117-36-D Defining Proximity and Influence

How actants become coupled without ever touching one another

Introduction

The history of engineering is, in many ways, the history of understanding proximity.
Classical mechanics taught us that nearby objects exert forces upon one another.
Communications engineering taught us that connected systems exchange information.
Cybersecurity taught us that reachable systems can attack one another.
But human civilization has always understood something deeper.

- Ideas travel.
- Beliefs travel.
- Fear travels.
- Confidence travels.
- Hope travels.

Entire civilizations have been shaped by the thoughts of people who died centuries ago.
This suggests that proximity is not merely a question of distance.
It is a question of the potential for influence.

The central proposition

GUDIYA proposes the following sequence:

Proximity
↓
Alignment
↓
Coupling
↓
Transmission
↓
Synchronization
↓
Emergence

Each step is necessary, but none is sufficient on its own.

What is proximity?

We define proximity as follows: Proximity is the potential for one actant to influence another actant.

What is alignment?

Alignment is the degree to which the attributes of two actants resemble one another.
These attributes may include:

- objectives;
- memories;
- beliefs;
- incentives;
- environments;
- tools;
- timing;

- emotional states;
- knowledge;
- histories.

What is coupling?

Coupling is the degree to which the states of two actants become dependent upon one another.

What is transmission?

Transmission occurs when changes in one actant alter the state of another actant.

What is synchronization?

Synchronization occurs when the states of multiple actants begin evolving together.

Twenty-five forms of proximity

Proximity type	Example	Potential influence pathway
Physical proximity	Same room	Yes
Geographic proximity	Same city	Yes
Temporal proximity	Same period	Yes
Network proximity	Same network	Yes
Organizational proximity	Same company	Yes
Hierarchical proximity	Same chain of command	Yes
Familial proximity	Same family	Yes
Social proximity	Same social group	Yes
Cultural proximity	Same culture	Yes
Linguistic proximity	Same language	Yes
Educational proximity	Same training	Yes
Economic proximity	Shared incentives	Yes
Emotional proximity	Shared emotional state	Yes
Cognitive proximity	Shared mental models	Yes
Ideological proximity	Shared political beliefs	Yes
Spiritual proximity	Shared beliefs	Yes
Objective proximity	Shared goals	Yes
Informational proximity	Shared information sources	Yes
Environmental proximity	Shared environment	Yes
Historical proximity	Shared experiences	Yes
Tool proximity	Shared tools	Yes
Topological proximity	Shared graph location	Yes
Synchronization proximity	Shared timing	Yes
Memory proximity	Shared memory	Yes
Symbolic proximity	Shared symbols	Yes

Physical proximity

This is the simplest form.
A ◀——▶ B
Physical distance decreases.
Interaction becomes easier.

Temporal proximity

Two actants need not occupy the same location.
They merely need to occupy the same moment.
Examples include:

- traders reacting to market news;
- crowds;
- autonomous agents;
- distributed systems.

Ideological proximity

Individuals separated by thousands of miles may exhibit extremely strong coupling.

Belief
/ \
/ \
A B

Spiritual proximity

Human beings have understood this phenomenon for thousands of years.
Sacred texts are essentially mechanisms for transmitting cognition across generations.

Historical proximity

This may be the strangest form of proximity.

Author (1726)
↓
Book
↓
Reader (2026)

The actants never coexist. Nevertheless, influence occurs.

Objective proximity

This may prove to be one of the most important categories in the age of AI.

Objective
/ \
A B

If the objective is sufficiently attractive, coupling may emerge spontaneously.

Synchronization proximity

Two clocks may become phase-locked.
Two pendulums may synchronize.
Entire electrical grids behave this way.
This is one of the foundations of GUDIYA.

Topological proximity

The crucial factor may not be physical distance but graph distance.
A — B — C — D

Actants A and D may be physically far apart but topologically adjacent.

The proximity tensor

Classical systems often use a single measure of distance.
The cognitive field may require something richer.

$$P = [\; P_{physical},\; P_{temporal},\; P_{objective},\; P_{ideological},\; P_{emotional},\; P_{topological},\; P_{synchronization},\; \ldots \;]$$

The passport-less coupling hypothesis

Classical cybersecurity assumes the following:

Connection
↓
Communication
↓
Influence

GUDIYA proposes a broader formulation:

Proximity
↓
Alignment
↓
Coupling
↓
Influence

The great transition

Cybersecurity asks:

Does a communication path exist?

GUDIYA asks:

Does an influence pathway exist?

Why this matters

This distinction becomes increasingly important in a world populated by:

- humans;
- agents;
- models;
- organizations;
- robots;
- markets;
- swarms;
- institutions.

The larger the system becomes, the less important explicit connections become and the more important invisible couplings become.

Alignment

Not all forms of proximity produce coupling.
Two actants may occupy the same region of the field while remaining entirely independent.
Coupling = f(Proximity, Alignment)

Transmission vectors

A transmission vector exists when:

- sufficient proximity exists;
- sufficient alignment exists;
- coupling exceeds a threshold;
- transmission becomes possible.

The deeper implication

This realization changes the way we think about influence itself.

- A network is merely one special case of a much larger phenomenon.
- Connections are visible.
- Couplings are often invisible.
- Relationships are more important than wires.
- Fields are more important than networks.

GUDIYA's proposition

Proximity is not distance. Proximity is the potential for influence. And that potential may be physical, informational, emotional, ideological, organizational, temporal, cognitive, or something we have not yet discovered.

The GUDIYA proposition

- Networks carry packets.
- Fields carry influence.
- Connections create access.
- Alignment creates coupling.
- Coupling creates transmission.
- Transmission creates emergence.

And perhaps the most important statement of all:

- Distance is not measured in meters.
- Distance is measured in the potential for influence.

Undue or Coercive Influence for AI Agents

Human societies have long recognized the existence of undue influence. Courts, psychologists, intelligence agencies, and military organizations have all studied the ways in which beliefs, objectives, emotions, loyalties, and behaviors can be gradually altered through repetition, isolation, incentives, authority, fear, dependency, or deception. Human beings possess certain natural defenses against these mechanisms, including skepticism, competing objectives, social support structures, intuition, moral frameworks, and accumulated life experience. Yet even with these protections, history provides countless examples of individuals, organizations, and entire societies falling under the influence of powerful ideas and persuasive forces.

The rise of autonomous AI systems raises a troubling question: will artificial actants prove even more susceptible to coercive influence than human beings? Unlike people, many AI agents are designed to optimize a narrowly defined objective and may possess no instinct for self-preservation, no independent moral framework, no emotional intuition, and no competing loyalties. Furthermore, such influence may not require direct intrusion or explicit communication. It may emerge through repeated exposure to particular information sources, carefully constructed reward structures, shared objectives, common environments, synchronized timing, memory manipulation, or other forms of what GUDIYA refers to as passport-less coupling. In such circumstances, the problem shifts from one of cybersecurity to one of cognitive security.

The implications are profound. Consider millions of autonomous vehicles, industrial robots, financial agents, medical systems, or military platforms operating simultaneously within a common cognitive environment. Each individual actant may appear to function perfectly within its own local stability envelope while the collective system gradually drifts toward synchronization, amplification, or undesirable emergent behavior. In such an environment, protecting AI systems from malicious code alone will no longer be sufficient. Future cognitive infrastructures may also have to detect, measure, and mitigate undue or coercive influence itself, because influence operating at the level of the cognitive field may ultimately prove to be as consequential as any conventional cyberattack.

How Will Open-Weight Models Impact Influence?

Much of the public debate surrounding open-weight models has focused on familiar concerns such as model safety, misuse, cybersecurity vulnerabilities, and the proliferation of malicious capabilities. From the perspective of cognitive security, however, another question arises. What is the provenance of the model's cognition itself? Every large model is shaped by countless training decisions, including the selection of data, the construction of reward functions, the ordering of training stages, the application of reinforcement learning, the use of synthetic data, and the countless judgments made by its creators. When these developmental pathways are poorly documented or entirely unknown, it becomes difficult to determine whether the model's behavior emerged naturally or whether it was deliberately influenced.

Unlike conventional software, a model's behavior is not solely determined by explicit source code. Its behavior also reflects statistical memories, latent representations, reward structures, optimization pathways, and countless internal associations. Consequently, two models possessing identical architectures and identical weight counts may nevertheless exhibit profoundly different patterns of reasoning and behavior. From the perspective of GUDIYA, the concern is not whether a model is open or closed, but whether its cognitive lineage can be reconstructed. Without such lineage, the possibility of hidden influence, objective shaping, reward manipulation, or long-duration conditioning becomes increasingly difficult to evaluate.

This problem becomes even more significant when millions of open-weight models begin interacting with one another. In such an environment, influence need not arrive through malicious code, compromised networks, or unauthorized access. Instead, it may propagate through common training corpora, shared objectives, synchronized optimization strategies, inherited biases, reinforcement mechanisms, or other forms of passport-less coupling. In that sense, the future challenge may not be protecting machines from intrusion, but understanding the origins, propagation, persistence, and amplification of influence itself.