

Reading Test

65 MINUTES, 52 QUESTIONS

Turn to Section 1 of your answer sheet to answer the questions in this section.

DIRECTIONS

Each passage or pair of passages below is followed by a number of questions. After reading each passage or pair, choose the best answer to each question based on what is stated or implied in the passage or passages and in any accompanying graphics (such as a table or graph).

Questions 1-10 are based on the following passage.

This passage is adapted from William Maxwell, *The Folded Leaf*. ©1959 by William Maxwell. Originally published in 1945.

The Alcazar Restaurant was on Sheridan Road near Devon Avenue. It was long and narrow, with tables for two along the walls and tables for four *Line* down the middle. The decoration was *art moderne*, except for the series of murals depicting the four seasons, and the sick ferns in the front window.

Lymie sat down at the second table from the cash register, and ordered his dinner. The history book, which he propped against the catsup and the glass *10* sugar bowl, had been used by others before him.

Blank pages front and back were filled in with maps, drawings, dates, comic cartoons, and organs of the body; also with names and messages no longer clear and never absolutely legible. On nearly every other *15* page there was some marginal notation, either in ink or in very hard pencil. And unless someone had upset a glass of water, the marks on page 177 were from tears.

While Lymie read about the Peace of Paris, signed *20* on the thirtieth of May, 1814, between France and the Allied powers, his right hand managed again and again to bring food up to his mouth. Sometimes he chewed, sometimes he swallowed whole the food that he had no idea he was eating. The Congress of *25* Vienna met, with some allowance for delays, early in November of the same year, and all the powers engaged in the war on either side sent

plenipotentiaries. It was by far the most splendid and important assembly ever convoked to discuss and *30* determine the affairs of Europe. The Emperor of Russia, the King of Prussia, the Kings of Bavaria, Denmark, and Wurttemberg, all were present in person at the court of the Emperor Francis I in the Austrian capital. When Lymie put down his fork and *35* began to count them off, one by one, on the fingers of his left hand, the waitress, whose name was Irma, thought he was through eating and tried to take his plate away. He stopped her. Prince Metternich (his right thumb) presided over the Congress, and *40* Prince Talleyrand (the index finger) represented France.

A party of four, two men and two women, came into the restaurant, all talking at once, and took possession of the center table nearest Lymie.

45 The women had shingled hair and short tight skirts which exposed the underside of their knees when they sat down. One of the women had the face of a young boy but disguised by one trick or another (rouge, lipstick, powder, wet bangs plastered against *50* the high forehead, and a pair of long pendent earrings) to look like a woman of thirty-five, which as a matter of fact she was. The men were older. They laughed more than there seemed any occasion for, while they were deciding between soup and shrimp *55* cocktail, and their laughter was too loud. But it was the women's voices, the terrible not quite sober pitch of the women's voices which caused Lymie to skim over two whole pages without knowing what was on them. Fortunately he realized this and went back. *60* Otherwise he might never have known about the

secret treaty concluded between England, France, and Austria, when the pretensions of Prussia and Russia, acting in concert, seemed to threaten a renewal of the attack. The results of the Congress 65 were stated clearly at the bottom of page 67 and at the top of page 68, but before Lymie got halfway through them, a coat that he recognized as his father's was hung on the hook next to his chair. Lymie closed the book and said, "I didn't think you 70 were coming."

Time is probably no more unkind to sporting characters than it is to other people, but physical decay unsustained by respectability is somehow more noticeable. Mr. Peters' hair was turning gray and his 75 scalp showed through on top. He had lost weight also; he no longer filled out his clothes the way he used to. His color was poor, and the flower had disappeared from his buttonhole. In its place was an American Legion button.

80 Apparently he himself was not aware that there had been any change. He straightened his tie self-consciously and when Irma handed him a menu, he gestured with it so that the two women at the next table would notice the diamond ring on the fourth 85 finger of his right hand. Both of these things, and also the fact that his hands showed signs of the manicurist, one can blame on the young man who had his picture taken with a derby hat on the back of his head, and also sitting with a girl in the curve of 90 the moon. The young man had never for one second deserted Mr. Peters. He was always there, tugging at Mr. Peters' elbow, making him do things that were not becoming in a man of forty-five.

1 Over the course of the passage, the primary focus shifts from

- A) Lymie's inner thoughts to observations made by the other characters.
- B) an exchange between strangers to a satisfying personal relationship.
- C) the physical setting of the scene to the different characters' personality traits.
- D) Lymie's experience reading a book to descriptions of people in the restaurant.

obvious

2

The main purpose of the first paragraph is to

- A) introduce the passage's main character by showing his nightly habits.
- B) indicate the date the passage takes place by presenting period details.
- C) convey the passage's setting by describing a place and an object.
- D) foreshadow an event that is described in detail later in the passage.

resturant and book

3

It can reasonably be inferred that Irma, the waitress, thinks Lymie is "through eating" (line 37) because

- A) he has begun reading his book.
- B) his plate is empty.
- C) he is no longer holding his fork.
- D) he has asked her to clear the table.

Counting on his fingers

4

Lymie's primary impression of the "party of four" (line 42) is that they

- A) are noisy and distracting.
- B) are a refreshing change from the other customers.
- C) resemble characters from his history book.
- D) represent glamour and youth.

loud voice makes him skim 2 pages

5

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 45-47 ("The women ... down")
- B) Lines 47-52 ("One ... was")
- C) Lines 55-59 ("But ... them")
- D) Line 69 ("Lymie ... book")

yep

6

The narrator indicates that Lymie finally closes the history book because

- A) his father has joined him at the table.
- B) the people at the other table are too disruptive.
- C) he has finished the chapter about the Congress.
- D) he is preparing to leave the restaurant.

Lines 68-70

7

The primary impression created by the narrator's description of Mr. Peters in lines 74-79 is that he is

- A) healthy and fit.
- B) angry and menacing.
- C) nervous and hesitant.
- D) aging and shriveled.

hair turning gray etc.

8

The main idea of the last paragraph is that Mr. Peters

- A) neglects to spend any time with his family members.
- B) behaves as if he is a younger version of himself.
- C) is very conscious of symbols of wealth and power.
- D) is preoccupied with the knowledge that he is growing old.

"not aware there had been
any change"

9

Which choice best supports the conclusion that Mr. Peters wants to attract attention?

- A) Lines 80-81 ("Apparently . . . change")
- B) Lines 81-85 ("He straightened . . . hand")
- C) Lines 90-91 ("The young . . . Mr. Peters")
- D) Lines 91-93 ("He was . . . forty-five")



10

As used in line 93, "becoming" most nearly means

- A) emerging.
- B) fitting.
- C) developing.
- D) happening.

i.e. not appropriate

Questions 11-21 are based on the following passages.

Passage 1 is adapted from Catharine Beecher, *Essay on Slavery and Abolitionism*. Originally published in 1837.

Passage 2 is adapted from Angelina E. Grimké, *Letters to Catharine Beecher*. Originally published in 1838. Grimké encouraged Southern women to oppose slavery publicly.

Passage 1 is Beecher's response to Grimké's views.

Passage 2 is Grimké's response to Beecher.

Passage 1

Heaven has appointed to one sex the superior, and to the other the subordinate station, and this without any reference to the character or conduct of either. It is therefore as much for the dignity as it is for the interest of females, in all respects to conform to the duties of this relation. . . . But while woman holds a subordinate relation in society to the other sex, it is not because it was designed that her duties or her influence should be any the less important, or all-pervading. But it was designed that the mode of gaining influence and of exercising power should be altogether different and peculiar. . . .

A man may act on society by the collision of intellect, in public debate; he may urge his measures by a sense of shame, by fear and by personal interest; he may coerce by the combination of public sentiment; he may drive by physical force, and he does not outstep the boundaries of his sphere. But all the power, and all the conquests that are lawful to woman, are those only which appeal to the kindly, generous, peaceful and benevolent principles.

Woman is to win every thing by peace and love; by making herself so much respected, esteemed and loved, that to yield to her opinions and to gratify her wishes, will be the free-will offering of the heart. But this is to be all accomplished in the domestic and social circle. There let every woman become so cultivated and refined in intellect, that her taste and judgment will be respected; so benevolent in feeling and action; that her motives will be reverenced;—so unassuming and unambitious, that collision and competition will be banished;—so “gentle and easy to be entreated,” as that every heart will repose in her presence; then, the fathers, the husbands, and the sons, will find an influence thrown around them, to which they will yield not only willingly but proudly. . . .

A woman may seek the aid of co-operation and combination among her own sex, to assist her in her appropriate offices of piety, charity, maternal and

domestic duty; but whatever, in any measure, throws a woman into the attitude of a combatant, either for herself or others—whatever binds her in a party conflict—whatever obliges her in any way to exert coercive influences, throws her out of her appropriate sphere. If these general principles are correct, they are entirely opposed to the plan of arraying females in any Abolition movement.

Passage 2

The investigation of the rights of the slave has led me to a better understanding of my own. I have found the Anti-Slavery cause to be the high school of morals in our land—the school in which *human rights* are more fully investigated, and better understood and taught, than in any other. Here a great fundamental principle is uplifted and illuminated, and from this central light, rays innumerable stream all around.

Human beings have *rights*, because they are *moral* beings: the rights of *all* men grow out of their moral nature; and as all men have the same moral nature, they have essentially the same rights. These rights may be wrested from the slave, but they cannot be alienated: his title to himself is as perfect now, as is that of Lyman Beecher:¹ it is stamped on his moral being, and is, like it, imperishable. Now if rights are founded in the nature of our moral being, then the mere circumstance of sex does not give to man higher rights and responsibilities, than to woman. To suppose that it does, would be to deny the self-evident truth, that the “physical constitution is the mere instrument of the moral nature.” To suppose that it does, would be to break up utterly the relations, of the two natures, and to reverse their functions, exalting the animal nature into a monarch, and humbling the moral into a slave; making the former a proprietor, and the latter its property.

When human beings are regarded as *moral* beings, *sex*, instead of being enthroned upon the summit, administering upon rights and responsibilities, sinks into insignificance and nothingness. My doctrine then is, that whatever it is morally right for man to do, it is morally right for woman to do. Our duties originate, not from difference of sex, but from the diversity of our relations in life, the various gifts and talents committed to our care, and the different eras in which we live.

¹ Lyman Beecher was a famous minister and the father of Catharine Beecher.

11

In Passage 1, Beecher makes which point about the status of women relative to that of men?

- A) Women depend on men for their safety and security, but men are largely independent of women.
- B) Women are inferior to men, but women play a role as significant as that played by men.**
- C) Women have fewer rights than men do, but women also have fewer responsibilities.
- D) Women are superior to men, but tradition requires women to obey men.

first paragraph

12

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 6-10 ("But . . . all-pervading")**
- B) Lines 13-14 ("A man . . . debate")
- C) Lines 16-18 ("he may coerce . . . sphere")
- D) Lines 41-46 ("but whatever . . . sphere")

13

In Passage 1, Beecher implies that women's effect on public life is largely

- A) overlooked, because few men are interested in women's thoughts about politics.
- B) indirect, because women exert their influence within the home and family life.**
- C) unnecessary, because men are able to govern society themselves.
- D) symbolic, because women tend to be more idealistic about politics than men are.

must convince others by being esteemed and loved

14

As used in line 2, "station" most nearly means

- A) region.
- B) studio.
- C) district.
- D) rank.**

lower position

15

As used in line 12, "peculiar" most nearly means

- A) eccentric.
- B) surprising.
- C) distinctive.** *i.e., unique*
- D) infrequent.

16

What is Grimké's central claim in Passage 2?

- A) The rights of individuals are not determined by race or gender.**
- B) Men and women must learn to work together to improve society.
- C) Moral rights are the most important distinction between human beings and animals.
- D) Men and women should have equal opportunities to flourish.

(lines 65-67)

17

In Passage 2, Grimké makes which point about human rights?

- A) They are viewed differently in various cultures around the world.
- B) They retain their moral authority regardless of whether they are recognized by law.**
- C) They are sometimes at odds with moral responsibilities.
- D) They have become more advanced and refined throughout history.

e.g. slavery

18

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 58-61 ("Human . . . same rights")**
- B) Lines 61-65 ("These . . . imperishable")
- C) Lines 71-76 ("To suppose . . . property")
- D) Lines 77-81 ("When . . . nothingness")

19

Which choice best states the relationship between the two passages?

- A) Passage 2 illustrates the practical difficulties of a proposal made in Passage 1.
- B) Passage 2 takes issue with the primary argument of Passage 1.
- C) Passage 2 provides a historical context for the perspective offered in Passage 1.
- D) Passage 2 elaborates upon several ideas implied in Passage 1.

2 says women must oppose slavery

20

Based on the passages, both authors would agree with which of the following claims?

- A) Women have moral duties and responsibilities.
- B) Men often work selflessly for political change.
- C) The ethical obligations of women are often undervalued.
- D) Political activism is as important for women as it is for men.

...but they disagree on whether those are the same as for men

21

Beecher would most likely have reacted to lines 65–68 (“Now . . . woman”) of Passage 2 with

- A) sympathy, because she feels that human beings owe each other a debt to work together in the world.
- B) agreement, because she feels that human responsibilities are a natural product of human rights.
- C) dismay, because she feels that women actually have a more difficult role to play in society than men do.
- D) disagreement, because she feels that the natures of men and women are fundamentally different.

“woman is to win every thing by peace and love”

Questions 22–31 are based on the following passage and supplementary material.

This passage is adapted from Bryan Walsh, “Whole Food Blues: Why Organic Agriculture May Not Be So Sustainable.” ©2012 by Time Inc.

When it comes to energy, everyone loves efficiency. Cutting energy waste is one of those goals that both sides of the political divide can agree on, even if they sometimes diverge on how best to get there. Energy efficiency allows us to get more out of our given resources, which is good for the economy and (mostly) good for the environment as well. In an increasingly hot and crowded world, the only sustainable way to live is to get more out of less. Every environmentalist would agree.

But change the conversation to food, and suddenly efficiency doesn’t look so good. Conventional industrial agriculture has become incredibly efficient on a simple land to food basis. Thanks to fertilizers, mechanization and irrigation, each American farmer feeds over 155 people worldwide. Conventional farming gets more and more crop per square foot of cultivated land—over 170 bushels of corn per acre in Iowa, for example—which can mean less territory needs to be converted from wilderness to farmland. And since a third of the planet is already used for agriculture—destroying forests and other wild habitats along the way—anything that could help us produce more food on less land would seem to be good for the environment.

Of course, that’s not how most environmentalists regard their arugula [a leafy green]. They have embraced organic food as better for the planet—and healthier and tastier, too—than the stuff produced by agricultural corporations. Environmentalists disdain the enormous amounts of energy needed and waste created by conventional farming, while organic practices—forgoing artificial fertilizers and chemical pesticides—are considered far more sustainable. Sales of organic food rose 7.7% in 2010, up to \$26.7 billion—and people are making those purchases for their consciences as much as their taste buds.

Yet a new meta-analysis in *Nature* does the math and comes to a hard conclusion: organic farming yields 25% fewer crops on average than conventional agriculture. More land is therefore needed to produce fewer crops—and that means organic farming may not be as good for the planet as we think.

In the *Nature* analysis, scientists from McGill University in Montreal and the University of Minnesota performed an analysis of 66 studies comparing conventional and organic methods across 50 34 different crop species, from fruits to grains to legumes. They found that organic farming delivered a lower yield for every crop type, though the disparity varied widely. For rain-watered legume crops like beans or perennial crops like fruit trees, organic 55 trailed conventional agriculture by just 5%. Yet for major cereal crops like corn or wheat, as well as most vegetables—all of which provide the bulk of the world's calories—conventional agriculture outperformed organics by more than 25%.
 60 The main difference is nitrogen, the chemical key to plant growth. Conventional agriculture makes use of 171 million metric tons of synthetic fertilizer each year, and all that nitrogen enables much faster plant growth than the slower release of nitrogen from the 65 compost or cover crops used in organic farming.
 When we talk about a Green Revolution, we really mean a nitrogen revolution—along with a lot of water.

But not all the nitrogen used in conventional 70 fertilizer ends up in crops—much of it ends up running off the soil and into the oceans, creating vast polluted dead zones. We're already putting more nitrogen into the soil than the planet can stand over the long term. And conventional agriculture also 75 depends heavily on chemical pesticides, which can have unintended side effects.

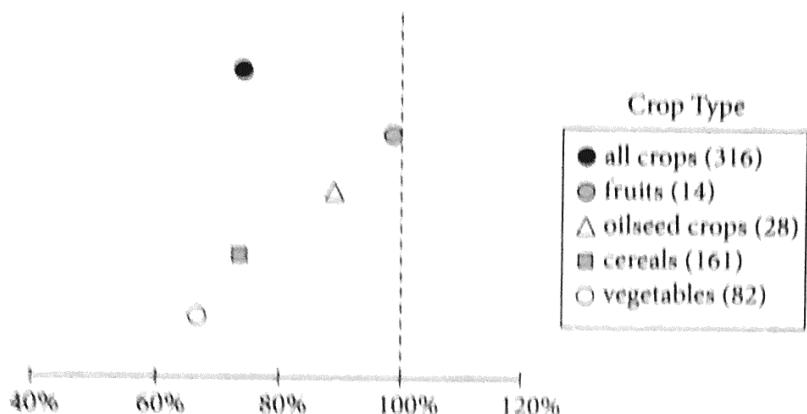
What that means is that while conventional agriculture is more efficient—sometimes much more efficient—than organic farming, there are trade-offs 80 with each. So an ideal global agriculture system, in the views of the study's authors, may borrow the best from both systems, as Jonathan Foley of the University of Minnesota explained:

The bottom line? Today's organic farming 85 practices are probably best deployed in fruit and vegetable farms, where growing nutrition (not just bulk calories) is the primary goal. But for delivering sheer calories, especially in our staple crops of wheat, rice, maize, soybeans and so on, conventional farms have the advantage right now.

Looking forward, I think we will need to deploy 90 different kinds of practices (especially new, mixed approaches that take the best of organic and conventional farming systems) where they are best suited—geographically, economically, socially, etc.

Figure 1

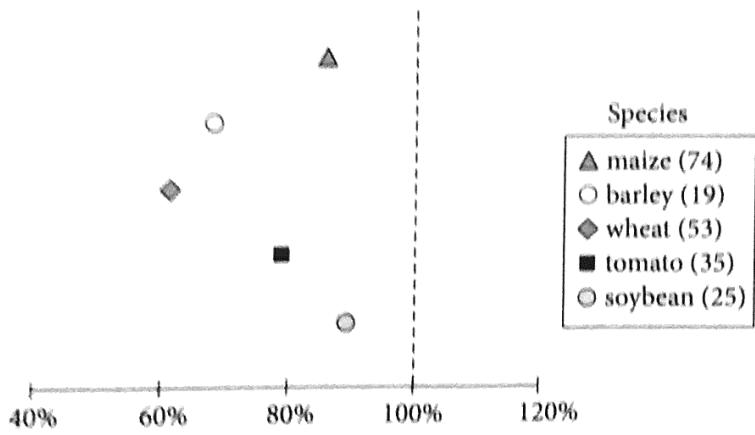
Organic Yield as a Percentage of Conventional Yield, by Crop Type



At 100%, the organic yield is the same as the conventional yield. The number of observations for each crop type is shown in parentheses.

Figure 2

Organic Yield as a Percentage of Conventional Yield, by Species



At 100%, the organic yield is the same as the conventional yield. The number of observations for each species is shown in parentheses.

Figures adapted from Verena Seufert, Navin Ramankutty, and Jonathan A. Foley, "Comparing the Yields of Organic and Conventional Agriculture," ©2012 by Nature Publishing Group.

22

As used in line 14, "simple" most nearly means

- A) straightforward.
- B) modest.
- C) unadorned.
- D) easy.

simple basis
uncomplicated

23

According to the passage, a significant attribute of conventional agriculture is its ability to

- A) produce a wide variety of fruits and vegetables.
- B) maximize the output of cultivated land.
- C) satisfy the dietary needs of the world's population.
- D) lessen the necessity of nitrogen in plant growth.

second paragraph

24

Which choice best reflects the perspective of the "environmentalists" (line 27) on conventional agriculture?

- A) It produces inferior fruits and vegetables and is detrimental to the environment.
- B) It is energy efficient and reduces the need to convert wilderness to farmland.
- C) It is good for the environment only in the short run.
- D) It depletes critical resources but protects wildlife habitats.

lines 28-31

25

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 27-28 ("Of course . . . green")
- B) Lines 28-31 ("They . . . corporations")
- C) Lines 31-35 ("Environmentalists . . . sustainable")
- D) Lines 42-45 ("More . . . think")

lol

26

Which statement best expresses a relationship between organic farming and conventional farming that is presented in the passage?

- A) Both are equally sustainable, but they differ dramatically in the amount of land they require to produce equivalent yields.
- B) Both rely on artificial chemicals for pest control, but organic farmers use the chemicals sparingly in conjunction with natural remedies.
- C) Both use nitrogen to encourage plant growth, but the nitrogen used in conventional farming comes from synthetic sources.
- D) Both create a substantial amount of nitrogen runoff, but only the type of nitrogen found in fertilizers used in conventional farming can be dangerous.

line 62

27

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 13-14 ("Conventional . . . basis")
- B) Lines 22-26 ("And since . . . environment")
- C) Lines 51-53 ("They . . . widely")
- D) Lines 61-65 ("Conventional . . . farming")

28

According to Foley, an "ideal global agriculture system" (line 80)

- A) focuses primarily on yield percentages and global markets.
- B) considers multiple factors in the selection of farming techniques.
- C) weighs the economic interests of farmers against the needs of consumers.
- D) puts the nutritional value of produce first and foremost.

last paragraph

29

In line 88, "sheer" most nearly means

- A) transparent.
- B) abrupt.
- C) steep.
- D) pure.

*sheer calories
= just calories*

30

Which statement is best supported by the information provided in figure 1?

- A) The organic yield as a percentage of conventional yield is greater for vegetables than for fruits.
- B) The organic yield as a percentage of conventional yield is similar for cereals and all crops.
- C) The reported number of observations for each crop type exceeds 82.
- D) The organic yield as a percentage of conventional yield is greater for vegetable crops than it is for oilseed crops.

both ~75%

31

Which of the following claims is supported by figure 2?

- A) Of the organically grown species represented, soybeans have the lowest yield.
- B) The organically grown maize and barley represented are comparable in their yields to conventionally grown maize and barley.
- C) Of the organically grown species represented, tomatoes have the highest yield.
- D) The organically grown species represented have lower yields than their conventionally grown counterparts do.

all <100%

Questions 32–41 are based on the following passage and supplementary material.

This passage is adapted from John Bohannon, "Why You Shouldn't Trust Internet Comments." ©2013 by American Association for the Advancement of Science.

The "wisdom of crowds" has become a mantra of the Internet age. Need to choose a new vacuum cleaner? Check out the reviews on online merchant Line Amazon. But a new study suggests that such online 5 scores don't always reveal the best choice. A massive controlled experiment of Web users finds that such ratings are highly susceptible to irrational "herd behavior"—and that the herd can be manipulated.

Sometimes the crowd really is wiser than you. The 10 classic examples are guessing the weight of a bull or the number of gumballs in a jar. Your guess is probably going to be far from the mark, whereas the average of many people's choices is remarkably close to the true number.

15 But what happens when the goal is to judge something less tangible, such as the quality or worth of a product? According to one theory, the wisdom of the crowd still holds—measuring the aggregate of people's opinions produces a stable, reliable 20 value. Skeptics, however, argue that people's opinions are easily swayed by those of others. So nudging a crowd early on by presenting contrary opinions—for example, exposing them to some very good or very bad attitudes—will steer the crowd in a 25 different direction. To test which hypothesis is true, you would need to manipulate huge numbers of people, exposing them to false information and determining how it affects their opinions.

A team led by Sinan Aral, a network scientist at 30 the Massachusetts Institute of Technology in Cambridge, did exactly that. Aral has been secretly working with a popular website that aggregates news stories. The website allows users to make comments about news stories and vote each other's comments 35 up or down. The vote tallies are visible as a number next to each comment, and the position of the comments is chronological. (Stories on the site get an average of about ten comments and about three votes per comment.) It's a follow-up to his experiment 40 using people's ratings of movies to measure how much individual people influence each other online (answer: a lot). This time, he wanted to know how much the crowd influences the individual, and whether it can be controlled from outside.

45 For five months, every comment submitted by a user randomly received an "up" vote (positive); a "down" vote (negative); or as a control, no vote at all. The team then observed how users rated those comments. The users generated more than 50 100,000 comments that were viewed more than 10 million times and rated more than 300,000 times by other users.

At least when it comes to comments on news sites, the crowd is more herdlike than wise.

55 Comments that received fake positive votes from the researchers were 32% more likely to receive more positive votes compared with a control, the team reports. And those comments were no more likely than the control to be down-voted by the next viewer 60 to see them. By the end of the study, positively manipulated comments got an overall boost of about 25%. However, the same did not hold true for negative manipulation. The ratings of comments that got a fake down vote were usually negated by an up 65 vote by the next user to see them.

"Our experiment does not reveal the psychology behind people's decisions," Aral says, "but an intuitive explanation is that people are more skeptical of negative social influence. They're more 70 willing to go along with positive opinions from other people."

Duncan Watts, a network scientist at Microsoft Research in New York City, agrees with that conclusion. "[But] one question is whether the 75 positive [herding] bias is specific to this site" or true in general, Watts says. He points out that the category of the news items in the experiment had a strong effect on how much people could be manipulated. "I would have thought that 'business' is 80 pretty similar to 'economics,' yet they find a much stronger effect (almost 50% stronger) for the former than the latter. What explains this difference? If we're going to apply these findings in the real world, we'll need to know the answers."

85 Will companies be able to boost their products by manipulating online ratings on a massive scale? "That is easier said than done," Watts says. If people detect—or learn—that comments on a website are being manipulated, the herd may spook and leave 90 entirely.

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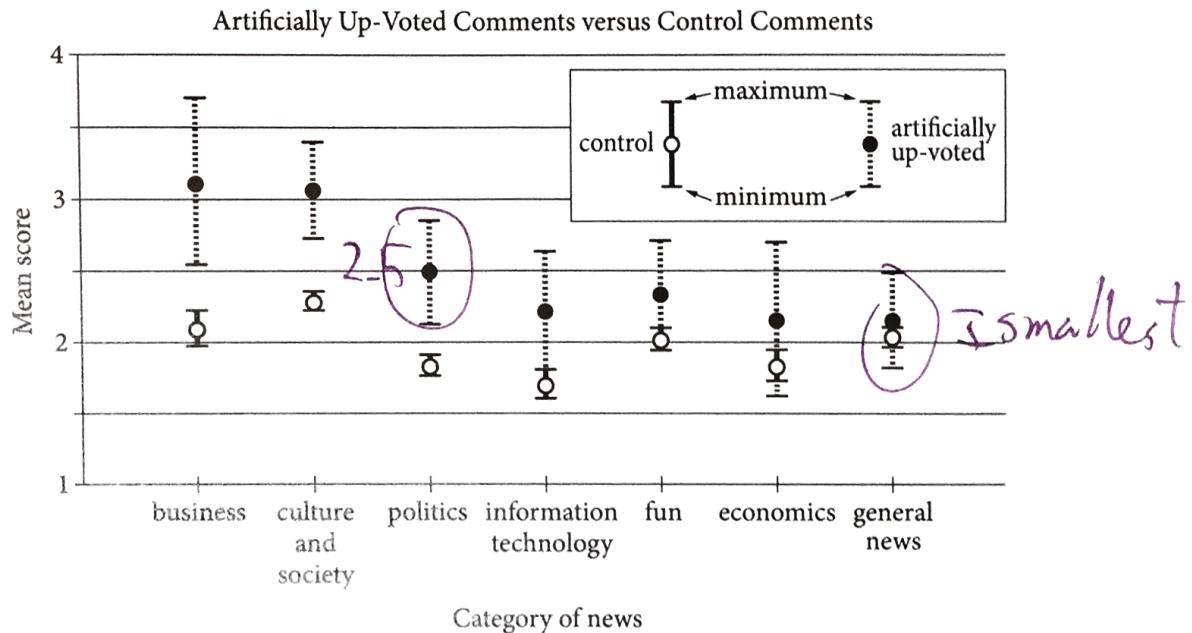
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Comments that received fake positive votes from the researchers were 32% more likely to receive more positive votes compared with a control, the team reports. And those comments were no more likely than the control to be down-voted by the next viewer to see them. By the end of the study, positively manipulated comments got an overall boost of about 25%. However, the same did not hold true for negative manipulation. The ratings of comments that got a fake down vote were usually negated by an up vote by the next user to see them.

"Our experiment does not reveal the psychology behind people's decisions," Aral says, "but an intuitive explanation is that people are more skeptical of negative social influence. They're more willing to go along with positive opinions from other people."

Duncan Watts, a network scientist at Microsoft Research in New York City, agrees with that conclusion. "[But] one question is whether the positive [herding] bias is specific to this site" or true in general, Watts says. He points out that the category of the news items in the experiment had a strong effect on how much people could be manipulated. "I would have thought that 'business' is pretty similar to 'economics,' yet they find a much stronger effect (almost 50% stronger) for the former than the latter. What explains this difference? If we're going to apply these findings in the real world, we'll need to know the answers."

Will companies be able to boost their products by manipulating online ratings on a massive scale? "That is easier said than done," Watts says. If people detect—or learn—that comments on a website are being manipulated, the herd may spook and leave entirely.



Mean score: mean of scores for the comments in each category, with the score for each comment being determined by the number of positive votes from website users minus the number of negative votes

Adapted from Lev Muchnik, Sinan Aral, and Sean J. Taylor, "Social Influence Bias: A Randomized Experiment." ©2013 by American Association for the Advancement of Science.

32

Over the course of the passage, the main focus shifts from a discussion of an experiment and its results to

- A) an explanation of the practical applications of the results.
- B) a consideration of the questions prompted by the results.
- C) an analysis of the defects undermining the results.
- D) a conversation with a scientist who disputes the results.

A is almost right but last two paragraphs focus on questions

33

The author of the passage suggests that crowds may be more effective at

- A) creating controversy than examining an issue in depth.
- B) reinforcing members' ideas than challenging those ideas.
- C) arriving at accurate quantitative answers than producing valid qualitative judgments.
- D) ranking others' opinions than developing genuinely original positions.

third paragraph

Which choice provides the best evidence for the answer to the previous question?

- A) Line 9 ("Sometimes . . . you")
- B) Lines 11-14 ("Your . . . number")
- C) Lines 17-20 ("According . . . value")
- D) Lines 25-28 ("To test . . . opinions")

*cancellation
of errors*

*contradicted
by study*

35

Which choice best supports the view of the "skeptics" (line 20)?

- A) Lines 55-58 ("Comments . . . reports")
- B) Lines 58-60 ("And . . . them")
- C) Lines 63-65 ("The ratings . . . them")
- D) Lines 76-79 ("He . . . manipulated")

herd behavior

36

Which action would best address a question Watts raises about the study?

- A) Providing fewer fake positive comments
- B) ~~Using multiple websites to collect ratings~~
- C) Requiring users to register on the website before voting
- D) Informing users that voting data are being analyzed

was it specific to the site?

37

As used in line 85, "boost" most nearly means

- A) increase.
- B) accelerate.
- C) ~~promote.~~
- D) protect.

*sell their products
better*

38

As used in line 86, “scale” most nearly means

- A) level.
- B) wage.
- C) interval.
- D) scheme.

39

In the figure, which category of news has an artificially up-voted mean score of 2.5?

- A) Business
- B) Politics
- C) Fun
- D) General news

see graph

40

According to the figure, which category of news showed the smallest difference in mean score between artificially up-voted comments and control comments?

- A) Culture and society
- B) Information technology
- C) Fun
- D) General news

41

Data presented in the figure most directly support which idea from the passage?

- A) The mean score of artificially down-voted comments is similar to that of the control.
- B) The patterns observed in the experiment suggest that people are suspicious of negative social influence.
- C) The positive bias observed in users of the news site may not apply to human behavior in other contexts.
- D) The type of story being commented on has an impact on the degree to which people can be influenced.

varies between categories

Questions 42-52 are based on the following passage.

This passage is adapted from Joshua Foer, *Moonwalking with Einstein: The Art and Science of Remembering Everything*. ©2011 by Joshua Foer.

In 2000, a neuroscientist at University College London named Eleanor Maguire wanted to find out what effect, if any, all that driving around the ^{line} labyrinthine streets of London might have on ⁵ cabbies' brains. When she brought sixteen taxi drivers into her lab and examined their brains in an MRI scanner, she found one surprising and important difference. The right posterior hippocampus, a part of the brain known to be ¹⁰ involved in spatial navigation, was 7 percent larger than normal in the cabbies—a small but very significant difference. Maguire concluded that all of that way-finding around London had physically altered the gross structure of their brains. The more ¹⁵ years a cabbie had been on the road, the more pronounced the effect.

The brain is a mutable organ, capable—with limits—of reorganizing itself and readapting to new kinds of sensory input, a phenomenon known as ²⁰ neuroplasticity. It had long been thought that the adult brain was incapable of spawning new neurons—that while learning caused synapses to rearrange themselves and new links between brain cells to form, the brain's basic anatomical structure ²⁵ was more or less static. Maguire's study suggested the old inherited wisdom was simply not true.

After her groundbreaking study of London cabbies, Maguire decided to turn her attention to mental athletes. She teamed up with Elizabeth ³⁰ Valentine and John Wilding, authors of the academic monograph *Superior Memory*, to study ten individuals who had finished near the top of the World Memory Championship. They wanted to find out if the memorizers' brains were—like the London ³⁵ cabbies'—structurally different from the rest of ours, or if they were somehow just making better use of memory abilities that we all possess.

The researchers put both the mental athletes and a group of matched control subjects into MRI scanners ⁴⁰ and asked them to memorize three-digit numbers, black-and-white photographs of people's faces, and magnified images of snowflakes, while their brains were being scanned. Maguire and her team thought it was possible that they might discover anatomical ⁴⁵ differences in the brains of the memory champs,

evidence that their brains had somehow reorganized themselves in the process of doing all that intensive remembering. But when the researchers reviewed the imaging data, not a single significant structural ⁵⁰ difference turned up. The brains of the mental athletes appeared to be indistinguishable from those of the control subjects. What's more, on every single test of general cognitive ability, the mental athletes' scores came back well within the normal range. The ⁵⁵ memory champs weren't smarter, and they didn't have special brains.

But there was one telling difference between the brains of the mental athletes and the control subjects: When the researchers looked at which parts of the ⁶⁰ brain were lighting up when the mental athletes were memorizing, they found that they were activating entirely different circuitry. According to the functional MRIs [fMRIs], regions of the brain that were less active in the control subjects seemed to be ⁶⁵ working in overdrive for the mental athletes.

Surprisingly, when the mental athletes were learning new information, they were engaging several regions of the brain known to be involved in two specific tasks: visual memory and spatial ⁷⁰ navigation, including the same right posterior hippocampal region that the London cabbies had enlarged with all their daily way-finding. At first glance, this wouldn't seem to make any sense. Why would mental athletes be conjuring images in ⁷⁵ their mind's eye when they were trying to learn three-digit numbers? Why should they be navigating like London cabbies when they're supposed to be remembering the shapes of snowflakes?

Maguire and her team asked the mental athletes ⁸⁰ to describe exactly what was going through their minds as they memorized. The mental athletes said they were consciously converting the information they were being asked to memorize into images, and distributing those images along familiar spatial ⁸⁵ journeys. They weren't doing this automatically, or because it was an inborn talent they'd nurtured since childhood. Rather, the unexpected patterns of neural activity that Maguire's fMRIs turned up were the result of training and practice.

12

According to the passage, Maguire's findings regarding taxi drivers are significant because they

- A) demonstrate the validity of a new method
- B) provide evidence for a popular viewpoint
- C) call into question an earlier consensus
- D) challenge the authenticity of previous data

Satisfy claim that brain doesn't change

13

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 8–12 ("The right ... difference")
- B) Lines 13–16 ("Maguire ... effect")
- C) Lines 17–20 ("The brain ... neuroplasticity")
- D) Lines 20–26 ("It had ... true")

14

As used in line 24, "basic" most nearly means

- A) initial.
- B) simple.
- C) necessary.
- D) fundamental.

*brain's basic
structure
↓
low-level structure*

15

Which question was Maguire's study of mental athletes primarily intended to answer?

- A) Does the act of memorization make use of different brain structures than does the act of navigation?
- B) Do mental athletes inherit their unusual brain structures, or do the structures develop as a result of specific activities?
- C) Does heightened memorization ability reflect abnormal brain structure or an unusual use of normal brain structure?
- D) What is the relationship between general cognitive ability and the unusual brain structures of mental athletes?

16

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 27–29 ("After ... athletes")
- B) Lines 33–37 ("They ... possess")
- C) Lines 38–43 ("The researchers ... scanned")
- D) Lines 52–54 ("What's ... range")

*This line gives the rationale
for the study*

As used in line 39, "matched" most nearly means

- (A) comparable.
- (B) identical.
- (C) distinguishable.
- (D) competing.

similar controls

48

The main purpose of the fifth paragraph (lines 57-65) is to

- A) relate Maguire's study of mental athletes to her study of taxi drivers.
- B) speculate on the reason for Maguire's unexpected results.
- C) identify an important finding of Maguire's study of mental athletes.
- D) transition from a summary of Maguire's findings to a description of her methods.

points out surprising result
about using different brain regions

49

According to the passage, when compared to mental athletes, the individuals in the control group in Maguire's second study

- A) showed less brain activity overall.
- B) demonstrated a wider range of cognitive ability.
- C) exhibited different patterns of brain activity.
- D) displayed noticeably smaller hippocampal regions.

didn't use the other regions

50

The passage most strongly suggests that mental athletes are successful at memorization because they

- A) exploit parts of the brain not normally used in routine memorization.
- B) convert information they are trying to memorize into abstract symbols.
- C) organize information into numerical lists prior to memorization.
- D) exercise their brains regularly through puzzles and other mental challenges.

literally the point of the study

side remark

20

51

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 66-72 ("Surprisingly . . . way-finding")
- B) Lines 72-73 ("At first . . . sense")
- C) Lines 79-81 ("Maguire . . . memorized")
- D) Lines 85-87 ("They . . . childhood")

52

The questions in lines 74-78 primarily serve to

- A) raise doubts about the reliability of the conclusions reached by Maguire.
- B) emphasize and elaborate on an initially puzzling result of Maguire's study of mental athletes
- C) imply that Maguire's findings undermine earlier studies of the same phenomenon.
- D) introduce and explain a connection between Maguire's two studies and her earlier work.

motivates the explanation

STOP

**If you finish before time is called, you may check your work on this section only.
Do not turn to any other section.**