



The Science of Tarot

A Closer Look at Magic & the Mind

TAROT
SKILLS®

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Disclaimer

This white paper explores tarot as a tool for personal reflection and entertainment, blending insights from science and spirituality. Tarot readings are not a substitute for professional advice in medical, psychological, financial, or legal matters. If you are experiencing physical or mental health concerns, please consult a qualified healthcare professional. While tarot can inspire self-awareness and exploration, it should be used responsibly, with the understanding that outcomes are shaped by individual interpretation and choice.

Limitations and Scope

This paper offers an interpretive framework for tarot, rather than presenting definitive conclusions. While it provides compelling insights, the connections between tarot and scientific principles are largely speculative and metaphorical, as these theories have not been directly tested in the context of tarot. Additionally, some connections—such as the application of concepts like the Reticular Activating System (RAS) or quantum physics—may be seen as overextended. These ideas are intended as illustrative frameworks rather than conclusive evidence. These speculative connections aim to offer new perspectives and provoke thoughtful discussion on how scientific and spiritual concepts might intersect.

Key Considerations:

- **Interpretive Nature:** The application of concepts like the Reticular Activating System (RAS) or mirror neurons to tarot is illustrative but not empirically validated for this specific use.
- **Cultural Variability:** Tarot's meanings and effects vary widely across cultures and individuals, limiting the generalizability of its impact.
- **Limited Research:** While grounded in psychological and neuroscientific studies, tarot-specific empirical evidence is scarce.
- **Balance of Science and Spirituality:** This paper bridges scientific and mystical perspectives but does not seek to reduce tarot solely to mechanistic explanations or dismiss its spiritual elements.

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Introduction

Magic is about harnessing energy—personal, universal, and divine—to manifest change, aligning the physical world with our spiritual or emotional will. The seemingly uncanny accuracy of tarot to predict the future invites scrutiny, often leading to skepticism or dismissal of its efficacy. But what if its effectiveness is as much grounded in science as it is in art? This paper explores how tarot works, blending the insights of cognitive science, psychology, and spirituality, to show that tarot is not merely a mystical tool but a scientifically supported method for manifesting future happiness. Ultimately, it reveals tarot as a profoundly effective tool for magic—backed by science.

Neural plasticity (also called neuroplasticity) is the brain's ability to change and reorganize itself by forming new neural connections throughout life. Research confirms that humans naturally process information through patterns and symbols, and when we use organized ways to reflect, it helps us better understand ourselves. Interestingly, tarot provides both these elements - a rich system of symbols and an organized framework for reflection.

Mind and Magic

The reasons certain tarot cards end up in your hands remain a mystery, open to interpretation. Some believe the cards channel messages from spirit guides or angels, while others see them as a connection to their higher self or the universal consciousness. Many feel tarot taps into the collective unconscious, and some even describe it as crossing into other dimensions. Others approach tarot as a psychological tool, where seemingly random draws spark moments of profound self-reflection—or maybe it's just luck.

Here's the thing: science can't fully prove or disprove any of these perspectives, and that's okay. Each belief, each experience, is valid. What really matters is the outcome—the insight, the transformation, and the growth that comes after the cards are drawn.

This paper dives into a fascinating question: While the shuffle and draw of cards are often seen as magical or divinely guided—a belief fully respected here—what about what happens next? The phase where we **observe, interpret, and apply prediction and probability**. Could there be a scientific explanation for how the revealed cards lead to predictions that feel spot-on more often than not?

Step 1: Observation

You've shuffled, thought of your question, consulted your guides ---now what? The cards have just been pulled and are staring up at you. Your brain gets to work immediately to prepare you to read them. Through sophisticated filtering systems and split-second processing, your brain identifies patterns and details that resonate with your current circumstances and concerns. Research into visual processing shows that the brain interprets information within milliseconds, often before

conscious awareness¹. While this research does not directly address tarot, it provides a framework for understanding how quick visual recognition might influence our initial perception of a card. This pre-attentive processing—the split-second work your brain does before conscious thought—lays the foundation for how you'll perceive and interpret the reading. What you notice first tends to shape not only your interpretation but also your potential responses.

Neural Networks and Processing

When you look at any complex visual information, including Tarot cards, your brain's attention systems activate—a process that evolved to help our ancestors quickly spot both threats and opportunities. Dr. Michael Posner's famous research on attention networks has identified three key systems that help us focus, each supported by specific neurochemical pathways².

1. **The Alerting System** primes your brain to take in new information by releasing norepinephrine, a neurotransmitter that enhances alertness and readiness for action. In tarot, this system is activated the moment the cards are revealed, as your brain becomes attuned to the significance of the unfolding information.
2. **The Orienting System**, regulated by acetylcholine, directs your attention to specific details and cues in your environment. In a tarot reading, this might happen if you notice the reader's reaction to the cards or focus on particular imagery or symbolism that stands out.
3. **The Executive System**, influenced by dopamine, allows you to process, evaluate, and integrate multiple pieces of information to make sense of complex situations. During a tarot reading, when faced with seemingly contradictory cards like the Tower and the Sun, this system helps you reconcile their meanings, exploring how both elements might relate to your situation.

Selective Attention and the Reticular Activating System

Selective attention is your brain's ability to focus on a specific piece of information while ignoring other distractions. It allows you to filter out irrelevant stimuli and prioritize on what matters most to you in the moment. The Reticular Activating System (RAS)³ is part of the brain that filters vast amounts of sensory data, prioritizing what enters your conscious awareness. This filtering occurs through both bottom-up processing (responding to the actual visual stimuli) and top-down processing (influenced by your expectations and past experiences)⁴.

¹ Anne Trafton, "In the Blink of an Eye," MIT News | Massachusetts Institute of Technology, accessed November 20, 2024, <https://news.mit.edu/2014/in-the-blink-of-an-eye-0116>

² The attention system of the human brain: 20 years after - PMC. Accessed November 20, 2024. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3413263/>

³ Joseph H. Arguinchona, "Neuroanatomy, Reticular Activating System," StatPearls [Internet]., July 24, 2023, <https://www.ncbi.nlm.nih.gov/books/NBK549835/>

⁴ "Top-down Processing and Bottom-up Processing," RSS, accessed November 20, 2024, <https://www.structural-learning.com/post/top-down-processing-and-bottom-up-processing>

This filtering process can help us explore how specific details in tarot cards might stand out based on personal relevance. For instance, during a reading about your career growth, your RAS might draw your attention to the butterfly in the Death card, symbolizing transformation and renewal, while downplaying the more dramatic imagery like the skeletal figure or somber tones. If you're feeling anxious about change, your brain might instead fixate on the card's darker elements, interpreting them as a warning. However, if you're excited and ready for a new chapter, you might focus on the rising sun in the background, seeing it as a sign of hope and new beginnings.

This same neurological filtering explains why you might notice different details in the same card at various times in your life. Just as the "red car theory"⁵ is a metaphor for how people notice things that are relevant to them. For example, if you're thinking about buying a red car, you might suddenly start noticing red cars everywhere. The RAS amplifies symbols that align with your current concerns, making the reading feel uniquely relevant to your situation. This process helps transform a tarot card into a unique and dynamic reflection of your inner journey, allowing its imagery to resonate deeply with your personal thoughts, feelings, and questions.

Processing Visual Information

Multiple neural systems work together to process visual and emotional information: the ventral pathway (the 'what' system), the dorsal pathway (the 'where' system), and the limbic system.⁶ While these systems are not specific to tarot, they provide a foundation for understanding how we process complex visual stimuli, including tarot card imagery. When you first see a Tarot card, multiple neural systems activate simultaneously:

1. **The ventral pathway** (the "what" system) processes objects and their features—like identifying a skeleton in the Death card. This system handles symbolic information differently from ordinary objects, integrating input from emotional and memory systems to create layers of potential meaning.
2. **The dorsal pathway** (the "where" system) processes spatial relationships—helping you understand how each card relates to others in the spread, such as in the Past, Present, or Future position. This system supports your ability to create a mental map of the reading's structure.
3. **The limbic system** (emotional processing) begins associating the images with emotional content, often before conscious awareness, contributing to your immediate feelings, sense of resonance, or reaction.

⁵ Aniket Tapre, "The Red Car Theory," Medium, 2024, <https://medium.com/@atapre/the-red-car-theory-ed473fc9223f>

⁶ "Visual Processing: Cortical Pathways (Section 2, Chapter 15) Neuroscience Online: An Electronic Textbook for the Neurosciences | Department of Neurobiology and Anatomy - The University of Texas Medical School at Houston, accessed November 20, 2024, <https://nba.uth.tmc.edu/neuroscience/m/s2/chapter15.html>

The Impact of Focused Observation on Your Physical State

Once your attention is directed to specific details in the cards (via the Orienting and Executive Systems), the act of focused observation shifts you into a more reflective and mindful state. This deeper engagement activates the parasympathetic nervous system, leading to relaxation as your brain starts integrating meaning rather than reacting to stimuli.⁷

Just as meditation or prayer can affect your body, the focused observation of Tarot cards can influence your physical state. Your heart rate might slow, your breathing may deepen, and your overall stress levels could decrease as you engage in this concentrated visual processing. These physical changes are documented physiological reactions to focused attention and meaningful symbolic engagement.

The Observer Effect

Does Looking Change Understanding?

As a metaphor to understand the process of the observer effect⁸, consider quantum physics, where particles exist in multiple states until observed. For example, a spinning coin exists as both heads and tails simultaneously until it stops. In a similar way, tarot cards hold multiple potential meanings that seem to 'collapse' into specific interpretations the moment we first look at them. Your initial observation, shaped by your question, mindset, and emotional state, influences which possible meanings become most prominent in your awareness.

For example, when you first see the Death card, your attention might focus on certain aspects of its multiple meanings (transformation, endings, beginnings, change) based on your current situation. If you're considering a career change, you might be more attuned to its transformative aspects. If you're ending a relationship, the themes of closure might be more salient. This isn't just psychological—it's a demonstrable process of how observation influences both perception and physiological response.

Observation as Foundation

Observation involves much more than simply seeing the cards. It's a sophisticated interplay of neural systems—from pre-attentive processing and emotional associations to conscious analysis—all working together to create personally relevant meaning. This initial observation stage creates a cascade of effects:

- **Neurological:** Multiple brain systems activate and begin processing information
- **Physiological:** Your body responds with measurable changes in heart rate, breathing, and stress levels

⁷ 1. Matthew Thorpe, "12 Benefits of Meditation," Healthline, August 15, 2024, <https://www.healthline.com/nutrition/12-benefits-of-meditation>

⁸ 1. Shane, "The Observer Effect: Seeing Is Changing," Farnam Street, September 1, 2020, <https://fs.blog/observer-effect/>

- **Emotional:** Your limbic system triggers immediate emotional responses
- **Cognitive:** Your attention networks begin filtering and prioritizing information

For our exploration of how Tarot works, we've focused on attention networks, filtering systems, visual processing, and the observer effect as key examples of the science behind first observation. However, these represent only a portion of the relevant scientific theories. Other important areas of study⁹ in the observation phase include **perceptual priming**, which shows how previous experiences prepare your brain to recognize similar patterns. **Feature detection theory** explains how your brain identifies specific characteristics like edges, colors, and shapes. **Emotional salience networks** determine what your brain decides is emotionally important, while **memory encoding systems** decide what information to store and how to connect it to existing memories.

While there are many other scientific aspects that explain how we initially perceive the cards, what's crucial is understanding how this first phase shapes all subsequent interpretation and future-focused action. The observation phase isn't just about seeing the cards—it's about how our brains begin the meaning-making process from the very first glance. Through our understanding of neuroscience, we can see how these initial moments of observation create the neural framework necessary for deeper interpretation. Just as quantum physics shows us that observation itself can influence outcomes, our first observations of Tarot cards begin shaping both how we'll interpret their meaning and how we might act on that interpretation.

With these initial neural and psychological processes activated, our brains are primed and ready to move into the next critical phase: **interpretation**.

Step 2: Interpretation

Once your brain has processed what you're seeing in the cards through the observation phase, it begins the sophisticated work of interpretation. This process engages multiple pattern-recognition systems - neural networks that evolved to help humans identify meaningful information in their environment. Understanding these systems helps explain why Tarot readings often feel deeply personal and meaningful, even though they use universal symbols and archetypes.

Mirror Neurons

Specialized cells called **mirror neurons**¹⁰ were first discovered by neuroscientists studying primates. Mirror neurons play a critical role in the interpretation stage of a tarot reading by helping you connect with the imagery in the cards on an emotional and experiential level. When you see a card like the Two of Cups, your mirror neurons simulate feelings of connection and harmony, even if

⁹ "Pattern Recognition (Psychology)," Wikipedia, November 5, 2024, [https://en.wikipedia.org/wiki/Pattern_recognition_\(psychology\)](https://en.wikipedia.org/wiki/Pattern_recognition_(psychology))

¹⁰ Sourya Acharya and Samarth Shukla, "Mirror Neurons: Enigma of the Metaphysical Modular Brain," Journal of natural science, biology, and medicine, accessed November 20, 2024, <https://pmc.ncbi.nlm.nih.gov/articles/PMC3510904/>

you haven't experienced those exact emotions. Similarly, the Three of Swords might evoke sadness or heartbreak through simulated emotional responses, making its meaning feel deeply personal.

The work done by mirror neurons in the interpretation stage extends into the probability stage of a tarot reading by creating a foundation of emotional and mental engagement:

- **Simulating Future Scenarios:** By connecting emotionally to the cards during interpretation, you prime your brain to imagine how those scenarios might evolve in the future. For example, interpreting the Fool as a symbol of new beginnings sets the stage for later visualizing what risks or opportunities might arise as you take that leap.
- **Building Emotional Investment:** Mirror neurons make the interpretation feel personal and relevant, which strengthens your connection to potential outcomes. This emotional investment increases your likelihood of engaging with the reading's insights during the probability stage.
- **Enhancing Visualization:** The emotional and experiential connection created during interpretation allows you to better visualize future possibilities. For instance, interpreting the Chariot as a symbol of overcoming obstacles primes you to see yourself succeeding when exploring probabilities later in the reading.

This emotional resonance is what makes tarot interpretation so powerful—it helps you internalize the symbols and see them as reflections of your own experiences or desires, even when the scenarios depicted are abstract or unfamiliar.

Processing Symbols and Patterns

The human brain is uniquely equipped to process symbolic information, distinguishing it from how we perceive concrete objects. Neuroscience research has shown that symbols, like those found in tarot, trigger distinct neural activation patterns compared to everyday images. This is why a simple symbol, like the infinity sign in the Two of Pentacles, can instantly evoke complex ideas about balance, adaptability, and the continuous flow of energy.

These specialized neural pathways for symbol processing evolved to help humans recognize and remember meaningful patterns in their environment. Symbols condense rich ideas into compact forms, allowing the brain to draw on layers of meaning with remarkable efficiency. In tarot, this ability enables readers to interpret cards not as static images, but as dynamic representations of archetypes, emotions, and possibilities.

How the Brain Processes Symbols

When we encounter symbols, multiple regions of the brain activate simultaneously to extract meaning¹¹:

1. **The Fusiform Gyrus (Visual Recognition):**

This region identifies the basic visual features of a symbol—its shape, size, and structure.

¹¹ Mark P Mattson, "Superior Pattern Processing Is the Essence of the Evolved Human Brain," *Frontiers in neuroscience*, August 22, 2014, <https://pmc.ncbi.nlm.nih.gov/articles/PMC4141622/>

For instance, it processes the intertwined loops of the infinity sign or the upright pentacles in the Two of Pentacles.

2. **The Hippocampus (Memory Integration):**

Once the visual elements are identified, the hippocampus connects these shapes to stored memories, linking the infinity sign to experiences of cycles, continuity, or balance. This connection allows symbols to feel familiar and meaningful, even if you haven't consciously thought about their significance before.

3. **The Amygdala (Emotional Weight):**

The amygdala assigns emotional significance to the symbol. For example, the infinity sign might evoke feelings of harmony and adaptability—or stress and juggling responsibilities—depending on your current emotional state and the context of the reading.

4. **The Prefrontal Cortex (Pattern Integration):**

The prefrontal cortex synthesizes all this information, combining visual recognition, memory, and emotional weight into a cohesive interpretation. In the case of the Two of Pentacles, this might lead to a broader understanding of balance between work and life, adaptability in challenging circumstances, or the need to manage competing priorities with grace.

Tarot as a Symbolic Language

Each tarot card acts as a symbolic "word" in a larger "sentence," forming patterns of meaning across a spread. By engaging multiple brain regions, the process of interpreting tarot mimics how we understand language and stories:

- **Symbols** like the Lovers or the Devil act as narrative prompts, evoking themes of choice, connection, or entanglement.
- **Patterns** across the spread—such as repeated suits or major arcana—help you construct a cohesive narrative, combining the brain's analytical and emotional processing systems.
- This neural symphony of recognition, memory, emotion, and integration is what makes tarot a transformative tool for insight. It enables the querent (person receiving the reading) to uncover personal truths and explore new perspectives through the brain's natural pattern-seeking abilities.

Pattern Recognition: An Evolutionary Advantage

Our ability to recognize and interpret patterns is deeply rooted in evolutionary necessity.¹² Early humans relied on this skill to navigate complex environments, detect threats, and identify opportunities for survival. The same neural systems that helped our ancestors recognize predator tracks or locate safe food sources now also underpin modern pattern recognition in symbolic

¹² Mark P Mattson, "Superior Pattern Processing Is the Essence of the Evolved Human Brain," *Frontiers in neuroscience*, August 22, 2014, <https://pmc.ncbi.nlm.nih.gov/articles/PMC4141622/>

contexts. While documented studies focus on evolutionary psychology, these mechanisms may help explain how we derive meaning from tarot symbols.

Neuroscience research using magnetoencephalography (MEG) shows that **social scene processing** occurs within milliseconds, engaging multiple brain regions. Research in evolutionary psychology highlights how these systems shape our cognitive processes, bridging the gap between survival instincts and abstract thinking. In tarot, these pattern-recognition systems enable us to connect individual card meanings into cohesive stories and insights.

Here's how different types of pattern recognition play a role:

- **Cause-and-effect recognition:** The ability to connect past events with future outcomes (like connecting animal tracks to the presence of prey) now helps us link card meanings to potential future developments
- **Social pattern recognition:** Systems that evolved to interpret facial expressions and body language now help us understand social scenarios depicted in cards
- **Environmental pattern recognition:** Brain circuits that developed to recognize environmental patterns (like weather signs) now help us identify symbolic patterns in spreads

The Barnum Effect

The **Barnum Effect** (also known as the Forer Effect¹³) describes the tendency to perceive vague statements as uniquely relevant, especially when presented as personalized. While Forer's work does not discuss tarot, this psychological principle can help explain why tarot readings often feel deeply personal. Tarot readings often evoke this feeling because they present universal patterns and archetypes, allowing individuals to project their own experiences and emotions onto the cards.

Far from diminishing the value of tarot, this process demonstrates how our brains naturally work to personalize broader patterns, making the experience feel deeply meaningful.

The Neuroscience of Personalization

Several brain mechanisms contribute to this sense of personal relevance¹⁴:

1. **Anterior Cingulate Cortex (Self-Relevance Processing):**

This region of the brain becomes more active when processing information that feels self-relevant. In a tarot reading, when a card like The Moon is interpreted as representing uncertainty or intuition, the anterior cingulate cortex helps link these themes to your current

¹³ "Barnum Effect," The Decision Lab, accessed November 20, 2024, <https://thedecisionlab.com/biases/barnum-effect>

¹⁴ Edmund T. Rolls, "The Cingulate Cortex and Limbic Systems for Emotion, Action, and Memory - Brain Structure and Function," SpringerLink, August 26, 2019, <https://link.springer.com/article/10.1007/s00429-019-01945-2>

feelings of doubt or curiosity, making the interpretation feel uniquely relevant to your situation.

2. **Default Mode Network (Relating to Personal Experience):**

The default mode network, a system of interconnected brain regions, engages when we reflect on ourselves or our experiences. During a tarot reading, this network integrates the imagery and symbolism of the cards with your personal memories, goals, and emotions. For example, if you draw The Chariot, your brain might connect its themes of determination and triumph to a specific challenge you're currently facing, reinforcing a sense of resonance.

3. **Ventromedial Prefrontal Cortex (Personal Meaning-Making):**

The ventromedial prefrontal cortex is active during processes of meaning-making and value judgment. This region helps assign emotional weight to the card's interpretation, allowing you to prioritize its significance in your life. For instance, interpreting The Moon as a call to wait for more information might feel especially poignant if you're grappling with a time-sensitive or difficult decision, as your brain works to assign personal meaning to the card.

While the Barnum Effect helps explain the personalization of tarot, it also highlights the importance of thoughtful interpretation. A skilled tarot reader doesn't rely solely on generalities but helps the querent explore how universal patterns apply to their unique circumstances. This process strengthens the relevance of the reading and primes the brain to transform vague themes into actionable insights.

Understanding the Barnum Effect and its neurological basis doesn't diminish the value of tarot; instead, it highlights how deeply our brains engage with symbolic and narrative tools. By connecting universal patterns to personal experiences, tarot readings provide a meaningful framework for self-reflection and decision-making. The interplay between neuroscience and tarot demonstrates why readings feel so powerful: they tap into the natural human desire to make sense of the world through the lens of our own lives.

Archetypes

Carl Jung, who initially collaborated with Sigmund Freud and was influenced by his work in psychoanalysis, developed the concept of **archetypes**¹⁵ to explain universal patterns within what he termed the "collective unconscious"—providing a powerful framework for understanding why tarot resonates so deeply. Archetypes are universal symbols—such as the Fool, the Shadow, or the Hero—that emerge from the collective unconscious, a shared reservoir of human experience.

These timeless patterns recur in myths, stories, and spiritual practices across cultures, reflecting fundamental aspects of the human psyche. In tarot, archetypes are embedded within the cards, connecting universal themes to the querent's unique circumstances. For example, the Fool symbolizes the universal experience of new beginnings, yet its meaning becomes deeply personal depending on where the querent is in their journey.

¹⁵ Adam Waude, "How Carl Jung's Archetypes and Collective Consciousness Affect Our Psyche," *Psychologist World*, 2016, <https://www.psychologistworld.com/cognitive/carl-jung-analytical-psychology>

The Brain's Role in Archetypal Recognition

Our brains are naturally wired to recognize and assign meaning to patterns, a skill that evolved to help early humans navigate complex environments. In tarot, this pattern recognition engages neural pathways that integrate visual, emotional, and memory systems. The **fusiform gyrus** identifies the imagery, the **hippocampus** connects it to personal experiences, and the **amygdala** assigns emotional weight.

This neural interplay allows archetypes like the High Priestess or the Tower to feel both deeply intuitive and uniquely relevant, even when they represent abstract ideas like intuition or transformation.

Archetypes as a Bridge Between the Personal and Universal

Archetypes act as a bridge between the shared human experience and individual self-reflection¹⁶. While their themes are universal, their interpretation is shaped by the querent's personal story. A card like the Chariot, symbolizing determination and victory, may resonate as a call to action for one person but as a reminder to maintain control for another.

By engaging with archetypes, tarot connects us to the deeper patterns that define humanity while providing insight into our own path, blending the universal and the deeply personal in a way that feels timeless and transformative.

Predictive Processing

Recent advances in **predictive processing theory** reveal that while our brains excel at recognizing patterns, they simultaneously generate predictions about what might come next¹⁷. In tarot, this predictive engagement is activated as pattern recognition networks identify symbols and archetypes, memory systems provide personal context, and predictive processing networks simulate future outcomes.

For example, recognizing the Ten of Wands as a symbol of overwhelming responsibility prompts the brain to project possible scenarios, such as continued strain or the relief of delegating tasks. This interplay between interpretation and prediction transforms tarot readings into dynamic tools for exploring potential futures, seamlessly transitioning from understanding the present to imagining what might come next.

Step 3: Prediction and Probability

The act of predicting future outcomes triggers changes in perception, behavior, and decision-making that actively influence those outcomes. Understanding these mechanisms explains why tarot readings can seem remarkably predictive while remaining grounded in scientific principles.

¹⁶ "Jungian Archetypes," Wikipedia, October 28, 2024, https://en.wikipedia.org/wiki/Jungian_archetypes

¹⁷ Philip R Corlett, Aprajita Mohanty, and Angus W MacDonald, "What We Think about When We Think about Predictive Processing," Journal of abnormal psychology, accessed November 20, 2024, <https://pmc.ncbi.nlm.nih.gov/articles/PMC7509909/>

More importantly, it reveals how the very act of prediction begins reshaping future probabilities the moment it is made.

Self-Fulfilling Prophecy

A **self-fulfilling prophecy** occurs when a belief or expectation influences behavior in ways that ultimately make the prediction come true¹⁸. This psychological effect highlights how our internal mindset and actions shape external outcomes. The key is that the belief itself—not an external force—drives the result by prompting subtle behavioral shifts.

For example, if a tarot reading suggests you'll find a new career opportunity, you might unconsciously begin taking steps to make it happen: browsing job listings, updating your resume, or reaching out to connections. These proactive behaviors significantly increase the likelihood of finding a new job, creating a feedback loop where the reading feels validated by the resulting outcome. This isn't mystical; it's a natural psychological mechanism that empowers individuals to align their actions with their expectations.

Research supports this phenomenon across various contexts. For example, one study found that Chinese and Japanese Americans were more likely to die on dates or in circumstances involving the number 4, an "unlucky" number in these cultures, suggesting a self-fulfilling prophecy driven by cultural associations of the number with death.¹⁹

In tarot, self-fulfilling prophecies demonstrate how a reading can serve as a catalyst for action. By planting a seed of possibility, the cards encourage individuals to act in ways that align with their goals, transforming potential into reality. This effect underscores the collaborative nature of tarot: the cards provide insight, but the querent's belief and actions turn those insights into tangible results.

Growth Mindset

The growth mindset, developed by psychologist Carol Dweck, is the belief that abilities and intelligence can be developed through effort, learning, and persistence.²⁰ People with this mindset view challenges as opportunities to grow rather than as fixed limitations. When faced with setbacks, they're more likely to adapt, try new approaches, and continue working toward their goals.

In tarot, a reading that suggests "challenges leading to wisdom" can activate this mindset, encouraging you to see difficulties as learning experiences. For example, instead of viewing obstacles as barriers, you might recognize them as stepping stones for skill development and

¹⁸ By et al., "Self-Fulfilling Prophecy in Psychology: Definition & Examples," Simply Psychology, February 13, 2024, <https://www.simplypsychology.org/self-fulfilling-prophecy.html>

¹⁹ "Baskerville Effect," Wikipedia, 2024, https://en.wikipedia.org/wiki/Baskerville_effect

²⁰ Shane, "Carol Dweck: A Summary of Growth and Fixed Mindsets," Farnam Street, February 5, 2021, <https://fs.blog/carol-dweck-mindset/>

personal growth. This shift in perspective not only aligns with the reading but also makes it more likely that the predicted outcomes will manifest.

Tarot doesn't guarantee outcomes but highlights possibilities. By combining insights from a reading with deliberate actions, you can influence the probabilities of those outcomes. If a reading predicts a "fortunate encounter," for instance, you might choose to attend more social events or approach conversations with openness. While you can't control every outcome, these intentional steps increase the likelihood of meaningful opportunities, effectively "stacking the deck" in your favor while recognizing that uncertainty remains.

Confirmation Bias and Emotions

Confirmation bias is our natural tendency to focus on information that supports what we already believe, while ignoring or downplaying anything that doesn't fit.²¹ This can work for us or against us, but it's often strongest when it reinforces fears or doubts. In tarot, confirmation bias might cause someone to zero in on a negative interpretation, seeing proof of their worries in the cards. On the flip side, it can also help amplify positive insights, encouraging people to focus on strengths or opportunities. By being aware of how confirmation bias works, we can approach tarot readings with more balance, ensuring they guide us toward clarity and growth instead of reinforcing unhelpful beliefs.

Dr. Barbara Fredrickson's "**broaden-and-build**" theory demonstrates how positive emotions expand awareness and build psychological resources.²² Optimistic tarot predictions can:

- Expand perception of possibilities.
- Increase recognition of opportunities.
- Inspire actions that create favorable outcomes.

Research using fMRI scans shows that positive emotional states fundamentally change how our brains process information and make decisions. These findings reinforce how hopeful tarot readings can trigger an "upward spiral" of emotional and cognitive effects, fostering the probability of growth and success.

Reinforcing Effects

Matthew Effect

The Matthew Effect, named after the biblical passage Matthew 25:29 ("For to everyone who has, more will be given..."), describes how small initial advantages tend to grow over time, compounding into larger disparities. This principle, often summarized as "the rich get richer," is evident in various

²¹ By et al., "Confirmation Bias in Psychology: Definition & Examples," Simply Psychology, June 22, 2023, <https://www.simplypsychology.org/confirmation-bias.html>

²² Dr. Barbara Fredrickson's "broaden-and-build" theory demonstrates how positive emotions expand awareness and build psychological resources

domains, from wealth accumulation to skill development and career success. The effect emphasizes how early wins create momentum, leading to ever-expanding advantages.²³

In tarot, this principle can be observed when a reading highlights a potential opportunity or advantage. For instance, if the cards suggest financial gains, you might feel inspired to invest a small amount with newfound confidence. That initial investment not only has the potential for direct returns but also prompts you to learn more about finance, leading to better decisions and reinvestments. Over time, these compounding efforts result in significant financial growth, making the original reading feel prophetic.

This cascading dynamic of the Matthew Effect demonstrates how tarot readings can plant the seeds of confidence and action, setting querents on a path where small steps snowball into substantial outcomes. The cards don't create the advantage; rather, they provide insight and encouragement that empower the querent to take action, fostering a cycle of growth and success. In this way, tarot becomes a tool for amplifying small, meaningful shifts into transformative change.

Pygmalion Effect

The Pygmalion Effect, rooted in social psychology, demonstrates how people's expectations of others can shape actual outcomes.²⁴ When someone believes another person will succeed, they unconsciously provide more support, encouragement, and opportunities, fostering conditions that help the person achieve those expectations. This phenomenon is closely related to the **Rosenthal Effect**, which shows that students perform better when teachers expect high achievement. Positive expectations create a self-reinforcing cycle, where belief drives behavior that leads to success.

In tarot, this effect can unfold when a reading predicts a significant personal achievement, such as becoming a great leader. Sharing this insight with friends or colleagues might subtly influence how they perceive and treat you. If they begin to see you as leadership material, they may offer more responsibilities or invite you to take charge of key tasks. These opportunities, combined with their encouragement, help you develop genuine leadership skills, fulfilling the reading's prediction.

The Pygmalion Effect highlights how tarot readings can extend beyond personal reflection to influence social dynamics. A reading not only shifts how you see yourself but also how others interact with you, reinforcing positive growth through external support. This interplay of expectations and opportunities demonstrates the collaborative and transformative potential of future insights.

Founder Effect

Originally a concept from genetics, the Founder Effect describes how initial conditions or choices have a disproportionate influence on future development, even as circumstances evolve.²⁵ Early

²³ Allexenberglaw, "The Rich Get Richer and the Poor Get Poorer, the 'Matthew Effect,'" ALLEXENBERG LAW, April 19, 2021, <https://www.allexenberglaw.com/post/the-rich-get-richer-and-the-poor-get-poorer-the-matthew-effect>

²⁴ "Pygmalion Effect," Wikipedia, October 10, 2024, https://en.wikipedia.org/wiki/Pygmalion_effect

²⁵ "Founder Effect," Wikipedia, July 20, 2024, https://en.wikipedia.org/wiki/Founder_effect

"founding" elements establish patterns that persist over time, shaping identity, behavior, and decision-making. This principle highlights how small early factors can have outsized and lasting effects.

In tarot, this effect can be seen when an early reading sets a foundational belief about your abilities or potential. For instance, if an early reading suggests you are naturally creative, this insight may become a lens through which you interpret all future successes. You begin attributing your achievements to creativity, seeking out creative solutions, and cultivating a creative identity. Over time, this initial suggestion becomes a defining element of how you see yourself, shaping not just your self-perception but also your actions and opportunities.

Research in social psychology underscores the profound impact of expectation effects, showing that early beliefs—whether internal or external—can significantly influence long-term outcomes. For example, students who internalize early affirmations of their abilities tend to outperform peers, and professionals who are encouraged to see themselves as leaders are more likely to pursue leadership roles. In tarot, the Founder Effect highlights how a single reading can plant the seeds for lasting growth, establishing patterns that ripple through the querent's personal and professional life.

Placebo Effect

Extensive research into the placebo effect highlights the profound impact of belief on outcomes. Studies conducted at Harvard showed that up to 50% of participants experienced pain reduction simply because they believed they had received pain medication.²⁶ While this research focuses on medical interventions, it offers a lens to consider how belief in tarot readings might shape perception and behavior. Similarly, athletes have demonstrated an improvement in physical performance when they thought they had taken performance enhancers, and patient recovery rates increased when they expected treatments to work. Findings like these illustrate that belief alone can trigger real physiological and psychological changes.

In tarot, this principle suggests that believing in a reading's positive predictions could activate similar processes. For instance, if a querent truly believes they are destined for career success, this belief may enhance their confidence, motivation, and focus, leading to behaviors that support the predicted outcome. Tarot, like the placebo effect, operates through the power of expectation, making belief a crucial element in shaping the probabilities of future outcomes.

Cognitive Behavioral Therapy

Cognitive Behavioral Therapy (CBT), a scientifically-supported psychological approach, demonstrates how identifying and reframing thought patterns can significantly influence future outcomes. With evidence showing a 40% reduction in symptoms of depression²⁷, CBT highlights

²⁶ "The Power of the Placebo Effect," Harvard Health, accessed November 20, 2024, https://www.health.harvard.edu/newsletter_article/the-power-of-the-placebo-effect

²⁷ University of Oxford. 2016. "Study Finds CBT Offers Long-Term Benefits for People with Depression." Department of Psychiatry, January 7, 2016. <https://www.psych.ox.ac.uk/news/study-finds-cbt-offers-long-term-benefits-for-people-with-depression>

the connection between thoughts, behaviors, and results. Similarly, tarot provides a reflective framework that helps individuals examine beliefs and consider actionable steps, aligning closely with the principles that make CBT effective.

While tarot is not a substitute for CBT, it operates on similar principles of self-awareness and reframing. For example, a card like the Eight of Swords might reveal limiting beliefs, prompting a querent to recognize patterns of self-doubt. Reinterpreting the card as an opportunity for growth encourages the querent to take proactive steps, increasing the likelihood of positive outcomes. Tarot readings do not predict the future in a deterministic sense but offer insights that help shape probabilities through reflection and action.

By engaging the querent's thought processes, tarot highlights how present beliefs and actions influence future possibilities. This parallel with CBT demonstrates why tarot "works" to inspire meaningful change, not through external forces, but by empowering individuals to align their actions with their goals.

Synchronicity

Carl Jung introduced the concept of synchronicity to describe events that are meaningfully related despite lacking a cause-and-effect connection.²⁸ He proposed that the human mind instinctively seeks and creates patterns between seemingly unrelated occurrences, reflecting a deeper, non-linear ordering principle in the universe. This idea challenges the notion of pure coincidence, suggesting that some events are connected through shared meaning rather than causation.

In the context of tarot, synchronicity becomes especially relevant as readings highlight patterns and potential outcomes. Modern neuroscience offers insight into how the brain perceives patterns and meaning in seemingly unrelated events. These principles help frame how we might understand the phenomenon of synchronicity in a symbolic context with tarot. What appears as "meaningful coincidence" often results from enhanced pattern recognition and selective attention—natural processes in the brain that align perception with expectation. Once a tarot reading emphasizes a particular theme, your mind becomes primed to notice related opportunities and connections in your environment, turning abstract patterns into actionable insights.

For example, if the Three of Wands appears in a career reading suggesting new opportunities, several scientific processes may activate:

- **Behavioral Shifts:** Subtle changes in your actions—such as increasing initiative or networking—can unconsciously align you with these opportunities.
- **Decision-Making Alignment:** Your choices may start to reflect the belief in upcoming success, guiding you toward paths consistent with the reading's narrative.

²⁸ "Synchronicity," Wikipedia, November 12, 2024, <https://en.wikipedia.org/wiki/Synchronicity>

- **Perception of Synchronicities:** You become more likely to notice "coincidences," such as meeting influential individuals or stumbling upon career-related resources, interpreting them as signs of alignment with your goals.

Jung's concept of synchronicity and modern neuroscience both underscore how tarot readings could shift awareness, making everyday events feel interconnected and purposeful. By amplifying your brain's natural ability to create meaning, predictions could serve as a bridge between internal intention and external action, helping you navigate life's complexities with a heightened sense of possibility.

Goal Achievement

Dr. Gail Matthews' groundbreaking research at Dominican University underscores the power of intention and accountability in goal achievement. Her studies revealed that simply writing down goals increases the likelihood of achievement 33%.²⁹ Furthermore, when individuals shared their goals with friends and provided regular progress updates, their probability of success also increased. This demonstrates how externalizing intentions and creating accountability amplifies the likelihood of turning aspirations into reality.

In tarot practice, this research highlights the value of documenting readings and sharing insights with trusted others. Recording a reading in a journal transforms abstract predictions into tangible goals, while discussing interpretations with friends or a reading circle reinforces commitment to the actions inspired by the cards. These simple practices bridge reflection and action, creating a feedback loop that increases the chances of predicted outcomes manifesting in meaningful ways.

Belief Systems

Although spiritual traditions interpret tarot differently, neuroscience reveals that belief systems influence perception and behavior in measurable ways. Studies using fMRI demonstrate that spiritual beliefs activate neural networks involved in meaning-making, emotion regulation, and decision-making.³⁰ These include:

- **The Default Mode Network (DMN):** Supports introspection and integrates tarot insights with personal experiences
- **The Ventromedial Prefrontal Cortex (vmPFC):** Assigns value to predictions and influences what feels realistic
- **The Anterior Insula and Amygdala:** Regulate emotional responses to uncertainty and future possibilities

²⁹ 1. Keith Roberts, "The Power of Writing down Your Goals: Evidence from Multiple Studies," theOAKJournal, February 8, 2023, <https://oakjournal.com/blogs/resources/the-power-of-writing-down-your-goals-evidence-from-multiple-studies>

³⁰ Andrew B Newberg, "The Neuroscientific Study of Spiritual Practices," Frontiers in psychology, March 18, 2014, <https://pmc.ncbi.nlm.nih.gov/articles/PMC3957224/>

Research shows that structured belief systems enhance resilience and broaden perception.³¹This explains why tarot resonates across belief systems—the effectiveness lies in how frameworks engage the brain’s predictive and meaning-making systems.

For example, the Wheel of Fortune might symbolize divine intervention for one person and cyclical change for another, yet both interpretations activate cognitive processes that shape behavior and outcomes. Tarot works as a tool for self-reflection and exploration by tapping into universal mechanisms, highlighting how belief frameworks shape our responses to life’s uncertainties.

Shaping Reality

There’s a fascinating paradox in psychology: simply predicting an outcome can make it more likely to happen. Tarot readings align perfectly with this idea, engaging our minds in ways that shape how we see the world and act within it. At the core of this process are three key mechanisms—focused attention, neural priming, and behavioral shifts—that work together to help us create meaningful change.

First, predictions focus our attention on specific possibilities, making us more aware of opportunities that align with those predictions. For example, if a tarot reading suggests career success, we naturally start noticing relevant connections, openings, or resources that might have gone unnoticed before. Our brains filter and prioritize information in ways that increase the chances of acting on these opportunities.

Next, neural priming prepares our brains to respond effectively when opportunities arise. Thinking about an outcome, like personal growth or advancement, strengthens the mental pathways tied to that possibility. This makes us more confident and ready to act when the moment comes, creating a feedback loop that increases the likelihood of success.

Finally, behavioral shifts—both conscious and unconscious—play a powerful role. Small changes, like projecting confidence or making proactive choices, add up over time, turning small steps into significant results.

While predictions shape possibilities, it’s ultimately our choices that determine outcomes. Tarot readings, especially those highlighting challenges, can inspire a sense of agency. Instead of seeing obstacles as fixed, we can view them as opportunities to redirect our attention, embrace a growth mindset, and take deliberate action toward transformation. A reading doesn’t predict your fate—it acts as a guide, empowering you to shape your path.

In the end, tarot readings work as a catalyst for change, combining reflection, insight, and action to influence probabilities. They don’t dictate the future but help us actively shape it through belief, intention, and behavior. By focusing our attention, priming our minds, and inspiring action, tarot becomes both a mirror and a guide, helping us navigate uncertainty and manifest meaningful

³¹ Centrality of religiosity as a predictor of motivational needs, accessed November 20, 2024, <https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=5957&context=doctoral>

change. The science of prediction, when paired with the art of tarot, offers a profound way to create the future we desire.

Magic and Mind

Somehow the cards in your hand got there—whether guided by a divine source or not. What you do now is yours to own.

Your mind is your most powerful magic tool, capable of shaping your reality and guiding you toward happiness. Every step of the way, your brain is doing the work to make the change you want possible:

- **Your mind observes:** It filters out distractions, focuses on what matters most to you, and brings patterns to your attention. This ability helps you see opportunities and solutions that align with your goals.
- **Your mind interprets:** Using symbols, archetypes, and emotions, your brain processes meaning, creating a personal connection to the insights you uncover. Mirror neurons and pattern recognition make these messages feel relevant, empowering you to see your own potential.
- **Your mind predicts:** It simulates future outcomes, helping you visualize the steps you need to take to achieve your desires. By aligning your beliefs with your actions, you naturally begin moving toward the reality you want to create. These predictions guide you to act in ways that align with your goals, turning possibilities into probabilities and dreams into plans

Your mind already knows how to find the happiness and fulfillment you're seeking. It's already working to connect the dots, filter for what you need, and guide you toward your goals—even if you've never done it before. Trust that process. Trust yourself. Your future is waiting, and you have everything you need to create it.

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Clarification of Sources

With the exception of studies by Carl Jung, the research referenced in this paper focuses on foundational aspects of human cognition, neuroscience, and psychology. Tarot is used as an application of these findings, providing a framework to explore how these scientific principles might relate to tarot practices. The original research cited did not address tarot directly.

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