



Why Altered States Distort Our Sense of Time

Description

Time, as we perceive it, is notoriously inconsistent, often flowing at varying rhythms depending on the circumstances. For instance, during our travels to unfamiliar destinations, time can seem to crawl; a week spent in a foreign land can feel significantly longer than a week in our familiar surroundings.

Conversely, moments of boredom or discomfort can elongate our experience of time, while engaging activities like music, chess, painting, or dancing often create a sensation of time accelerating. Notably, many individuals observe that as they age, their perception of time appears to quicken.

Despite these fluctuations, they remain relatively mild in comparison to what I term "time expansion experiences" detailed in [my latest publication](#). In these instances, mere seconds can feel as though they have stretched into minutes.

The mechanisms behind these variations in temporal perception are still a subject of intrigue. Some researchers, myself included, propose that subtle shifts in how we perceive time may correlate with [information processing](#). Generally, when we process heightened levels of information—whether through sensations, perceptions, or thoughts—time tends to feel as if it passes more slowly. This phenomenon is particularly pronounced in children, who inhabit a realm rich with new experiences.

Understanding Time Expansion Experiences

Time expansion experiences (Tees) often occur in critical situations, such as accidents or emergencies, where the perception of time can remarkably elongate. According to my research, a substantial percentage of individuals—approximately 85 percent—report having experienced at least one Tee. Many of these occurrences unfold during emergencies, with individuals frequently expressing astonishment at the amount of time they feel they have to react. This altered perception can enable actions that would ordinarily elude normal circumstances.

For instance, a woman recounted a Tee where she narrowly avoided a falling metal barrier, stating that the "slowing down of the moment" empowered her to contemplate her escape strategies.

Tees also manifest in athletic contexts. One participant noted experiencing a Tee during an ice hockey game, where what felt like ten minutes of gameplay transpired in merely eight seconds. Such experiences can also arise in moments of tranquility, such as deep meditation or immersion in nature.

Moreover, some of the most profound Tees are associated with psychedelic substances, including LSD or [ayahuasca](#). In my collection of testimonials, roughly 10 percent of Tees are linked to these psychoactive experiences, where individuals have described time dilation that defies the normal passage of seconds.

The underlying reasons for this phenomenon remain elusive. While one prevalent theory suggests that the release of noradrenaline during stressful encounters enhances perception, this notion contradicts the reported calm experienced during many Tees. For example, a woman who underwent a Tee while falling



from a horse described an overwhelming sense of tranquility despite the precariousness of her situation.

In fact, the noradrenaline hypothesis falters with the numerous Tees occurring in serene environments, such as during meditation or while connecting with nature.

Another intriguing hypothesis posits that these experiences may represent an evolutionary adaptation, enabling our ancestors to slow their perception of time in life-threatening circumstances, thus enhancing survival odds during perilous encounters.

Conversely, some suggest that Tees might not be genuine experiences, but rather illusions formed by heightened awareness leading to enriched memory encoding during emergencies.

However, many individuals assert that they genuinely felt equipped with the time necessary to devise complex thoughts and actions, which could not have unfolded ordinarily. In a recent, unpublished survey of 280 Tees, a meager 3 percent suggested their experience was illusory. In contrast, 87 percent affirmed that it represented a tangible moment in the present, with 10 percent remaining uncertain.

Exploring Altered States of Consciousness

Crucially, I contend that the essence of Tees is intricately linked to altered states of consciousness. The abrupt psychological shock accompanying accidents may catalyze a significant transformation in awareness and consciousness. In sports, profound altered states arise from what I refer to as "super-absorption." While typical absorption often quickens time, during particularly intense, sustained focus, the reverse can occur, causing time to decelerate dramatically.

These altered states can profoundly impact our sense of self, blurring the boundaries between ourselves and our surroundings. As psychologist [Marc Wittmann](#) notes, our perception of time is deeply intertwined with our sense of identity.

In normal circumstances, we experience a delineation between our inner mental space and the external world; however, during intense altered states, this separation diminishes, fostering a deep interconnectedness that allows our sense of time to expand and manifests a unique temporal experience.

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Vocabulary List:

1. **Perception** /pə'seɪʃən/ (noun): The ability to see hear or become aware of something through the senses.
2. **Phenomenon** /fə'nɒmɪnən/ (noun): A fact or situation that is observed to exist or happen especially one whose cause or explanation is in question.
3. **Intrigue** /ɪn'tri:g/ (noun): Arousal of curiosity or interest; a complicated plot or scheme.
4. **Elusive** /ɪ'lu:sɪv/ (adjective): Difficult to find catch or achieve; hard to understand or define.



5. **Catalyze** /'kætəlaɪz/ (verb): To cause or accelerate a reaction or process.
6. **Altered** /'ɔ:ltərd/ (adjective): Changed or modified; different from the original.

Comprehension Questions

Multiple Choice

1. What can elongate our experience of time?
Option: Engaging activities like music, chess, painting, or dancing
Option: Moments of boredom or discomfort
Option: Traveling to unfamiliar destinations
Option: All of the above
2. In what circumstances can time seem to crawl?
Option: During travels to familiar destinations
Option: During moments of excitement
Option: During travels to unfamiliar destinations
Option: During engaging activities
3. What may enhance the perception of time passing slowly according to some researchers?
Option: Process of information highly
Option: Engaging in relaxing activities
Option: Adopting a busier schedule
Option: Children experiencing fewer sensations
4. What proportion of individuals report experiencing at least one Time Expansion Experience (Tee) according to the text?
Option: Approximately 50 percent
Option: Approximately 25 percent
Option: Approximately 85 percent
Option: Approximately 10 percent
5. Where can profound Time Expansion Experiences (Tees) occur?
Option: Exclusively in sports events
Option: Only during meditation sessions
Option: In critical situations like accidents or emergencies
Option: At crowded public gatherings



6. Which theory suggests that experiences like Tees may be an evolutionary adaptation?

- Option: Theory of relativity
- Option: Cognitive dissonance theory
- Option: Evolutionary adaptation theory
- Option: String theory

True-False

7. Time tends to feel slower when processing heightened levels of information.
8. Tees are solely associated with stressful encounters.
9. The noradrenaline hypothesis fully explains the phenomenon of Tees.
10. Altered states of consciousness can blur the boundaries between self and surroundings.
11. The essence of Tees is not related to altered states of consciousness.
12. Altered states of consciousness do not impact our sense of self.

Gap-Fill

13. Many individuals feel they have the time necessary to devise complex thoughts and actions during Time Expansion Experiences (Tees) which could not unfold ordinarily. In a recent survey of 280 Tees, a meager 3 percent suggested their experience was _____.

14. According to the text, profound altered states arise from what the text refers to as "
_____."

15. The mechanisms behind variations in temporal perception are still a subject of _____
.

16. In normal circumstances, there is a delineation between our inner mental space and the external world;



however, during intense altered states, this separation _____.

17. Time expansion experiences like Tees have been linked to experiences with psychedelic substances such as _____ and ayahuasca.

18. One hypothesis posits that Tees may represent an evolutionary adaptation, allowing our ancestors to slow perception of time in _____ situations.

Answer

Multiple Choice: 1. All of the above 2. During travels to unfamiliar destinations 3. Process of information highly 4. Approximately 85 percent 5. In critical situations like accidents or emergencies 6. Evolutionary adaptation theory

True-False: 7. True 8. False 9. False 10. True 11. False 12. False

Gap-Fill: 13. illusory 14. super-absorption 15. intrigue 16. diminishes 17. LSD 18. life-threatening

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What is the act of refraining from indulging in something?

- Option: Sobriety
- Option: Deteriorate
- Option: Renewed
- Option: Exacerbation

2. Which term is related to mental processes such as thinking learning and understanding?

- Option: Self-efficacy
- Option: Divergence
- Option: Catalyze
- Option: Perception

3. Which word means to burst or break out suddenly?



- Option: Susceptible
- Option: Accelerates
- Option: Erupted
- Option: Advancement

4. What term describes something that has subtle differences or shades of meaning?

- Option: Reintegration
- Option: Heralded
- Option: Nuanced
- Option: Intrigue

5. What term is used to describe an observable fact or event?

- Option: Elusive
- Option: Catalyze
- Option: Altered
- Option: Phenomenon

6. Which word refers to finding something for the first time?

- Option: Paleontological
- Option: Discovery
- Option: Excavation
- Option: Trackway

7. What term means happening by chance rather than intention?

- Option: Interactions
- Option: Fortuitous
- Option: Translocation
- Option: Advancement

8. What term describes the back-and-forth action or influence between two or more entities?

- Option: Interaction
- Option: Susceptible
- Option: Divergence
- Option: Altered

9. Which word describes something that is difficult to capture or achieve?

- Option: Elusive
- Option: Catastrophic
- Option: Heralded
- Option: Accelerates

10. What term refers to the state of being sober or abstaining from alcohol?

- Option: Erupted



- Option: Sobriety
Option: Translocation
Option: Advancement

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. Leaving a machine unused for a long time can cause it to _____.
12. The use of fertilizers _____ the growth of plants.
13. In plants the movement of sugars within the phloem is called _____.
14. Technological _____ has revolutionized the way we communicate.
15. The earthquake had a _____ impact on the city causing massive destruction.
16. After the conflict there was a _____ effort to rebuild the war-torn country.
17. The new scientific discovery was _____ as a major breakthrough in the field.
18. The stress of the situation led to an _____ of her existing health issues.
19. The program aims to support the _____ of ex-convicts into society.
20. The movie's plot was filled with twists and turns that added an element of _____.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Certain individuals may be more to allergies due to genetic factors.
22. The artist's style showed a clear from traditional painting techniques.
23. The new regulations aimed to innovation in the industry.
24. The experimental treatment the DNA of the cells.
25. The archaeological team conducted an extensive of the site.
26. The fossilized footprints formed an ancient through the mud.
27. Building can help individuals tackle challenges with confidence.



28. Individuals may have different of the same event based on their background.

29. The migration patterns of birds are a natural studied by biologists.

30. Nutrients are transported within the plant through the process of .

Answer

Multiple Choice: 1. Sobriety 2. Perception 3. Erupted 4. Nuanced 5. Phenomenon 6. Discovery 7. Fortuitous 8. Interaction 9. Elusive 10. Sobriety

Gap-Fill: 11. Deteriorate 12. Accelerates 13. Translocation 14. Advancement 15. Catastrophic 16. Renewed 17. Heralded 18. Exacerbation 19. Reintegration 20. Intrigue

Matching sentence: 1. Susceptible 2. Divergence 3. Catalyze 4. Altered 5. Excavation 6. Trackway 7. Self-efficacy 8. Perception 9. Phenomenon 10. Translocation

CATEGORY

1. Sci/Tech - LEVEL5

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