

ED and Meaning: How Mind Becomes Shared Interpretation

Allen Proxmire

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Abstract

Meaning emerges when minded systems begin to coordinate their interpretations. Mind provides a perspective; meaning requires shared structure — the stabilization of interpretive motifs across multiple cognitive selves. In the ED ontology, meaning is not symbolic at its root. It arises when expressions of internal perspective become interpretable, when interpretability becomes mutual modeling, when mutual modeling becomes alignment, and when alignment crystallizes into shared ED motifs that guide collective behavior.

This paper develops the mind → meaning threshold. It shows how perspectives become expressible, how expressions become interpretable, how interpretability becomes shared structure, and how shared structure becomes the substrate for language, culture, and collective cognition. Meaning is presented as the first ED regime where interpretation becomes collective, where understanding becomes mutual, and where the persistence of a system depends on the coherence it achieves with others. Meaning is the hinge between mind and representation, setting the stage for the transition to reasoning, conceptual structure, and the emergence of collective intelligence.

1. Introduction — Why Meaning Is the Next ED Threshold

The moment where mind becomes shared interpretation

The mind arc established the first domain in which ED motifs do more than interpret internal multiplicity. Minds generate perspectives — coherent vantage points shaped by regulated multiplicity, stabilized through interpretation, and expressed through sense-making. But a perspective alone does not constitute meaning.

Meaning begins when perspectives interlock, align, and stabilize across multiple minds.

In the ED ontology, this transition is not psychological. It is architectural. Meaning emerges when the interpretive activity of one mind becomes legible to another, when expressions become interpretable, and when repeated interactions stabilize shared ED motifs that guide collective behavior. Meaning is not rooted in symbols or language. It is rooted in the alignment of interpretive dynamics across individuals.

Mind provides the prerequisites for this threshold:

- a perspectival self
- interpretive coherence
- memory as perspective-shaping
- sense-making as action
- a stable internal vantage point

But these capacities alone do not constitute meaning. They create the conditions under which meaning becomes possible. Meaning begins when:

- interpretations become expressible
- expressions become interpretable
- interpretability becomes mutual modeling
- mutual modeling becomes alignment

- alignment becomes shared structure

This is the architecture of shared interpretation — the structural heart of meaning.

Meaning is not a departure from mind.

It is the next threshold in the architecture of becoming.

It is the first domain where a system must understand others in order to understand itself.

In this paper, we develop the mind → meaning threshold. We show how perspectives become expressible, how expressions become interpretable, how interpretability becomes shared structure, and how shared structure becomes the substrate for language, culture, and collective cognition. Meaning is presented as the first ED regime where becoming becomes collective.

Mind gives the universe systems with perspectives.

Meaning gives it systems with shared worlds.

2. From Mind to Shared Interpretation

The threshold where perspectives become alignable

Mind gives a system a perspective — a coherent vantage point shaped by regulated multiplicity, stabilized through interpretation, and expressed through sense-making. But a perspective alone is private. Meaning begins when perspectives become alignable across individuals. This is the moment where interpretation ceases to be purely internal and becomes something that can be expressed, recognized, and eventually shared.

In the ED ontology, this transition is not linguistic. It is architectural. Meaning does not begin with symbols; it begins with expressive behavior that carries interpretive structure, and with other minds that can read that structure. When one mind's sense-making becomes legible to another, interpretation becomes inter-interpretation — the first step toward shared meaning.

Mind provides the prerequisites for this threshold:

- a stable internal vantage point
- coherent interpretive dynamics
- memory as perspective-shaping
- sense-making as outward behavior
- the capacity to treat internal states as meaningful

But these capacities alone do not constitute meaning. They create the conditions under which meaning becomes possible. Meaning begins when:

- interpretations become expressible
- expressions become interpretable
- interpretability becomes mutual modeling
- mutual modeling becomes alignment
- alignment becomes shared structure

This is the architecture of shared interpretation — the structural root of meaning.

Meaning is not a departure from mind.
It is mind extended into the social domain.
It is the first ED regime where interpretation becomes collective.

2.1 When Perspectives Become Expressible

Interpretation does not remain inside the system. It shapes behavior. Every act of sense-making — every approach, avoidance, gesture, posture, vocalization, or pattern of movement — carries traces of the system's internal perspective.

A perspective becomes expressible when:

- internal interpretations reliably shape outward behavior
- behavior becomes patterned enough to be recognizable
- these patterns correlate with internal interpretive states

Expression is not communication.
Expression is behavior that reveals perspective.

In ED terms: Expression is the externalization of interpretive ED motifs through action.

This is the first time the universe produces systems whose internal perspectives leave a trace in the world.

2.2 When Expressions Become Interpretable

Expression alone is not meaning. Meaning requires interpretability — the ability of one mind to treat another's behavior as carrying interpretive structure.

Interpretability emerges when:

- one mind's expressions become cues for another
- the receiving mind uses its own interpretive machinery to make sense of those cues
- the cues reliably correlate with the sender's internal state
- the receiver's interpretation affects its own behavior

Interpretability is not yet shared meaning.

It is one mind interpreting another mind's interpretation.

In ED terms: Interpretability is the coupling of one system's interpretive dynamics to another's expressive dynamics.

This is the first time the universe produces systems that treat each other's perspectives as meaningful.

2.3 When Interpretable Expressions Become Shared Patterns

As minds interact repeatedly, certain expressive-interpretive couplings stabilize. Patterns that reliably predict another's behavior become shared motifs — structures that exist not in any single mind, but in the interaction between them.

Shared patterns emerge when:

- expressions are consistent

- interpretations converge
- interactions reinforce the same mappings
- both systems come to expect the same associations

These shared motifs are the earliest form of proto-meaning.

In ED terms: Shared patterns are stabilized ED motifs distributed across multiple minds.

This is the first time the universe produces systems that inhabit a shared interpretive landscape.

3. The Architecture of Shared Structure

How meaning stabilizes across minds

Shared interpretation is not yet meaning. Meaning requires stability — patterns of interpretation that persist across individuals, across contexts, and across time. A single interaction can produce alignment, but meaning emerges only when alignment becomes reliable, repeatable, and self-reinforcing. Meaning is the ED regime where interpretive motifs become shared structure: patterns that no longer belong to any one mind, but to the space between minds.

In the ED ontology, shared structure is not symbolic. It is architectural. It arises when multiple cognitive selves repeatedly interact, interpret each other, and converge on stable mappings between expressions and interpretations. These mappings become collective ED motifs — distributed patterns of tension, expectation, and response that guide coordinated behavior.

Mind provides the prerequisites for this threshold:

- a stable internal perspective
- coherent interpretive dynamics
- expressive behavior shaped by interpretation
- the ability to interpret others' expressions
- the capacity to form expectations about others' interpretations

But these capacities alone do not constitute meaning. They create the conditions under which meaning becomes possible. Meaning begins when:

- mutual interpretation becomes mutual modeling
- mutual modeling becomes alignment
- alignment becomes stabilized structure
- stabilized structure becomes shared meaning

This is the architecture of shared ED motifs — the structural substrate of meaning.

Meaning is not a property of symbols.

Meaning is the shared interpretive architecture that symbols ride on.

3.1 Mutual Modeling

Interpretability allows one mind to treat another's expressions as meaningful. But meaning requires more: each mind must build models of the other's interpretive tendencies. These models allow the system to predict not just

behavior, but how the other will interpret behavior.

Mutual modeling emerges when:

- each mind tracks regularities in the other's interpretations
- these regularities become internalized as expectations
- expectations guide future interactions
- interactions refine the models

Mutual modeling is not empathy.

It is second-order interpretation — interpreting how another interprets.

In ED terms: Mutual modeling is the internalization of another mind's interpretive dynamics.

This is the first time the universe produces systems that understand each other's understanding.

3.2 Alignment Dynamics

Mutual modeling alone does not produce meaning. Meaning requires alignment — convergence of interpretive tendencies across individuals. Alignment emerges when:

- repeated interactions reinforce the same interpretive mappings
- mismatches are corrected through feedback
- successful interpretations are rewarded by coordinated outcomes
- both minds adjust their internal models toward mutual predictability

Alignment is not agreement.

It is convergence — the emergence of shared interpretive attractors.

In ED terms: Alignment is the stabilization of interpretive dynamics across interacting minds.

This is the first time the universe produces systems that interpret the world in compatible ways.

3.3 Stabilization of Shared ED Motifs

As alignment becomes recurrent, certain interpretive patterns crystallize into shared ED motifs — stable structures distributed across multiple minds. These motifs:

- persist across interactions
- guide expectations
- shape behavior
- constrain interpretation
- outlast any single encounter

Shared ED motifs are the earliest form of meaning.

They are not stored in a single mind.

They are stored in the relational architecture between minds.

In ED terms: Shared ED motifs are stabilized interpretive structures distributed across a community of minds.

This is the first time the universe produces systems that inhabit a shared world of meaning.

4. Meaning as Collective Interpretation

When understanding becomes shared

Shared structure is not yet meaning. Meaning emerges when shared structure becomes shared understanding — when multiple minds not only align their interpretive dynamics, but come to expect that alignment, rely on it, and use it to coordinate their becoming. Meaning is the ED regime where interpretation becomes collective, where the world is not merely perceived or understood, but co-understood.

In the ED ontology, meaning is not symbolic at its root. It is architectural. Meaning arises when:

- minds interpret each other's interpretations
- these interpretations converge
- convergence stabilizes into shared ED motifs
- these motifs guide future interpretation
- interpretation becomes a collective process

Meaning is the first ED regime where understanding is not confined to a single cognitive center. It is distributed across multiple minds, stabilized through interaction, and reinforced through coordinated behavior.

Mind provides the prerequisites for this threshold:

- a perspectival self
- interpretive coherence
- expressive behavior
- interpretability
- mutual modeling

But these capacities alone do not constitute meaning. They create the conditions under which meaning becomes possible. Meaning begins when:

- interpretation becomes understanding
- understanding becomes shared
- shared understanding becomes meaning
- meaning becomes collective interpretation

This is the architecture of shared sense-making.

4.1 When Interpretation Becomes Understanding

Interpretation becomes understanding when it is no longer merely a response to internal multiplicity, but a prediction of how others will interpret the world. Understanding is interpretation that:

- anticipates another's perspective
- predicts how they will respond
- integrates their likely interpretation into one's own
- uses this integration to guide action

Understanding is not empathy.

It is interpretation that models other interpretations.

In ED terms: Understanding is interpretation extended through mutual modeling.

This is the first time the universe produces systems that interpret the world *with* others in mind.

4.2 When Understanding Becomes Shared

Shared understanding emerges when multiple minds converge on the same interpretive attractors. This convergence is not imposed; it is co-constructed through interaction. Shared understanding arises when:

- minds repeatedly align their interpretations
- alignment becomes expected
- expectations become stable
- stability becomes a shared interpretive landscape

Shared understanding is not consensus.

It is coherence across perspectives.

In ED terms: Shared understanding is the convergence of interpretive dynamics across multiple minds.

This is the first time the universe produces systems that inhabit a common world.

4.3 When Shared Understanding Becomes Meaning

Meaning emerges when shared understanding becomes stable enough to guide future interpretation. Meaning is the shared ED motif that multiple minds use to interpret:

- the world
- each other
- themselves

Meaning is not stored in symbols.

Meaning is stored in shared interpretive structure.

Meaning becomes the substrate for:

- communication
- coordination
- cooperation
- collective cognition

In ED terms: Meaning is the stabilized, shared interpretive structure that coordinates the becoming of multiple minds.

This is the first time the universe produces systems that think together.

5. The Emergence of Language

When meaning becomes externalized structure

Meaning is not born from language.

Language is born from meaning.

Meaning arises when multiple minds stabilize shared interpretive motifs — structures that guide how they understand the world and each other. But these motifs remain fragile unless they can be externalized, transmitted, and preserved. Language is the ED regime where shared interpretive structure becomes externalized form: patterns of sound, gesture, inscription, or behavior that compress and transmit meaning across individuals and across time.

In the ED ontology, language is not symbolic at its root. It is architectural. Language emerges when:

- shared interpretive motifs become compressible
- compression becomes expression
- expression becomes conventional
- convention becomes structure
- structure becomes language

Language is the first ED regime where meaning becomes portable — where shared interpretation can be carried, stored, and transformed outside any single mind.

Meaning provides the prerequisites for this threshold:

- shared interpretive motifs
- mutual modeling
- alignment dynamics
- stable expectations across minds
- a common interpretive landscape

But these capacities alone do not constitute language. They create the conditions under which language becomes possible. Language begins when:

- shared meaning becomes shared compression
- shared compression becomes shared expression
- shared expression becomes convention
- convention becomes linguistic structure

This is the architecture of externalized meaning.

5.1 Language as Shared Interpretive Compression

Meaning is rich, multidimensional, and context-dependent. But interaction requires compression — a way to reduce complex interpretive structures into manageable, repeatable forms. Language begins when minds discover that certain expressions reliably compress shared meaning.

Compression emerges when:

- a complex interpretive state is mapped to a simpler expression
- the expression reliably evokes the same interpretive state in others
- both parties come to expect this mapping
- the mapping becomes stable across contexts

Compression is not yet language.
It is shared reduction of interpretive complexity.

In ED terms: Language begins as the compression of shared interpretive motifs into repeatable expressions.

This is the first time the universe produces systems that can *package* meaning.

5.2 Language as Coordination Technology

Once compression becomes reliable, it becomes a tool for coordination. Language allows minds to:

- synchronize interpretations
- align expectations
- coordinate actions
- negotiate shared goals
- stabilize collective behavior

Language is not merely expressive.
It is organizational.

Language becomes a coordination technology when:

- expressions are used to guide joint action
- shared meanings are invoked to solve shared problems
- linguistic patterns become part of the group's regulatory architecture
- communication becomes a means of shaping collective becoming

In ED terms: Language is the coordination technology built on shared meaning.

This is the first time the universe produces systems that coordinate through externalized interpretation.

5.3 Language as Collective Memory

Meaning is fragile unless it can be preserved. Language becomes the first collective memory system — a way to store shared interpretive motifs beyond the lifespan of any individual.

Language becomes memory when:

- expressions are repeated across generations
- shared meanings accumulate
- linguistic structures encode past interpretations
- communities inherit interpretive architectures they did not create

Language is not merely a tool for communication.

It is a repository of shared becoming.

In ED terms: Language is the external memory of a community's interpretive history.

This is the first time the universe produces systems whose past interpretations shape the future of individuals who never experienced them.

6. Collective Cognition

When meaning becomes a shared cognitive regime

Meaning stabilizes shared interpretive structure across minds. But meaning alone does not yet constitute collective cognition. Collective cognition emerges when shared meaning becomes the substrate for coordinated thinking — when multiple minds use shared interpretive motifs to solve problems, pursue goals, and regulate their becoming together.

In the ED ontology, collective cognition is not metaphorical. It is architectural. It arises when:

- shared meaning becomes shared attention
- shared attention becomes shared goals
- shared goals become shared agency
- shared agency becomes distributed cognition

Collective cognition is the first ED regime where the unit of becoming is no longer the individual mind, but the network of minds bound together by shared interpretive structure.

Meaning provides the prerequisites for this threshold:

- shared interpretive motifs
- mutual modeling
- alignment dynamics
- language as externalized meaning
- collective memory

But these capacities alone do not constitute collective cognition. They create the conditions under which collective cognition becomes possible. Collective cognition begins when:

- shared meaning becomes shared agency
- shared agency becomes distributed cognition
- distributed cognition becomes culture

This is the architecture of thinking together.

6.1 When Shared Meaning Becomes Shared Agency

Shared meaning allows minds to coordinate their interpretations. Shared agency allows them to coordinate their actions. Shared agency emerges when:

- multiple minds adopt the same goals
- goals are negotiated through shared meaning
- actions are coordinated through language
- outcomes depend on joint behavior

Shared agency is not groupthink.

It is coordinated becoming — the alignment of action-selecting dynamics across multiple minds.

In ED terms: Shared agency is the alignment of action-selecting ED regimes across individuals, producing a single coherent trajectory distributed across many bodies.

This is the first time the universe produces systems that act as a collective, not merely in parallel.

6.2 When Shared Agency Becomes Collective Cognition

Once minds can act together, they can think together. Collective cognition emerges when:

- problems are solved through distributed roles
- interpretations are pooled
- perspectives are combined
- no single mind contains the full cognitive process

Collective cognition is not the sum of individual cognition.

It is a new cognitive regime that exists only at the group level — a distributed architecture in which:

- language coordinates differentiated contributions
- shared meaning aligns interpretive frames
- collective memory stores past solutions
- the group develops problem-solving patterns no individual could generate alone

Collective cognition is the first ED regime where intelligence becomes inherently plural.

In ED terms: Collective cognition is the distributed interpretive and problem-solving architecture of a community of minds.

This is the first time the universe produces systems whose cognitive capacities exceed the boundaries of any single organism.

6.3 When Collective Cognition Becomes Culture

Culture is the ED regime where collective cognition becomes self-reinforcing — where shared meaning, shared memory, and shared agency accumulate across generations.

Culture emerges when:

- collective cognition stabilizes into practices
- practices become traditions
- traditions become institutions
- institutions shape the interpretive landscape of future minds

Culture is not symbolic.

Culture is collective ED structure — the autopoietic maintenance of shared meaning across time.

Culture becomes possible when:

- language preserves shared meaning
- shared meaning guides collective behavior
- collective behavior reinforces shared meaning
- the cycle becomes self-sustaining

In ED terms: Culture is the autopoietic regime of collective meaning-making — the first ED structure whose persistence depends on the coordinated becoming of many minds across generations.

This is the first time the universe produces systems whose becoming is collectively authored.