This quiz was created by Thomas Pölzler | Download: https://www.thomaspoelzler.com/teaching/materials | It may be freely used, adapted and shared without any restrictions (public domain under CC0 1.0).

Quiz David Buller: Adapting Minds, Chapter 3

○ one correct answer · ▢ one or more correct answers

1. Gould accuses evolutionary theory of his day, as well as evolutionary psychology in particular, of “adaptationism”. What does he mean by this term?

- ○ a. the view that almost no traits are adaptive, i.e., organisms do not possess them because they increase their own biological fitness
- ○ b. the view that almost all traits are adaptations, i.e., organisms possess them because they increased the biological fitness of their ancestors
- ○ c. the view that almost all traits are adaptive, i.e., organisms possess them because they increase their own biological fitness
- ○ d. the view that almost no traits are adaptations, i.e., organisms do not possess them because they increased the biological fitness of their ancestors

2. Consider the human navel (belly button). Given how Gould distinguishes between different products of evolution, which type of trait is this?

- ○ a. spandrel
- ○ b. adaptation
- ○ c. co-opted adaptation

3. What are Gould’s main objections against Evolutionary Psychology?

- ▢ a. it neglects the role of kin selection in explaining psychological mechanisms
- ▢ b. it is based on evolutionary theory which has been proven wrong
- ▢ c. it fails to see that psychological traits are only by-products of large brain size
- ▢ d. it is unscientific in the sense of untestable
- ▢ e. it has been proven wrong by game theory

4. Buller discusses the extent to which we can know facts about humans' so called EEA, their "environment of evolutionary adaptedness" (roughly the Pleistocene, from around 2.6 million to 10,000 years ago). Which claims does he endorse in doing so?

- ☐ a. hypotheses about the human EEA can be shown to be untestable in practice without engaging with evidence that has been put forward in favor of these hypotheses
- ☐ b. hypotheses about the human EEA are untestable in principle
- ☐ c. hypotheses about the human EEA can be shown to be untestable in practice but this requires engaging with evidence that has been put forward in favor of these hypotheses
- ☐ d. hypotheses about the human EEA cannot possibly be shown to be untestable in practice

5. Evolutionary psychology uses the method of evolutionary functional analysis. How does this method work?

- ○ a. evolutionary psychologists infer the existence of an adaptive problem from the existence of a psychological mechanism
- ○ b. evolutionary psychologists create an adaptive problem that gives rise to a psychological mechanism
- ○ c. evolutionary psychologists design a psychological mechanism to solve an adaptive problem
- ○ d. evolutionary psychologists infer the existence of a psychological mechanism from the existence of an adaptive problem

6. What are, according to Buller, the main sources of evidence that evolutionary psychologists have provided for their hypotheses about the adaptive problems of our Pleistocene ancestors?

- ☐ a. studying the design of psychological adaptations
- ☐ b. studying closely related other species
- ☐ c. studying extant hunter-gatherer populations
- ☐ d. studying computer-simulations of human behavior

7. Evolutionary psychologists may argue that, despite some of the problems raised by Buller, their preferred sources of evidence at least allow us to specify adaptive problems such as “our ancestors needed to identify and attract potential mates of high reproductive value”. Why does Buller think that this reply is insufficient?

- ○ a. adaptive problems such as the above are too general to give rise to hypotheses about the existence of specific psychological mechanisms; in fact, more specific adaptive problems cannot be known because these problems were likely stable/non-changing
- ○ b. our ancestors actually did not face adaptive problems such as identifying and attracting potential mates of high reproductive value
- ○ c. adaptive problems such as the above are too specific to give rise to hypotheses about the existence of general psychological mechanisms; in fact, more general adaptive problems cannot be known because the relevant adaptive problems were likely stable/non-changing
- ○ d. adaptive problems such as the above are too general to give rise to hypotheses about the existence of specific psychological mechanisms; in fact, more specific adaptive problems cannot be known because these problems were likely instable/fast-changing
- ○ e. adaptive problems such as the above are too specific to give rise to hypotheses about the existence of general psychological mechanisms; in fact, more general adaptive problems cannot be known because the relevant adaptive problems were likely instable/fast-changing

8. According to Buller, why would a full list of Pleistocene adaptive problems still be insufficient to infer reasonable precise predictions about psychological mechanisms?

- ☐ a. some solutions to adaptive problems are shaped by pre-existing traits
- ☐ b. there is no connection between adaptive problems and psychological traits whatsoever
- ☐ c. some adaptive problems remain partly or fully unsolved

9. Buller discusses the extent to which psychological mechanisms are responses to ancient versus somewhat more recent adaptive problems (whether "our modern skulls house a Stone-Age mind"). In this context, he endorses the following claims:

- ☐ a. human environments have changed so much since the Pleistocene that new adaptive problems or sub-problems, and hence new selection pressures, have emerged (that have then shaped our psychology)
- ☐ b. as the time since the end of the Pleistocene (10,000 years) is only a small proportion of the actual Pleistocene (two million years) hardly any adaptations can possibly have evolved after the Pleistocene
- ☐ c. since the Pleistocene, sufficient time has passed for psychological adaptations to be modified as a response to new selection pressures
- ☐ d. psychological mechanisms cannot be explained by recent adaptive problems because even though old designs can be modified in short evolutionary time-spans new complex designs cannot evolve in such time-spans