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A Person-Perception Study of the 'Healthy Body-Healthy Mind' Stereotype

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In a person-perception study, examining whether information regarding physical fitness leads to judgements about psychological well-being, 114 subjects were presented with aural descriptions of a fictitious character. Half the subjects received information which suggested that the target person was physically fit, while half were told that he or she was not fit. The person was rated on a series of 6-point scales of psychological well-being. The results indicated that a 'healthy body — healthy mind' stereotype exists, for both male and female stimulus character and held by both male and female subjects.

The idea that physical fitness is associated with psychological well-being is hardly new. Juvenal's dictum '*Mens sana in corpore sano*' (*The Everyman Dictionary of Quotations and Proverbs*, 1982) has survived generations and the idea appears frequently in popular media discussions on health and fitness. The empirical work in this area, however, is somewhat equivocal. While some studies have demonstrated an improvement in psychological functioning commensurate with improved physical fitness (e.g., Hilyer & Mitchell, 1979; Lion, 1978; Rovario et al., 1984) other studies have not (Ford et al., 1989; Netz et al., 1988). Many of these studies are difficult to compare — some include an exercise programme intervention while others are only correlational in nature. Many draw on specific samples such as schoolchildren, discharged psychiatric patients, navy cadets, and heart by-pass patients. Thus, it is not easy to arrive at definitive or generalisable conclusions regarding the relationship between 'healthy bodies' and 'healthy minds'.

While few would deny that physical fitness is of some benefit in relation to general health, it is worthwhile considering whether people actually *perceive* physically fit people as benefiting in terms of psychological well-being; after all, psychological well-being may not necessarily be an outcome of enhanced fitness. For example, Conrad (1988) examined the perspectives of participants of a corporate fitness programme. Their responses regarding their goals while

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on the programme could be classified into two categories — staying in shape and controlling weight. Some participants mentioned stress reduction as a perceived benefit but not as an actual goal. Thus, for these participants, psychological well-being was not a primary objective.

Within the area of person perception a considerable body of empirical work has accumulated but physical fitness as a cue to judgements regarding psychological well-being does not appear to have attracted experimental interest. There seems no doubt that people use simple visual cues to make stereotypical judgements about others. For example, we appear to attribute socially desirable characteristics to photographs or drawings of physically attractive people. Dion, Berscheid and Walster's (1972) study in this vein, which led them to conclude 'what is beautiful is good', is a classic study that has been frequently quoted and has stimulated many other studies attempting to clarify related phenomena.

In addition to facial attractiveness, other aspects of physical appearance have been demonstrated to serve as cues which people use to make 'snap' personality judgements, including beardedness, use of make-up and wearing of glasses, and Weir and Fine-Davis (1989) demonstrated that hair colour could be added to this list. Physique, or somatic attractiveness, has long been a subject of interest in relation to perceived personality. Staffieri (1967) and Lerner (1969a) found that male subjects, both younger and older, tend to ascribe socially desirable characteristics to photographs of male mesomorphs, and Lerner (1969b) demonstrated that female subjects also associate socially positive items with photographs of male mesomorphs. Interestingly, Staffieri (1972) found that women also perceive female mesomorphs as having positive and socially desirable characteristics. According to Liebert and Spiegler (1978), the mesomorphic physique described by Sheldon is "hard, firm, upright, and relatively strong and tough; their appearance is overwhelmingly one of sturdiness". The attribution of positive personality characteristics to women perceived as having this physique would seem strange as hardness, firmness, strength, toughness and sturdiness do not conform to what, at the time of Staffieri's study, would have been a socially acceptable image for women. One explanation for this finding may be that the subjects in Staffieri's experiment — 7 year old girls — may not have been fully cognisant of stereotypical ideals of adult female physique. An alternative interpretation of these findings would be that their positive perception reflected Juvenal's maxim.

However, it may not be a safe assumption that the concept of the mesomorph incorporates *physical fitness* and therefore a healthy body. Discussions and descriptions of what constitutes physical fitness tend to revolve around a number of criteria. Hogan's study (1989) isolated three factors: muscular strength, cardiovascular endurance, and movement quality (e.g., coordination and flexibility). Visual stimuli of mesomorphic bodies may

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certainly suggest muscle mass but it would be unsafe to assume that endurance and cardiovascular recovery have been incorporated into subjects' perceptions. Similarly, the possession of socially desirable personality traits cannot be assumed to be the same as a 'healthy mind' — some characteristics of psychological well-being, such as assertiveness, may not always be seen as socially acceptable.

The purpose of this study was, therefore, to ascertain whether people associate 'healthy bodies' with 'healthy minds', using an explicit reference to physical fitness and a specifically designed scale to measure perception of physical fitness and of psychological well-being.

METHOD

Subjects

The subjects were 114 third-level business students (38 males and 76 females).

Materials

The stimulus materials consisted of four verbal descriptions of fictitious people; no visual stimuli were presented, to avoid the confounding of somatic attractiveness with physical fitness. Two of the descriptions contained a reference to the person's regular attendance at a gym and mentioned that he or she was very fit. Two other descriptions stated that the person was not fit. In each condition one description was of a woman (Mary) and the other was of a man (Sean). The descriptions were identical in all other respects. As an example, the description of the 'unfit woman' was as follows:

Mary is 23 years old. She was initially unemployed when she left school, but now works in a large department store outside the city. She starts work at nine each morning and works late on a Thursday evening. Last year Mary could not afford a holiday but this year hopes to go abroad for 2 weeks. She often listens to music, reads and watches T.V., and occasionally goes out for a few drinks after work with other members of staff. Mary does not take regular exercise and is very unfit. She is thinking of taking up an evening course in the new year. Mary is the eldest of three children .

In the 'fit' condition the sentence "Mary works out regularly in a Gym and is very fit" was substituted for the sentence "Mary does not take regular exercise and is very unfit".

Procedure

Subjects were divided into four groups, each group being exposed to one of the descriptions. The experimenter introduced the study as a perceptual study and read the description aloud, twice, to subjects. Subjects then rated the person they had heard described on a series of 6-point rating scales (see Figure 1). This set of rating scales was constructed to include the characteristics of psychological well-being reported by Atkinson et al. (1985).

Figure 1. Six-point scales of the perceived psychological well-being of the stimulus person completed by subjects after hearing one of four descriptions.

Enthusiastic about life	— — — — — —	Struggles with life
Self confident	— — — — — —	Lacks self confidence
Dependent	— — — — — —	Independent
Feels they are accepted by others	— — — — — —	Doesn't feel accepted by others
Feels bad about life	— — — — — —	Feels good about life
Knows self well	— — — — — —	Doesn't know self well
Has self control	— — — — — —	Lacks self control
Unhappy	— — — — — —	Happy
Sociable	— — — — — —	Unsociable
Finds it difficult to make friends	— — — — — —	Finds it easy to make friends

RESULTS

The measure of psychological well-being was scored in a simple additive manner (range 6-60). To examine whether there was any difference in ratings of the 'fit' stimulus condition and the 'unfit' stimulus condition, a *t*-test for unrelated means was performed. A significant difference between the two conditions was found ($t= 6.37$; $df=110$; $p<.05$, one tailed), indicating that subjects perceived the the physically fit stimulus persons to be more likely to possess the characteristics of psychological well-being than the unfit ones (see Table 1 for means in each condition).

Separate *t*-tests were also performed for the mean ratings of 'Mary' in the fit condition compared with mean ratings of 'Mary' in the unfit condition, and for the mean ratings of 'Sean' in the fit condition compared to mean ratings of 'Sean' in the unfit condition. In each case a significant difference was obtained ($t=4.95$; $df=55$; $p<.01$ and $t=3.83$; $df=55$; $p<.01$, respectively) indicating that there was an effect for both the female and the male target person. Significant differences were also obtained for male subjects' ratings between the fit and the unfit condition ($t=5.76$; $df=36$; $p<.01$) and for female subjects' ratings between the fit and unfit condition ($t=4.61$; $df=74$; $p<.01$) indicating that the effect obtained for both male and female subjects.

Table 1. Means (and SDs) of male and female subjects' ratings of fit and unfit male (Sean) and female (Mary) stimulus person,

	Fit		Unfit	
	Mary	Sean	Mary	Sean
Male subjects				
<i>M</i>	4.67	4.59	3.31	3.07
<i>SD</i>	0.48	0.70	1.09	0.55
<i>n</i>	9	13	8	8
Female subjects				
<i>M</i>	4.88	4.86	4.00	4.05
<i>SD</i>	0.64	0.49	0.74	0.92
<i>n</i>	17	10	23	26

DISCUSSION

The main findings of the study support the more general conclusion that people use simple cues to make judgements about personality characteristics. It is noteworthy, however, that most other person-perception studies have used visual stimuli, such as photographs or drawings. This study demonstrates that the phenomenon extends to verbal stimuli, presented aurally.

The main finding suggests that, like Juvenal, subjects perceive healthy bodies to be associated with healthy minds. Presumably subjects were influenced not just by the wise words of the scholar but also by the increasing emphasis in society on healthy lifestyles, and the benefits of exercise and fitness. They may also have been influenced by their own experience of the consequences of enhanced fitness. The finding, of course, is encouraging for fitness enthusiasts and for those who are currently considering becoming fitness enthusiasts.

Stereotypical judgements made on the basis of simple, and relatively bland, verbal descriptions, however, tell us nothing about the objective relationship between healthy bodies and healthy minds. Whether physically fit people are indeed more psychologically fit to cope with everyday challenges and anxieties is an entirely different question, and the empirical research already existing in this area is so varied in design and findings that it is difficult to draw definitive conclusions. However, the finding that we perceive physically fit people as

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also being psychologically well might suggest that further studies would be desirable.

The results of the present study are perhaps surprising in the light of Conrad's (1988) work regarding the perceived goals of exercise on a fitness programme: goals which did not include 'increased psychological well-being'. The goals that people did identify — staying in shape and controlling weight — may, of course, have been more immediate priorities for the participants. However, it is arguable that a qualitative analysis of the perceived goals of a corporate fitness programme may not be comparable with a simple person-perception study relying on the responses of college students. Subjects in this latter study were not asked about the goals of fitness but were only asked to rate well-being. They may of course have assumed that the stimulus person in the fit condition was in fact 'in shape' and had their weight under control, and that this helped contribute to their psychological well-being

Finally, it is worth mentioning the fact that there was no difference between the ratings of male subjects and those of female subjects, and that the gender of the stimulus person did not appear to influence judgements. To the extent that physical fitness includes ideas about muscular strength and endurance, and conjures up suggestions of energetic behaviour and competitiveness, it is easy to see how fitness could be seen to be a positive attribute for men but traditional ideas regarding the psychological well-being of women may not be as positively associated with fitness. For example, stereotypical beliefs regarding women's behaviour, as reported by Frieze et al. (1979) include submissiveness, gentleness, dependency, passivity, and lack of ambitiousness. Not only does this list exclude physical fitness but the behaviours included do not suggest activity or even energetic behaviour. Men, according to Frieze et al., are seen as blunt, rough, aggressive and competitive. However, the increasing acceptance of egalitarian ideas seems to be leading to more flexible boundaries regarding gender roles: today women are 'allowed' to engage in behaviours and possess traits which previously were only seen as positive when possessed by men. This presumably encourages both male and female subjects to see physical fitness in women in a positive light. And, as '*Mens sana in corpore sano*' does not appear to refer particularly to either sex, we can only presume that in this respect Juvenal was ahead of his time.

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