Human Cooperation System (HCS)

A diagnostic lens for understanding how human cooperation enables effective work.

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Table of contents

1. INTRODUCTION & QUICK START

1.1 Human Cooperation System (HCS) – From Context to Practice

A diagnostic system for understanding how human cooperation sustains effective work.

> **30-Second Summary**
> The **Human Cooperation System (HCS)** is a diagnostic lens that defines the **25 stable functions required for human cooperation to exist and adapt**.
> It helps leaders and teams see where trust, clarity, or structure must be strengthened before changing practices or frameworks.

1.1.1 Introduction

The **Human Cooperation System (HCS)** explains how people manage to work together — not as isolated individuals, but as interdependent actors connected by shared goals, constraints, and meaning.
It maps the *invisible architecture* that makes cooperation possible: the conditions, needs, and functions that hold any collaborative system together.

When collaboration fails, it is rarely a skills problem — it usually breaks at the **system level**: misaligned expectations, unmet human needs, or missing functions that maintain trust and coherence.
HCS helps reveal these root causes before they manifest as friction, disengagement, or delivery failure.

1.1.2 Who It's For

HCS is built for those who lead, enable, or study cooperation:

- **Project and Product Leads** seeking to understand why delivery struggles despite competent teams.
- **Engineering and Design Managers** improving cross-functional flow, trust, and autonomy.
- **Consultants and Coaches** diagnosing organizational misalignment or systemic friction.
- **Researchers and Framework Designers** exploring universal patterns behind human collaboration.

If you've arrived here from the **3-in-3 SDLC Framework (3SF)**, HCS represents the **layer beneath practice** — the foundational *system* that governs why engagement, delivery, and value either flow or fail.

1.1.3 Purpose

HCS serves as a **diagnostic and theoretical system** for understanding and improving cooperation across all forms of human work — from teams and organizations to partnerships and ecosystems.
It does not prescribe methods; instead, it offers a *lens* to evaluate which functions must exist and interact coherently for cooperation to succeed.

- It describes the **preconditions** that enable cooperation.
- It identifies the **human needs** that sustain motivation and trust.
- It defines the **stable functions** that transform shared intent into collective outcomes.

Together, these dimensions form the **Systemic Basis of Work** — the foundation upon which all frameworks, practices, and tools must rest.

1.1.4 Structure of the System

HCS is organized into two complementary layers:

Core Model

The Core Model defines the **minimal systemic conditions, human needs, and functional primitives** required for cooperation to exist.
It answers:
What must be true for people to work together at all?

This layer includes:

- Foundations, principles, and beliefs
- The 5×5 Matrix of conditions × needs
- The Pyramid (Preconditions → Meta-Practices)
- The Level Rule
- The Diagnostic Workflow

The Core Model is universal, stable, and framework-independent.

Extended Human Dynamics

Beyond the structural minimum, cooperation is shaped by **contextual, psychological, and political forces** that influence how work is experienced.

This layer answers:
Why is cooperation difficult in real organizations?

It describes:

- Collective and individual variations in conditions and needs
- Psychological and political vectors that distort cooperation
- Relational, cultural, and developmental dynamics
- Reference practices used to explore these dynamics

The Extended layer does **not** modify the Core Model.
It provides a vocabulary for diagnosing human complexity without turning HCS into a behavior-change framework.

1.1.5 Reading Path

Start with the Core Model

1. Begin with the **Vision, Principles, and Beliefs** to understand HCS intent and mindset.
2. Explore the **Matrix** — a five-by-five landscape of *conditions × needs*.
3. Study the **Pyramid** to see how stability develops from *preconditions* → *meta-practices*.
4. Apply **The Level Rule** to identify where interventions must start.
5. Use the **Diagnostic Workflow** to turn observations into action.

Continue with Extended Human Dynamics (optional, recommended)

If the Core Model is clear but cooperation still feels tense, political, or emotionally difficult, proceed to:

- **Extended Conditions**
- **Extended Needs**
- **Diagnostic Dynamics**
- **Practices Map**
- **Integration Guide**

This layer helps diagnose complexity without conflating human issues with structural ones.

1.1.6 Positioning

Think of **HCS** as the *operating system* beneath all collaborative frameworks and management methodologies.
Agile, Lean, and other methods work only when the **systemic conditions of cooperation** are stable.
By diagnosing and strengthening those foundations, leaders and teams can achieve higher trust, clearer intent, and sustainable performance.

> **In essence:**
> **HCS** defines the *physics of cooperation* — how alignment, trust, and feedback sustain work —
> and provides the foundation for applied frameworks such as **3SF**, where theory meets practice.

2. CORE MODEL

2.1 Vision, Principles, and Beliefs

The **Human Cooperation System (HCS)** defines a universal model for understanding how people and organizations **sustain cooperation** under changing conditions.
It establishes the underlying *physics* of collaboration — the invisible structures that determine whether human systems remain stable, adaptive, and meaningful over time.

2.1.1 Vision

To enable individuals, teams, and organizations to **work together intentionally** — with clarity, trust, and shared purpose — regardless of role, method, or domain.
HCS envisions a world where cooperation is treated as a **systemic discipline**, not a matter of personal style or organizational culture.

> **Vision Statement:**
> *A cooperative world where systems of work evolve with people — not against them.*

2.1.2 Principles

HCS is governed by a small set of **systemic principles** that translate into all later models and diagnostics.
They describe *how cooperation remains stable* and *why interventions must follow structure, not trend.*

The following principles describe the **systemic physics** that govern all cooperative work.
They form the theoretical foundation that 3SF and other frameworks later apply as operational principles.

Principle	Description
Function-First	Every method or practice must serve a clear cooperative *function*. Tools and rituals are effective only when matched to their purpose.
The Level Rule	A dysfunction cannot be corrected at a higher level than where it originates. Stability builds from the bottom up — from human conditions to frameworks.
Evidence Over Opinion	Cooperation is observable. Use behavior and outcomes as evidence before assuming intent or motivation.
Feedback Closes the Loop	Stability depends on timely, accurate feedback — at personal, team, and systemic levels. Unclosed loops lead to drift and mistrust.
Autonomy with Accountability	Freedom without shared responsibility fragments; control without autonomy suffocates. Balance creates flow.
Clarity Before Speed	Communication fidelity and shared understanding are prerequisites for efficiency. Misalignment is the costliest waste.
Trust Before Control	Trust enables coordination with minimal overhead. Control mechanisms are substitutes for trust, not its replacement.
Reflection Enables Evolution	Continuous introspection — individually and systemically — transforms experience into adaptation.

2.1.3 Beliefs

HCS is built on several **core beliefs** about human work systems:

1. **Cooperation precedes performance.** Teams fail for relational reasons long before technical ones.
2. **All systems drift without feedback.** Stability is not static — it's actively maintained through learning.
3. **Trust is measurable through behavior.** Reliable follow-through and transparency are its most objective indicators.
4. **Shared purpose is a living construct.** It evolves as understanding deepens and context changes.
5. **Frameworks succeed only atop stable cooperative functions.** No process can compensate for missing trust, clarity, or shared intent.
6. **Every organization is a learning organism.** The health of its feedback loops determines its adaptability.

2.1.4 Scope and Non-Goals

HCS does not prescribe **how** to manage projects, design organizations, or measure performance.
Instead, it defines **what makes cooperation functionally possible** — a diagnostic foundation for any framework, method, or governance model.

- **Not a Process:** HCS is not a prescriptive method or task management system (Level 4). It is a diagnostic tool for system design and intervention (Level 5).
- **Not an Org Chart:** HCS does not replace organizational structures. It defines functional roles and relationships that cut across departments.
- **Not Therapy:** HCS is not a psychological model for individual behavior. It is a framework for organizational and behavioral governance within work systems.

2.1.5 Bridge to Practice

The **3-in-3 SDLC Framework (3SF)** applies HCS principles to the domain of software delivery and client-vendor collaboration.
Where HCS defines *how cooperation works in theory*, 3SF shows *how to build it into contracts, roles, and delivery systems.*

Together, they form a continuum:

> **HCS** — the theoretical foundation of cooperative stability. **3SF** — the applied framework that operationalizes it.

Vision, Principles, and Beliefs serves as the philosophical foundation for all other HCS sections — the Pyramid, Matrix, and Diagnostic Workflow each elaborate these principles in context.

2.2 The Human Cooperation System Matrix

Cooperation exists because of interdependence — when one person alone can't or doesn't want to do everything, *work becomes a shared system of value exchange*.

If one person could do everything alone, work would be **pure autonomy**.

But the moment **two or more people are involved**, *working together becomes a system* — and coordination, communication, trust, and shared purpose are no longer optional; they are essential.

2.2.1 Why the Matrix Exists

The **HCS Matrix** captures the *minimum viable structure of cooperation*.
It defines the minimal set of interacting forces required for cooperation to emerge, stabilize, and evolve.

It is not a framework or process map — it's a **diagnostic lens**.
It helps you identify *which essential conditions and needs are present, missing, or misaligned* in any collaborative system — from teams and partnerships to entire organizations.

When mapped across real situations, the Matrix shows *why cooperation either flourishes or fractures*, long before outcomes or metrics reveal the symptoms.

Each intersection represents a function of cooperation, later used by the Diagnostic Workflow to connect theory to practical improvement.

2.2.2 Dimensions of the Matrix

> **Naming note:** The term **Change/Uncertainty tolerance** is used consistently across HCS to emphasize both the presence of change and the system's capacity to act under it.

- **Horizontal axis — Core Human Needs** for Cooperative Work
  Represents what individuals and groups require to function together effectively.
- **Vertical axis — Core Work Conditions**
  Represents the external and structural contexts that must exist for cooperation to take place.

Each **cell** in the matrix expresses a **minimal system function** that must be present for collaboration to emerge.
Examples illustrate how these dimensions intersect:

- *Common Purpose × Shared Understanding → Alignment on why* — shared intent behind joint work.
- *Interdependence × Feedback Loops → Outcome reflection* — awareness of mutual impact and adaptation.
- *Change/Uncertainty × Autonomy & Agency → Adaptability* — the capacity to act locally under changing conditions.

The Matrix defines the **existential layer** of the Human Cooperation System — the foundation that makes collaboration possible, preceding any specific framework, tool, or methodology.
Above this layer, operational frameworks such as Agile, DevOps, or OKRs can be seen as implementations of the underlying functions identified here.
The **Principle–Practice Matrix** later extends this logic to the operational layer, describing how cooperation is maintained and optimized once these foundational functions are active.

2.2.3 The Human Cooperation System Matrix – Descriptions

This section defines and explains each element of the Matrix that outlines the foundational **conditions** and **needs** of cooperative work.

Core Work Conditions (Vertical Axis)

1. **Common Purpose** – Shared meaning or goal that unites people working together. It gives direction and motivation, enabling alignment of actions across individuals or groups.

2. **Interdependence** – A condition where the outcome of one's work depends on others and vice versa. It requires awareness of mutual impact and encourages collaboration.
3. **Communication** – The exchange of information, meaning, and intent between individuals or groups. It enables coordination, understanding, and feedback.
4. **Trust** – A belief in the reliability, competence, and good intent of others. Trust reduces the cost of coordination and enables delegation, openness, and cooperation.
5. **Change/Uncertainty** – The inevitable presence of external or internal shifts that affect work. Handling change requires resilience, learning, and flexibility in both individuals and systems.

Core Human Needs for Cooperation (Horizontal Axis)

1. **Shared Understanding** – A mutual grasp of language, goals, constraints, and contexts among collaborators. It ensures that all parties interpret information similarly.
2. **Mutual Commitment** – A shared willingness to contribute to common goals. It implies dedication, accountability, and follow-through from all parties involved.
3. **Feedback Loops** – Mechanisms to observe results, evaluate progress, and make corrections. Enables learning and continuous improvement in a shared system.
4. **Distribution of Roles** – Clear delineation of who does what, ensuring responsibilities are known and efforts are coordinated.
5. **Autonomy & Agency** – The ability and permission to act with intention. Agency empowers individuals to make decisions, contribute meaningfully, and take ownership.

2.2.4 Matrix Cell Descriptions (5x5 = 25)

1. **Common Purpose × Shared Understanding = Alignment on why** – People must align on why they're working together and what success looks like. Without this, efforts may diverge.
2. **Common Purpose × Mutual Commitment = Willingness to act** – A goal alone is not enough; people must genuinely commit to working toward it together.
3. **Common Purpose × Feedback Loops = Learning intent** – Continuous evaluation of whether actions still serve the agreed purpose. Prevents mission drift.
4. **Common Purpose × Distribution of Roles = Contribution clarity** – Each role must support the purpose, ensuring no effort is wasted or misaligned.
5. **Common Purpose × Autonomy & Agency = Room for initiative** – Individuals must be able to pursue the shared purpose with self-direction and initiative.
6. **Interdependence × Shared Understanding = Task relationships** – Team members need clarity about how their tasks relate and depend on one another.
7. **Interdependence × Mutual Commitment = Responsibility** – Each person must commit to their role knowing others rely on them.
8. **Interdependence × Feedback Loops = Outcome reflection** – Real-time signals help adjust coordination and prevent cascading failures.
9. **Interdependence × Distribution of Roles = Coordination** – Role clarity enables smooth handoffs and cooperation.
10. **Interdependence × Autonomy & Agency = Local decision-making** – Teams must balance dependencies with local autonomy to avoid bottlenecks.
11. **Communication × Shared Understanding = Language/Terms** – Shared vocabulary and mental models are essential for messages to land as intended.
12. **Communication × Mutual Commitment = Social contract** – Open, honest communication supports commitment and builds accountability.
13. **Communication × Feedback Loops = Signal/response** – Effective communication delivers feedback in a usable form and closes the loop.
14. **Communication × Distribution of Roles = Clarity in interaction** – Communication supports clarity on who does what and when.
15. **Communication × Autonomy & Agency = Permission to act** – People need communication channels to raise concerns, ask for support, or declare decisions.
16. **Trust × Shared Understanding = Meaning consistency** – Trust grows when people interpret intentions and actions reliably.
17. **Trust × Mutual Commitment = Reliability** – Trust enables people to believe that others will deliver on their promises.
18. **Trust × Feedback Loops = Safety in feedback** – Safe environments allow for honest feedback without fear of blame.

19. **Trust × Distribution of Roles = Delegation** – Clear roles reduce friction and show respect for expertise, reinforcing trust.
20. **Trust × Autonomy & Agency = Empowerment** – Trust enables freedom to act without micromanagement.
21. **Change × Shared Understanding = Scenario awareness** – Adapting to change requires everyone to see and interpret the new reality similarly.
22. **Change × Mutual Commitment = Resilience** – Teams that weather change together must renew their commitment in the face of shifting conditions.
23. **Change × Feedback Loops = Learning from change** – Change demands fast, reliable feedback to inform next actions.
24. **Change × Distribution of Roles = Flexibility** – Roles may need to shift dynamically; clarity and adaptability are key.
25. **Change × Autonomy & Agency = Adaptability** – People must be empowered to respond quickly and appropriately to emerging challenges.

2.2.5 The Human Cooperation System Matrix – Table View

Work Needs / Work Conditions	Shared Understanding	Mutual Commitment	Feedback Loops	Distribution of Roles	Autonomy & Agency
Common Purpose	Alignment on why	Willingness to act	Learning intent	Contribution clarity	Room for initiative
Interdependence	Task relationships	Responsibility	Outcome reflection	Coordination	Local decision-making
Communication	Language / Terms	Social contract	Signal/response	Clarity in interaction	Permission to act
Trust	Meaning consistency	Reliability	Safety in feedback	Delegation	Empowerment
Change/ Uncertainty tolerance	Scenario awareness	Resilience	Learning from change	Flexibility	Adaptability

2.3 The Human Cooperation System Pyramid

2.3.1 Why the Pyramid Exists

The **HCS Pyramid** visualizes how cooperation evolves through **five systemic levels** — from the most fundamental conditions of existence to reflective innovation at the top.
It helps identify *where cooperation breaks down* and *which level to address first* when diagnosing teams, organizations, or partnerships.

The Pyramid complements the HCS Matrix:

- The **Matrix** defines *what must coexist* (conditions × needs).
- The **Pyramid** shows *how these elements build on one another* — a hierarchy of dependency where higher levels depend on the stability of lower ones.

In short:

> The Matrix describes **the anatomy of cooperation**,
> while the Pyramid shows **its order of development**.

2.3.2 How to Use the Pyramid

Use the Pyramid as a **diagnostic guide**:

1. Identify which level the issue originates from — conditions, needs, functions, practices, or reflection.
2. Avoid "patching" higher levels (e.g., practices or frameworks) when foundational levels are weak.
3. Move upward only when stability and coherence are achieved below.

Each level in the Pyramid corresponds to a layer of the Human Cooperation System — from the first moment people start working together to when they consciously evolve how they work.

2.3.3 Level 1 – Preconditions for Cooperation (Foundation)

Without these, there's no "working together" at all.
They're the *existential conditions* of cooperation — the soil from which all other levels grow.

Examples:

- **Existence of a Common Purpose** – shared "why" to engage at all.
- **Interdependence** – mutual reliance or need for others' contributions.
- **Basic Communication ability** – shared medium: language, symbols, signals.
- **Basic Trust** – belief that others will not harm and will reciprocate.
- **Capacity to Act under Change** – some tolerance for uncertainty.

Maslow analogy: Physiological & safety needs — the "oxygen" of cooperation.

2.3.4 Level 2 – Core Human Needs for Cooperative Work

These are the *human-level enablers* that make foundational conditions workable day-to-day.
This corresponds to the **horizontal axis** in the Matrix.

Examples:

- **Shared Understanding** — common mental model of goals, constraints, and context.
- **Mutual Commitment** — agreement to invest effort in the shared purpose.
- **Feedback Loops** — ability to observe, learn, and adjust.
- **Distribution of Roles** — clarity on who does what.
- **Autonomy & Agency** — freedom and authority to act.

Maslow analogy: Belonging and esteem needs — creating security in relationships and a sense of contribution.

2.3.5 Level 3 – Cooperative System Functions

Stable **functions** that translate human needs into **coordinated, repeatable work**.
These live in the 25 Matrix cells and define what must happen for collaboration to succeed.

Examples:

- **Problem Discovery** (Clarity of Problem Space × Shared Understanding)
- **Planning & Prioritization** (Interdependence × Distribution of Roles)
- **Monitoring & Feedback** (Communication × Feedback Loops)
- **Enablement & Empowerment** (Trust × Autonomy & Agency)
- **Adaptation & Learning** (Change × Feedback Loops)

These are the "work muscles" — when one is weak, the whole system compensates or breaks. *Maslow analogy*: Cognitive needs — organizing and directing effort.

2.3.6 Level 4 – Practices & Frameworks

Concrete, evolving ways of performing the functions.
Different implementations can fulfill the same function, depending on the organization's context.

Examples:

- **Retrospectives** fulfill *Monitoring & Feedback*.
- **RACI matrix** fulfills *Distribution of Roles*.
- **Scrum sprint planning** fulfills *Planning & Prioritization*.
- **JTBD interviews** fulfill *Problem Discovery*.
- **Kanban** fulfills *Flow & Focus + Monitoring & Feedback*.

This is where change happens fastest — tools and trends evolve, but underlying functions stay stable.
Maslow analogy: Self-actualization tools — many possible routes to fulfill the same higher need.

2.3.7 Level 5 – Meta-Practices & Innovation (Apex)

The ability to **reflect on and redesign the system itself**.
Here, teams stop merely applying practices and begin **adapting or inventing** them to fit their unique context.

Includes:

- Combining practices into custom playbooks.
- Inventing new practices when existing ones don't fit.
- Matching practices consciously to functions (avoiding "cargo cult" behavior).
- Teaching and sharing system-level understanding.

Examples of Level 5 behavior include designing custom meta-frameworks such as **3SF**, where theory is consciously transformed into operational systems.

Maslow analogy: Self-transcendence — going beyond individual optimization to improve the system for others.

2.3.8 Pyramid View – Start & Top

Each level introduces a qualitatively new kind of stability.
Progression is not linear but recursive — feedback from higher levels refines lower ones, creating a self-correcting system.

- **It starts** at Level 1 the moment two or more people have a reason to interact for mutual value.
- **It tops** at Level 5 when teams become self-evolving systems — capable of diagnosing, designing, and improving their own way of working without external imposition.

> **Always climb levels in order**
> Don't patch Level 4 **practices** when Level 1–2 **preconditions or human needs** are weak.
> Fix lower levels first — then revisit practices.

Level	Name	Examples	Description
5 (Apex)	Meta-Practices & Innovation	• Designing custom playbooks • Inventing new practices • Matching practices to functions deliberately • Coaching others in system thinking	Teams consciously reflect on, adapt, and redesign their way of working. Practices are tailored, combined, or invented to better serve needs. Knowledge is shared to elevate the whole system.
4	Practices & Frameworks	• Retrospectives (*Monitoring & Feedback*) • RACI matrix (*Distribution of Roles*) • Scrum sprint planning (*Planning & Prioritization*) • JTBD interviews (*Problem Discovery*) • Kanban (*Flow & Focus + Monitoring & Feedback*)	Specific, evolving methods that fulfill stable functions. Practices change over time, but the function they serve remains stable.
3	Cooperative System Functions	• Problem Discovery (*Clarity of Problem Space × Shared Understanding*) • Planning & Prioritization (*Interdependence × Distribution of Roles*) • Monitoring & Feedback (*Communication × Feedback Loops*) • Enablement & Empowerment (*Trust × Autonomy & Agency*) • Adaptation & Learning (*Change × Feedback Loops*)	The stable "muscles" of cooperation — what must happen for work to succeed. Represented by the 25 cells in the Human Cooperation System Matrix.
2	Core Human Needs for Cooperative Work	• Shared Understanding • Mutual Commitment • Feedback Loops • Distribution of Roles • Autonomy & Agency	The human-level enablers that make foundational conditions operational. Corresponds to the Matrix's **horizontal axis**.
1 (Foundation)	Preconditions for Cooperation	• Common Purpose • Interdependence • Communication • Trust • Change/Uncertainty tolerance	The existential conditions for cooperation to exist at all. Corresponds to the Matrix's **vertical axis**. Without these, there is no "working together."

2.3.9 Diagnostic Use

When diagnosing cooperation:

- Weakness in **Level 1 or 2** indicates instability in the foundations — people lack shared context or trust.
- Weakness in **Level 3** suggests missing or broken system functions.
- Weakness in **Level 4** means inappropriate or outdated practices are being applied.
- Weakness in **Level 5** shows that the system can't yet learn or evolve on its own.

The Pyramid reframes improvement discussions from *'Which framework should we adopt?'* to *'Which layer of cooperation must be stabilized first?'* — the essence of the Level Rule.

2.4 The Level Rule

2.4.1 Why the Level Rule Exists

The **Level Rule** is the single most practical principle of the Human Cooperation System.
It prevents teams and leaders from treating symptoms at the *wrong level* — such as changing practices when the underlying conditions or needs are unstable.
It operationalizes the **Principle of Lowest-Level Fix** described in the HCS core principles.

In cooperation systems, **every level depends on the stability of the one below it**.
Just as a house can't rest on a weak foundation, teams can't sustain new practices if trust, clarity, or purpose are missing.
The Level Rule helps you locate *where to intervene first* when diagnosing or improving collaboration.

> The deeper the dysfunction, the lower the level you must repair.

2.4.2 How to Apply the Level Rule

When you observe friction, confusion, or performance drops, follow this diagnostic sequence before deciding what to change:

1. **Start from the bottom.**
   Check that foundational *conditions for cooperation* (Level 1) are present — shared purpose, trust, interdependence, and communication.
2. **Assess human needs.**
   Verify that *day-to-day enablers* (Level 2) are satisfied — shared understanding, mutual commitment, feedback loops, role clarity, and agency.
3. **Evaluate system functions.**
   Review whether *core cooperation functions* (Level 3) are active — such as planning, feedback, enablement, and adaptation.
4. **Then adjust practices.**
   Only once the system is stable below Level 3 should you change *practices or frameworks* (Level 4).
5. **Reflect and evolve.**
   At maturity (Level 5), teams begin to *self-diagnose and adapt* — applying the Level Rule themselves.

This recursive application of the Level Rule transforms teams into self-correcting systems — the hallmark of Level 5 maturity.

2.4.3 The Five Levels at a Glance

1. **Level 1 – Preconditions for Cooperation**
   Common Purpose, Interdependence, Communication, Trust, Change/Uncertainty tolerance Must exist for cooperation to even begin. Without these, no system of collaboration can sustain.
2. **Level 2 – Core Human Needs**
   Shared Understanding, Mutual Commitment, Feedback Loops, Distribution of Roles, Autonomy & Agency
   These needs must be met for day-to-day work to flow without friction.
3. **Level 3 – Cooperative Functions**
   The *25 functions from the Matrix* must be minimally expressed so the system can coordinate, learn, and adapt.
4. **Level 4 – Practices & Frameworks**
   Only after stabilizing Levels 1–3 can practices be tuned, replaced, or scaled without "fighting gravity."
5. **Level 5 – Meta-Practices & Innovation**
   Once the system is stable and self-aware, it can safely evolve its own way of working.

2.4.4 Diagnostic Heuristics

Use these quick rules when assessing where to act:

- If a problem **repeats across multiple practices**, it's likely **not** a Level 4 issue — check Levels 1–3.
- If alignment **collapses under stress**, the root cause is almost always at **Level 1 or 2**.
- If coordination **stalls despite good relationships**, inspect **Level 3** — one or more core functions are missing or unclear.
- If **people lose trust in frameworks**, it may signal a mismatch between the *function needed* and the *practice chosen* (Level 4 problem built on weak lower layers).

2.4.5 Common Anti-Patterns

- **Cargo culting** – copying visible practices (Level 4) to compensate for missing foundations (Level 1–2).
- **Premature scaling** – optimizing or standardizing before core functions are stable.
- **Overdiagnosis** – jumping to structural fixes instead of addressing unmet human needs.
- **Tool worship** – assuming the adoption of a tool solves cooperation gaps.

2.4.6 Practical Example

When a team repeatedly fails to deliver despite switching from Scrum to Kanban:

- Level 4 (Practices) changes are visible but ineffective.
- Diagnosis shows missing **Feedback Loops** and unclear **Distribution of Roles** → both are *Level 2 needs*.
- Root cause lies lower — no amount of framework tuning will fix it until **shared understanding and feedback culture** are restored.

> The Level Rule turns "what framework should we use?" into "what layer of cooperation is failing right now?"

2.4.7 Summary

The **Level Rule** ensures interventions follow the natural order of cooperation:

If you want to fix...	First verify...	Otherwise you risk...
Practices or tools	Preconditions and needs	Surface fixes without stability
Collaboration quality	Trust, commitment, and understanding	Repeating breakdowns
Delivery flow	Functional coordination	Hidden friction and rework
Team autonomy	Clear roles and feedback	Chaos disguised as freedom

Essence of the Rule

> Never try to optimize the system at a higher level than it can currently sustain.

Mastering this principle makes every improvement effort more efficient, humane, and lasting.
The Level Rule connects every HCS diagnostic step — from the Matrix through the Workflow — into one coherent method.

2.5 Diagnostic Workflow — Observation → Matrix → Level → Function → Practice

2.5.1 Why the Diagnostic Workflow Exists

The **HCS Diagnostic Workflow** turns theory into action.
It provides a structured loop for tracing **observable issues** in cooperation back to their **systemic root causes** — before deciding how to intervene.

Most improvement efforts fail because they start with *practice changes* (Level 4) rather than diagnosing *which level of cooperation is weak*.
This workflow keeps analysis grounded and ensures each corrective action strengthens the right layer of the system.

> The goal is not to fix symptoms — it's to restore coherence between **conditions, needs, and functions**.

2.5.2 How the Workflow Works

Use this short, structured loop on any issue or pattern you observe.

1. Observation — Capture evidence

Write down what you *see, hear, or measure* — without interpretation or blame.
Focus on **observable behavior**, not assumptions.

Example:

> "Critical dependencies were discovered late; downstream team blocked twice this sprint."

This ensures that diagnosis starts from data, not opinion.

2. Matrix Mapping — Locate where it lives

Map the observation to the **HCS Matrix**:
Which **Condition** (vertical axis) and which **Human Need** (horizontal axis) are involved?

Example:

> **Interdependence × Feedback Loops → Outcome Reflection**
> Late discovery means coordination and feedback signals are weak.

This step anchors the issue to a specific **function** — preventing vague problem statements like "communication issue" or "poor planning."

3. Level Check — Find how deep the root is

Determine the **lowest affected level** in the HCS Pyramid:

If the problem is about…	It likely belongs to…
Missing purpose, trust, or communication basics	**Level 1 – Preconditions**
Misalignment, unclear roles, weak feedback, low agency	**Level 2 – Human Needs**
Broken coordination or learning cycles	**Level 3 – Functions**
Ineffective or misapplied methods	**Level 4 – Practices**
Lack of reflection or self-improvement	**Level 5 – Meta-Practices**

Example:

> Repeated late dependency discovery → weak **Level 3 Monitoring & Feedback**
> Possibly thin **Level 2 Feedback Loops** underneath.

This step is where the **Level Rule** applies — fix lower levels first.

4. Function to Practice — Select what to strengthen

Once you've located the function, choose or design a **practice** that fulfills it.

Use the 25 Matrix functions as your reference for what "healthy cooperation" looks like.
The practice can be a known method or a custom one suited to your context.

Example:

> Function: *Communication × Feedback Loops → Signal & Response*
> Practice ideas:
> - Add an explicit dependency scan before each sprint. - Introduce a daily "risk surfacing" moment. - Create a visual "Andon" signal for cross-team blockers.

5. Trial & Learn — Validate and iterate

Run the chosen practice for 1–2 cycles and track a **specific observable signal** (not vague satisfaction scores).
If it doesn't produce the expected outcome, recheck **lower levels** before trying another practice.

Example:

> Watch: *Reduction in repeated dependency delays within two sprints.*
> If not improved → revisit Levels 2 and 3 for unaddressed issues in feedback culture.

2.5.3 Output Template

Use this lightweight template for documentation or reflection:

```
Observation:
Matrix cell:
Level(s) involved:
Function to strengthen:
Practice(s) selected:
Signal/metric to watch:
Review date:
```

You can use it in retrospectives, coaching sessions, or system diagnostics — it fits equally well in individual reflection or team learning contexts.

2.5.4 Practical Example (Full Loop)

Observation:
"Design team's updates rarely align with development progress; misinterpretations surface during QA."

Matrix Mapping:
Communication × Shared Understanding → Language / Terms

Level Check:
Level 2–3 issue: weak shared understanding and coordination function.

Function to Strengthen:
Clarify shared vocabulary and decision handoffs.

Practice(s):
- Introduce weekly alignment review with both design and dev leads. - Create a shared "definition of ready" document.

Signal/Metric:
Reduced QA rework or clarifications needed after handoff.

2.5.5 Why It Matters

This workflow transforms **improvement discussions** from reactive fixes to **systemic diagnosis**.
It replaces “who made the mistake?” with “which part of the system is under strain?” — building psychological safety while improving results.

> The HCS Diagnostic Workflow is the bridge between **theory and daily practice** — a loop that keeps cooperation systems alive, adaptive, and learnable.

Used consistently, this workflow becomes the **practical heartbeat of HCS** — transforming abstract theory into measurable cooperative improvement.

Summary Table

Step	Purpose	Output
1. Observation	Capture neutral evidence	Statement of what happened
2. Matrix Mapping	Locate systemic dimension	Condition × Need = Function
3. Level Check	Identify root depth	Level(s) causing dysfunction
4. Function → Practice	Define safe intervention	Function and matching practice
5. Trial & Learn	Validate and adjust	Measurable feedback loop

Essence

> Every cooperation issue can be traced through the same lens:
> **Observation → Matrix → Level → Function → Practice → Learning.**

This is how theory becomes a living system.

3. EXTENDED HUMAN DYNAMICS

3.1 Introduction & Purpose

The **Human Cooperation System (HCS)** defines the structural core of how cooperation becomes possible.
The **Core Model** explains the minimum set of conditions and needs that make collaborative work stable, observable, and governable.

However, real cooperation is rarely shaped by structure alone.

Teams operate within **human, psychological, and political realities** that sit outside the minimal model, yet strongly influence how cooperation is experienced day-to-day. These forces do not change the physics of HCS, but they do change its *behavior under pressure*. They create friction, distortion, hidden agendas, and emotional responses that no structural model can fully predict.

This section exists to make those forces visible.

3.1.1 Purpose of the Extended Human Dynamics Section

This part of HCS introduces an **expanded collection of conditions and needs** that influence cooperation but are not required for the core model itself. Its purpose is to:

- Recognize why cooperation can be difficult—even when the core system is in place.
- Provide language for diagnosing human and political factors without assigning blame.
- Differentiate between **collective** and **individual** influences to avoid wrong-level interventions.
- Show how psychological and political vectors can distort, amplify, or suppress core HCS conditions and needs.
- Offer practitioners a way to integrate leadership tools, coaching practices, and cultural diagnostics without expanding or diluting the Core Model.
- Help teams decide when a problem requires **individual support**, **collective renegotiation**, or **structural correction**.

3.1.2 Who This Section Is For

This material supports roles who work at the intersection of people and systems:

- Project and team leads navigating recurring interpersonal friction.
- Engineering managers and directors responsible for team health and culture.
- Consultants, coaches, and facilitators diagnosing systemic dysfunctions.
- Decision-makers responding to political tension, conflict, or misalignment.
- Anyone trying to understand why cooperation “feels wrong” even when the work is planned and structured correctly.

3.1.3 How This Section Relates to the Core Model

The Extended Human Dynamics section **does not modify or expand the HCS Core Model**.
The matrix and pyramid remain the authoritative representation of the system.

Instead, this section provides:

- A **collective vs individual** classification of extended conditions and needs.
- **Four layers** of human dynamics: contextual, relational, structural, developmental.
- A way to examine each through **psychological** and **political** impact vectors.
- A mapping to existing leadership and motivation practices (e.g., DiSC, SCARF, Moving Motivators, Situational Leadership), clarifying where and why these tools matter.

In short:

Core Model = what cooperation requires.
Extended Dynamics = what cooperation must navigate.

3.1.4 How to Use This Section

1. **Start with the Core Model.**
   Use the matrix and pyramid to identify what is structurally missing or misaligned.
2. **If structure is intact but friction persists, switch to the Extended Model.**
   Examine conditions and needs through collective/individual lenses.
3. **Identify psychological or political vectors affecting the situation.**
   These may amplify, distort, or suppress cooperation.
4. **Choose the correct intervention level.**
5. Individual coaching or support
6. Team agreements or renegotiation
7. Structural adjustment or boundary correction
8. **Use referenced practices intentionally, not as default solutions.**
   This section clarifies when tools like DiSC or SCARF help—and when they distract from systemic issues.

3.1.5 Scope of This Section

This section acknowledges human complexity without attempting to quantify, codify, or control it. It provides a vocabulary and diagnostic aid for:

- Understanding why cooperation is hard.
- Recognizing non-structural influences.
- Avoiding misdiagnosis and misplaced solutions.
- Bringing difficult psychological or political dynamics into safe discussion.

It is optional but highly recommended for practitioners who operate in real organizational environments where human dynamics shape every outcome.

3.2 Extended Conditions

The Core Model defines the minimum structural conditions that make cooperation possible.
Extended conditions describe **additional systemic influences** that shape how cooperation feels, how it behaves under pressure, and how predictable or fragile it becomes.

These conditions do **not** modify the HCS matrix and are **not required** for cooperation to exist.
Instead, they help practitioners understand why cooperation can still be difficult—even when the structural system is intact.

Extended conditions are grouped into four types and classified as **Collective** or **Individual**, with each condition examined through potential **political** and **psychological** impacts.

3.2.1 Collective vs Individual Conditions

Extended conditions arise at two levels:

- **Collective conditions**
  System-wide patterns, norms, cultural narratives, structural incentives, and governance mechanisms that influence how groups coordinate and interpret each other.
- **Individual conditions**
  The personal experience of operating within the system: perceived clarity, agency, predictability, and emotional posture under daily workload and uncertainty.

Both levels matter.
Collective conditions influence what is possible.
Individual conditions influence what is experienced.

3.2.2 Types of Extended Conditions

Extended conditions fall into four functional categories.
Each category contains both collective and individual variants.

1. Contextual Conditions

These describe the broader environment surrounding cooperation.

Collective Contextual Conditions

- Cultural climate and communication norms
- Institutional maturity and governance predictability
- Transparency of goals, constraints, and decisions
- Stability of timelines, priorities, and commitments

Individual Contextual Conditions

- Perceived stability and workload rhythm
- Clarity about expectations and consequences
- Personal ability to anticipate changes
- Sense of control over one's daily work environment

Political impact: shifts in power, influence, and decision visibility
Psychological impact: uncertainty, anxiety, perceived safety

2. Relational Conditions

These describe how people relate, interpret, and respond to one another.

Collective Relational Conditions

- Norms of reciprocity and fairness
- Predictability of behavior across roles
- Conflict safety and repair capacity
- Shared interpretation of problems and success

Individual Relational Conditions

- Trust posture toward peers and leaders
- Openness or self-censorship in communication
- Empathy and ability to read others
- Emotional responses to tension or disagreement

Political impact: alliances, hidden agendas, representation
Psychological impact: fear of loss, defensiveness, emotional contagion

3. Structural Conditions

These describe how the organization's design supports or constrains cooperation.

Collective Structural Conditions

- Boundary clarity: who decides, who contributes, who is accountable
- Feedback mechanisms and visibility of progress
- Access to resources, tools, and information
- Alignment between formal structures and actual working practices

Individual Structural Conditions

- Perceived autonomy and decision authority
- Ability to escalate issues safely
- Clarity of one's own role and dependencies
- Access to information needed for daily work

Political impact: gatekeeping, veto players, resource control
Psychological impact: overcontrol, learned helplessness, ambiguity stress

4. Developmental Conditions

These describe how cooperation grows, learns, and adapts over time.

Collective Developmental Conditions

- Learning rhythms (retrospectives, reviews, dialogue)
- Collective memory and knowledge retention
- Adaptability to changing constraints
- Evolution of shared narratives and identity

Individual Developmental Conditions

- Personal reflection and learning habits
- Curiosity and openness to feedback
- Ability to integrate new insights into behavior
- Sense of progress and skill development

Political impact: whose learning “counts,” whose ideas shape direction
Psychological impact: pride, shame, motivation, identity protection

3.2.3 Why Extended Conditions Matter

Extended conditions explain **variation in cooperation quality** that the Core Model alone cannot:
hidden friction, persistent misalignment, misunderstandings, slow drift toward dysfunction, and emotional responses under pressure.

They help practitioners:

- Diagnose subtle system problems earlier
- Distinguish structural issues from cultural or interpersonal ones
- Prevent misinterpretation of behavior as “resistance” or “attitude”
- Address political and psychological distortions safely
- Prepare the system for better cooperation without changing the core model

Extended conditions make cooperation **legible** at a human level, allowing better reasoning, better agreements, and better leadership interventions.

3.3 Extended Needs

Extended needs describe the deeper human and systemic requirements that influence how cooperation is experienced and sustained over time. They complement the Core Model by acknowledging that people bring motivation, emotion, identity, and expectations that shape the quality of cooperation beyond the minimal conditions of stability.

These needs are *not part of the minimal HCS matrix*.
Cooperation can function without them, but it will often feel strained, brittle, or transactional.

Extended needs are classified as **Collective** or **Individual** and organized into five functional categories. Each need can be examined through potential **political** and **psychological** impact vectors to understand how it becomes distorted under tension.

3.3.1 Collective vs Individual Needs

Extended needs arise at two connected levels:

- **Collective needs**
  Shared meaning, fairness, legitimacy, and identity. These shape how groups hold purpose together and maintain cohesion during change.
- **Individual needs**
  Personal motivation, recognition, autonomy, and emotional safety. These shape how each person engages with cooperation and interprets their role in it.

Both levels interact continuously.
When collective needs weaken, individuals disengage.
When individual needs are unmet, collective dynamics destabilize.

3.3.2 Types of Extended Needs

Extended needs fall into five categories that influence motivation, coherence, and resilience within cooperative systems.

1. Purpose & Direction

Needs related to meaning, intention, and contribution.

Collective Needs

- Shared sense of purpose
- Legitimacy of direction and goals
- Relevance of the work to broader context
- Identity as a group with a coherent mission

Individual Needs

- Personal meaning in the work
- Sense of contribution to something valuable
- Alignment between values and daily actions
- Clarity about “why my role matters”

Political impact: who defines purpose, whose interests shape direction
Psychological impact: pride, disillusionment, loss of meaning

2. Trust & Safety

Needs related to vulnerability, honesty, and perceived security.

Collective Needs

- Systemic fairness
- Transparent communication
- Predictable commitments and follow-through
- Safety in raising issues or challenging assumptions

Individual Needs

- Psychological safety
- Confidence that honesty does not result in punishment
- Predictability in relationships
- Emotional security in uncertain situations

Political impact: fear of retaliation, status risk, exclusion
Psychological impact: anxiety, withdrawal, defensive behavior

3. Growth & Evolution

Needs related to improvement, mastery, and progression.

Collective Needs

- Shared learning rhythms
- Integration of insights into future work
- Collective progression toward mastery
- Capacity to adapt without losing coherence

Individual Needs

- Skill development and mastery
- Constructive feedback and support
- Opportunities for growth or new challenges
- A sense of becoming “better over time”

Political impact: whose growth is prioritized, who gets opportunities
Psychological impact: stagnation, frustration, loss of motivation

4. Recognition & Belonging

Needs related to appreciation, inclusion, and social identity.

Collective Needs

- Culture of appreciation
- Inclusion mechanisms that ensure representation
- Fair allocation of credit
- shared rituals that build connection

Individual Needs

- Feeling valued and seen
- Belonging to the group
- Recognition for contributions
- Acceptance without needing to perform or protect status

Political impact: favoritism, visibility bias, gatekeeping
Psychological impact: loneliness, envy, shame, loss of identity

5. Autonomy & Coherence

Needs related to freedom, agency, and alignment.

Collective Needs

- Coherent decision-making across roles
- Boundary clarity between functions
- Distributed authority that matches responsibility
- Consistency of decisions with shared principles

Individual Needs

- Freedom to make informed decisions
- Sense of agency and ownership
- Space to act without micromanagement
- Clarity of how personal choices fit the whole

Political impact: overreach, territorialism, centralization of control
Psychological impact: dependency, helplessness, reactive resistance

3.3.3 Why Extended Needs Matter

Extended needs explain variation in **motivation**, **engagement**, and **cooperation quality** that structural models often cannot capture.
They highlight why teams with the same processes can behave very differently, and why cooperation often degrades slowly rather than collapsing suddenly.

Understanding extended needs helps practitioners:

- See the difference between structural alignment and human experience
- Avoid over-focusing on tools or processes when motivation is the root issue
- Detect early signals of disengagement, resentment, or fragmentation
- Choose the right level of intervention: individual, relational, or collective
- Address political and psychological distortions before they escalate
- Support stable cooperation without inflating the Core Model

Extended needs make the human dimension of cooperation **explicit**, enabling leaders and teams to navigate complexity with greater clarity and empathy.

3.4 Diagnostic Dynamics

Extended Human Dynamics introduces two cross-cutting influence fields—**political** and **psychological**—that shape how cooperation behaves beyond its structural foundation. These forces do not alter the Core Model, but they can distort, suppress, amplify, or obstruct its conditions and needs.

This chapter provides a diagnostic lens for identifying how extended conditions and needs are affected, and how to choose the correct intervention level: individual, collective, or structural.

3.4.1 Political and Psychological Vectors

The Core Model defines what cooperation requires.
Extended conditions and needs describe what cooperation feels like.

Political and psychological vectors explain **why cooperation becomes difficult**, even when structure is in place.

Political Vector

Political influences emerge from:

- Power dynamics
- Resource control
- Legitimacy battles
- Visibility and influence
- Representation and agenda-setting
- Hidden coalitions or veto players

These forces affect how decisions are made, who shapes direction, and whose interests prevail under pressure.

Psychological Vector

Psychological influences emerge from:

- Fear, anxiety, loss of safety
- Identity and status threat
- Emotional triggers, biases, and narratives
- Trust posture and previous experiences
- Vulnerability patterns and self-protection
- Perceived fairness

These forces affect how people interpret behavior, respond to tension, and decide whether to contribute, withdraw, or protect themselves.

3.4.2 How Vectors Influence Conditions and Needs

Both vectors can act on **any** extended condition or need.
Their impact may be visible or subtle, temporary or persistent.

Examples:

- A collective structural condition (e.g., boundary clarity) becomes distorted under political pressure when influence flows outside formal decisions.
- A personal autonomy need becomes distorted under psychological tension when individuals self-censor or avoid taking initiative.
- A collective purpose need becomes distorted when the narrative is shaped by a few powerful actors.

Political vectors affect **permission**.
Psychological vectors affect **participation**.

3.4.3 The Diagnosis Framework

To diagnose extended dynamics, evaluate three layers in order:

1. Identify the Quadrant

Determine where the issue is primarily visible.

- **Collective Condition**
- **Individual Condition**
- **Collective Need**
- **Individual Need**

This prevents wrong-level interventions (e.g., coaching a person when the collective structure is broken).

2. Examine Field Impact

Assess how political or psychological forces influence the issue.

Political signals

- Unseen decision-makers
- Resource bottlenecks
- Alliance patterns
- Visibility bias
- Veto power
- Agenda manipulation
- Territorial behavior

Psychological signals

- Self-censorship
- Avoidance or withdrawal
- Emotional escalation or shutdown
- Overreaction to ambiguity
- Sensitivity to fairness
- Defensive communication
- Loss of motivation or identity threat

3. Select the Intervention Level

Once the quadrant and field are clear, choose an intervention at the appropriate level:

Structural

- Rebuild boundaries
- Clarify decisions
- Increase transparency
- Introduce or repair feedback loops

Collective

- Align purpose or narrative
- Establish shared agreements
- Run inclusion or representation checks
- Strengthen learning rhythms

Relational

- Facilitate conflict repair
- Rebuild reciprocity norms
- Improve communication safety

Individual

- Support psychological safety
- Develop emotional literacy
- Provide coaching or mentoring
- Improve clarity and expectations

The goal is to act **where the problem actually lives**, not where it is easiest or most comfortable to intervene.

3.4.4 Practical Heuristics

Use the following heuristics to quickly diagnose complexity:

"If structure is clear but behavior is erratic, check psychological vectors."
Fear, identity, and ambiguity often override clarity.

"If individuals keep failing in the same way, check collective conditions."
People adapt to the system they're in.

"If the story makes sense to leadership but not to the team, check political vectors."
Narratives often serve the interests of those who shape them.

"If conflict repeats, examine unmet needs, not personalities."
Unmet needs create predictable patterns of resistance or withdrawal.

"If people stop speaking up, treat this as a system failure, not a personal flaw."
Silence is a political and psychological signal.

3.4.5 How to Use This Chapter in Practice

This diagnostic layer is designed to be used:

- After the Core Model has been applied
- When structural issues are ruled out or insufficient
- When friction persists despite clear agreements
- When cooperation feels tense, fragile, or confusing
- When teams experience recurring interpersonal issues
- When politics or emotional dynamics distort work

The goal is not to solve human psychology or organizational politics, but to **make their influence visible**.
Once visible, they can be addressed at the right level—without expanding the Core Model, and without blaming individuals for systemic patterns.

Extended diagnostic dynamics help teams navigate the real-world complexity of cooperation with clarity, empathy, and precision.

3.5 Practices Map

This chapter provides a reference-level overview of commonly used practices that support either **Core Model functions** or **Extended Human Dynamics**.
Practices are included only to illustrate how teams often address specific conditions or needs. They are **optional**, **framework-neutral**, and **not prescriptive**.

Each practice is listed with: - A brief functional purpose (what it helps with) - Its HCS mapping (Core, Extended, or Mixed) - A simple category for navigation

The intent is to offer **direction**, not detailed instruction.

3.5.1 Legend

Core – Supports minimal structural conditions and needs of the HCS Core Model
Extended – Supports motivation, relational dynamics, psychological or political influences
Mixed – Addresses both Core and Extended dynamics

3.5.2 Motivation & Values Alignment

Moving Motivators
Surfaces individual intrinsic motivators behind behavior and engagement.
HCS Mapping: Extended (Purpose, Recognition, Autonomy)
Category: Motivation

SCARF (David Rock)
Identifies status, certainty, autonomy, relatedness, and fairness drivers.
HCS Mapping: Mixed (Trust, Fairness, Safety; Personal Needs)
Category: Motivation / Psychological Triggers

CliftonStrengths
Highlights personal strengths and energy sources.
HCS Mapping: Extended (Growth, Recognition)
Category: Strengths Awareness

3.5.3 Interaction Styles & Communication

DiSC
Provides a vocabulary for communication and interaction preferences.
HCS Mapping: Extended (Relational Predictability); Mixed (Trust)
Category: Communication Style

MBTI / 16Personalities
Describes cognitive and interpersonal preference patterns.
HCS Mapping: Extended (Relational Understanding)
Category: Communication / Empathy

3.5.4 Developmental Readiness & Leadership Adaptation

Situational Leadership
Aligns leadership behavior with individual readiness and capability.
HCS Mapping: Extended (Growth, Autonomy); Mixed (Clarity)
Category: Leadership Adaptation

Competency Models
Clarify expectations, maturity levels, and developmental pathways.
HCS Mapping: Core (Clarity); Extended (Growth)
Category: Expectations & Development

3.5.5 Safety, Belonging, and Relational Health

Psychological Safety Surveys (Edmondson)
Measures perceived safety in communication and risk-taking.
HCS Mapping: Core (Trust); Extended (Safety, Belonging)
Category: Safety Assessment

Nonviolent Communication (NVC)
Provides a structured approach for respectful, needs-based dialogue.
HCS Mapping: Extended (Belonging, Recognition, Conflict Safety)
Category: Communication / Emotional Clarity

Empathy Mapping
Makes emotional states and expectations visible.
HCS Mapping: Extended (Relational Understanding)
Category: Empathy & Insight

3.5.6 Conflict, Repair, and Difficult Conversations

Radical Candor
Supports direct yet caring communication to address tension.
HCS Mapping: Mixed (Feedback Clarity, Relational Repair)
Category: Feedback & Conflict

Crucial Conversations
Framework for navigating high-stakes or emotionally charged dialogue.
HCS Mapping: Extended (Conflict Safety, Trust)
Category: Conflict Management

Conflict Styles Inventory (TKI)
Identifies preferred conflict responses to improve collaboration.
HCS Mapping: Extended (Relational Conditions)
Category: Conflict Behavior

3.5.7 Sensemaking, Purpose, and Collective Narrative

Team Canvas
Aligns teams on purpose, values, roles, and expectations.
HCS Mapping: Core (Shared Purpose, Clarity); Extended (Belonging)
Category: Alignment

Appreciative Inquiry
Strengthens shared identity through positive narrative exploration.
HCS Mapping: Extended (Purpose, Belonging, Coherence)
Category: Narrative & Identity

Storytelling Workshops
Helps teams articulate and align personal and collective narratives.
HCS Mapping: Extended (Purpose, Meaning)
Category: Sensemaking

3.5.8 Structural & Decision-Making Clarity

RACI / RASCI
Clarifies roles, responsibilities, and decision ownership.
HCS Mapping: Core (Boundary Clarity, Coordination)
Category: Structural Clarity

Decision Records (ADRs / CDRs)
Make decisions visible and traceable over time.
HCS Mapping: Core (Transparency); Extended (Fairness)
Category: Decision-Making

Working Agreements
Create explicit local rules for collaboration and behavior.
HCS Mapping: Core (Clarity); Extended (Predictability)
Category: Team Norms

3.5.9 Representation, Fairness, and Inclusion

Stakeholder Mapping
Makes influence, representation, and interests visible.
HCS Mapping: Extended (Fairness, Legitimacy; Political Vector)
Category: Influence & Representation

Inclusion Audits
Evaluates whose voices, roles, or perspectives are missing.
HCS Mapping: Extended (Fairness, Belonging)
Category: Inclusion

Liberating Structures
Ensures equitable participation in group discussions.
HCS Mapping: Extended (Belonging); Mixed (Clarity)
Category: Group Facilitation

3.5.10 How to Use This Map

- Begin with the Core Model or Extended Dynamics to identify the primary condition or need.
- Select a practice that supports the function you are trying to explore or stabilize.
- Use practices **as inputs for discussion**, not as predefined solutions.
- Keep structural issues and human issues distinct when choosing interventions.
- Avoid using practices to “fix” what is actually a structural gap in the Core Model.

The Practices Map is intentionally **lightweight**.
Its purpose is to orient practitioners toward appropriate tools without prescribing methods or replacing agreements defined by HCS.

3.6 Integration Guide

The Core Model defines the structural foundation of cooperation.
Extended Human Dynamics describes the human and political forces that shape how cooperation is experienced.

This guide explains how to use both layers together in a coherent diagnostic flow, and how to choose interventions at the correct level without overreaching into areas that the Core Model does not attempt to govern.

The goal is to make cooperation understandable and actionable without simplifying the complexity of human systems.

3.6.1 The Integration Principle

Use the Core Model to diagnose **structural** gaps.
Use the Extended Model to diagnose **human** and **political** distortions.

Both must be considered, but never confused.

Structure first. Experience second.
Conditions before emotions.
Needs before tools.

This ordering keeps interventions grounded, fair, and effective.

3.6.2 Step 1 — Start With the Core Model

Begin with the HCS matrix and pyramid:

- Identify which core conditions are missing or weak
- Confirm the level of alignment, clarity, and coordination
- Examine trust and purpose as system-level needs
- Test whether work is structured correctly for cooperation

If any core condition is broken, address it first.
Most recurring team issues originate from structural gaps.

Examples:

- Misalignment → unclear purpose or boundaries
- Coordination friction → missing feedback loops
- Tension and escalation → unclear decisions
- Blame and anxiety → weak visibility and trust

Extended dynamics should not be used as a substitute for structural clarity.

3.6.3 Step 2 — Move to Extended Conditions and Needs

When the structure is intact but the cooperation still feels:

- tense
- fragile
- inconsistent
- political
- emotionally charged
- or confusing

then examine extended conditions and needs.

Use the collective/individual classification to pinpoint the level:

- **Collective** → norms, narratives, fairness, shared meaning
- **Individual** → motivation, autonomy, recognition, safety

This prevents misdiagnosis (e.g., assuming lack of motivation when the issue is unclear expectations).

3.6.4 Step 3 — Evaluate Political and Psychological Vectors

Once the quadrant is clear, examine how influence fields affect it.

Political vector

- Power, visibility, resource control, legitimacy
- Hidden agendas or veto players
- Representation gaps
- Territorial behavior or informal hierarchies

Psychological vector

- Fear and uncertainty
- Status or identity threat
- Emotional triggers
- Self-censorship, avoidance, or defensiveness

This reveals why cooperation is distorted, even when structure appears correct.

3.6.5 Step 4 — Select the Right Level of Intervention

Act where the issue truly lives.

Structural interventions (Core)

- Clarify decisions and boundaries
- Increase visibility and feedback
- Stabilize commitments
- Re-align purpose or flow

Collective interventions (Extended)

- Rebuild shared narrative
- Align expectations and agreements
- Improve representation and fairness
- Strengthen learning rhythms

Relational interventions (Extended)

- Repair conflict
- Improve communication safety
- Build reciprocity and predictability

Individual interventions (Extended)

- Clarify expectations
- Offer feedback or coaching
- Support emotional safety
- Address recognition or growth needs

Selecting the wrong level creates new dysfunction.

3.6.6 Step 5 — Use Practices as Inputs, Not Prescriptions

Practices listed in the map (e.g., DiSC, Moving Motivators, RACI, NVC) support exploration, not enforcement.

Use them to:

- generate insight
- create vocabulary
- surface hidden patterns
- support agreements

Do **not** use them to:

- override structure
- assign identity labels
- replace the Core Model
- fix political issues with personal coaching
- fix structural issues with emotional tools

The system dictates the boundaries. Practices support conversation within those boundaries.

3.6.7 Step 6 — Close the Loop

After intervening:

- re-check the Core Model
- confirm structural alignment
- confirm extended tensions have softened
- update agreements if needed
- document insights for collective memory

This loop maintains cooperative stability across time.

3.6.8 How This Guide Fits Within HCS

The Integration Guide is not an additional model.
It is a practical bridge that ensures:

- the Core Model stays clean and universal
- extended dynamics do not dilute structural clarity
- practitioners avoid misdiagnosis
- leadership tools are used intentionally
- interventions land at the correct systemic level

It aligns the human experience with the structural design, creating cooperation that is both **stable** and **humane**, both **clear** and **adaptive**.

4. REFERENCE

4.1 Glossary

The **Human Cooperation System (HCS)** defines a foundational language for describing the dynamics of **cooperative work systems** — how individuals and groups align, commit, and adapt together across levels of stability and change.
This glossary supports consistency across HCS Core Model, Pyramid, Matrix, and Diagnostic Workflow.

4.1.1 Core System Terms

Term	Meaning
Human Cooperation System (HCS)	A diagnostic system that explains how cooperative work remains stable and adaptive across changing conditions. It models the “physics” of collaboration using the Pyramid, Matrix, and Level Rule.
Pyramid Model	Hierarchical structure of stability, from foundational human conditions (Level 1) to reflective meta-practices (Level 5).
Matrix Model (5×5)	Two-dimensional map crossing five cooperative dimensions with five human conditions to identify functional gaps or tensions in a system.
Level Rule	Governing principle stating that dysfunction at a lower level cannot be resolved by interventions at higher levels. Stability must be restored bottom-up.
Diagnostic Workflow	A repeatable method for observing behaviors, identifying affected levels and functions, and selecting interventions that respect the Level Rule.

4.1.2 Foundational Conditions (Pyramid Level 1)

Term	Meaning
Common Purpose	The shared intent that gives meaning and direction to collective effort.
Shared Understanding	The degree to which participants interpret information and goals in the same way.
Mutual Commitment	The willingness of each participant to invest effort and uphold agreements that sustain cooperation.
Trust	Confidence that others will act reliably and with integrity within shared norms.
Interdependence	Recognition that outcomes depend on others, making collaboration both necessary and valuable.

4.1.3 Systemic Enablers (Pyramid Levels 2–3)

Term	Meaning
Autonomy	The ability to make decisions within agreed boundaries; freedom coupled with responsibility.
Agency	The individual or group’s capacity to act intentionally to influence outcomes within a system.
Distribution of Roles	How authority, accountability, and contribution are shared to balance autonomy and coherence.
Feedback Loops	Mechanisms through which information about performance or environment is used to adjust behavior and improve outcomes.
Change / Uncertainty	Natural variability in environment, priorities, or conditions that tests the adaptability of the system.

4.1.4 Cooperative Function Groups (Level 3)

Term	Meaning
Strategic Alignment	Ensures clarity of *what* and *why* — aligning purpose and understanding across participants.
Execution & Coordination	Maintains flow of work, role clarity, and cross-functional collaboration.
Systemic Governance	Establishes decision-making, delegation, and accountability mechanisms that balance trust and control.
Learning & Adaptation	Converts experience and feedback into collective improvement and resilience.
Communication Fidelity	Ensures that messages are transmitted, received, and interpreted as intended.

4.1.5 Principles and Rules

Term	Meaning
Function-First Principle	Effective practices must be matched to the cooperative function they serve, not adopted by imitation.
Lowest-Level Fix Rule	Interventions should always address the root level where instability originates.
Whole-System View	Understanding that all cooperative dimensions interact; improvement in one area affects others.
Reflective Practice	Periodic examination of how cooperation itself functions, leading to intentional redesign (Level 5 behavior).

4.1.6 Relationships to Other Frameworks

Term	Meaning
3-in-3 SDLC Framework (3SF)	A meta-framework derived from HCS principles that operationalizes cooperation in software delivery ecosystems.
Agile / Lean / Scrum	Examples of Level 4 frameworks that depend on stable lower-level cooperative functions to succeed.
Systems Thinking	The philosophical foundation of HCS — viewing cooperation as an interconnected adaptive system rather than a set of isolated practices.

4.1.7 Reference Purpose

This glossary ensures terminological clarity across all components of the Human Cooperation System and supports:

- Consistent interpretation of key terms in diagnostics and workshops.
- Alignment between HCS theory and practical applications such as 3SF.
- Educational use in training, coaching, and organizational learning contexts.

4.2 Sources and Frameworks

The **Human Cooperation System (HCS)** builds upon a wide range of theories, models, and disciplines that have shaped how humans understand **cooperation, trust, and adaptive systems**.
This section lists the **academic and conceptual influences** that inform HCS theory and its derivatives (including 3SF).

Each source is categorized by its **theoretical contribution area** — systemic, psychological, communicative, or organizational — highlighting how HCS integrates existing knowledge into a unified diagnostic model of human cooperation.

4.2.1 Systems Thinking and Cybernetics

Source / Framework	Core Idea	Relevance to HCS
General Systems Theory (Bertalanffy)	All systems — biological, social, or technical — share structural and functional patterns.	Provides the foundation for viewing cooperation as a *system of interacting elements* rather than isolated behaviors.
The Fifth Discipline (Peter Senge)	Organizations learn and adapt through feedback and systemic awareness.	Inspires HCS's focus on *feedback loops* and *collective learning* as stabilizing forces.
The Viable System Model (Stafford Beer)	Describes how systems maintain internal stability and external adaptability through recursive control loops.	Informs HCS's concept of *Systemic Governance* and *Autonomy–Control balance*.
Cybernetics (Wiener / Ashby)	Studies self-regulating systems and the role of feedback and control.	Underpins HCS's diagnostic logic and *Level Rule* — stability emerges from functional feedback, not hierarchy.
Complex Adaptive Systems (Holland / Gell-Mann)	Systems evolve through adaptation and local interaction under uncertainty.	Reinforces HCS's treatment of *Change and Uncertainty* as natural, not exceptional, conditions.

4.2.2 Human Motivation and Organizational Psychology

Source / Framework	Core Idea	Relevance to HCS
Hierarchy of Needs (Maslow)	Human motivation progresses from basic to self-actualizing needs.	Provides conceptual ancestry for the *HCS Pyramid* and the *Level Rule* — higher forms of cooperation rely on lower-level stability.
Self-Determination Theory (Deci & Ryan)	Autonomy, competence, and relatedness drive intrinsic motivation.	Directly informs HCS's dimensions of *Autonomy* and *Mutual Commitment*.
Theory X and Theory Y (McGregor)	Management assumptions influence employee motivation and trust.	Supports HCS's framing of *Trust* and *Agency* as emergent, not enforceable, conditions.
Psychological Safety (Edmondson)	Teams learn and innovate when members feel safe to take interpersonal risks.	Embedded in HCS's *Learning and Adaptation* function.
Social Exchange Theory (Blau)	Relationships are sustained through reciprocal benefit and fairness.	Grounds HCS's view of *Mutual Commitment* as both emotional and contractual.

4.2.3 Communication and Shared Meaning

Source / Framework	Core Idea	Relevance to HCS
Shannon–Weaver Model of Communication	Information transmission depends on reducing noise and distortion.	Forms basis for HCS's *Communication Fidelity* function.
Double-Loop Learning (Argyris & Schön)	True learning requires questioning underlying assumptions, not just correcting errors.	Informs *Reflective Practice* and *Level 5 Meta-Systems Thinking*.
Sensemaking (Weick)	People construct meaning retrospectively to understand ambiguous situations.	Explains why *Shared Understanding* is a dynamic, co-created process.
Nonviolent Communication (Rosenberg)	Empathic communication strengthens relationships and trust.	Reinforces the emotional intelligence aspect of *Trust* and *Feedback Loops*.

4.2.4 Organizational Design and Governance

Source / Framework	Core Idea	Relevance to HCS
Sociotechnical Systems Theory (Trist & Emery)	Optimal performance arises when social and technical subsystems are jointly optimized.	Validates HCS's integration of human and procedural stability layers.
Lean Thinking (Womack & Jones)	Continuous removal of waste to improve flow and value.	Reflects in HCS's *Execution & Coordination* function.
Kaizen	Continuous small improvements by all participants.	Embedded in *Learning & Adaptation* and the *Diagnostic Workflow*.
Adaptive Leadership (Heifetz)	Leadership is about enabling systems to adapt, not control.	Mirrors the *Systemic Governance* and *Agency* principles in HCS.
Organizational Learning (Argyris, Senge)	Organizations evolve when individuals learn within systemic feedback structures.	Reinforces *Systemic Learning* and the importance of *feedback closure*.

4.2.5 Philosophical and Ethical Foundations

Source / Framework	Core Idea	Relevance to HCS
Aristotle – Nicomachean Ethics	Virtue arises from practiced balance between extremes.	Influences HCS's pursuit of equilibrium between autonomy and control.
Kantian Ethics	Human cooperation is grounded in respect for rational agency.	Echoes in HCS's concept of *Agency* and moral interdependence.
Ubuntu Philosophy ("I am because we are")	Human identity and well-being are inseparable from community.	Embodies the relational worldview behind *Interdependence* and *Mutual Commitment*.
Phenomenology (Husserl / Merleau-Ponty)	Meaning is constructed through lived experience.	Supports HCS's principle that *Shared Understanding* emerges through interaction, not instruction.

4.2.6 Bridging Toward Practice

Source / Framework	Core Idea	Relevance to HCS
Agile / Lean / Scrum	Frameworks that operationalize adaptability and feedback.	Represent Level 4 practices that rely on stable lower-level HCS conditions.
3-in-3 SDLC Framework (3SF)	Systemic governance model for client–vendor ecosystems.	Serves as a *Level 5 derivative* — an applied embodiment of HCS principles.
Team Topologies (Skelton & Pais)	Structures teams for flow and cognitive load balance.	In practice, can be evaluated through HCS's *Execution & Coordination* function.
VMOSA / OKR / Wardley Maps	Strategic planning and situational awareness frameworks.	Connect to *Strategic Alignment* at Level 3, translating cooperative intent into measurable direction.

4.2.7 Reference Philosophy

HCS does not seek to **supersede** these theories — it **synthesizes** their enduring principles into a unified, practical system for diagnosing cooperation.

> **In essence:**
> **HCS = (Systems Thinking + Organizational Psychology) × (Communication + Adaptive Governance)**
> structured through the **Pyramid** (stability hierarchy) and **Matrix** (functional map),
> providing the theoretical foundation for applied frameworks like **3SF**.

4.3 Version and Licensing

This section documents the current version, license, and attribution principles for the **Human Cooperation System (HCS)**.
It ensures transparency, traceability, and consistency across all derivative works, educational materials, and frameworks built upon it — including the **3-in-3 SDLC Framework (3SF)**.

4.3.1 Version Information

Attribute	Description
System Name	Human Cooperation System (HCS)
Version	**V1.0**
Status	Stable — foundational version established as the theoretical core of cooperative system design.
Release Date	November 2025
Maintained by	3in3.dev
Repository	GitHub – vitar/hcs

Version Summary

Version 1.0 consolidates the **core theoretical architecture** of the Human Cooperation System, including:

- **Pyramid Model** — five hierarchical levels of stability, from human conditions to meta-practices.
- **Matrix Model (5×5)** — mapping of cooperative dimensions across fundamental human needs.
- **Level Rule** — the governing principle of hierarchical interdependence and systemic stability.
- **Diagnostic Workflow** — structured method for identifying dysfunctions and matching them to system functions.
- **Reference Section** — Glossary, Theoretical Grounding, Licensing, and Author information.

This release establishes HCS as the **foundational theory** upon which practical frameworks (such as 3SF) and diagnostic tools can be built.

4.3.2 Licensing

The **Human Cooperation System** and all related documentation are licensed under the:

Creative Commons Attribution 4.0 International (CC BY 4.0)

You are free to:

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4.3.3 Versioning Policy

- **Major versions (V2, V3, …)** introduce new theoretical constructs or expanded diagnostic models.
- **Minor revisions (e.g., V1.1)** include refinements, clarifications, or terminology alignment with derivative frameworks (e.g., 3SF).
- All published versions will remain **permanently available** for reference and citation.
- Future releases will maintain **backward compatibility** with the foundational definitions, rules, and models of HCS.

4.3.4 Attribution Guidelines

If reusing or adapting HCS content:

1. Include a visible credit line referencing *3in3.dev* and the license type.
2. Retain section numbering and core definitions where possible to preserve structural consistency.
3. When combining HCS content with other frameworks or methods, clearly separate attribution and derived materials.
4. For translations or derivative works, add a note identifying the adaptation (e.g., “Adapted from the original Human Cooperation System V1.0 documentation licensed under CC BY 4.0”).

4.4 About the Author

Viktor Jevdokimov, Vilnius, Lithuania — Creator of 3in3.dev, HCS, and 3SF

Viktor Jevdokimov is a software engineering leader, systems thinker, and framework designer with over 30 years of experience in software product delivery, modernization, and team alignment.

He is the creator of the **Human Cooperation System (HCS)** and the **3-in-3 SDLC Framework (3SF)**, and founder of the **3in3.dev** initiative — an independent platform dedicated to advancing collaboration and alignment between **Client**, **Vendor**, and **Product** ecosystems.

Professional Background

- Began career supporting distributed banking software on DOS and Windows, developing a deep appreciation for troubleshooting and system design.
- Progressed through roles of **developer**, **architect**, **delivery lead**, and **practice lead**, working with international clients on modernization and cloud migration initiatives.
- Specializes in **Client–Vendor relationship design**, **project leadership**, and **delivery system diagnostics**.
- Advocates for *"Context before Method"* and *"Trust before Control"* as guiding principles of effective collaboration.

Creative and Personal Work

Beyond software, Viktor is an **active musician and live sound engineer**, performing and mixing with the *Great Things* cover band.
He approaches both sound and systems with the same mindset: striving for **clarity, balance, and authenticity**.

About 3in3.dev

3in3.dev is an independent research and publishing initiative founded by Viktor Jevdokimov.
It consolidates his experience and experimentation into open frameworks that help organizations improve how they **engage, deliver, and measure value** across collaborative ecosystems.

3in3.dev publishes:

- The **Human Cooperation System (HCS)** — theoretical foundation for cooperative system design.
- The **3-in-3 SDLC Framework (3SF)** — practical application of HCS principles in software delivery.
- Supporting tools, templates, and learning materials under an open license.

> "These systems aren't about control — they're about clarity, trust, and the shared intent that makes collaboration work."
> — Viktor J., Creator of 3in3.dev