Shared Worlds and Record Reconciliation

Record-Based Ontology must answer a direct objection.

If facts become definite through records accessible to finite systems, does objectivity collapse into subjectivism?

No.

RBO distinguishes **agent-relativity** from **arbitrariness**.

A record may be relative to an agent because it is accessible through that agent's physical channels, instruments, memory, body, environment, or interaction history. But this does not mean that the agent invents the record, chooses its content freely, or determines reality by belief.

A thermometer reading is relative to an interaction between instrument and environment. It is not arbitrary.

A memory is relative to a nervous system's retained structure. It is not automatically true, but neither is it freely chosen.

A detector trace is relative to an apparatus and experimental setup. It is not a private opinion.

A fossil is relative to geological preservation and later access. It is not subjective merely because it must be interpreted.

Agent-relativity means finite access. It does not mean world-creation by belief.

1. The problem of shared worlds

Finite systems do not encounter reality from nowhere.

Each system begins from partial access: a perspective, body, apparatus, memory, location, scale, resolution, language, institution, or technical channel.

Yet finite systems do not live in sealed private worlds. Their records can be compared, transmitted, challenged, corrected, duplicated, translated, or defeated.

This is where shared worlds emerge.

A shared world is not a primitive view from nowhere. It is a stabilized structure produced when local records become mutually constraining across systems.

This gives the basic formula:

> **A shared world emerges where local records become mutually constraining across finite systems.**

The shared world is not a fiction. It is not a vote. It is not a private projection multiplied by consensus.

It is a physically and informationally stabilized network of records that can be accessed, compared, corrected, and updated upon by more than one finite system.

2. Local records and public constraints

A local record is a record available within a limited system or domain.

It may be a perceptual state, memory, instrument reading, private note, laboratory output, bodily trace, digital file, or environmental imprint accessible only from a particular position or through a particular apparatus.

Local records are unavoidable because no finite system begins with total access.

But local records are not necessarily private in the strong sense. They may enter public structures.

A record becomes public not because everyone believes it, but because it enters a network in which multiple systems can access, test, compare, correct, or update on it.

Publicity is structural availability, not popularity.

A witness report becomes public when it is communicated, recorded, compared with other reports, checked against material traces, and made available for correction.

A scientific measurement becomes public when raw data, apparatus conditions, methods, calibrations, and results enter a structure of replication and criticism.

A legal record becomes public when it is authenticated, filed, cited, contested, and used within institutional procedures.

Public facts are not created by social agreement alone. They are stabilized through record-networks that constrain agreement.

3. Redundancy and shared access

Redundancy is one of the main routes from local record to shared world.

A record is redundant when the same relevant difference is preserved in multiple carriers, channels, or systems.

A fire may be recorded by smoke, smell, temperature, satellite images, alarms, witness memories, burn patterns, emergency calls, and later reports.

A laboratory result may be recorded in apparatus output, raw data files, notebooks, statistical tables, replication attempts, and publications.

A physical object may be recorded through visual appearance, touch, resistance, sound, weight, location, use, and its effects on other objects.

Redundancy matters because it makes a difference harder to erase, easier to check, and more available to multiple systems.

But redundancy alone does not guarantee truth.

A falsehood can also be copied. A rumor can spread. A bad dataset can be cited repeatedly. A forged document can enter archives. A biased measurement can be reproduced if the same faulty protocol is used.

For redundancy to support objectivity, it must be joined to independence and correction.

Multiple records matter most when they are not merely copies of the same error.

4. Communication as record-transfer

Communication is often treated as the exchange of meanings.

From an RBO perspective, it is more basic than that: communication is the transfer, reproduction, or transformation of records across systems.

When I say that it is raining, I do not transmit the rain itself. I transmit a record of my access to the rain.

If you look out the window and see rain, your record reconciles with mine.

If you see dry pavement and sunlight, the reconciliation fails.

If a weather radar shows rain nearby but not here, the record-network becomes more precise.

Communication allows local records to enter shared structures.

Speech transfers records through sound. Writing transfers records through marks. Digital systems transfer records through encoded states. Scientific publications transfer records through standardized descriptions. Institutions transfer records through forms, archives, signatures, timestamps, and procedures.

Language is powerful because it makes records durable, mobile, revisable, and public.

But language is not the foundation of recordhood. Environmental traces, bodily marks, instrument outputs, and non-linguistic signals can also carry records.

5. Disagreement and correction

Disagreement is not a failure of the record-based framework. It is one of the reasons the framework is needed.

Finite systems differ in access, memory, instruments, position, scale, concepts, and noise conditions. Their records may conflict.

When records conflict, several things can happen.

One record may be defeated by stronger records.

Both may be partially correct under different descriptions.

Both may be records of different targets.

The conflict may reveal ambiguity in the original classification.

A new record may be needed to adjudicate the dispute.

The system of classification may need revision.

Suppose one observer says an object is green and another says it is blue. The disagreement may arise from lighting, color vision, linguistic convention, surface reflectance, measurement conditions, or a genuinely ambiguous case. The shared fact is not obtained by choosing one impression arbitrarily. It is refined by building a better record-network.

Correction is therefore central to objectivity.

Finite systems do not escape records into pure access to reality. They improve their relation to reality by making records more stable, independent, redundant, precise, and mutually constraining.

6. Objectivity without a view from nowhere

RBO rejects two opposite mistakes.

The first mistake is naive realism: the idea that finite agents simply access facts as already labeled items from nowhere.

The second mistake is subjectivism: the idea that because access is finite and mediated, facts are merely private or arbitrary.

RBO offers a third path.

Objectivity is not unmediated access to reality as a total inventory.

Objectivity is the stabilization of record-structures under public constraints of comparison, correction, replication, and resistance to defeat.

This is why scientific objectivity does not require a view from nowhere. It requires methods that force local records to answer to other records: calibration, replication, independent measurement, error analysis, peer criticism, instrumentation, and mathematical constraint.

It is also why ordinary objectivity does not require omniscience. A shared table, road, room, body, document, or event becomes public through stable patterns that multiple systems can track and correct across perspectives.

A shared world is therefore not primitive. It is achieved.

7. Shared worlds and false records

A shared world can contain false records.

This is unavoidable.

A rumor may become socially widespread. A forged document may enter an archive. A faulty measurement may be repeated. A collective memory may distort an event. A database may propagate an error. A scientific model may organize data well for a time and later be replaced.

This does not destroy objectivity.

It shows that objectivity is fallibilist.

A false record can become public, stable, and consequential. But it remains answerable to correction by other records and by the physical constraints that produced or failed to support it.

The possibility of error is not external to shared worlds. It is one of their structural conditions.

Only systems with records can be wrong in a disciplined way.

Only record-networks can preserve, detect, and correct errors across time.

8. The role of institutions

Institutions are large-scale record-reconciliation systems.

Courts, laboratories, universities, hospitals, libraries, archives, scientific journals, public registries, standards bodies, and databases all stabilize and regulate records.

They do not create truth by decree. They create procedures through which records can be preserved, transmitted, authenticated, compared, challenged, and corrected.

An institution can fail. It can preserve false records, suppress correction, amplify bias, or mistake stability for truth.

But the reason institutions matter is record-based: they extend the range of finite access beyond individual memory and local perception.

They allow records to outlive persons, travel across communities, and become part of shared worlds.

9. Shared worlds and quantum objectivity

The logic of shared worlds also matters in quantum foundations.

Quantum Darwinism and related approaches emphasize that classical objectivity emerges when information about a system becomes redundantly encoded in the environment. Multiple observers can access different environmental fragments and recover the same effective information.

RBO is broader than this physical mechanism, but the philosophical lesson is aligned.

Public definiteness requires stable, redundant, accessible records.

A quantum outcome becomes objective for a community of finite systems when it enters record-structures that can be accessed, compared, and preserved across more than one local perspective.

This does not require consciousness as a collapse trigger.

It requires record-reconciliation under physical constraints.

10. The shared-world formula

The record-based account of shared worlds can be summarized as follows:

> **A shared world is a stabilized network of mutually constraining records across finite systems.**

Or, more compactly:

> **Objectivity is record-reconciliation under correction.**

This view avoids both naive realism and subjectivism.

It does not pretend that finite systems access reality from nowhere.

It does not reduce reality to private experience, social agreement, or linguistic convention.

It treats shared worlds as physically constrained, record-mediated, and fallibly correctable structures of finite definiteness.

11. Conclusion

RBO begins from finite access, but it does not end in private worlds.

Finite systems can compare records, transmit them, correct them, duplicate them, challenge them, and build institutions around them.

Through these processes, local records become public constraints.

Through public constraints, shared worlds become stable.

The shared world is therefore not an unrecorded metaphysical inventory seen from nowhere. Nor is it a social fiction.

It is a record-reconciled structure of finite objectivity.

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