

Natural Intelligence

A particularly popular non-sociological explanation of differential achievement is to locate them in an innate, genetic ability. The argument is as follows:

- People are born with a fixed innate ability, or intelligence.
- It is possible to measure this ability using Intelligence Quotient (IQ) Tests.
- These tests have shown that working-class students are less intelligent than middle-class students.
- Differences in educational achievement across social classes can therefore be explained by the measured differences between natural intelligence.
- **Saunders (1994)** argues that class differences in educational performance continue over time because intelligence is largely genetically inherited – inequalities are in effect passed down from one generation to the next.

A number of influential theorists have championed this argument, including **Hans Eysenck (1971)** who has argued that, “*What children take away out of schools is proportional to what they bring into the schools in terms of IQ*”. The viewpoint was also particularly influential in the design of the Tripartite System; particularly the introduction of the eleven-plus at the suggestion of **Cyril Burt**, who insisted that intelligence is fixed and inherited – famously stating, “*A pint jug will not hold more than a pint*”.

Evaluation of Genetic Factors

The concept of intelligence is fraught with problems, which can be broken into two main categories:

Defining Intelligence

Despite the popularity of genetic explanations of differential achievement, there is some ambiguity over what is actually meant by “intelligence”. **Giddens (1989)** suggests – with a heavy dose of irony – that the most prevalent definition is that intelligence is “*what IQ tests measure*”; there is an assumption that there exists a single attribute of intellectual ability – but a lack of consistent definitions of what this ability actually is.



IQ tests tend to focus on logical, mathematical and linguistic ability.

1. Do you think that this represents the whole range of human abilities? Try to suggest a list of alternative skills that we might also consider.
2. Why do you think these skills form the basis of IQ testing?

The argument that there exists a single attribute called “intelligence” which determines all aspects of achievement in school is bitterly debated. Both **Neo-Marxists** and **Feminists** have argued that the common definition of “intelligence”, with its focus on mathematical, logical and linguistic ability is **socially constructed** and reflects little more than those skills which are most valued by white, middle-class men. As these people tend to have control over the way in which knowledge is produced (i.e. they tend to control institutions such as universities), it is their version of “the truth” which is taken as common sense. Because of this, other abilities – such as spoken communication, emotional literacy and practical ability – are ignored or viewed as less important. Therefore, rather than explaining inequality, the notion of IQ simply creates an **ideology** which justifies it by legitimising the success of the ruling class.

Although originating in a different discipline, the educational psychologist **Howard Gardner (1983)** has made a similar

argument that has been highly influential in the rejection of a single measurable attribute called “intelligence”. He suggests that we should consider not a single intelligence, but a whole range of different and distinct abilities – giving rise to the notion of **multiple intelligences**.

Measuring Intelligence

The second group of problems associated with genetic explanations of achievement relates to the **methodological** issues involved in measuring IQ. Even if we accept that “intelligence” exists as a trait, is it possible to measure it without other factors interfering with the results? Sociologists have, therefore, questioned the **validity** of IQ tests as a true measure of intelligence.

Firstly, it is almost impossible to measure the effects of genetic ability without also measuring some learnt skills and abilities. When you were first born – for instance – you could not have completed an IQ test (although presumably your innate intelligence was present), as you had not yet “learnt” the skills of reading and writing necessary to do so. Consequently, IQ tests are not simply measuring innate ability, but also learnt skills, motivation and prior-knowledge – all of which may be influenced by **environmental factors**. It is therefore difficult to maintain that IQ tests are an objective measure of purely genetic ability. Therefore, we can never be sure that what we have measured is the **cause** of educational inequality or the **effect** of other factors.

Critics have also argued that the way in which IQ tests are designed is **culturally biased**. In order to answer questions within them, prior-knowledge is required – and the type of knowledge on which they draw is more familiar to students from more affluent backgrounds (e.g. by asking questions which require knowledge of classical composers). Furthermore, **Labov** has argued that the formal language in which questions are written is less familiar to poorer children, which could also work against them. This bias has led some to argue that rather than measuring intelligence, IQ tests measure the ability to think like a white, middle-class male.

Finally, the genetic explanation for differential achievement ignores evidence of improvements within social groups. For instance, the attainment working class girls has gradually increased over the past thirty years. The argument that working class have genetically inferior IQs fails to account for this.

Conclusion

Most researchers would argue that...

- Genetic factors probably do have some influence on educational achievement, however...
- IQ is a mixture of environmental and genetic factors and it is impossible to measure one without the other interfering.
- Furthermore, it is impossible to devise a “fair” and valid IQ test that is not culturally biased.
- This means it is not possible to compare the IQs of people from different social groups.
- If it were possible, we **would** probably find that individuals would have different innate abilities.
- However, these differences would be equally distributed across social groups (i.e. there would be the same range of abilities within different social classes).
- Consequently, differences in attainment must be due – at least in part – to factors other than natural intelligence.

KEY TERMINOLOGY

VALIDITY: When considering methodology, validity is used to refer to whether the researcher has measured what they set out to measure. In short – have they obtained a “truthful” insight?

Activity: Problems with IQ Testing

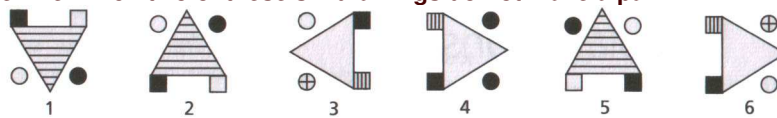
(a) **Underline the odd-man-out**

- Byron
- Shelly
- Keats
- Chamberlain
- Chaucer

(b) **Underline the phrase that completes the sequence. Alfred had his cakes; Bruce had his Spider; Canute had his waves. Which comes next:**

- Charles with his Nell;
- John with his barons;
- Keats with his poetry;
- Henry with his wives; or
- Richard with his Hunchback?

(c) **Underline which two of these six drawings do not make a pair.**



(d) **Underline the odd-one-out**

- House
- Igloo
- Bungalow
- Office
- Hut

(e) **Underline which of these is not a girl's name.**

- SAYDI
- BLISY
- SHOLT
- TEEMILCNEN

Source: Eysenck (1962)

QUESTIONS

- Have a go at the IQ Test above (what fun!).
- Read through the notes on the problems of IQ testing and summarise the main criticisms in the bullet points below:
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- Try to provide evidence of some of these criticisms using the test above (write your criticisms in the margins next to each question)