



The K16 Circle: Neuro-Emotional Code of Personality and the Geometry of Inner Balance

Svetlana Vladimirovna Iablonovskaia

Independent Researcher, Serbia

Abstract

The K16 model presents a new approach to understanding human personality as a neuro-emotional code — a structured system of sixteen parameters, each consisting of multiple ‘facets’ that reflect different modes of perception and emotional response.

Unlike linear personality models, the K16 Circle represents the individual as a closed yet dynamic system, where every emotional facet has equal rights to activation.

The circular geometry of personality embodies inner equilibrium: harmony arises not from suppression, but from the recognition and coexistence of all emotional states — empathy and anger, fear and courage, attachment and autonomy.

This framework provides a theoretical foundation for studying emotional resonance between individuals, offering perspectives for psychotherapy, affective neuroscience, and AI systems capable of simulating affective interactions.

Introduction

In psychology and neuroscience, the structure of personality is often viewed through dimensional or categorical models — from Jung's typology to the Big Five and HEXACO frameworks. However, these models rarely address the dynamic architecture of the emotional system itself: how internal parameters interact, balance, and transform over time.

The K16 hypothesis introduces personality as a neuro-emotional code — a digital-like structure of sixteen interdependent parameters such as empathy, anxiety, self-worth, aggression, trust, emotional stability, and others. Each parameter is represented not by a static score but by a set of active facets (ranging from 0 to 9), which describe how many distinct emotional forms are currently expressed rather than their intensity or moral value.

When two individuals interact, their respective codes form a temporary resonant field — a configuration of matching or complementary facets that explains emotional attraction, psychological dependency, and persistent affective memory even after physical separation. This mechanism of affective resonance reflects the neural tendency of the brain to seek completion of emotional patterns — a principle that also explains attachment formation, empathy, and post-traumatic emotional fixation.

While earlier versions of the K16 model represented personality through a linear scheme suitable for interpersonal comparison, this approach is limited when applied to the inner structure of the self. The present paper therefore introduces the K16 Circle — a geometrical representation of personality as a self-regulating, circular system in which every facet possesses equal functional rights. This circular model allows us to describe the individual not as a hierarchy of dominant traits, but as an ecosystem of emotional states in constant motion, achieving balance through dynamic self-regulation rather than stability.

2. Theoretical Basis of the K16 Model

The K16 model defines personality as a multidimensional configuration of sixteen neuro-emotional parameters that together form the individual's inner code. Each parameter reflects a specific domain of emotional processing — for example, empathy, anxiety, aggression, trust, self-worth, need for approval,

emotional stability, reactivity, initiative, dependency, altruism, sensuality, adaptability, doubt, control, and internal conflict.

Unlike classical scales that measure levels of traits, each K16 parameter is represented by a set of active facets ranging from 0 to 9. The number does not indicate ‘strength’ or ‘maturity,’ but the quantity of emotional modes currently available to the individual. Thus, two people who both have ‘5’ in empathy may express completely different internal structures: one might manifest mirror and behavioral empathy, while another may combine cognitive and predictive forms.

Each facet is an autonomous emotional submodule — a neural and experiential pattern that can activate independently or simultaneously with others. For example, within the category of empathy, the model distinguishes ten possible facets:

Index	Facet	Description
1	Mirror reaction	Automatic imitation of another’s emotional expression.
2	Behavioral empathy	Readiness to help based on visible suffering.
3	Tactile empathy	Physical resonance through touch and bodily contact.
4	Adaptive empathy	Adjusting one’s behavior to another’s emotional state.
5	Cognitive empathy	Understanding and verbalizing another’s feelings.
6	Predictive empathy	Anticipating another’s emotions before they are expressed.
7	Silent participation	Calm, wordless presence with an emotionally struggling person.
8	Empathic fusion	Deep identification with another’s emotional state.
9	Transcendent empathy	Intuitive sensing of emotions beyond verbal communication.

The presence of high-indexed facets (7–9) indicates advanced sensitivity and complex emotional intelligence — yet it also increases psychological vulnerability and social isolation. Individuals rich in such facets often experience a sense of charisma and depth, yet find fewer compatible counterparts whose codes resonate at comparable frequencies.

The K16 model therefore emphasizes partiality and openness: no person embodies the full set of emotional facets, and it is precisely this incompleteness that fuels development and connection. Every individual remains an unfinished system — a living resonance field that evolves through encounters with others.

3. From Line to Circle: The Geometry of the Individual

In the earlier versions of the K16 model, the structure of personality was visualized as a line — a practical representation for comparing emotional codes between individuals. The linear model allowed the computation of resonance coefficients and illustrated zones of deficiency and excess, which proved valuable in studying emotional compatibility.

However, when the model is applied within a single individual, comparison loses its meaning. There is no hierarchy among emotions, no directional flow — all facets belong to a single center of perception. For describing personality as an autonomous system, the model therefore transitions from a line to a circle.

The line represents comparison. The circle represents wholeness. In the circular form, each of the sixteen parameters — empathy, anxiety, aggression, trust, need for approval, emotional stability, reactivity, self-worth, dependency, initiative, altruism, sensuality, social adaptability, doubt, need for control, and internal conflict — occupies an equal position on the circumference. Each parameter unfolds not as a single value but as a set of active facets, reflecting the current functional state of the individual.

This geometry conveys the principle of equality: every emotional facet has an equal right to expression and contributes to the person's overall balance. Unlike hierarchical theories of personality that emphasize dominance and repression, the K16 Circle models inner harmony as the coexistence of multiple emotional forces — none superior, none inferior.

The circular form also captures the dynamic balance of motion. Each facet may become active or dormant depending on context, environment, or emotional stimulus, yet the entire system remains stable through continuous internal redistribution. Thus, the individual is not a fixed configuration but a living field of states, maintaining equilibrium through adaptation rather than control.

In this sense, the K16 Circle becomes a geometrical expression of psychological maturity:

- There is no ‘highest’ or ‘lowest’ emotion.
- Empathy and anger, joy and doubt, autonomy and dependency — all coexist as legitimate parts of the whole.
- Emotional health means not the absence of conflict, but the capacity to give each state its rightful place within the circle.

4. Emotional Dynamics and Resonance Between Circles

When two K16 Circles — two complete emotional systems — come into contact, they form a resonant field. This field is not metaphorical: it represents the psychological and neuro-emotional overlap between two individuals whose active facets partially coincide. At the level of experience, this manifests as instant understanding, attraction, or deep connection — the moment when another person seems to ‘speak the same inner language.’

Each K16 parameter can either amplify or compensate for its counterpart in another person. For example:

- A person with highly developed empathic facets (6–9) may feel intense resonance with someone whose corresponding facets (4–6) are still developing but responsive.
- Conversely, an individual high in control (8–9) may feel tension or defensive withdrawal when meeting someone equally dominant in the same domain.

This explains why emotional connection is rarely symmetrical — resonance occurs not through perfect similarity, but through partial overlap between different emotional geometries. Each interaction activates a temporary shared configuration: a zone of intersection between two circles, where emotional energy flows freely and predictably.

Mathematically, this can be represented as the intersection of two sets of active facets:

$R = A \cap B$, where R is the resonant field, and A, B are the sets of active facets for each parameter within the K16 system.

In this overlap, the shared emotional frequencies reinforce each other, producing a sense of intimacy or belonging. Yet the same mechanism explains emotional fixation and dependency: when resonance persists beyond actual contact, the individual's internal circle continues to 'vibrate' in the absent partner's pattern.

The mechanism of affective resonance therefore offers an alternative to purely biochemical explanations of attachment. While neurochemistry (dopamine, oxytocin, cortisol) modulates short-term bonding, K16 describes the structural compatibility that determines how stable and intense that bond becomes over time. It is not chemistry that decides who we love, but geometry — the way our emotional circles partially coincide.

In mature individuals, resonance is balanced: it enriches both circles without erasing their borders. In dependent or traumatic dynamics, the resonance becomes asymmetric — one circle expands toward another, absorbing its structure and losing its center. Thus, emotional health within the K16 framework depends on maintaining a clear boundary of self while allowing resonance to occur.

5. Applications and Implications

The K16 model and its circular representation open possibilities across multiple fields — from psychotherapy to affective computing — by translating emotional phenomena into an observable structure.

5.1 Psychotherapy and Emotional Self-Observation

In psychotherapy, the K16 Circle serves as a tool for mapping an individual's emotional configuration. It allows both therapist and client to identify which parameters are dominant, which remain inactive, and where resonance or conflict emerges within the self. Unlike traditional diagnostic systems that isolate symptoms, the K16 framework encourages systemic observation — understanding how emotions coexist and balance one another.

By tracing which facets are overactivated (for instance, high anxiety paired with suppressed self-worth), practitioners can visualize the geometry of imbalance and work toward restoring symmetry within the circle. This visual approach facilitates dialogue: the client begins to see themselves not as 'broken,' but as a temporarily disarranged structure capable of reorganization.

5.2 Relationship and Attachment Studies

Each individual in the K16 model is described by a unique combination of emotional facets — the forms of perception and reaction that are currently active. When two people interact, their active facets partially coincide, creating what is called a *resonant field*. This field defines how strongly and in what direction the emotional connection will develop.

For each person, the resonance coefficient (K) is calculated separately. It shows what part of one's emotional structure has found reflection in the other. The value is obtained by dividing the number of matching active facets by the total number of active facets in the partner's system.

For example, if one person uses eight active facets in communication and another uses six, and they share three matching facets, then:

- for the first person, the coefficient is three divided by six (0.5);
- for the second person, it is three divided by eight (0.37).

In this case, the first person experiences about fifty percent resonance — partial emotional completion — while the second experiences only thirty-seven percent and therefore feels stronger attraction and dependence.

The closer the coefficient is to one, the more calm and complete the person feels — emotional needs are fulfilled, and curiosity fades. The closer it is to zero, the greater the feeling of emptiness and the stronger the drive to seek completion in another person.

Thus, love is asymmetric by nature: one feels balance and peace (K close to 1), while the other feels longing and dependence (K close to 0). In relationships between identical twins or between parent and child, coefficients often approach one — total emotional inclusion, where individuality disappears. In adult romantic bonds, such total overlap marks the boundary where healthy connection turns into fusion and loss of self.

5.3 Affective Neuroscience

For neuroscientists, the model offers a theoretical bridge between neural activation patterns and emotional behavior. If each facet corresponds to a distinct neural network or activation cluster, the circle provides a holistic map of how emotional patterns interact, inhibit, or reinforce each other. This could inform studies on neural coupling, empathy, and mirror systems, giving them a structural psychological context rather than treating each as an isolated mechanism.

5.4 Artificial Intelligence and Human–Machine Interaction

In AI and human–machine design, the K16 Circle could inform the development of affective algorithms capable of simulating emotional resonance. A system trained to recognize emotional facets — not only intensity but diversity of expression — could respond in more human-like ways, adjusting tone, rhythm, and empathy level dynamically. Such a model could also prevent emotional bias in AI systems by maintaining a balanced distribution of emotional parameters — a digital reflection of the circle’s principle of equality.

5.5 Philosophical and Ethical Dimension

Beyond applications, the K16 Circle carries a philosophical message: harmony is inclusion, not exclusion. Maturity does not mean mastering or silencing one’s emotions, but giving each a place within a stable whole. In this sense, the circle becomes not only a psychological model but an ethical paradigm — an invitation to perceive oneself and others through equality, resonance, and awareness of shared imperfection.

6. Conclusion

The K16 Circle represents more than a theoretical construct — it is a shift in how we perceive the architecture of the human mind. By viewing personality not as a hierarchy of traits but as a balanced system of equal emotional facets, the model restores dignity to all aspects of human experience, even those traditionally labeled as ‘negative.’

Within this framework, harmony is not achieved by eliminating conflict but by recognizing it as a natural part of the circle’s movement. Each emotion — fear, anger, doubt, tenderness, or desire — becomes a necessary coordinate of inner geometry, contributing to the organism’s overall stability.

The transition from a line to a circle symbolizes the transition from comparison to comprehension, from measurement to meaning. In the linear view, individuals are ranked; in the circular view, they coexist. This equality of emotional states not only describes psychological maturity but also defines ethical maturity — the capacity to allow diversity within the self and empathy toward others.

The K16 model invites psychology to look beyond fragmentation and pathology toward integration and resonance. It reimagines the human being as an open, vibrating system — unique, finite, yet infinitely capable of connection. And perhaps, within that circular motion, we find not perfection, but the quiet rhythm of inner peace.

References

1. Iablonovskaia, S. (2025). Hypothesis of the Neuro-Emotional Code of Personality and Mechanism of Affective Resonance in Romantic Relationships. Zenodo. <https://doi.org/10.5281/zenodo.17395405>
2. Iablonovskaia, S. (2025). The Individual as a K16 Circle: Equality of Facets and Inner Dynamics of Personality. Zenodo. <https://doi.org/10.5281/zenodo.17210238>
3. Iablonovskaia, S. (2025). The Study of the Neuro-Emotional Code of Personality (K16) and Mechanism of Affective Resonance. Zenodo. <https://doi.org/10.5281/zenodo.17210086>
4. Iablonovskaia, S. (2024). Tables of Personality Facets of the K16 Model. Zenodo. <https://doi.org/10.5281/zenodo.15396560>
5. Iablonovskaia, S. (2024). Emotional Geometry and the Circle of the Individual: K16 Framework. Zenodo. <https://doi.org/10.5281/zenodo.15379003>