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2

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وزارة التربية والتعليم العالي المديرية العامة للتربية دائرة الامتحانات

(Score: 11/20)

الاسم: الرقم: مسابقة في مادة اللغة الإنكليزية وآدابها المدة: ساعتان ونصف

Part One: Reading

# **Gray and White**

In the following article, the writer presents various attitudes towards the existence of physiological differences between males and females. Read it carefully, and then answer the questions set on it.

When Lawrence Summers, the president of Harvard, suggested that one factor in women's lagging progress in science and mathematics might be innate differences between the sexes, he triggered a debate that has lasted for decades. And although his comments elicited so many fierce reactions that he quickly apologized, many were left to wonder: Did he have a point? Has science found compelling evidence of inherent gender differences in the relevant skills, or perhaps in the drive to succeed at all costs, that could help account for the small number of women in science generally?

Researchers who have explored the subject of gender differences from every conceivable angle and organ say that, yes, there are a host of discrepancies between men and women: in their average scores on tests of quantitative skills, in their attitudes toward math and science, in the architecture of their brains. Yet, despite the public's desire for tidy and definitive answers to complex questions, researchers warn that the mere finding of a difference in form does not mean that a difference in function or output inevitably follows.

"We can't get anywhere denying that there are neurological and hormonal differences between males and females, because there clearly are," said Virginia Valian, a psychology professor at Hunter College who wrote the 1998 book Why So Slow? The Advancement of Women. "The trouble we have as scientists is in assessing their significance to real-life performance." For example, neuroscientists have shown that women's brains are about 10 percent smaller than men's, on average, even after accounting for women's comparatively smaller body size. A century ago, the French scientist Gustav Le Bon pointed to the smaller brains of women – closer in size to those of gorillas, he said – and said that explained the "fickleness, inconstancy, absence of thought and logic, and incapacity to reason in women."

Overall size aside, some evidence suggests that female brains are relatively more endowed with gray matter – the prized neurons thought to do the bulk of the brain's thinking – while men's brains are packed with more white matter, the tissue between neurons. To further complicate the portrait of cerebral diversity, new brain imaging studies from the University of California, Riverside, suggest that men and women with equal IQ scores use different proportions of their gray and white matter when solving problems like those on intelligence tests. Men, they said, appear to devote 6.5 times as much of their gray matter to intelligence-related tasks as do women, while women rely far more heavily on white matter.

What such discrepancies may or may not mean is anyone's interpretation.

"It is cognition that counts, not the physical matter that does the cognition," argued Nancy Kanwisher, a professor of neuroscience at the Massachusetts Institute of Technology. When researchers do study significant cognitive capacities, many have been impressed with how similarly young boys and girls master new tasks. "We adults may think very different things about boys and girls, and treat them accordingly, but when we measure their capacities, they're remarkably alike," said Elizabeth Spelke, a professor of psychology at Harvard. She and her colleagues study basic spatial, quantitative and numerical abilities in children ranging in age from 5 months through 7 years. "In that age span, you see a considerable number of the pieces of our mature capacities for spatial and numerical reasoning coming together," Spelke said. "But while we always test for gender differences in our studies, we never find them."

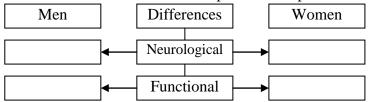
- In adolescence, though, some differences in aptitude begin to emerge. But the modest size and regional variability of the gender differences in math scores convince many researchers that neither sex has a monopoly on basic math ability and that culture rather than chromosomes explains findings like the gap in math SAT scores.
- Yet, Summers and others have observed that while average math skillfulness may be remarkably analogous between the sexes, men tend to display comparatively greater range in aptitude. Males are much likelier than females to be found on the tail ends of the bell curve, among the superhigh scores and the very bottom performers. But few researchers who have analyzed the data believe that the greater representation of men among the high-end scores can explain more than a small fraction of the sex disparities in career success among scientists.

### **Questions**

- **A.** Respond to the following questions, answering each in 2-4 complete sentences of your own.
  - 1. Give two consequences of Summers' suggestion about "innate differences between the sexes." (Score: 01)
  - 2. Summarize Virginia Valian's view in Paragraph 3. (Score:1½)
  - 3. How does the research study on children as explained in Paragraph 6 refute Summers' view stated in the introductory paragraph? (Score:1½)

B.

- 1. What is the significance of the questions raised at the end of Paragraph 1? (Score: 01)
- 2. What two contrasting attitudes toward gender differences do you find in Paragraph 2? (Score:1½)
- 3. Identify the pattern of organization used in Paragraph 8. Support your answer with evidence. (Score:1½)
- C. Copy the following graphic organizer in your booklet, and then scan Paragraph 4 for differences between men and women to complete it. Use phrases. (Score:1½)



- D. The following statements are false because they misinterpret the writer's ideas.Rewrite them correctly. (Score:1½)
  - 1. Some scientists believe that discrepancy between males and females equally covers all stages of life.
  - 2. Because we never find gender differences in our studies, it is then we always test for them.

(Score: 09/20)

**3.** Virginia Valian believes that ignoring neurological and hormonal differences between males and females is a proper thing to do.

# Part Two: Writing

Irrespective of biological and cultural differences between the two sexes, society can never progress or develop unless men and women work as a team to achieve the standards for a better life. In an essay of 250-300 words, explain the above statement, giving examples to show how such cooperation between the two sexes may result in the betterment of our life. See that, in your introduction, you put your reader in the general atmosphere of your topic and clearly provide a thesis statement, and that each of your body paragraphs starts with a topic sentence which you back up with relevant supporting details. Draft, revise, and proofread your essay. Your writing will be assessed for ideas, language, style, and tidiness.

(Score: 05 for ideas, 03 for language and style, and 01 for tidiness and legible handwriting)

#### SECONDARY CYCLE CERTIFICATE

Exam Session of August 2005 Life and General Sciences Sections English as a 1<sup>st</sup> foreign language

#### **ANSWER KEY**

- **A.** 1. Summers' suggestion generates two reactions: negative and positive. First, many react fiercely, a fact which forces him to apologize. Second, his suggestion invites people to think about the issue and the possible differences. (Score: 01)
  - 2. Virginia Valian admits the differences, neurological and hormonal, but she sees that the difficulty lies in evaluating their effect on men's and women's performance. (Score: 1½)
  - 3. The study on children shows that young boys and girls have similar cognitive results, though their brains may differ physiologically. This result contrasts Summers' view as expressed in Paragraph 1. (Score: 1½)
- **B.** 1. The questions raised in Paragraph 1 are meant to:
  - draw attention, arouse interest and curiosity.
  - help readers focus on the nature of the debate.
  - prepare readers for the ideas developed throughout the article. (Score: 01)
  - 2. Two contrasting attitudes can be detected in Paragraph 2, positive and negative. At the beginning of the paragraph, researchers admit that there are differences between men and women, but this attitude becomes positive when researchers say that this difference in form does not necessitate a "difference in function." (Score: 1½)
  - 3. The pattern used in Paragraph 8 is that of contrast. "Yet", "while", and "But" indicate that pattern.

    (Score: 1 ½)

Men Differences Women

Brain packed with more white matter

More gray matter used

Functional

Women

Brain packed with more gray matter

More white matter used

D. (Score: 1½)

- 1. Practically, discrepancy can be depicted in adolescence and later stages; it is totally unseen in childhood.
- 2. Studies on adults show some differences but those on kids show nothing.
- 3. Virginia Valian thinks that ignoring such differences is misleading and rather meaningless because it really exists.