SUMMARY
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The objective of the study was to construct and standardize a measure of belief in heredity/environment about human characteristics.

To fulfill this objective a sample of 200 subjects was drawn from different walks of life from Rohtak and adjoining villages. A pool of 24 items was administered to 109 males with mean age 26.37 years and 91 females with mean age 22.23 years. The mean age of the total sample was 24.49 years. An inventory containing 24 items was administered to these 200 subjects in order to develop a scale to measure belief in heredity/environment about human characteristics/traits. The 24 human characteristics/traits in the inventory were given in Hindi. Each trait/characteristic was explained in lucid style so that every layman understands it thoroughly when he reads or told orally. These definitions were judged by 10 experts in Psychology. The inventory was in Yes/No format where "Yes" response indicate that the characteristics/trait is determined by heredity and "No" response indicate that the characteristic/trait is determined by environment. A score of one (1) was given to yes i.e. for heredity and a score of zero (0) for 'No' i.e. for environment. Order of presentation of characteristics/traits in this
inventory was determined randomly (by lottery system). Scoring was done after the subject has completed the task. This procedure was followed for the entire sample.

For analysing the results, various psychometric techniques were used i.e. item analysis (endorsement rates and discrimination index), internal consistency was measured and factor analysis was done.

Findings: Endorsement rates - The items which have less than 25% and above 75% endorsement are to be dropped from the final inventory. Out of the total 24 items only three items were found to be having endorsement rates above 75%. These items are body height, skin colour and colour of hair. These physical characteristics which are generally believed by people to be determined by heredity, hence the high endorsement rate only confirms this belief. In item discrimination for item No. (2,5, and 9) the discrimination index is 9, 6 and 13 respectively. These items are item No. 2 ‘body height’ item No. 5 is ‘skin colour’ and item No. 9 is colour of hair. These are the same items which have high (more than 75%) endorsement rates. It means that these are the items which poorly discriminate between those having high heredity oriented belief and low heredity oriented belief. All other items seem to be valid having more than 30 discrimination index. It has been further confirmed
by the biserial correlations for item number 2, 5 and 9 the obtained \( r_{bis} \) is .17, .08 and .17 respectively. It indicates that these three items are not valid and are inconsistent with the rest of the items of the inventory having moderate biserial coefficients of correlation, the lowest being .40 and highest .62.

The endorsement rate, discrimination index \( (D) \) and validity index \( (r_{bis}) \) indicates that item number 2, 5 and 9 are not valid items to be included in the final inventory for measuring belief in heredity / environment about human characteristics.

Reliability: Internal consistency reliability was calculated using Kuder-Richardson formula-21. The formula for Yes/No answers i.e. where 'Yes' is given a score of 1 and 'no' is given a score 0. The obtained coefficient of reliability is 0.68 which indicates that the inventory has high internal consistency.

Factor analysis: It was found that inter-item correlation range from low to moderate. However majority of the inter-item correlations are low. This may be due to that the items represent separate traits / characteristics and relatively independent of each other. Nine factors have emerged having eigen values greater than 1. These 9 factors accounts for 58.3% of the total variance. However, the scree-Test of the
significance of factors (Catell, 1965), reveals that only 2 factors are significant and account 22.4% of the total variance. This indicates that there is no common factor and the items representing physical, psychological/ability/skills and temperamental characteristics do not form groups. This suggests that each characteristic or trait should be analysed separately for determining the heredity/environment oriented belief of a person towards human characteristics or traits.

**CONCLUSION**

The findings reveal that out of the total 24 items, only three items i.e. item number 2, 5 and 9 are having high endorsement rates, low discrimination index and low rbis. These items should not be included in the final inventory. However, these can be included in the instruction part for explanatory purposes and/or can be included in the inventory as an administrative check against reactive and careless responding. Further, it is suggested that the remaining 21 items can be included in the final inventory and instead of giving two response categories these can be rated on a five point scale, as five point scale give more choice to the respondents.