Why Our Best Ideas Come in the Shower: What Science Says

Name Date Class

Reading

1 Many people say their best ideas arrive in the shower, not at a desk. The French mathematician Henri Poincaré described a solution arriving just as he stepped onto a bus, and similar **anecdotes** are easy to find. In 2014, a survey of 4,000 adults in eight countries, including Brazil, China, Germany, and South Africa, reported that 72 percent had experienced new ideas in the shower and 14 percent sometimes showered to think. It was commissioned by Hansgrohe, a German company that makes showers, with input from the psychologist Scott Barry Kaufman. A **sponsor** with a product to sell is not a neutral source, and the answers were self-reports. The survey shows what people believe happens, not why it happens.

2 One popular explanation involves the brain's default mode network, a set of connected regions that becomes more active when people let their minds **wander** or do passive tasks. Roger Beaty, a cognitive neuroscientist at Penn State University, describes it as the state the brain returns to when it is not actively engaged. Kalina Christoff, a neuroscientist in Canada, has said that getting ideas at unexpected moments is a very common human experience. Beaty adds a warning: the default mode network is not the only network that matters, because other networks are needed to change, reject, or put ideas into practice.

3 Experiments have tested whether a break helps. In a 2012 study, Benjamin Baird and his colleagues asked people to list unusual uses for everyday objects, gave them a break, and then repeated the same problems. Those who spent the break on an **undemanding** task improved more than those who did a demanding task, rested, or had no break. The authors called the break an **incubation** period, a time when a problem is set aside but may still develop in the background. They linked the improvement to mind wandering. Later teams, however, could not **replicate** the result. In 2021, Lena Steindorf and colleagues at Heidelberg University in Germany used a similar undemanding task and found no advantage over simply working on the problems again.

4 Zachary Irving at the University of Virginia offers one explanation for this. He has argued that the earlier studies measured how distracted people were, not how much their minds wandered freely. In a 2022 study with Caitlin Mills and others, participants listed ideas before and after a short video. Mind wandering helped them **generate** more creative ideas, but only during a moderately **engaging** clip from a romantic comedy, not during a dull video about laundry. The authors argue that creative thinking needs a balance: purely focused thinking limits **originality**, while completely free thinking produces associations that are rarely useful. A moderately engaging task places light **constraints** on thought. A shower may work in a similar way, since it can **occupy** the body and part of the attention while leaving the mind free.

5 A 2019 study by Shelly Gable and colleagues looked at real working life. Physicists and professional writers reported their most important idea each evening and what they had been doing at the time. About 20 percent of these ideas came while people were thinking about something else, and people rated them as just as creative and important as ideas from focused work. Participants were also more likely to describe these ideas as sudden moments of **insight**. The ratings, however, were self-reports.

6 The effect is not limited to showers. In four experiments with 176 people, Marily Oppezzo and Daniel Schwartz at Stanford University found that walking increased creative output. In the first experiment, 81 percent of participants scored higher on the unusual-uses test while walking on a treadmill, but only 23 percent improved on a test that needed one correct answer. In another experiment, a smaller boost remained after people sat down again. Walking seems to help most when people are producing options, not when they need one solution.

7 Popular articles add other explanations, such as the chemical dopamine, alpha brain waves, relaxation, and the privacy and **routine** of the shower. These may play a part, but the articles do not cite measurements taken during showers, so the explanations remain **hypotheses**. It is also unclear whether the water itself matters, since none of the studies described here tested showers directly. An idea that feels brilliant in the shower still has to be **evaluated** with focused thinking. An obvious next test would compare people in a real shower with people washing dishes.

Vocabulary Matching

Match each word from the reading with its meaning. Write the letter on the line.

1	**anecdotes**	_____	**A**	a person or company that pays for something
2	**sponsor**	_____	**B**	a regular way of doing things
3	**wander**	_____	**C**	possible explanations that are not yet proved
4	**undemanding**	_____	**D**	the quality of being new and different
5	**incubation**	_____	**E**	interesting and holding attention
6	**replicate**	_____	**F**	judged carefully to decide its value
7	**generate**	_____	**G**	a period when an idea develops quietly
8	**engaging**	_____	**H**	move or drift without a clear direction
9	**originality**	_____	**I**	produce or create something
10	**constraints**	_____	**J**	fill someone's time or attention
11	**occupy**	_____	**K**	a sudden clear understanding of a problem
12	**insight**	_____	**L**	not needing much effort or attention
13	**routine**	_____	**M**	repeat a study and get the same result
14	**hypotheses**	_____	**N**	short personal stories about real events
15	**evaluated**	_____	**O**	limits on what can be done

Fill in the Blank

Choose a word from the box to complete each sentence. Use each word once. The words are already in the correct form.

anecdotes	**constraints**	**engaging**	**evaluated**	**generate**	**hypotheses**	**incubation**	**insight**	**occupied**
originality	**replicate**	**routine**	**sponsor**	**undemanding**				

1 He told several _____ about his years abroad.

2 The company is the main _____ of the festival.

3 Folding laundry is an _____ task.

4 The egg needs three weeks of _____ .

5 The wind farm can _____ enough power for a town.

6 She is an _____ speaker.

7 The judges praised the _____ of her design.

8 No other lab has been able to _____ the surprising result.

9 The project faced budget _____ .

10 Games _____ the children for hours.

11 My morning _____ takes an hour.

12 The scientist tested three _____ .

13 The moment of _____ solved the problem.

14 The teachers _____ each project carefully.

Comprehension Questions

Answer in your notebook or discuss with a partner. Questions 10 to 12 are IELTS-style.

1 What did the 2014 survey report, and why is it weak evidence about causes?

2 What is the default mode network, and what warning does Roger Beaty give about it?

3 Describe the design and main result of Baird's 2012 study. What is an incubation period?

4 What happened when other researchers, such as Steindorf's team, tried to repeat Baird's study?

5 How does Irving explain the mixed results, and what did his 2022 study find?

6 Why might a moderately engaging task work better than a boring one, according to the reading?

7 What did the study of physicists and writers find, and what is its main limit?

8 How do the walking experiments suggest that light activity helps some kinds of thinking more than others?

9 Why does the reading say an idea from the shower still needs to be evaluated, and what test does it suggest next?

IELTS-Style Questions

10 **True, False, or Not Given:** *"Most participants in the walking experiments were professional athletes."* Explain your answer using evidence from the reading.

11 **Yes, No, or Not Given:** *"The writer believes that the shower is the only place where mind wandering helps creativity."* Explain your answer.

12 **Author's purpose:** Why does the writer describe studies that could not replicate Baird's result?

True or False

Circle T (true) or F (false) according to the reading. Write a correction for each false statement on the dotted line.

1 **T / F** The 2014 survey included adults from more than one country.

2 **T / F** The survey proved why ideas come in the shower.

3 **T / F** The default mode network becomes more active during passive tasks.

4 **T / F** Beaty says the default mode network is the only network needed for creative ideas.

5 **T / F** Later studies easily repeated Baird's result.

6 **T / F** In Irving's study, a boring video did not help mind wandering produce creative ideas.

7 **T / F** The professionals rated ideas from other activities as less creative than ideas from focused work.

8 **T / F** Walking improved more participants' scores on the unusual-uses test than on the single-answer test.

9 **T / F** The boost from walking disappeared completely as soon as people sat down.

10 **T / F** None of the studies described in the reading tested showers directly.

Discussion Questions

Talk with a partner or in a small group. The questions move from personal to more abstract.

1 Where or when do you usually have your best ideas? Does the reading match your experience?

2 The survey was commissioned by a shower company. How much should the source of a survey affect how much we trust it?

3 Why do you think stories about ideas in the shower are so popular, even without strong scientific proof?

4 The reading says the default mode network is not the only network that matters. Why is it risky to explain complex thinking with one brain area?

5 Baird's participants improved after an undemanding task. What undemanding tasks could you use as a break when you are stuck?

6 Irving's study found that a boring video did not help, but a moderately engaging one did. Why might a task that is too boring or too interesting be less useful?

7 Popular articles mention dopamine and alpha waves, but the reading calls them hypotheses. How can readers tell a tested explanation from a hypothesis?

8 Walking helped with producing options but less with finding one correct answer. What kinds of problems in your work or study need each kind of thinking?

9 Do you think a shower is better than walking for creative thinking? What evidence would change your mind?

10 Ideas that feel brilliant in the shower still have to be evaluated. How do you check your own ideas after a moment of inspiration?

11 Many people write down ideas soon after having them. Is this a habit you have, and how could you improve it?

12 Some people fill every quiet moment with phones and music. How might this affect creative thinking?

13 Baird's well-known result was not replicated by later teams. Should the media report a single study before other scientists have repeated it?

14 The reading suggests comparing people in a shower with people washing dishes. What practical and ethical problems might researchers face in such an experiment?

Language Focus: Noun Clauses and Embedded Questions

A noun clause works as a noun inside a longer sentence. It can begin with that, whether, or a question word such as what, why, and how. In an embedded question, the word order is like a statement (why it happens), not like a direct question (why does it happen?).

In the reading:

- "The survey shows **what people believe happens**, not **why it happens**."
- "Experiments have tested **whether a break helps**."
- "He has argued that the earlier studies measured **how distracted people were**, not **how much their minds wandered freely**."

Practice: Turn the direct question into an embedded question: *"Why do ideas come in the shower?"* Begin with *Researchers are still asking…*

Activities and speed challenge
englishbridges.com/lessons/ideas-in-the-shower

Notes