

BIORHYTHMS

Authored by
mohammad looti

October 13, 2025

RECOMMENDED CITATION

mohammad looti (2025). *BIORHYTHMS*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=44262>

BIORHYTHMS

Primary Disciplinary Field(s): Psychology, Chronobiology (Criticism), Pseudoscientific Theory

1. Core Definition

The term **Biorhythms** (also known as **biological rhythm** in a general sense) refers to a specific, historically popularized pseudoscientific theory which posits that human life is governed by three primary, naturally-occurring, periodic cycles. These cycles are claimed to commence precisely at the moment of birth and continue throughout an individual's lifespan, fluctuating cyclically to affect behavior, cognitive ability, and physical well-being. According to this theory, these innate cycles operate independently of external factors like environment, nutrition, or sleep, making human performance and mood fluctuations predictable based solely on the time elapsed since birth.

In modern scientific discourse, the term **biorhythm** is often confused with genuine biological rhythms studied by Chronobiology, such as the circadian, ultradian, and infradian rhythms. Chronobiology studies cycles that are empirically verified, often genetically encoded, and responsive to environmental synchronizers (zeitgebers). Conversely, the specific theory of Biorhythms--involving the fixed 23-day, 28-day, and 33-day cycles--is not supported by empirical evidence and is classified by the scientific community as a form of pseudoscience, despite its historical popularity in self-help and certain operational management fields.

2. Etymology and Historical Development

The origins of the modern biorhythm theory can be traced back to European ideas in the late 19th and early 20th centuries, rooted more in numerological observation and philosophical speculation than in biological experimentation. The foundation was laid by Wilhelm Fliess, a Berlin physician and close confidant of Sigmund Freud. Fliess initially focused on two cycles: a 23-day "male" or physical period and a 28-day "female" or emotional period. He believed these cycles were universal and influenced various aspects of health, suggesting a deterministic link between one's birth date and all future physical and emotional fluctuations.

Independently, around the same time, Hermann Swoboda, a professor of psychology at the University of Vienna, developed similar concepts, relating these fixed periodicities to mental states. Swoboda focused heavily on the 28-day cycle, linking it to the menstrual cycle and the periodicity of emotional shifts. While Fliess and Swoboda established the initial two cycles, the theory was completed in the 1920s by Alfred Teltscher, an Austrian engineer and mathematician. Teltscher, studying the performance of his students, proposed the existence of a third, longer cycle dedicated to mental capabilities, thus introducing the 33-day **Intellectual Cycle**.

The theory received its greatest popular boost in the 1970s and 1980s, particularly in the United

States and Japan. This rise in popularity was facilitated by the publication of several commercially successful books that simplified the calculations and touted the predictive accuracy of the cycles. During this era, personalized biorhythm charting became a widespread fad, often implemented through early computer programs and handheld calculators, cementing its place in popular culture as a self-management tool.

3. Key Characteristics: The Three Cycles

The core of the biorhythm theory rests upon the interaction of three primary sinusoidal waves, each starting at a zero point (the day of birth) and oscillating between a high phase (peak performance) and a low phase (suboptimal performance). The intersection of these cycles creates complex predictive charts meant to guide daily activity.

The mathematical formulation dictates that the position of an individual in any given cycle is determined solely by the number of days elapsed since birth, divided by the cycle's fixed period. A positive phase (above the zero line) indicates a period of optimal functioning, while a negative phase (below the zero line) suggests a period of diminished capacity. The three cycles are distinct in their duration and purported effects:

Physical Cycle (23 Days): This is the shortest of the cycles and is hypothesized to influence physical attributes. It governs factors such as **strength**, coordination, energy levels, stamina, resilience, and general resistance to illness. When this cycle is high, individuals are supposedly better suited for strenuous activity and physical feats; when it is low, they are more prone to physical fatigue or reduced coordination.

Emotional Cycle (28 Days): This cycle mirrors the length of the average female menstrual cycle (which may explain its historical basis) and is associated with emotional well-being. It affects mood, temperament, sensitivity, perception, creativity, and cooperative spirit. A high emotional phase supposedly results in optimism and better social interaction, while a low phase may lead to irritability, moodiness, and interpersonal conflict.

Intellectual Cycle (33 Days): The longest primary cycle governs cognitive functions. This includes the capacity for learning, logical and analytical thinking, memory recall, alertness, and decision-making abilities. During the positive phase, learning and studying are purportedly more effective, while the negative phase is associated with mental sluggishness, difficulty concentrating, and poor judgment.

4. Critical Days and Cycle Interactions

A central feature of the biorhythm theory is the concept of **critical days**. A critical day occurs when a cycle crosses the zero line--transitioning from the high phase to the low phase, or vice-versa.

These transition points are deemed unstable and dangerous because the individual is thought to be in a state of internal chaos, unable to reliably access the capabilities governed by that specific rhythm. The theory suggests that during critical days, individuals are highly susceptible to accidents, errors in judgment, emotional outbursts, or poor decision-making.

The most significant and potentially hazardous days are those when two or even all three cycles cross the zero line simultaneously, which are rare occurrences. A "triple critical day" is hypothesized to maximize vulnerability across physical, emotional, and intellectual domains, demanding extreme caution. The complexity arises from the interaction of the different periodicities (23, 28, and 33 days), which means the overall condition of the individual at any moment is a composite of three independent waves. Proponents argued that by charting these interactions, one could proactively schedule important events, surgeries, negotiations, or travel to avoid periods of high vulnerability.

5. Significance and Impact in Popular Culture

Despite its lack of scientific basis, the biorhythm theory achieved significant real-world application, primarily in non-Western contexts and within specific industrial settings during the mid-20th century. Its appeal lay in providing a simple, seemingly scientific, and deterministic explanation for the common human experience of fluctuating competence and energy. It offered an illusion of control over the unpredictable nature of daily performance.

In Japan, especially, several transportation companies and industrial organizations experimented with biorhythm charts to manage staff schedules. The belief was that scheduling tasks requiring high concentration (like long-haul driving or intricate machinery operation) away from an employee's predicted critical days would significantly reduce accident rates. Similarly, biorhythm calculators became common novelty items in Western markets, promoted as essential tools for sports scheduling, dating compatibility, and general self-awareness. This cultural acceptance underscores a recurring theme in popular psychology: the powerful draw of a simplified, personalized system that claims to unlock the secrets of individual fate.

6. Debates and Criticisms

The theory of Biorhythms has faced overwhelming rejection and severe criticism from mainstream chronobiologists, psychologists, and statisticians. The scientific consensus is that the alleged 23, 28, and 33-day cycles are fundamentally arbitrary and lack any grounding in known human physiology or biological mechanisms. Unlike verified cycles, such as the circadian rhythm (which is tied to the 24-hour light/dark cycle and hormonal fluctuations), the biorhythm theory provides no plausible biological mechanism to sustain these specific, fixed periodicities throughout decades of life.

Numerous comprehensive studies have been conducted since the 1970s, attempting to correlate accident statistics, athletic performance, academic scores, and surgical outcomes with predicted biorhythm phases. These meta-analyses and large-scale empirical tests have consistently failed to demonstrate a correlation that exceeds chance levels. For instance, studies analyzing thousands of airline accidents, industrial mishaps, and hospital deaths found no statistical link between these events and the supposed critical days of the individuals involved.

The methodological flaw lies in the deterministic approach: the theory assumes that all physiological, emotional, and intellectual peaks are solely dictated by the birth moment, entirely ignoring the profound influences of genetics, diet, sleep hygiene, external environment, learned behavior, and psychological state. Consequently, the theory is often cited in academic texts as a classic example of pseudoscience, masquerading numerological coincidence as biological fact, relying heavily on confirmation bias among its adherents.

7. Further Reading

[Biorhythm \(Pseudoscience\) - Wikipedia](#)

[Chronobiology - Wikipedia](#)

[Circadian Rhythm - Wikipedia](#)