

7

The narrator indicates that he pays Sempere

- A) less than Sempere expects him to pay for the books.
- B) nothing, because Sempere won't take his money.
- C) the money he makes selling sweets to the other children.
- D) much less for the books than they are worth.

8

As used in line 44, "weight" most nearly means

- A) bulk.
- B) burden.
- C) force.
- D) clout.

9

The word "friend" is used twice in lines 57-58 to

- A) underline the importance of the narrator's connection to Sempere.
- B) stress how friendships helped the narrator deal with his difficult home situation.
- C) emphasize the emotional connection Sempere feels to reading.
- D) imply that the narrator's sentiments caused him to make an irrational decision.

10

Which statement best characterizes the relationship between Sempere and Charles Dickens?

- A) Sempere models his own writing after Dickens's style.
- B) Sempere is an avid admirer of Dickens's work.
- C) Sempere feels a personal connection to details of Dickens's biography.
- D) Sempere considers himself to be Dickens's most appreciative reader.

Questions 11-21 are based on the following passage and supplementary material.

This passage is adapted from Jeffrey Mervis, "Why Null Results Rarely See the Light of Day." ©2014 by American Association for the Advancement of Science.

The question of what to do with null results—when researchers fail to see an effect that should be detectable—has long been hotly debated among those conducting medical trials, where the results can have a big impact on lives and corporate bottom lines. More recently, the debate has spread to the social and behavioral sciences, which also have the potential to sway public and social policy. There were little hard data, however, on how often or why null results were squelched. "Yes, it's true that null results are not as exciting," political scientist Gary King of Harvard University says. "But I suspect another reason they are rarely published is that there are many, many ways to produce null results by messing up. So they are much harder to interpret."

In a recent study, Stanford political economist Neil Malhotra and two of his graduate students examined every study since 2002 that was funded by a competitive grants program called TESS (Time-sharing Experiments for the Social Sciences). TESS allows scientists to order up Internet-based surveys of a representative sample of US adults to test a particular hypothesis (for example, whether voters tend to favor legislators who boast of bringing federal dollars to their districts over those who tout a focus on policy matters).

Malhotra's team tracked down working papers from most of the experiments that weren't published, and for the rest asked grantees what had happened to their results. In their e-mailed responses, some scientists cited deeper problems with a study or more pressing matters—but many also believed the journals just wouldn't be interested. "The unfortunate reality of the publishing world [is] that null effects do not tell a clear story," said one scientist. Said another, "Never published, definitely disappointed to not see any major effects."

Their answers suggest to Malhotra that rescuing findings from the file drawer will require a shift in expectations. "What needs to change is the culture—the author's belief about what will happen if the research is written up," he says.

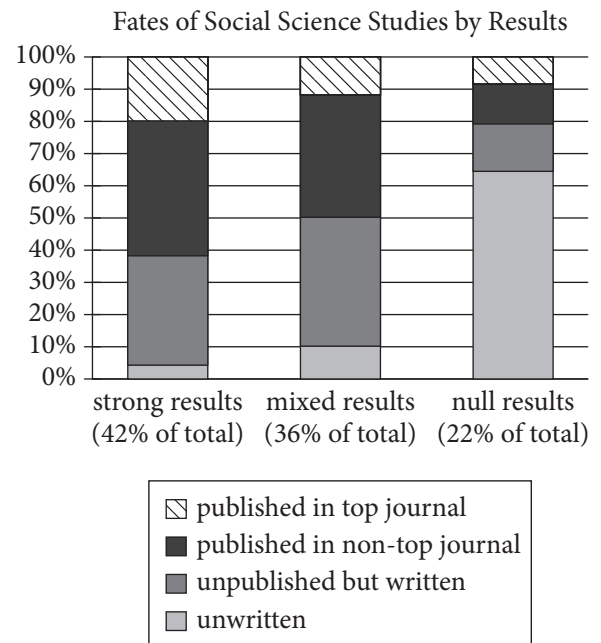
Not unexpectedly, the statistical strength of the findings made a huge difference in whether they were ever published. Overall, 42% of the experiments

produced statistically significant results. Of those, 62% were ultimately published, compared with 21% of the null results. However, the Stanford team was surprised that researchers didn't even write up 50 65% of the experiments that yielded a null finding.

Scientists not involved in the study praise its "clever" design. "It's a very important paper" that "starts to put numbers on things we want to understand," says economist Edward Miguel of the 55 University of California, Berkeley.

He and others note that the bias against null studies can waste time and money when researchers devise new studies replicating strategies already found to be ineffective. Worse, if researchers publish 60 significant results from similar experiments in the future, they could look stronger than they should because the earlier null studies are ignored. Even more troubling to Malhotra was the fact that two scientists whose initial studies "didn't work out" 65 went on to publish results based on a smaller sample. "The non-TESS version of the same study, in which we used a student sample, did yield fruit," noted one investigator.

A registry for data generated by all experiments 70 would address these problems, the authors argue. They say it should also include a "preanalysis" plan, that is, a detailed description of what the scientist hopes to achieve and how the data will be analyzed. Such plans would help deter researchers from 75 tweaking their analyses after the data are collected in search of more publishable results.



Adapted from Annie Franco, Neil Malhotra, and Gabor Simonovits, "Publication Bias in the Social Sciences: Unlocking the File Drawer." ©2014 by American Association for the Advancement of Science.

11

The passage primarily serves to

- A) discuss recent findings concerning scientific studies and dispute a widely held belief about the publication of social science research.
- B) explain a common practice in the reporting of research studies and summarize a study that provides support for a change to that practice.
- C) describe the shortcomings in current approaches to medical trials and recommend the implementation of a government database.
- D) provide context as part of a call for stricter controls on social science research and challenge publishers to alter their mindsets.

12

As used in line 21, “allows” most nearly means

- A) admits.
- B) tolerates.
- C) grants.
- D) enables.

13

As used in line 43, “strength” most nearly means

- A) attribution.
- B) exertion.
- C) toughness.
- D) significance.

14

The passage indicates that a problem with failing to document null results is that

- A) the results of related studies will be misleading.
- B) researchers may overlook promising areas of study.
- C) mistakes in the collection of null results may be overlooked.
- D) the bias against null results will be disregarded.

15

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

- A) Lines 38-40 (“Their . . . expectations”)
- B) Lines 48-50 (“However . . . finding”)
- C) Lines 56-59 (“He and . . . ineffective”)
- D) Lines 59-62 (“Worse . . . ignored”)

16

Based on the passage, to which of the following hypothetical situations would Malhotra most strongly object?

- A) A research team refuses to publish null results in anything less than a top journal.
- B) A research team excludes the portion of data that produced null results when reporting its results in a journal.
- C) A research team unknowingly repeats a study that produced null results for another research team.
- D) A research team performs a follow-up study that expands the scope of an initial study that produced null results.

17

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

- A) Lines 36-37 (“Said . . . effects”)
- B) Lines 45-48 (“Overall . . . null results”)
- C) Lines 62-68 (“Even . . . investigator”)
- D) Lines 69-73 (“A registry . . . analyzed”)

18

The last paragraph serves mainly to

- A) propose a future research project to deal with some of the shortcomings of current publishing practices noted in the passage.
- B) introduce a possible solution to problems discussed in the passage regarding the reporting of social science studies.
- C) summarize the findings of a study about experimental results explained in the passage.
- D) reinforce the importance of reexamining the results of all social science trials.

19

According to the graph, social science studies yielding strong results were

- A) unwritten over 50 percent of the time.
- B) unpublished but written 50 percent of the time.
- C) published in a top journal approximately 20 percent of the time.
- D) published in a non-top journal almost 80 percent of the time.

20

Which of the following statements is supported by the graph?

- A) Studies with mixed results were just as likely to be published as they were to be left either unpublished or unwritten.
- B) Studies with mixed results occurred more frequently than did studies with strong and null results combined.
- C) Studies with mixed results were more likely to be published in top journals than they were to be published in non-top journals.
- D) Studies with mixed results were the most common type of social science studies.

21

Which statement from the passage is most directly reflected by the data presented in the graph?

- A) Lines 30-33 (“In their . . . interested”)
- B) Lines 33-36 (“The unfortunate . . . scientist”)
- C) Lines 43-45 (“Not unexpectedly . . . published”)
- D) Lines 52-55 (“It’s a . . . Berkeley”)