Human Observability of Incident Response

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Joint Activity & Improvisation & Signals & Incidents & Humans

Joint Activity

Joint Activity
Basic Compact

- ✔ Our common goal: Perform a **Deep Listening** piece of music.

- ✔ We will listen and **make sound together** with our voices.

- ✔ You are welcome to participate by only **listening**.

- ✔ We will vocalize for about **60 seconds**.

- ✔ A chime will **signal** a beginning and end.

The Tuning Meditation

Using any vowel sound, sing a tone that you hear in your imagination. After contributing your tone, listen for someone else's tone and tune to its pitch as exactly as possible.

Continue by alternating between singing a tone of your own and tuning to the tone of another voice. Introduce new tones at will and tune to as many different voices as are present. Sing warmly.

Deep Listening Pieces ::: Pauline Oliveros

Joint Activity

- ✓ We **intended to work together**.

- ✓ Our tuning to each other was **interdependent**.

- ✓ We stayed **committed to a common goal**.

- ✓ The **choreography** was group-directed by **coordination** via **signals**: *voices starting, raising, lowering, and stopping.*
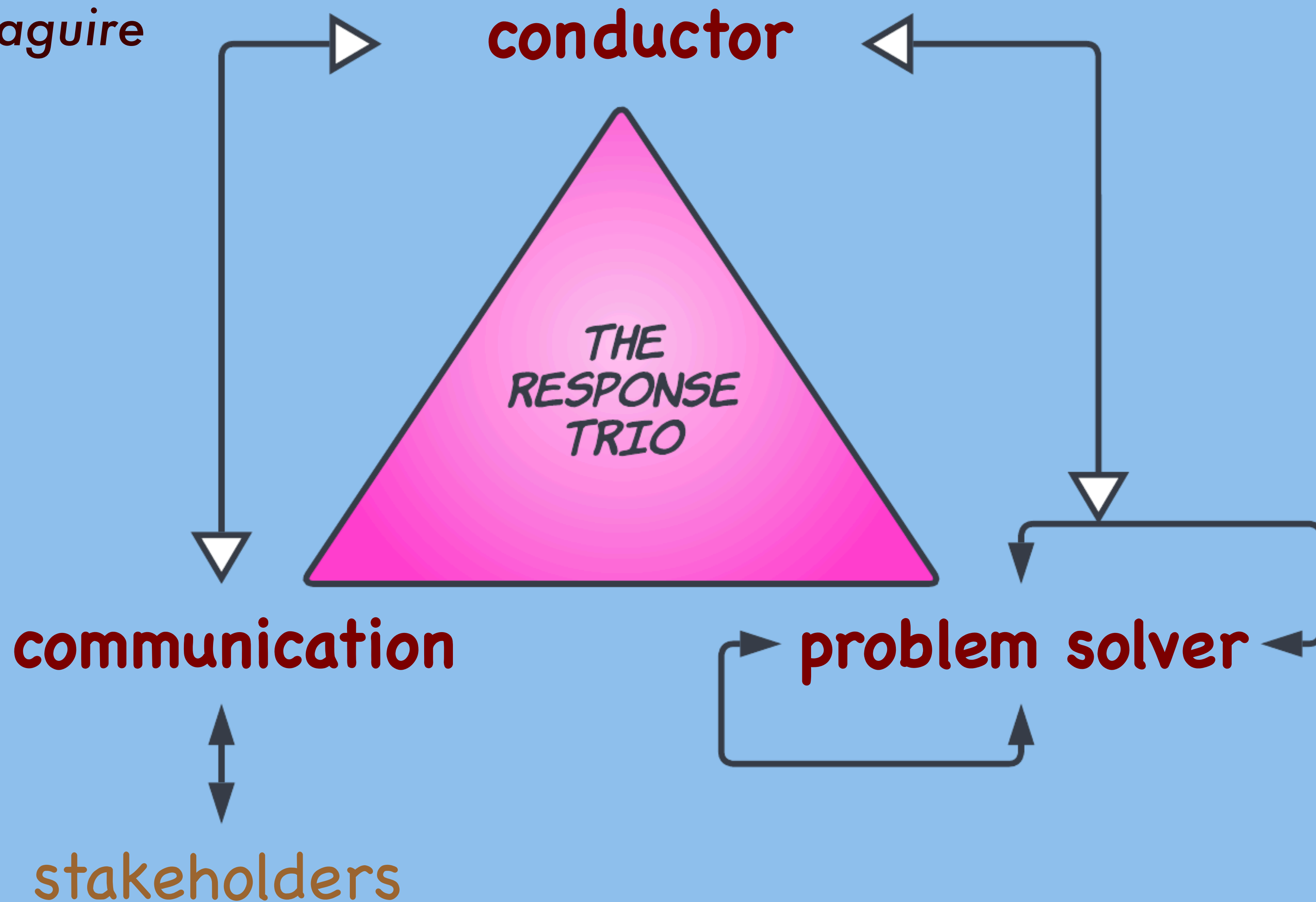
Attention

Awareness

Adaptive Choreography as *Awareness*

Interpredictability

We trust that we are in the same style,
following the same set of instructions…

… *but what if someone diverged?*

Adaptive Choreography as *Awareness*

Directability

By singing new tones,
we all receive signals of a new tone to match…

… *but what if something pulled our attention?*

Adaptive Choreography as *Awareness*

Common Ground

We sensed our surroundings as we listened,
we tested our ability to be heard alongside each other...

... but what if we were interrupted?

Incidents are Improvisations

John Zorn's Masada ::: Nick Ruechel at tribulaciones.com

Improvisation is *adaptation in concert with change.*

We develop group intuition through iterations of playing, performing, enjoying, engaging, and practicing.

We build an **idiomatic language through practice**.

This becomes *second nature* during performance: practiced it becomes *muscle memory* and **lowers coordination costs**.

Improvisation

has no existence

outside of its **practice**

Derek Bailey
Improvisation: Its Nature and Practice in Music

Incidents are Improvisations

Arctic Coastline ::: Bit Cloud on Unsplash

Complex contexts require *improvisation.*

In extreme environments, it is impossible to plan everything.

Being capable of improvising must be the focus in complex contexts.

Ensieh Roud
Collective improvisation in emergency response

Complex contexts require *collaboration*.

They require *collective sense-making* because improvisation occurs *socially or jointly*.

Tailormade training for improvisation is critical to handle challenges.

Ensieh Roud
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Incidents are Improvisations

ops chat says "standard method" but believes that is:

executes standard single server deploy as taught when onboarding

Eng

Ops

Outage

Normally Successful!

...eploy tool

hits database issues because of fragile multi step standard process

...ves the ...ase has ...serious ...sues

another step requires even more manual intervention

390

23524

354

Action Taken

Action Taken

Action Taken

Action Interrup

...this taking so ...using so many ...ren't you using ...loy tool?

Yikes ...ut this is the fi...d about a b...oy tool...

COORDINATION SURPRISE!
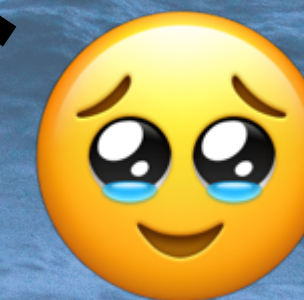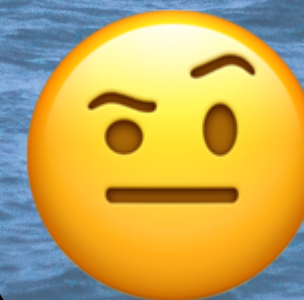
Improvisation

==
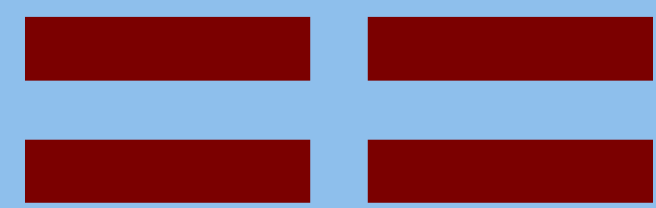
Adaptive Capacity

As we work towards remediation,
we are committed to participate in
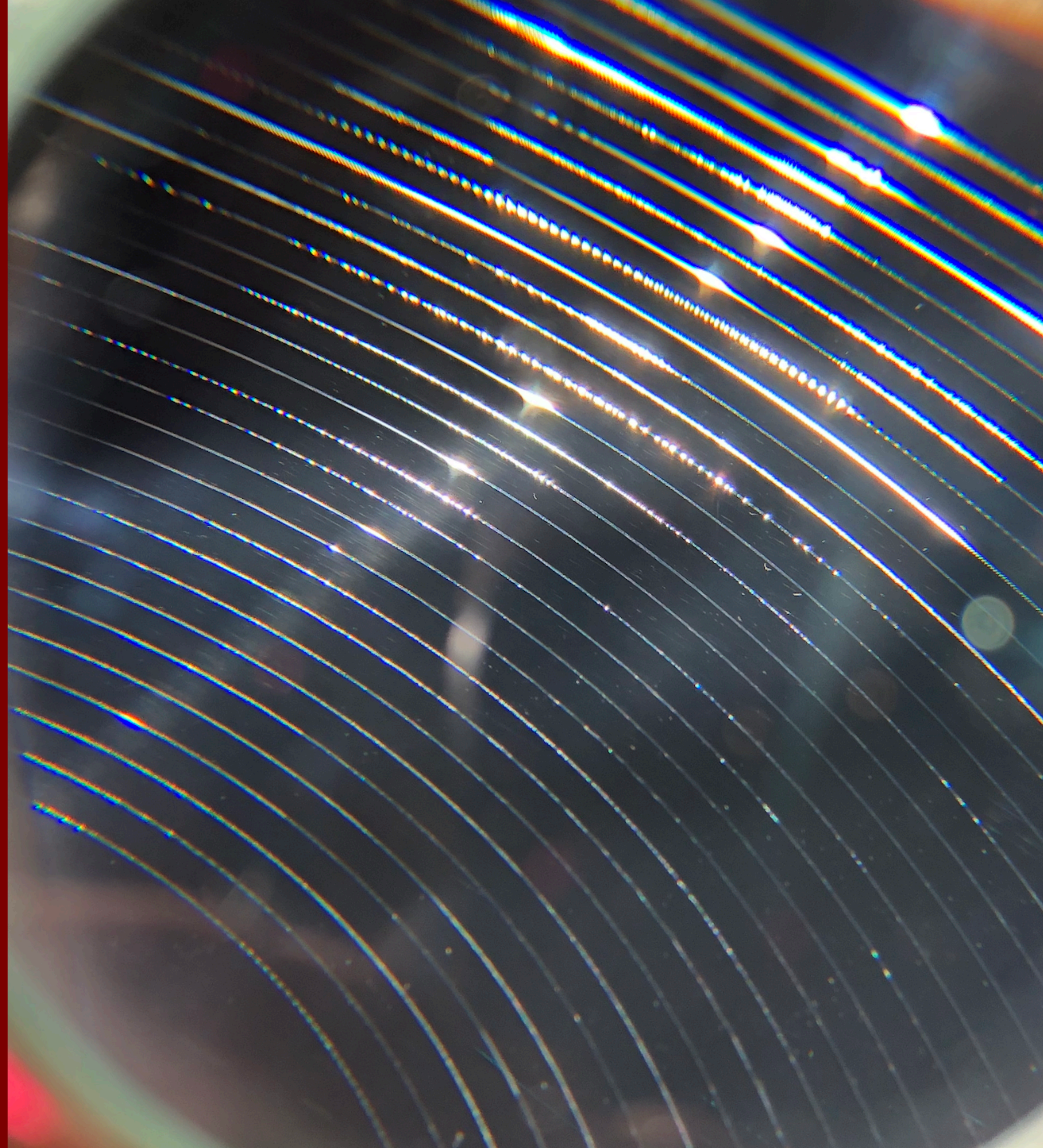
Common Grounding

A process of communicating, testing, updating, tailoring, and repairing mutual understandings & mental models.

Klein, Feltovich, Bradshaw, Woods
Common Ground and Coordination in Joint Activity

We speak coordination signals.

Signals

Skilled improvisers draw upon and adapt highly resilient motifs during performance.

Mendonça / Wallace
Cognition in Jazz Improvisation

		Mental Models
Networks	Keys	
Languages	Scales	
Process	Chords	
Data	Rhythms	
Tools	Instrument	
Quality	Harmony	
Runbooks	Melody	
Codebase	Structure	
Parlance	Style	

		Signals
Group Emails	Touch	
Closed-Loops	Breathing	
Video Calls	Eye Contact	
Threads	Tone of Voice	
Memes	Body Carriage	
DMs	Placement in Room	
@ Mentions	Vocal Direction	
Emoji/Reacji	Movement	
Doc Comments	Smell	

Incidents

Questions for Conducting

✔ Where in the **Response Trio** do I belong?

✔ Do we have **common communication**?

✔ What **routines** can we handle as a group?

✔ Do we know where to **find expertise** among our ranks?

✔ How are we each **perceiving production pressure**?

✔ Is anyone **fatigued**? Who hasn't eaten?

✔ What are the **competing priorities**?

✔ What **time of day** is it?

Support Humans

- ✓ **Listen**. Ask others their perspective.

- ✓ **Update**. Give new joins a status, check-in often.

- ✓ **Guide**. Suggest alternatives, guide through decisions.

- ✓ **Monitor**. Questions around confusion, split attention, lack of response, problem solvers missing check-ins, how people are interacting (psychological safety).

- ✓ **Repair**. Ask clarifying questions. Pull participants together for a no-work status meeting. Get replacements so people can take breaks.

Reciprocity Tactics

✓ Create resources that **help situational awareness**, e.g.: service-to-team matrix, RSS feed channels for vendor outages.

✓ **Include diverse perspectives**: *Informed* decisions are better than *rapid* ones. "The world needs all kinds of minds".

✓ **Break tunnel vision** by asking questions: What do we hope the outcome will be if we do this? Are there other outcomes?

✓ Be a **"rubber duck"** for others to get ideas flourishing.

✓ Develop adaptive capacity through **Collaborative Training**

Humans

Practice of Practice *Gamelan*

We do not practice incidents.
We practice **working together**.

Cognitive challenges are explored.

We **build and develop** from previous sessions.

It provides a **safe space** to feel vulnerable.

Our daily workflows are **shared**.

On-the-job **remote collaboration** training.

Practice of Practice *is iterative*

Inclusive fun is key.

Connect with **real events** and **Work-As-Done.**

…spin the **Wheel of Expertise,**
build **Decision Requirements Tables,**
hunt known unknowns with **Multiverse Mirror,**
handle surprise with an **Oblique Alert Strategy,**
play **RPG Your Severity,** run a **Chaos Gameday**…

Practice of Practice *as attention*

We get to introspect our work
without production pressure.

We gain understanding of the system
through **knowledge elicitation**.

We grow **closer as humans**,
gaining **empathy** through personal sharing.

We build **reciprocity** as we
help each other through ambiguity.

Q/A

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