

Evolutionary psychology takes as its starting point the uncontroversial assertion that the anatomical and physiological features of the human brain have arisen as a result of adaptations to the demands of the environment over the millennia. However, from this reasonable point of departure, these psychologists make unreasonable extrapolations. They claim that the behavior of contemporary man (in almost all its aspects) is a reflection of features of the brain that acquired their present characteristics during those earliest days of our species when early man struggled to survive and multiply.

This unwarranted assumption leads, for example, to suggestions that modern sexual behavior is dictated by realities of Pleistocene life. These suggestions have a ready audience, and the idea that Stone Age man is alive in our genome and dictating aspects of our behavior has gained ground in the popular imagination. The tabloids repeatedly run articles about "discoveries" relating to "genes" for aggression, depression, repression, and anything for which we need a readymade excuse. Such insistence on a genetic basis for behavior negates the cultural influences and the social realities that separate us from our ancestors.

The difficulty with pseudo science of this nature is just this popular appeal. People are eager to accept what is printed as incontrovertible, assuming quite without foundation, that anything printed has bona fide antecedents. We would do well to remember that the phrenologists of the nineteenth century held sway for a considerable time in the absence of any evidence that behavioral tendencies could be deduced from the shape of the skull. The phrenologists are no more, but their genes would seem to be thriving.

1. The author's primary purpose in the passage is to
- A. argue for the superiority of a particular viewpoint
  - B. attack the popular press
  - C. ridicule a particular branch of science
  - D. highlight an apparently erroneous tendency in an area of social science
  - E. evaluate a particular theory of human behavior in all its ramifications

2. The author mentions phrenologists as

- A. pseudo scientists who are the logical antecedents of evolutionary psychologists
- B. a group with inherent appeal to the followers of evolutionary psychologists
- C. a warning against blind acceptance of ideas
- D. scientists with whom evolutionary psychologists share common assumptions
- E. behavioral scientists who have spawned a variety of wrong ideas

3. The author apparently believes that the journalists writing for the tabloids

- A. are more concerned with popular appeal than with authenticity
- B. believe that human behavior has a genetic basis
- C. run the same articles over and over again
- D. are victims of the human desire to excuse inexcusable behavior
- E. are highly irresponsible in their efforts to pander to the public

The pioneers of the teaching of science imagined that its introduction into education would remove the conventionality, artificiality, and backward-lookingness which were characteristic of classical studies, but they were gravely disappointed. So, too, in their time had the humanists thought that the study of the classical authors in the original would banish at once the dull pedantry and superstition of mediaeval scholasticism. The professional schoolmaster was a match for both of them, and has almost managed to make the understanding of chemical reactions as dull and as dogmatic an affair as the reading of Virgil's Aeneid.

The chief claim for the use of science in education is that it teaches a child something about the actual universe in which he is living, in making him acquainted with the results of scientific discovery, and at the same time teaches him how to think logically and inductively by studying scientific method. A certain limited success has been reached in the first of these aims, but practically none at all in the second. Those privileged members of the community who have been through a secondary or public school education may be expected to know something about the elementary physics and chemistry of a hundred years ago, but they probably know hardly more than any bright boy can pick up from an interest in wireless or scientific hobbies out of school hours. As to the learning of scientific method, the whole thing is palpably a farce. Actually, for the convenience of teachers and the requirements of the examination system, it is necessary that the pupils not only do not learn scientific method but learn precisely the reverse, that is, to believe exactly what they are told and to reproduce it when asked, whether it seems nonsense to them or

30 not. The way in which educated people respond to such quackeries  
as spiritualism or astrology, not to say more dangerous ones such  
as racial theories or currency myths, shows that fifty years of  
education in the method of science in Britain or Germany has  
produced no visible effect whatever. The only way of learning the  
35 method of science is the long and bitter way of personal  
experience, and, until the educational or social systems are altered  
to make this possible, the best we can expect is the production of a  
minority of people who are able to acquire some of the techniques  
of science and a still smaller minority who are able to use and  
40 develop them.

4. The author implies that the 'professional schoolmaster' (line 7) has

- A. no interest in teaching science
- B. thwarted attempts to enliven education
- C. aided true learning
- D. supported the humanists
- E. been a pioneer in both science and humanities.

5. The author's apparently believes that secondary and public school education in the sciences is

- A. severely limited in its benefits
- B. worse than that in the classics
- C. grossly incompetent
- D. a stimulus to critical thinking
- E. deliberately obscurantist

6. If the author were to study current education in science to see how things have changed since he wrote the piece, he would probably be most interested in the answer to which of the following questions?

- A. Do students know more about the world about them?
- B. Do students spend more time in laboratories?
- C. Can students apply their knowledge logically?
- D. Have textbooks improved?
- E. Do they respect their teachers?

7. All of the following can be inferred from the text **except**

- A. at the time of writing, not all children received a secondary school education
- B. the author finds chemical reactions interesting
- C. science teaching has imparted some knowledge of facts to some children
- D. the author believes that many teachers are authoritarian
- E. it is relatively easy to learn scientific method

8. Answer this question based on the information in the paragraph below.

On the basis of the Big Bang theory **scientists predicted levels of Helium-3 in the universe that are ten times greater than the levels actually observed**. According to the original model, Helium-3 is produced when low-mass stars burn up hydrogen and become 'red giants', as well as being produced in the Big Bang itself. Researchers have now produced a new model in which the Helium-3 produced by a red giant is pushed to the star's interior and burnt up. **Hence the Big Bang theory is no longer undermined by Helium-3 data**.

The two portions in bold-face are related to each other in which of the following ways?

- A. The first highlights an observation that tends to undermine a particular theory. The second is that theory.
- B. The first is a fact that undermines a theory. The second is context for accepting that theory.
- C. The first points to an inconsistency in a particular model; the second is the author's main conclusion.
- D. The first is a challenge to a classic theory; the second resolves that challenge.
- E. The first is a position that the author does not accept; the second is the author's position.

## Answer Key

- 1. D
- 2. C
- 3. A
- 4. B
- 5. A
- 6. C
- 7. E
- 8. C