on lateral view for research and publication purposes. The lateral view was chosen as it has previously been described as one of the most informative views for visual, personality, and gender expression perception for men[1,10,11]. Using the Delphi method, three authors (S.P.M, B.N., C.K.) selected one male volunteer's photograph of the four.

With Adobe Photoshop® CC 2017 (Adobe Systems ® Inc., San Jose, CA, USA), four different combinations of the nasofrontal angle (NFA) and nasolabial angle (NLA) of the man's face were generated, $130^0$ versus $140^0$ for the NFA and $97^0$ versus $105^0$ for the NLA. The NFAs were chosen as part of prior research's findings of ideal versus approximately an upper limit of what was found to be "attractive"[7,12]. These findings by prior third-party perception studies are largely backed by prior cephalometric, anthropometric, and expert opinion studies[4,13]. The NLAs were chosen as part of prior study's findings of ideal versus approximately an upper limit of what was found to be "aesthetic"[14,15,16].

Three different nasal dorsal contour modifications were then generated and applied to each of the four combinations of the NLAs and NFAs. The three modifications were as follows 1) dorsal hump 2) linearization of the nasal dorsum 3) and gentle ski-slope of the nasal dorsum. This resulted in twelve computer-generated combinations of the NFA, NLA, and nasal dorsal shape with the base features of one man on lateral view (Figure 1).

Utilizing the Qualtrics survey software (Qualtrics LLC, Provo, Utah, USA) platform, a survey consisting of sixteen questions were created. All twelve generated patient images were inserted in a random pattern into each question. The questions asked for "most" and "least" representation of age, approachability, attractiveness, healthiness, masculinity/femininity, intelligence, success, and perceived leadership ability (eTable 1). Participants in the survey were asked to choose the image in their view that best represented the superlative posed in each question. The survey was then distributed to a requested sample size of 500 participants from within the Qualtrics survey corporation's participant database (≥18 years), who were blinded to the purpose of the study. The participants were unaware of the purpose of the study. The participants were reimbursed for responses.

The study was approved by the Stanford University institutional review board. The age groups were defined as four age groups were formed: < 33 years, 33 to 46 years, 47 to 61 years, and over 61 years years. The ethnical groups were defined as White/Caucasian, Black/African-American, Hispanic/Latino/a, Asian/Pacific-Islander, and Other.

Statistical Analysis

The differences in distribution of categorical data were assessed by a $\chi^2$ Pearson square test, with the level of significance of two-tailed *p*-value at $\leq 0.05$. The population proportions of responses were also assessed graphically in order to detect statistically significant differences between proportions by comparing their 95% confidence intervals (95% CIs) calculated as $95\%CI=\hat{p}\pm 1.96*\sqrt{(\hat{p}*(1-\hat{p})/n)}$, where $\hat{p}$ represented sample proportion. When there were more than two subgroups employed in the analysis, the differences between groups were assessed by using a Bonferroni post hoc test. All analyses were carried out using Stata/IC

statistical software (StataCorp. Statistical Software: Release 15. College Station, TX: StataCorp LP).

**Results**

Table 1 describes the total of 503 surveys that were completed (100% completed survey provision rate by Qualtrics LLC, with three additional surveys obtained). Their median age was 46 years. Majority were women (82%), Caucasian-identified (77%), straight/heterosexual (90%). Additionally, most had not had personal or family history of plastic surgery (87%), and most had at least a high-school education (97%).

Eleven out of 16 questions demonstrated significant differences in the proportions of chosen images (Table 2). The most visible pattern regarding the perception of a person age, approachability, attractiveness, healthiness, and successfulness was the association of more positive social attributes with linear or ski-slope dorsal shapes (Figure 2). No clear preferences in nasal shape were observed when judging masculinity. Instead, perceived femininity was associated with linear or ski-slope dorsal shapes. Perceived intelligence and leadership ability were not associated with any particular image. Instead, "least intelligence" and "least leadership ability" were connected to the dorsal hump. Overall, the man with the nose with a dorsal hump, NFA $140^0$, NLA $105^0$) (Figure 1, Image 4) was judged to be associated with oldest age, least approachability, least attractiveness, least healthiness, least intelligence, and least successfulness.

Subset analysis by gender was also performed (eTable 2). For "least approachable" ($p = 0.003$) and "least attractive" ($p = 0.002$) the photograph of the man with dorsal hump, NFA of $140^0$, NLA of $105^0$ (Image 4) had the highest proportion of votes by both men and women, but the percentage of women who ranked that aforementioned profile as "least approachable" (34%)

and “least attractive” (41%) appeared much higher than that of the men (21% and 30% respectively).

Where there were more than two observer characteristics employed in analysis, the differences between groups were assessed by using a Bonferroni post hoc test. The only statistically significance differences were found between responses given by different age groups. The differences were detected regarding the query “the oldest” between respondents of age 47–61 versus <33 years ($p$=0.001) and 47–61 vs. 33-46 years ($p$=0.047). However, the most frequent choice in these groups was the same image with dorsal hump, NFA of $140^0$ and NLA of $105^0$ (31% vs 53% and 31% vs. 38%, respectively) (Figure 1, image 4). For the same question concerning the oldest appearance, there was also significant difference between respondents >61 vs. <33 years ($p$ = 0.006) with the most frequent choice the same image (36% vs 53%) (Figure1, image 4). When picking the “most successful” image, another post-hoc difference was observed between people of age 47–61 vs. <33 years ($p$=0.032) with the most frequent choice of face with the dorsal hump, NFA of $130^0$ and NLA of $105^0$ (13%) (Figure 1, image 2) vs. image with the ski-slope dorsal contour, NFA of $130^0$ and NLA of $97^0$ (18%) (Figure 1, image 9), respectively.

**Discussion**

This web-based survey is first to draw cross-sectional associations between changes to the male nasal dorsum on profile view and a variety of superlative third-party social perceptions. The man with ski-slope shape, NFA of $130^0$, NLA of $97^0$ was often associated with frequently-perceived positive characteristics; specifically he was judged to be most attractive. Participants also often associated superlative youth, approachability, and femininity with dorsal contours that did not feature a dorsal hump. The man with a dorsal hump, NFA of $140^0$, NLA of $105^0$ was

associated for the majority of participants with frequently-perceived negative characteristics – specifically the oldest, least approachable, least attractive, least healthy. Further, participants least frequently associated linear and ski-slope shapes with not just those negative characteristics, but also "least intelligent" and "least successful." There were inconsistent preferences for the most or least leader-like profile or most masculine. These patterns largely held true among participant age-based subset analyses after post-hoc corrections, the only subset post-hoc analysis with significant results. There was often an association of ski-slope shape and linear contours with more positive-associated characteristics and dorsal hump with more negative-associated characteristics.

Our study broadly agrees with prior rhinoplasty literature's findings and adds additional, complex implications for rhinoplasty surgeons and their male patients. The ideal NFA and NLA for attractiveness found by other third-party social perception studies examining nasal features, as well as other expert opinion papers[6-8,10-16] were supported. This study additionally adds a host of other significant statements on other social attributes that appear to link the same NFA and NLA preferred for attractiveness with the other positive social attributes. Moreover, while this study confirms prior expert opinion's traditional association between the ski-slope dorsum and femininity[4], the ski-slope dorsum, as well as the linear slope was also consistently associated with the frequently-perceived positive social attributes in our cohort. This finding adds complexity to our currently understanding of the interaction between femininity and such desired positive characteristics as attractiveness, healthiness, youth, approachability for the male face. Lastly, there was resounding rejection of the dorsal hump for many participants, both in total and in subset analysis, as confirmed by other studies[10,17].

While femininity and such desired positive characteristics above were strongly clustered in our sample, masculinity and perceived leadership ability were particularly interesting constructs that our cohort could never uniformly agree as associated with particular dorsal contours. Masculinity, and other interrelated attributes such as aggression, trustworthiness, and leadership ability, has been among the most well-studied variables in facial perception research of the male face, particularly through investigation into facial height[18] and man's facial width-to-heigh ratio[19]. Little prior research has been performed on the male profile view, and our study sought to add to the conversation on this particular view's influence on socially-perceived attributes.

It is important to note that subset analyses revealed certain social perception preferences for the male dorsal contour by observer sociodemographics, such as by age, that have had scant prior examination. While all other age brackets agreed, the younger participants in our sample most often found the dorsal hump to be oldest-appearing – a generational preference that facial plastic surgeons should potentially take note. Race-subset analyses from this study were not significant after post-hoc correction; future studies incorporating larger samples of varied racial/ethnic observer participants may find potential attribute preferences.

Strengths of this study include the large sample size of the participants surveyed, among the largest of prior facial analysis and social perception studies focused on the male face. Crowd-sourcing these surveys in a web-based manner facilitated the accruement of statistical power, which has been historically harnessed in other studies[9,10]. Additionally, the sample was large enough to produce relatively-narrow confidence intervals for the estimates, leading to more precise interpretation of results. Further, using computer simulation software may have been a methodological advantage to using multiple male volunteer faces for this study. It is well-

documented that a multitude of factors intricately interact to affect social perceptions drawn from the face, including the relationship of the facial subunits to each other, as well as skin colorations, skin texture, lighting, grooming, and facial expression[20-22]. Using computer simulation software of a gray-scale photo to isolate the changes to the queried variables related to the nasal dorsum while keeping the base features of the man's face constant allowed for more controlled results.

Limitations of this study are inherent to study design and population. Our predominant survey participant profile was a heterosexual/straight-identified, White/Caucasian-identified female. While many of our subset analyses were statistically-significant for participant demographics beyond that predominant profile, additional and/or stronger conclusions may have been drawn had our study population been more diverse. Additionally, the conclusions drawn may only be generalizable to men who have similar countenances as the photographed man of our study, i.e. same race, age, and grooming. Further studies involving facial analyses of men of more diverse base features and of other races are needed. Moreover, as a cross-sectional survey, we captured a snapshot of contemporary attitudes to draw these results; social attributes preferred by the participants in total as well as by participant subsets are well-known to be malleable constructs prone to societal influences as volatile as fashion, media, and politics.

**Conclusion:**

Particular combinations of the NFA, NLA, and dorsal shape on profile view appear to generate significant statements on a man's perceived age, approachability, attractiveness, health, gender expression, intelligence, and success. This study's results may potentially better inform

rhinoplasty surgeons and their male patients on how changes to the nasal dorsal contour may change perception of a man's social attributes.

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In this report of original data, all authors listed had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

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Table 1. Demographic characteristics of sample.

| Variable | Frequency | % |
|---|---|---|
| Age group, years | | |
| <33 | 131 | 26 |
| 33 to 46 | 123 | 24 |
| 47 to 61 | 131 | 26 |
| >61 | 118 | 23 |
| Gender | | |
| Men | 89 | 18 |
| Women | 412 | 82 |
| Other | 2 | 0 |
| Racial/ethnic group | | |
| White/Caucasian | 386 | 77 |
| Hispanic/Latino/a | 32 | 6 |
| Black/African-American | 63 | 13 |
| Asian/Pacific Islander | 12 | 2 |
| Other | 10 | 2 |
| Sexual orientation | | |
| Straight/Heterosexual | 455 | 90 |
| Lesbian/ Gay | 9 | 2 |
| Bisexual | 30 | 6 |
| Decline to state | 9 | 2 |
| Personal history of plastic surgery or in family or friends | | |
| No | 440 | 87 |
| Yes | 63 | 13 |
| Educational level | | |
| No high school | 15 | 3 |
| High school | 488 | 97 |
| Total | 503 | 100 |

Table 2. Distribution of total responses.

| Questions | Images, % of responses | | | | | | | | | | | | | *p* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Total | |
| YOUNGEST | 3 | 2 | 1 | 3 | 6 | 9 | 10 | 11 | 19 | 10 | 8 | 18 | 100 | <0.0001 |
| OLDEST | 12 | 14 | 16 | 40 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 100 | <0.0001 |
| MOST APPROACHABLE | 3 | 2 | 3 | 4 | 7 | 12 | 15 | 7 | 17 | 12 | 9 | 9 | 100 | 0.0017 |
| LEAST APPROACHABLE | 16 | 13 | 14 | 31 | 3 | 3 | 2 | 2 | 5 | 4 | 3 | 4 | 100 | <0.0001 |
| MOST ATTRACTIVE | 2 | 2 | 2 | 2 | 6 | 10 | 14 | 11 | 21 | 12 | 8 | 11 | 100 | <0.0001 |
| LEAST ATTRACTIVE | 14 | 15 | 19 | 39 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 100 | <0.0001 |
| MOST HEALTHY | 4 | 2 | 3 | 2 | 7 | 12 | 14 | 9 | 17 | 10 | 9 | 12 | 100 | 0.0007 |
| LEAST HEALTHY | 11 | 17 | 13 | 30 | 2 | 4 | 2 | 6 | 3 | 4 | 6 | 3 | 100 | <0.0001 |
| MOST MASCULINE | 8 | 9 | 10 | 6 | 10 | 8 | 11 | 7 | 9 | 9 | 7 | 7 | 100 | 0.9917 |
| MOST FEMININE | 2 | 2 | 1 | 2 | 5 | 11 | 9 | 7 | 18 | 16 | 13 | 15 | 100 | <0.0001 |
| MOST INTELLIGENT | 9 | 6 | 9 | 6 | 7 | 13 | 12 | 8 | 12 | 7 | 7 | 5 | 100 | 0.5592 |
| LEAST INTELLIGENT | 11 | 13 | 12 | 18 | 5 | 4 | 6 | 8 | 6 | 5 | 5 | 6 | 100 | 0.0130 |
| MOST SUCCESSFUL | 9 | 7 | 6 | 6 | 8 | 9 | 11 | 6 | 16 | 8 | 6 | 9 | 100 | 0.4905 |
| LEAST SUCCESSFUL | 12 | 16 | 12 | 20 | 3 | 5 | 4 | 6 | 7 | 5 | 5 | 7 | 100 | 0.0002 |
| MOST LEADER-LIKE | 8 | 10 | 8 | 5 | 7 | 9 | 12 | 7 | 13 | 9 | 7 | 7 | 100 | 0.8581 |
| LEAST LEADER-LIKE | 10 | 12 | 11 | 14 | 4 | 7 | 4 | 6 | 8 | 8 | 7 | 9 | 100 | 0.3734 |

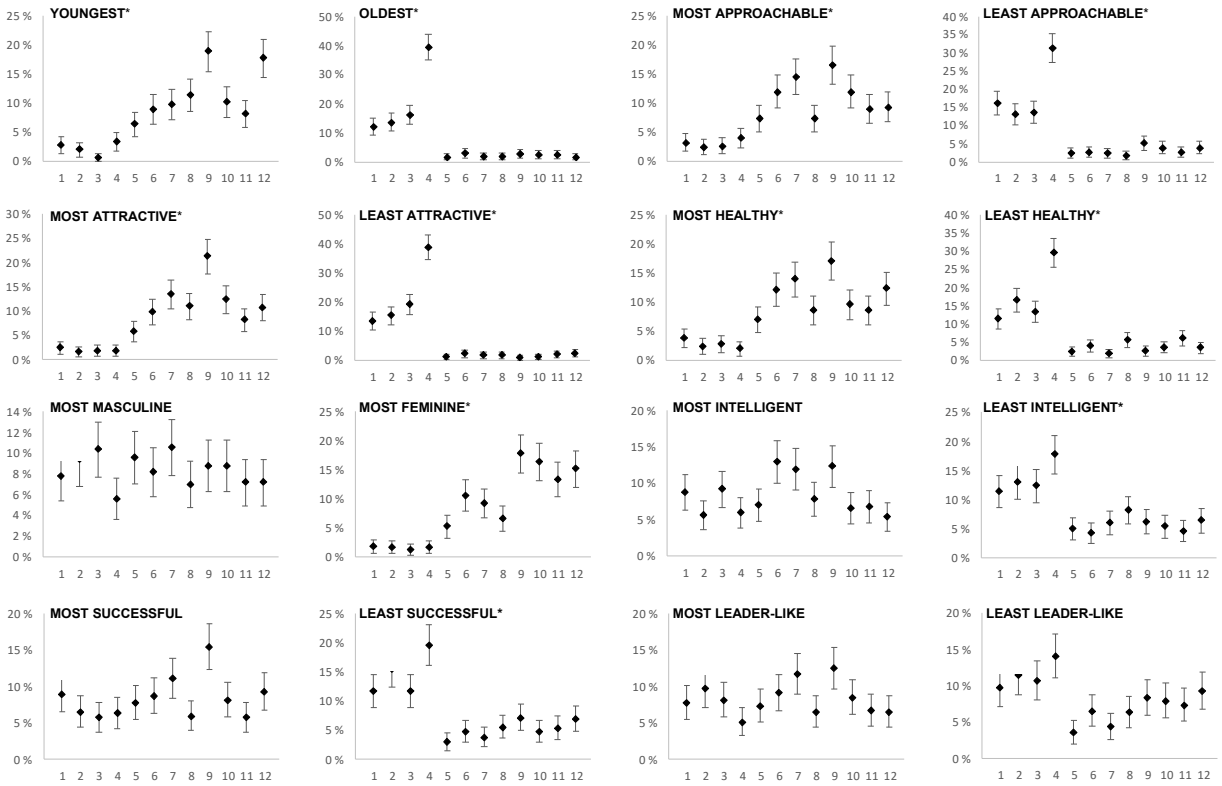
Image Key:
1 – Dorsal hump, NFA $130^0$, NLA $97^0$
2 – Dorsal hump, NFA $130^0$, NLA $105^0$
3 – Dorsal hump, NFA $140^0$, NLA $97^0$
4 – Dorsal hump, NFA $140^0$, NLA $105^0$
5 – Linear, NFA $130^0$, NLA $97^0$
6 – Linear, NFA $130^0$, NLA $105^0$
7 – Linear, NFA $140^0$, NLA $97^0$
8 – Linear, NFA $140^0$, NLA $105^0$
9 – Ski-slope, NFA $130^0$, NLA $97^0$
10 – Ski-slope, NFA $130^0$, NLA $105^0$
11 – Ski-slope, NFA $140^0$, NLA $97^0$
12 – Ski-slope, NFA $140^0$, NLA $105^0$

Figure 1. Twelve computer-generated combinations of the NFA, NLA, and nasal dorsal shape used in Qualtrics survey.

Image Key:
1 – Dorsal hump, NFA $130^0$, NLA $97^0$
2 – Dorsal hump, NFA $130^0$, NLA $105^0$
3 – Dorsal hump, NFA $140^0$, NLA $97^0$
4 – Dorsal hump, NFA $140^0$, NLA $105^0$
5 – Linear, NFA $130^0$, NLA $97^0$
6 – Linear, NFA $130^0$, NLA $105^0$
7 – Linear, NFA $140^0$, NLA $97^0$
8 – Linear, NFA $140^0$, NLA $105^0$
9 – Ski-slope, NFA $130^0$, NLA $97^0$
10 – Ski-slope, NFA $130^0$, NLA $105^0$
11 – Ski-slope, NFA $140^0$, NLA $97^0$
12 – Ski-slope, NFA $140^0$, NLA $105^0$

*[Figure 1]*

Figure 2. Response distribution in total for queries.




X-axis: Images #1-#12, with image key below:
1 – Dorsal hump, NFA $130^0$, NLA $97^0$
2 – Dorsal hump, NFA $130^0$, NLA $105^0$
3 – Dorsal hump, NFA $140^0$, NLA $97^0$
4 – Dorsal hump, NFA $140^0$, NLA $105^0$
5 – Linear, NFA $130^0$, NLA $97^0$
6 – Linear, NFA $130^0$, NLA $105^0$
7 – Linear, NFA $140^0$, NLA $97^0$
8 – Linear, NFA $140^0$, NLA $105^0$
9 – Ski-slope, NFA $130^0$, NLA $97^0$
10 – Ski-slope, NFA $130^0$, NLA $105^0$
11 – Ski-slope, NFA $140^0$, NLA $97^0$
12 – Ski-slope, NFA $140^0$, NLA $105^0$

Y-axis: population proportions (%) with error bars representing 95% confidence intervals

*statistically-significant response distributions

eTable 1. Qualtrics survey questionnaire.

| | |
|---|---|
| 1. | From the pictures above, please choose the man who appears the YOUNGEST. |
| 2. | From the pictures above, please choose the man who appears the OLDEST. |
| 3. | From the pictures above, please choose the man who appears the MOST APPROACHABLE. |
| 4. | From the pictures above, please choose the man who appears the LEAST APPROACHABLE. |
| 5. | From the pictures above, please choose the man who appears the MOST ATTRACTIVE. |
| 6. | From the pictures above, please choose the man who appears the LEAST ATTRACTIVE. |
| 7. | From the pictures above, please choose the man who appears the MOST HEALTHY. |
| 8. | From the pictures above, please choose the man who appears the LEAST HEALTHY. |
| 9. | From the pictures above, please choose the man who appears the MOST MASCULINE. |
| 10. | From the pictures above, please choose the man who appears the MOST FEMININE. |
| 11. | From the pictures above, please choose the man who appears the MOST INTELLIGENT. |
| 12. | From the pictures above, please choose the man who appears the LEAST INTELLIGENT. |
| 13. | From the pictures above, please choose the man who appears the MOST SUCCESSFUL. |
| 14. | From the pictures above, please choose the man who appears the LEAST SUCCESSFUL. |
| 15. | From the pictures above, please choose the man who appears the MOST LEADER-LIKE. |
| 16. | From the pictures above, please choose the man who appears the LEAST LEADER-LIKE. |

eTable 2. Response distribution based on gender.

| Questions | Gender | Images, % of responses | | | | | | | | | | | | | *p* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Total | |
| YOUNGEST | Men | 3 | 3 | 1 | 4 | 7 | 9 | 11 | 8 | 19 | 8 | 8 | 18 | 100 | 0.9880 |
| | Women | 3 | 2 | 0 | 3 | 6 | 9 | 9 | 12 | 19 | 10 | 8 | 17 | 100 | |
| OLDEST | Men | 13 | 17 | 19 | 33 | 1 | 7 | 1 | 1 | 2 | 2 | 1 | 2 | 100 | 0.217 |
| | Women | 12 | 13 | 16 | 41 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 100 | |
| MOST APPROACHABLE | Men | 4 | 2 | 3 | 7 | 3 | 9 | 21 | 11 | 13 | 8 | 8 | 9 | 100 | 0.418 |
| | Women | 3 | 2 | 2 | 3 | 8 | 13 | 13 | 6 | 17 | 13 | 9 | 9 | 100 | |
| LEAST APPROACHABLE | Men | 13 | 18 | 13 | 21 | 1 | 7 | 4 | 1 | 11 | 2 | 3 | 3 | 100 | 0.003 |
| | Women | 17 | 12 | 14 | 34 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 4 | 100 | |
| MOST ATTRACTIVE | Men | 4 | 3 | 1 | 1 | 9 | 8 | 15 | 11 | 17 | 13 | 6 | 11 | 100 | 0.012 |
| | Women | 2 | 1 | 2 | 2 | 5 | 10 | 13 | 11 | 22 | 12 | 9 | 11 | 100 | |
| LEAST ATTRACTIVE | Men | 9 | 16 | 29 | 30 | 2 | 6 | 3 | 0 | 0 | 0 | 1 | 3 | 100 | 0.002 |
| | Women | 15 | 15 | 17 | 41 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 100 | |
| MOST HEALTHY | Men | 4 | 3 | 2 | 2 | 7 | 13 | 12 | 11 | 13 | 9 | 8 | 13 | 100 | 0.973 |
| | Women | 4 | 2 | 3 | 2 | 7 | 12 | 14 | 8 | 18 | 10 | 9 | 12 | 100 | |
| LEAST HEALTHY | Men | 7 | 20 | 11 | 29 | 2 | 8 | 3 | 4 | 6 | 4 | 3 | 1 | 100 | 0.120 |
| | Women | 12 | 16 | 14 | 30 | 2 | 3 | 1 | 6 | 2 | 3 | 7 | 4 | 100 | |
| MOST MASCULINE | Men | 8 | 12 | 12 | 7 | 10 | 7 | 11 | 4 | 9 | 7 | 4 | 8 | 100 | 0.785 |
| | Women | 8 | 9 | 10 | 5 | 9 | 9 | 10 | 8 | 9 | 9 | 8 | 7 | 100 | |
| MOST FEMININE | Men | 1 | 3 | 3 | 1 | 6 | 10 | 10 | 7 | 16 | 16 | 15 | 12 | 100 | 0.003 |
| | Women | 2 | 1 | 1 | 2 | 5 | 11 | 9 | 7 | 18 | 17 | 13 | 16 | 100 | |
| MOST INTELLIGENT | Men | 7 | 10 | 13 | 3 | 3 | 13 | 11 | 7 | 12 | 6 | 8 | 6 | 100 | 0.581 |
| | Women | 9 | 5 | 8 | 7 | 8 | 13 | 12 | 8 | 12 | 7 | 7 | 5 | 100 | |
| LEAST INTELLIGENT | Men | 10 | 18 | 18 | 12 | 2 | 7 | 6 | 6 | 9 | 1 | 8 | 3 | 100 | 0.047 |
| | Women | 12 | 12 | 11 | 19 | 6 | 4 | 6 | 9 | 6 | 6 | 4 | 7 | 100 | |
| MOST SUCCESSFUL | Men | 8 | 12 | 6 | 2 | 7 | 10 | 9 | 4 | 19 | 8 | 3 | 11 | 100 | 0.291 |
| | Women | 9 | 5 | 6 | 7 | 8 | 9 | 12 | 6 | 15 | 8 | 6 | 9 | 100 | |
| LEAST SUCCESSFUL | Men | 11 | 17 | 18 | 18 | 1 | 7 | 3 | 1 | 7 | 3 | 7 | 7 | 100 | 0.347 |
| | Women | 12 | 15 | 10 | 20 | 3 | 4 | 4 | 7 | 7 | 5 | 5 | 7 | 100 | |
| MOST LEADER-LIKE | Men | 10 | 10 | 8 | 6 | 8 | 13 | 7 | 4 | 13 | 9 | 8 | 3 | 100 | 0.727 |
| | Women | 7 | 10 | 8 | 5 | 7 | 8 | 13 | 7 | 12 | 9 | 7 | 7 | 100 | |
| MOST LEADER-LIKE | Men | 10 | 17 | 9 | 13 | 8 | 7 | 6 | 3 | 11 | 2 | 2 | 11 | 100 | 0.031 |
| | Women | 10 | 10 | 11 | 14 | 3 | 7 | 4 | 7 | 8 | 9 | 9 | 9 | 100 | |

1 – Dorsal hump, NFA $130^0$, NLA $97^0$
2 – Dorsal hump, NFA $130^0$, NLA $105^0$
3 – Dorsal hump, NFA $140^0$, NLA $97^0$
4 – Dorsal hump, NFA $140^0$, NLA $105^0$
5 – Linear, NFA $130^0$, NLA $97^0$
6 – Linear, NFA $130^0$, NLA $105^0$

7 – Linear, NFA $140^0$, NLA $97^0$
8 – Linear, NFA $140^0$, NLA $105^0$
9 – Ski-slope, NFA $130^0$, NLA $97^0$
10 – Ski-slope, NFA $130^0$, NLA $105^0$
11 – Ski-slope, NFA $140^0$, NLA $97^0$
12 – Ski-slope, NFA $140^0$, NLA $105^0$