

13 | The Meaning of Baldness and Implications for Treatment

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Use of therapies to improve an individual's appearance is not a new medical concept. Androgenetic alopecia has been recognized as a disorder since the time of Hippocrates,¹ and since that time, a variety of preparations and surgical procedures have been used as treatments. Recently, both the popular press and the professional literature² have given much attention to the antihypertensive agent minoxidil for treating androgenetic alopecia. Treatment of alopecia raises a number of interesting questions regarding the definitions of "disease" and "illness," some of which have implications for practitioners as they define the limits of proper medical practice.

Whether androgenetic alopecia is a disease remains debatable. Quite likely, most people would agree that alopecia areata, especially in its more severe version (universalis), is a disease. But why should alopecia areata be perceived any more a disease than androgenetic alopecia—neither is life-threatening nor occasions physical pain. Consider this passage from a standard medical reference³: "In many patients with [alopecia areata], systemic corticosteroids produce regrowth of hair, but their use, with its attendant risks, to correct a cosmetic defect, is not justified." In this view, alopecia areata is not a disease but rather a "cosmetic defect," which might be treated only if there is no risk involved. Introspection suggests that patients with this condition might not agree, and experience shows that individuals with various conditions affecting the growth of their hair regularly seek treatment, which may be of some risk, even with only a modest promise of results.

Some of the reasons why individuals with "cosmetic defects" may feel compelled to take such risks are addressed in the experiment reported herein. Subjects answered specific questions about the personal characteristics of the same individual, rendered both bald and with hair. Underlying this experiment is the general anthropologic notion that with "body completions" such as hair style, cosmetics, and clothing people communicate aspects about themselves. For example, for many centuries in the western world, monks and priests communicated to others a certain sexual asceticism by means of the tonsure; other much

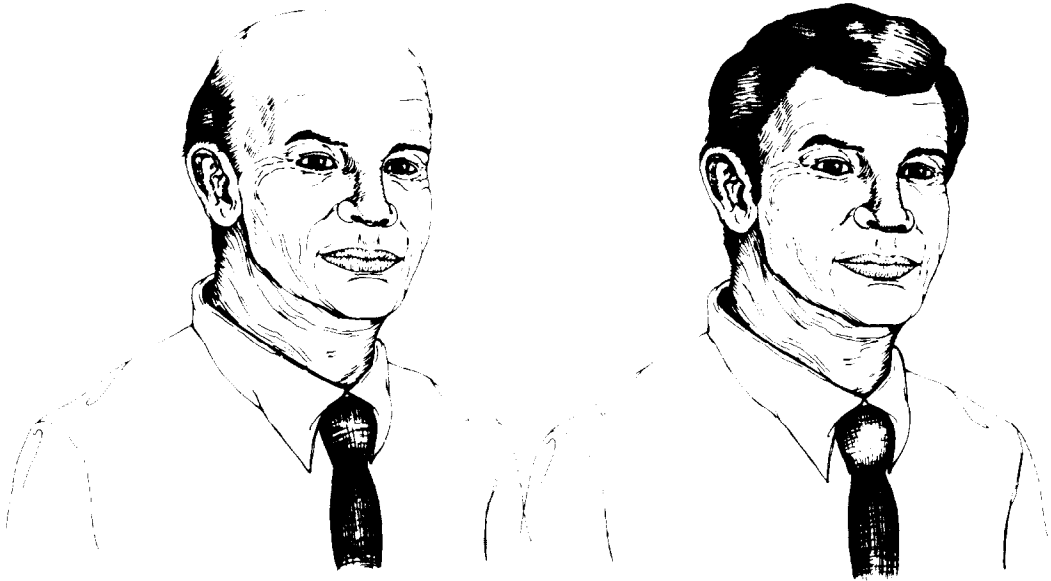


Fig. 13-1. Artist's drawing of bald and nonbald subject.

more complicated and interesting communications with hair have been observed by anthropologists.⁴⁻⁶ In this experiment, we decided to ask the observers of such communications what they perceived about the communicator.

Materials and Methods

A woman artist was asked to draw a picture of a good looking, mature man with a full head of hair and the same man but with fully developed androgenetic alopecia (Fig. 13-1). A simple questionnaire was developed based on other reports,⁷⁻⁹ showing that Americans tend to use five different categories of information when they describe a person, ie, intelligence, emotional stability, agreeableness, extroversion/introversion, and conscientiousness. Based on these categories, five positively phrased statements were constructed as follows:

- This person looks as if he is very intelligent.
- This person appears to be emotionally stable, the kind of person you can really count on in a crisis.
- This individual looks as if he is an agree-

able and charming person.

- I anticipate that this person would be upbeat and outgoing.
- When this person says he is going to do something, you always know he will follow through. He is very conscientious.

Two additional questions were included in the questionnaire: (1) This person is really very attractive, a good looking man and (2) This person is about ___ years old.

Two versions of the questionnaire were produced, the only difference being one had the drawing of the bald subject and the other had the nonbald subject. Each questionnaire was given to 49 students enrolled in introductory anthropology classes at the University of Michigan-Dearborn. The students were asked to agree or disagree with the first six statements on a 5-point scale, with 1 meaning "strongly agree," 5 meaning "strongly disagree," and 3 meaning "unsure" or "no strong opinion." Students were also asked to indicate their age range (eg, under 20 years, 20-30 years) and their gender. The students were told only that they were participating in a study; no details were provided. Furthermore, they were not told that there was another picture being rated

TABLE 13-1. Means (5-Point Scale) for Six Factors for Bald and Nonbald Men

	Bald (n = 49)			Nonbald (n = 49)		
	Male	Female	Combined	Male	Female	Combined
Intelligence	2.17	2.00	2.08	2.36	2.48	2.40
Stability	2.38	2.32	2.35	2.72	2.57	2.65
Agreeableness	3.08	3.24	3.16*	2.76	2.96	2.84
Extroversion	3.46	3.56	3.51	3.12	3.78	3.43
Conscientiousness	2.46	2.12	2.29	2.68	2.57	2.63
Attractiveness	3.87†	4.24	4.06*	3.24	3.95	3.60

*Significant difference between bald and nonbald subject, $P < 0.05$.

†Significant difference between male and female responses, $P < 0.05$.

by other students, and therefore, they did not know that they were participating in a study of baldness.

The data obtained were analyzed with computer assistance; Student's t -test and F test were used to determine significance, and in one case these analyses were augmented with a Mann-Whitney test.

Results

Perchance, 49 students responded to each questionnaire. Of the 96 respondents who identified their gender, 49 were male and 47 were female. The sample was a typically youthful group of college students, whereby 46% were under 20 years of age, 49% were between 20 and 30 years of age, and 3% were over 30 years of age.

The responses to the first six statements are shown in Table 13-1. In summary, respondents thought that the bald subject was more intelligent, stable, and conscientious, whereas the subject with hair was more attractive and agreeable. Using a two-tailed test, only the latter two factors (attractiveness and agreeableness) showed statistically significant differences between the bald and nonbald subject ($P < 0.05$). Using a one-tailed test, P values for these six factors would have been halved, and all would have been less than 0.05 except for extroversion. We would have used the one-tailed test statistics if the direction of the mean differences had been predicted in advance. Obvious as this seems retrospectively, it was not so clear beforehand and the outcome was not predicted. Even so, the suite of differences

makes a good deal of intuitive sense and would probably reach significance with only slightly larger sample sizes.

Responses from men and women were the same for five of the statements. The sexes differed only in response to the subject's attractiveness. Overall, female respondents thought the subjects (both with and without hair) were less attractive than did the male respondents. Furthermore, women did not distinguish significantly between the bald and nonbald subjects, whereas men thought the bald subject to be much less attractive than the subject with hair ($P < 0.05$).

The greatest differences between the bald and nonbald subjects occurred with respect to the subjects' age. Respondents rated the bald man as 52 years of age and the nonbald man as 42 years of age. Using Student's t -test, this difference was statistically significant ($T = 6.57$, $P < 0.01$). Since some respondents rated the bald subject as over 70 years of age, the variances of the two sample sets were somewhat different ($F = 1.62$; $P = 0.0486$). In this case, we used the Mann-Whitney test, which also showed significant differences ($U = 331.5$, $P < 0.01$).

Discussion

While there may be nothing inherently wrong with being intelligent, stable, and conscientious rather than being attractive and agreeable, it seems unlikely that, in our society, many men would choose to be perceived as 10 years older than they actually are. Moreover, it is unfortunate that some people are seen as relatively unattractive and disagreeable simply

because they have lost some of their hair. Indeed, that is the most interesting aspect of these results. The stimulus drawings differed only with respect to the presence or absence of hair, not to intelligence or to agreeableness. These factors are communicated to others, however, whether the individual wishes to communicate them or not.

There is a sense in which these data indicate the existence of a curious kind of prejudice in our society. An opinion as to whether a person is agreeable or intelligent cannot be truly formulated until after direct interaction with the person. The respondents in this experiment, however, were willing to predict that people would be more or less so after simply looking at a drawing.

Bald men, then, are communicating something that they may not wish to convey. Consequently, androgenetic alopecia may be construed as a "communication disorder," akin, perhaps, to stuttering or lisping, conditions no one is adverse to treat even though they may be only cosmetic in some sense. Hence, the cautious perspective of the textbook, cited above, may well be too conservative and the intense popular interest in baldness cures may be more understandable. This is not to say that there should be no limits for acceptable risk when treating alopecia and other cosmetic conditions. Reports such as Oakley's from the Centers for Disease Control (CDC) that more than 80 babies have been born with severe birth defects consequent to their mother's use of retinoic acid for the treatment of acne must not be minimized.¹⁰

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