SEX, SOCIAL CLASS, AND ESTIMATING IQ: MIDDLE-CLASS MALE SUBJECTS RATE THEMSELVES MOST INTELLIGENT[1]

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Summary.—153 sociology students specified parental occupation and job status before estimating their own and their parents' overall IQ. Male subjects, as predicted, gave a higher mean self-estimated score to themselves than did female subjects (113 vs 106). Fathers were awarded higher IQ scores than mothers (114 vs 107). Male subjects who had mothers in a higher social class gave themselves the highest mean score.

Various studies have focused on self-estimates of IQ. In one of the first, Hogan (1978) reported on 11 different studies with American college students who were asked to estimate their IQ scores. He found that compared to male subjects, female subjects underestimated their estimated scores (50% of the time significantly so), and nearly all believed their fathers had higher IQs than their mothers.

Beloff (1992) replicated this study with Scottish students and found the young women gave themselves lower scores than young men did and gave higher scores to their fathers, while young men gave higher scores to themselves than they did to their mothers. Byrd and Stacey (1993) replicated and extended this study in New Zealand by asking students to estimate the IQs of brothers and sisters. Although there were no sex differences in self estimates of IQ, the Beloff findings (1992) were replicated. Further, male subjects thought they had higher IQs than their sisters, while female subjects believed their own and their sisters' IQs to be equivalent, although their estimates of their fathers' scores were higher than their mean estimates for their mothers', brothers', and sisters' IQs.

Furnham and Rawles (1995) extended this research by asking British male and female participants to rate their own IQs and those of their parents and grandparents as well as those of people in 15 occupational groups. In line with previous studies, male subjects rated their IQs higher than did female subjects (*M*s = 118 vs 112) and both sexes rated their fathers' IQs higher than their mothers' (*M*s = 115 vs 108). Similarly, grandfathers received

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a higher mean IQ estimate ($M = 106$) than grandmothers ($M = 99$). There was a fairly wide distribution of IQ scores among occupational groups from cleaner ($M = 81$), bricklayer ($M = 84$), hairdresser ($M = 87$) to lawyer ($M = 121$), doctor ($M = 122$), and professor ($M = 125$).

Bennett (1996) confirmed earlier findings with 144 Scottish undergraduates: men rated their mean IQ significantly higher than did women ($M = 117$ vs 109). The total group also rated their fathers' IQs as significantly higher than their mothers' ($M = 116$ vs 110). However, when asked to rate their interpersonal IQ (as opposed to general IQ), most of these sex differences disappeared, and the students thought their mothers had a higher interpersonal IQ than their fathers ($M = 116$ vs 107).

Furnham and Gasson (1998) asked 184 adults to rate their own IQ and those of their children. The results were in line with previous studies, in that male subjects rated their IQs higher than did female subjects ($M = 108$ vs 104). Both sexes rated their male children higher than their female children ($M = 109$ vs 102).

Other studies in this tradition have tended to look at multiple intelligences rather than overall intelligence (Bennett, 1997; Furnham & Baguma, 1999; Furnham, Clark, & Bailey, 1999; Furnham, Fong, & Martin, 1999; Furnham, in press). Nearly all have replicated the sex difference, although this seems restricted to verbal, spatial, and numerical intelligences. Some studies have examined the relationship between self-estimated vs psychometrically measured IQ (Furnham & Rawles, 1995, 1999; Reilly & Mulhern, 1995; Paulus, Lysy, & Yik, 1998). Most studies yielded correlations of $M = .15$ and $.30$, which, although statistically significant, are modest.

No previous study concerned the effect of social class on these scores. This study was done to examine class and sex differences on self-estimated overall IQ. It was hypothesized that social class as defined by occupation of parents would, with sex, be a significant predictor of overall IQ estimate. It was predicted that participants of both sexes of higher social class would award themselves and their parents higher scores than those of lower socio-economic status. It was also predicted that male subjects would award themselves a higher mean score than female subjects in all social classes.

METHOD

Participants

Sociology student participants completed the study (53 men and 100 women). They ranged in age from 16 to 44 years ($M = 19.7$, $SD = 5.0$). Most of the participants' parents were employed full time (97.9%). Traditionally a person's social class in Great Britain is defined by self or father's occupational status. Fathers' social class was measured by occupational status using the British Registrar General's system: I Professionals (12.1%), II Managerial

(64.4%), III Skilled Manual (21.9%), and IV Unskilled (1%). Eighty-one percent of mothers worked. Sixty-seven percent of the working mothers were in full-time work and 32.8% in part-time work. The breakdown of the working mothers' occupational status was 4.4% Professional, 40.4% Managerial, 28.7% Skilled, and 5.9% Unskilled. The remainder (19%) were housewives.

Questionnaire

Participants, after having the distribution and meaning of IQ explained, simply gave estimates of self and parental IQ. Previous studies have shown this to be a straight-forward task (Furnham, Clark, & Bailey, 1999; Furnham, Fong, & Martin, 1999).

Procedure

Participants were tested during formal class time so there was a 100% response rate. This was a class requirement.

RESULTS

Self-estimates

Male subjects gave higher self-estimates of IQ than did female subjects ($M = 113.6$, $SD = 17.2$ vs $M = 107.0$, $SD = 16.0$). With age and parental occupation controlled, the one-way analysis of covariance was still significant ($F_{1,151} = 5.53$, $p < .05$). When age, sex of the participants, and fathers' and mothers' class were regressed onto self-estimates of IQ, the regression was significant ($F_{6,93} = 2.96$, $p < .01$), with an adjusted $R^2 = .11$. Two factors predicted self-estimated IQ, sex (Beta = $-.30$, $t = -3.01$, $p < .01$) and mothers' social class (Beta = $-.21$, $t = -1.89$, $p < .05$). This indicated that male subjects with mothers of higher social class gave themselves higher scores. When the regression was repeated with sex removed, the result was not significant.

Parents

There was no significant sex difference in the subjects' estimates of IQ for their fathers ($M = 114.1$, $SD = 20.0$) and IQ for their mothers ($M = 107.7$, $SD = 19.7$). There was a significant mean difference between the estimates for the fathers' IQs and the mothers' IQs ($t_{14} = 3.75$, $p < .001$). As in all previous studies, fathers were estimated to be more intelligent than mothers.

Two regressions were then performed first on fathers', then on mothers' IQ scores as estimated by the participants. The four independent variables were participants' age and sex as well as parents' occupational status and class. The regression was significant for the estimates of fathers' IQs: $F_{6,93} = 2.34$, $p < .05$; $R^2 = .08$). Fathers' social class was the only significant predictor (Beta = $-.30$, $t = -2.93$, $p < .01$). This indicated that the higher the social class of the father, the higher was the IQ estimate for the father. Almost identical results were found for participants' estimates of their mothers' IQs: ($F_{6,93} =$

3.06, $p < .01$, $R^2 = .11$). The social class of the mother (Beta = $-.35$, $t = -3.23$, $p < .001$) was the only significant factor. The higher the social class of the mother, the higher the estimated IQ given to her by her own son or daughter.

DISCUSSION

This study replicated nearly all previous studies in the area by showing that male subjects estimated their own IQs as higher than female subjects did. Further, it supports Beloff's conjecture (1992) that links social status and estimated IQ. There were, however, two particularly interesting features of the present data. First, both male and female subjects gave average estimates that were less than the value of one SD above the mean, i.e., IQ = 115. In other studies using students, the average self-rating for both male and female subjects is above 115 (Beloff, 1992; Byrd & Stacey, 1993; Furnham & Rawles, 1999). Studies of adults in their 30s and 40s tend to produce more modest scores, similar to those found in this study (Furnham & Gasson, 1998). Thus, these students of sociology in their teens and 20s seem to offer lower self-estimates of IQ than those in previous studies in which psychology students were participants. However, this may simply be a reflection of their relative unfamiliarity with IQ measures, in comparison with students in psychology.

The difference between the mean scores for self-estimates by men and women was among the highest compared to previous studies (Furnham & Rawles, 1999). It was, however, comparable to that of Beloff (1992), who tested a large sample of Scottish psychology students. In the present study, the mean difference was 6.6 IQ points versus 6.4 IQ points in the study by Beloff (1992). In this study the women's mean estimate was 107.0. In the Beloff study (1992), the mean was 120.5, which is a difference of nearly one standard deviation.

Previous studies have demonstrated that, overall, student participants (particularly male subjects) tend to rate the IQs of their parents as somewhat lower than their own. This was much more noticeable for the estimates for fathers than for mothers (Beloff, 1992; Byrd & Stacey, 1993; Furnham & Gasson, 1998). What was different in this study was that parents were estimated as having a slightly higher mean IQ than the mean self IQ. The difference between mean estimates for the two parents ($M = 6.4$) was almost identical to that of the difference in mean self-estimates between male and female subjects ($M = 6.6$).

This study focused particularly on the influence of social class on these IQ estimates. Many studies of social class as measured by occupational status show correlations with psychometric IQ (Mackintosh, 1998). Analysis showed the social class of the parents influenced both the self-estimates and

those of parents. Male subjects with mothers who were of a higher social class gave a higher mean self-estimate; parents of higher social class (both mothers and fathers) received a higher mean estimated score. There are a number of possible explanations for these findings. It has been demonstrated that there are actual social class differences in IQ. Fifty world experts on intelligence gave a 25-point summary of the state-of-the-art in intelligence in the Wall Street Journal (15 January, 1994). They wrote that "IQ is strongly related, probably more so than other single measurable trait, to many important educational, occupational, economic and social outcomes .... For example, a high IQ is generally necessary to perform well in highly complex fluid jobs (the professions, management); it is a considerable advantage in moderately complex jobs (craft, clerical, and police work) but provides less advantage in settings that require only routine decision making or simple problem solving (unskilled work)" (Furnham, 1996, pp. 177-178). If evidence of social class is seen in part as occupational status differences in IQ and lay people know this to be true, the results of this study may be anticipated. Further, if there is a strong genetic component to intelligence, it makes even more sense that the children of parents with high IQs estimate their IQs as higher.

It could be, however, that the social class differences in actual IQ are either very small, or else they show great variability, and the differences in self-estimates are not a function of actual observable differences but rather erroneous beliefs. If there are social class differences in socialization, it may be that more middle-class children are taught to think of themselves as having higher IQs than are working-class children. It might have been helpful had these subjects been asked for their interpretation of the meaning of the IQ estimates and their opinions on the relationship of IQ and occupation. There may be very little difference in actual IQ scores. The above "explanations" are not mutually exclusive or contradictory. However, it will take further research work to assess why there are both sex and social-class differences in self-estimated IQ.

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