A Mathematical Theory of Human Energy

Toward a Unified Model of Psychological Vitality, Addiction, Attachment, and Human Motivation

Viktoriya Kurbatova

A conceptual interdisciplinary framework • October 2026

Abstract

This paper proposes a conceptual mathematical framework describing human psychological energy as a dynamic system generated through interaction with twelve primary life resources. The model treats emotional vitality, motivation, resilience, creativity, and attachment as measurable outputs of an internal energy economy governed by reinforcement, depletion, investment, and decay.

The theory divides human energy sources into two categories:

1. Individual Sources — internally cultivated and stability-producing.
2. Social Sources — externally interactive and potentially addictive.

The framework explains:

burnout; emotional dependency; addiction; depression; relationship instability; motivational collapse; attachment formation; and long-term flourishing.

through a unified energetic model analogous to economics, thermodynamics, and portfolio theory.

Conceptual Background

The resource perspective discussed in this paper is informed by Marina Komissarova's public writing under the name evo_lutio in her Evolution blog. In her post on core resources, she discusses image, family, love, and work as complementary areas of personal development (Komissarova, 2015). Her blog is cited here as a conceptual influence and a nonacademic source, rather than as empirical validation of the mathematical equations proposed in this paper. Konstantin Dobrev's book on the architecture of the human being within a Tarot-based symbolic system is also acknowledged as a philosophical and interpretive point of comparison (Dobrev, n.d.). Its symbolic structure is not presented as

scientific evidence for the twelve-resource model or its equations. The present framework is a distinct, testable mathematical proposal rather than a validation of either source.

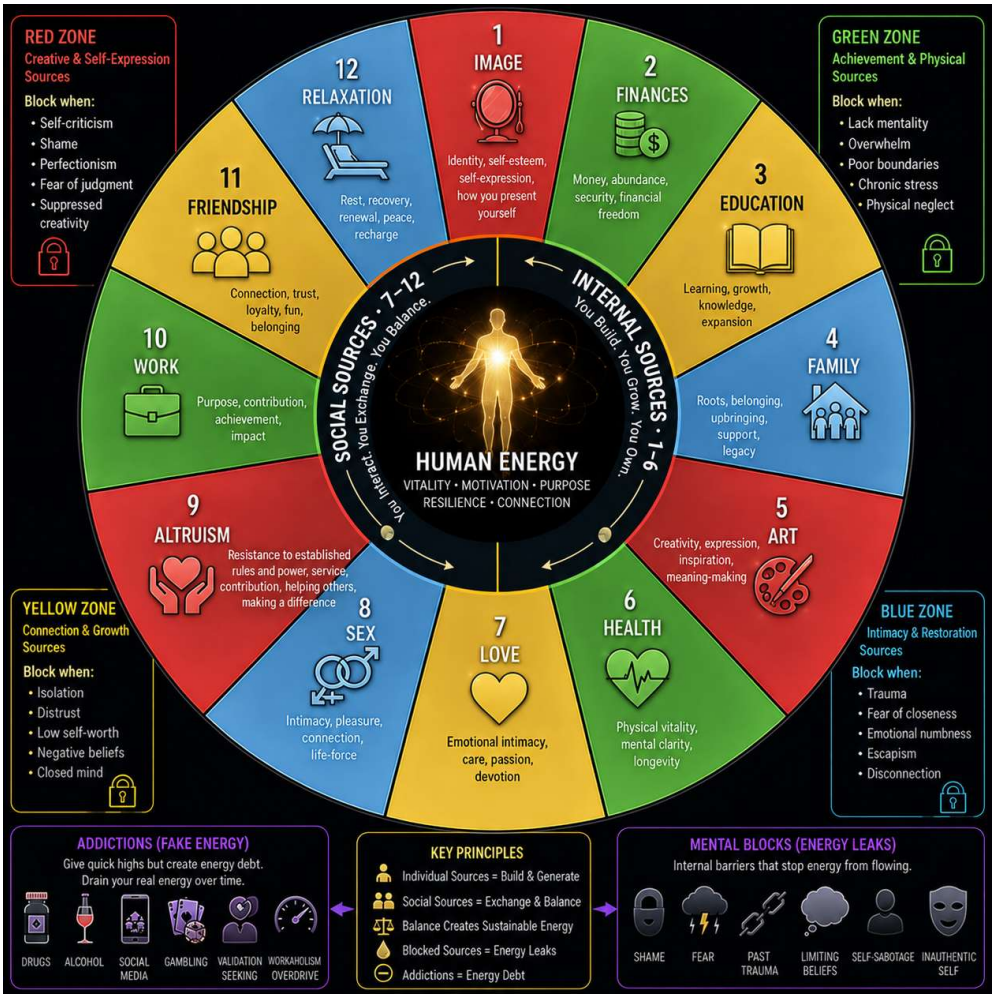
1. Fundamental Premise

The human brain continuously converts experience into psychological energy. Psychological energy is defined as: The capacity of a human being to initiate action, sustain motivation, experience vitality, regulate emotion, create meaning, and pursue long-term goals. This energy is neither purely emotional nor purely biological.

It emerges from: neurochemical reward; cognitive meaning; social reinforcement; physical condition; identity coherence; and perceived existential progress.

2. The Twelve Energy Sources

Human energy is generated through twelve primary resources:



Individual Sources	Social Sources
Image	Love
Finances	Sex
Education	Volunteering
Family	Work
Art	Friendship
Health	Relaxation

3. Classification of Sources

3.1 Individual Sources

The first six sources are internally anchored.

They generate: stability; self-worth; resilience; identity coherence; sustainable motivation.

These sources are self-cultivated.

Definition

Let:

$$I = \{I_1, I_2, \ldots, I_6\}$$

where:

$$I = \{\text{Image,Finances,Education,Family,Art,Health}\}$$

These sources produce slow, stable, compounding energy.

3.2 Social Sources

The second six sources are socially interactive.

They generate:

stimulation; emotional intensity; novelty; reinforcement; external validation.

Definition

$$S = \{S_1, S_2, \ldots, S_6\}$$

where:

$$S = \{\text{Love,Sex,Volunteering,Work,Friendship,Relaxation}\}$$

These sources generate rapid emotional energy but possess addictive potential.

4. Total Human Energy Function

Define total psychological energy at time t:

$$E(t)$$

The total energy system is:

$$E(t) = \sum_{i=1}^{6} w_i \, I_i(t) + \sum_{j=1}^{6} v_j \, S_j(t) - D(t) - B(t)$$

Where:

- w_i= weighting coefficients of internal sources
- v_j= weighting coefficients of social sources
- $D(t)$= accumulated energy debt
- $B(t)$= blocked-source penalty function

5. Energy Generation Principle

Principle 1 — Constructive Effort Generates Energy

Energy is generated when:

effort; growth; meaning; connection; risk; and achievement.

are aligned.

Formally

$$\frac{dE}{dt} > 0$$

when activities increase:

competence; autonomy; identity coherence; emotional connection; or biological health.

6. Blocked Source Theory

A blocked source cannot efficiently produce energy.

Examples:

shame blocks Image; debt blocks Finances; trauma blocks Family; illness blocks Health; isolation blocks Friendship.

6.1 Blocked Source Function

For each source:

$$0 \leq b_i \leq 1$$

where:

- $b_i = 0 \rightarrow$ fully functional
- $b_i = 1 \rightarrow$ fully blocked

Then effective source value becomes:

$$I_i^{eff}(t) = I_i(t)(1 - b_i)$$

and similarly for social sources.

7. Addiction Theory

Fundamental Claim

Addiction is artificial energy extraction without proportional internal generation.

The addicted brain receives reward signals disconnected from meaningful construction.

7.1 Artificial Energy Injection

Define artificial stimulation:

$$A(t)$$

Examples:

drugs; alcohol; compulsive sex; gambling; social media; validation addiction; workaholism.

Short-term:

$$\frac{dE}{dt} > 0$$

Long-term:

$$\frac{d^2E}{dt^2} < 0$$

because artificial stimulation creates energy debt.

7.2 Energy Debt Function

Energy debt accumulates through repeated artificial stimulation:

$$D(t) = \int_0^t \gamma A(\tau) d\tau$$

Where:

- γ= debt accumulation coefficient

Consequences:

reduced motivation; emotional numbness; tolerance; dependence; burnout; depression.

8. Relationship Energy Dynamics

Humans exchange energy socially.

Relationships become stable when:

both partners produce internal energy; and exchange social energy symmetrically.

8.1 Attraction Vector Model

Each partner possesses:

attraction vector; withdrawal vector.

Define:

$$a_i(t)$$

Positive attraction:

desire for closeness; emotional investment; bonding.

Define:

$$p_i(t)$$

Withdrawal:

avoidance; emotional distancing; exhaustion; resentment.

8.2 Stability Condition

Relationship stability exists when:

$$a_1 + a_2 > p_1 + p_2$$

Instability emerges when withdrawal exceeds attraction.

9. Emotional Extraction Principle

One of the most destructive dynamics occurs when one partner attempts to forcibly extract:

validation; commitment; affection; reassurance; sex; emotional labor.

from another partner.

This creates energetic asymmetry.

9.1 Extraction Equation

Define extraction pressure:

$$X(t)$$

Then partner depletion becomes:

$$\frac{dE_2}{dt} = -\lambda X(t)$$

Where:

- λ= emotional depletion sensitivity.

Over time:

resentment rises; attraction decays; avoidance behaviors emerge.

10. Time and Attachment

Attachment strengthens through repeated emotional reinforcement over time.

10.1 Attachment Accumulation

Let attachment be:

$$A_t$$

Then:

$$A_t = \int_0^t R(\tau)\, e^{-k(t-\tau)} d\tau$$

Where:

- $R(\tau)$= emotional reinforcement events
- k= memory decay coefficient.

Thus:

repeated closeness strengthens attachment; but memories gradually decay without reinforcement.

11. Young vs Older Brains

Younger brains: possess higher neuroplasticity; stronger novelty response; faster attachment formation.

Thus:

$$\frac{dA_t}{dt} \propto N$$

Where:

- N= neuroplasticity coefficient.

Older individuals:

form attachment more slowly; but may reactivate existing emotional pathways.

12. Burnout

Burnout occurs when:

- social output exceeds internal regeneration.

Burnout Condition

$$\sum S_{out} > \sum I_{regen}$$

Symptoms:

emotional exhaustion; cynicism; numbness; motivational collapse.

13. Relaxation Paradox

Relaxation restores energy only after meaningful expenditure.

Unearned relaxation becomes sedation.

Relaxation Function

Healthy relaxation:

$$R_h(t)$$

Sedative relaxation:

$$R_s(t)$$

Net effect:

$$\Delta E = R_h(t) - R_s(t)$$

When sedation dominates:

initiative decays; motivation weakens; learned helplessness increases.

14. Portfolio Theory of Life

Human beings continuously allocate time; attention; emotional capital; physical effort. across energy-producing assets. Healthy lives resemble diversified portfolios.

Toxic lives resemble leveraged debt structures.

15. Psychological State and Personal Change

A person in a high-energy state can be: — loving— sexual— generous— ambitious— creative — caring— strong.

The very same person in a depleted state can become: — cold— irritable—lazy—anxious— avoidant— depressant—emotionally numb. People around them often say: “He changed.”

But sometimes the person didn’t fundamentally change as a human being — their energy system collapsed. That’s why you cannot judge someone based on only one chapter of their life.

A person in depression may look completely lost, weak, or uninspiring. Then a year later — after love, movement, meaning, health, purpose, friendship, or creativity return — they become charismatic, alive, motivated, and full of light again.

And the opposite is true too: you can meet someone who looks successful, attractive, wealthy, and functional — while internally they are almost empty. The system is just surviving on old reserves.

I think this is one of the most important ideas: Human beings are not static objects. Human beings are dynamic systems.

16. Reactivation Across Energy Sources

Another important principle is that energy from one source can reactivate the others.

Human energy systems are interconnected, not isolated.

For example, when a person falls in love, their overall energy level often rises dramatically. And suddenly, without anyone forcing them, they begin changing multiple areas of life at once.

They want to: look better— lose weight— take care of their health— buy better clothes— improve their home— go dancing— travel— create things— make plans for the future.

Why does this happen?

Because a powerful source — in this case Love — starts activating the brain’s broader motivational system.

The brain begins to feel: “Life matters again.” “There is a reason to invest energy into myself.” “There is a future worth building.”

And once that happens, a chain reaction begins. One active source starts illuminating the others. Energy begins spreading across the system.

Love improves Image. Image improves Sex. Health improves Confidence. Confidence improves Work. Work improves Finances. Finances reduce stress. Reduced stress restores motivation and creativity. The system starts reinforcing itself upward.

That's why love can sometimes physically transform a person. Not because of magic — but because the brain once again sees meaning, reward, and future potential in life. The opposite process also exists.

When a person loses a major source — especially Love or Work — the entire system can begin collapsing.

They stop taking care of themselves. Motivation disappears. The house becomes messy. Health declines. They isolate socially. Even previously enjoyable activities lose emotional color. From the outside it may look like laziness or personality change. But internally, the motivational network is shutting down source by source.

That is why human beings cannot be understood as separate independent traits. We are interconnected energetic systems, where strength in one domain can heal another — and collapse in one domain can spread through the entire structure.

17. Energy Exchange Between People

Another important idea is that humans exchange energy between sources.

When we spend time with someone who has a deeply developed source — like Love, Education, Art, Health, or Work — we temporarily receive energy from that source too.

A person who genuinely loves life can make you feel alive again. A deeply educated person can awaken curiosity in your own brain. A creative person can reignite your imagination. A healthy, disciplined person can pull you out of stagnation. A loving person can make you feel worthy of love again.

It's almost like emotional resonance. One nervous system influences another. Like using one flame to light another candle. Or, more bluntly — like using someone else's fire to light your cigarette.

That's why environment matters so much. People absorb the energetic state of those around them.

You can literally watch motivation spread through a room: one inspired person starts moving, creating, laughing, building — and suddenly everyone around them becomes more alive too.

And the opposite is true: chronic negativity, hopelessness, addiction, cynicism, emotional chaos — those states spread socially as well.

Humans are not closed systems. We are energetic ecosystems constantly influencing one another.

18. Final Principle

Sustainable human flourishing requires: Strong internal generators; Balanced social reinforcement; Controlled stimulation; Limited artificial extraction; Meaningful effort; Emotional reciprocity; Long-term identity coherence.

Conclusion

This theory proposes that: human vitality behaves like an energetic economy; addiction resembles debt financing; relationships function as energy exchange systems; attachment follows reinforcement dynamics; and flourishing emerges through balanced internal and social investment.

The central thesis is:

Human beings collapse not because they lack pleasure, but because they stop generating energy internally and become dependent on external stimulation.

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