Philosophy as Rational Construction

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- *Philosophy as science* (naturalism; Quine, Maddy, Williamson, Shramko):

  Science aims at the description, explanation, and prediction of *natural phenomena* and *abstractions thereof*.

  Is philosophy, or should it be, a "high-level" description of "the world"?

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  Is philosophy, or should it be, a "high-level" description of "the world"?

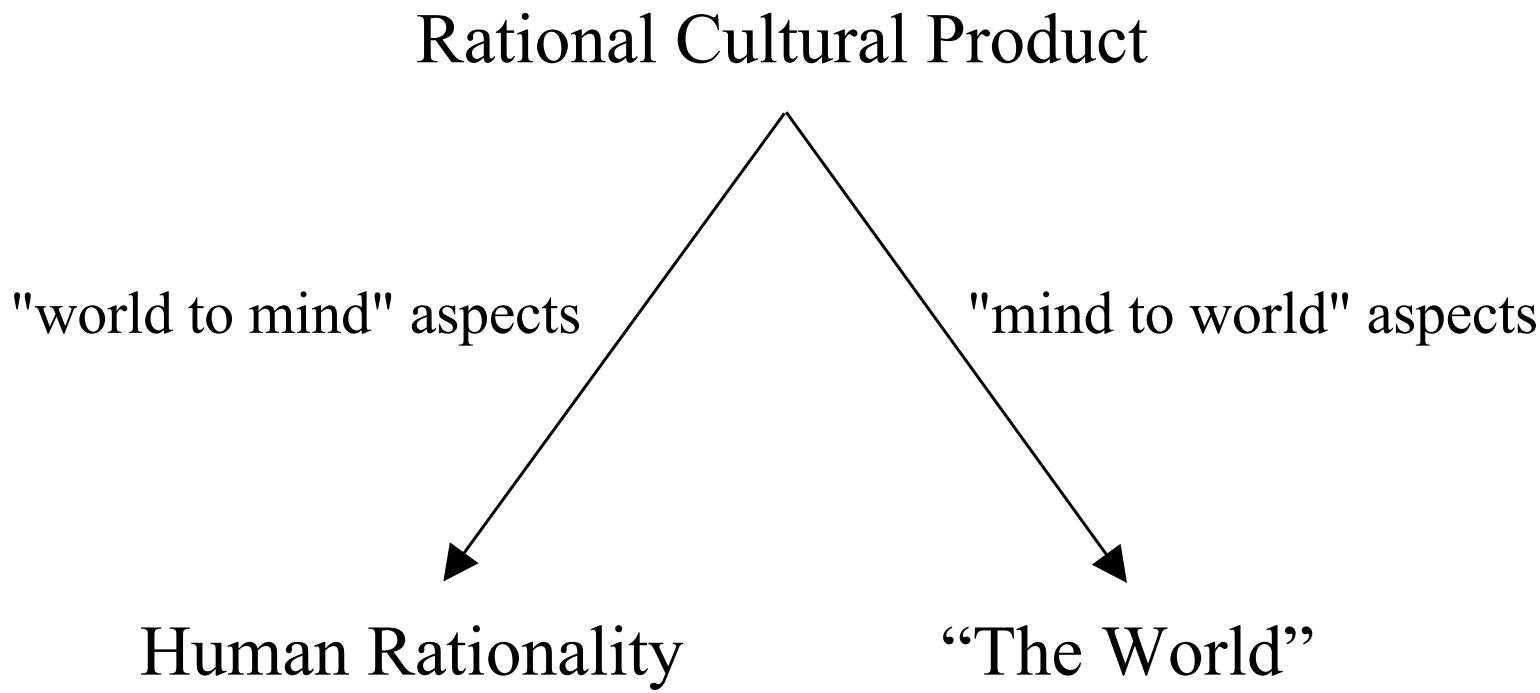
- *Philosophy as overlapping with science in methods:*

  Philosophy may have different aims than science but shares important methods with science.

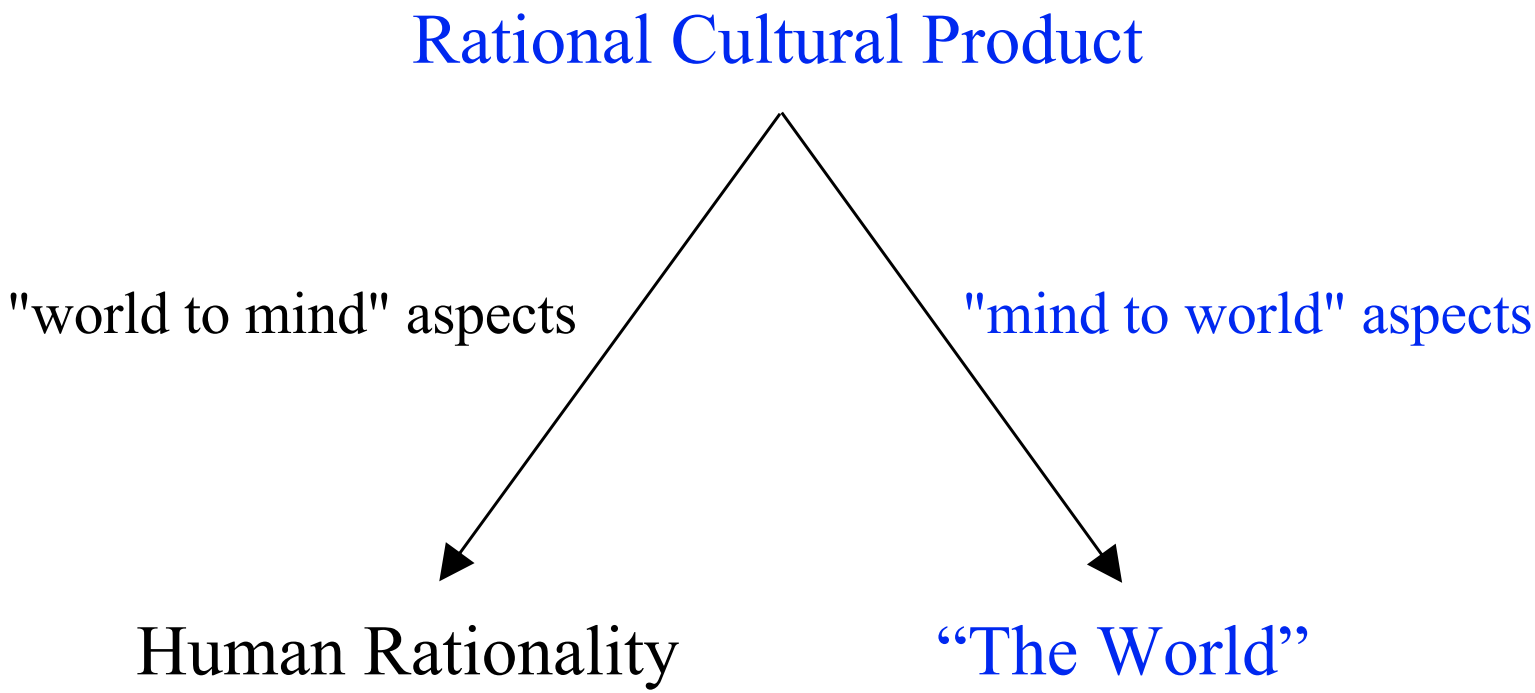
  If so, we still need a proper self-image on which fruitful future work in scientific philosophy can be based.

  $\hookrightarrow$ That is what I am interested in today.

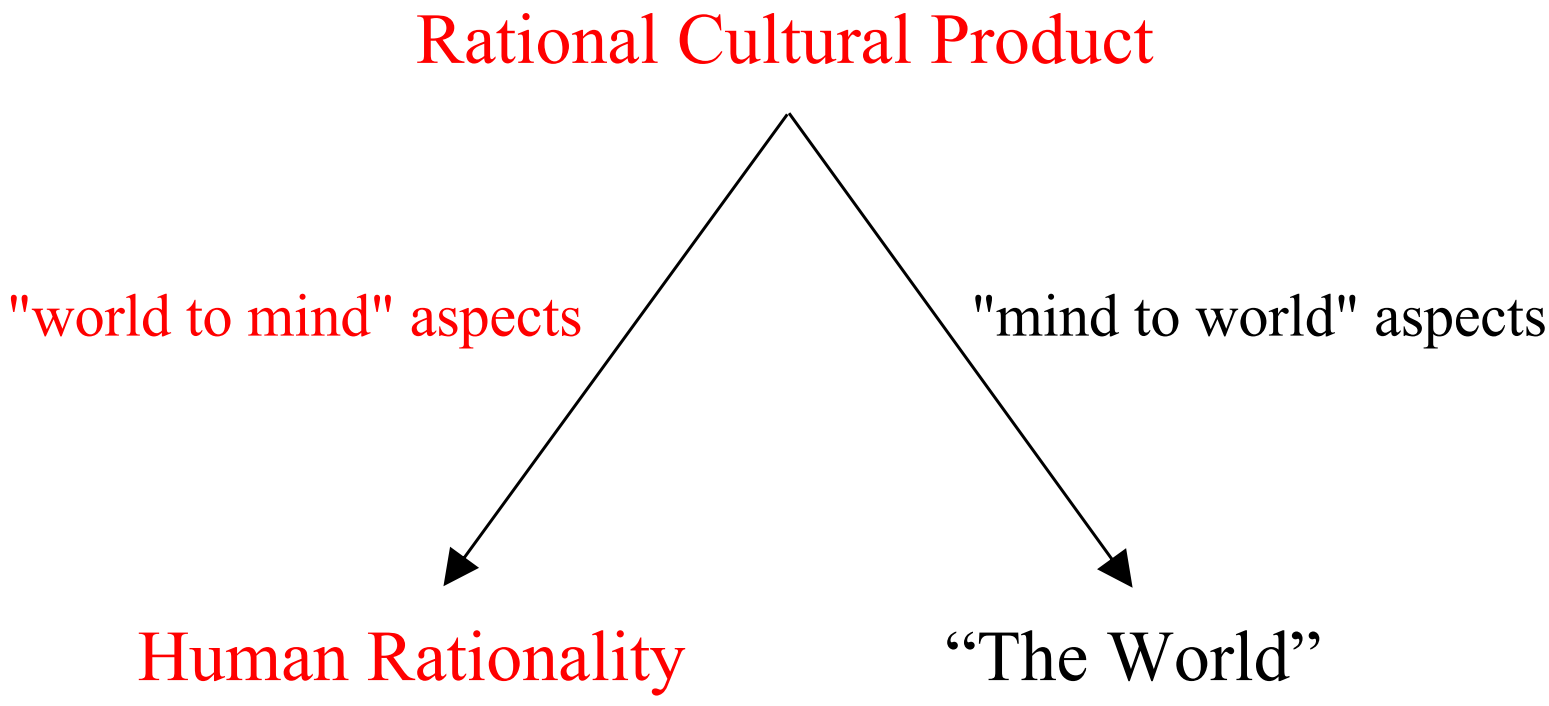
The Idea:


Rational Cultural Product
"world to mind" aspects
"mind to world" aspects
Human Rationality
“The World”

The Idea: Science



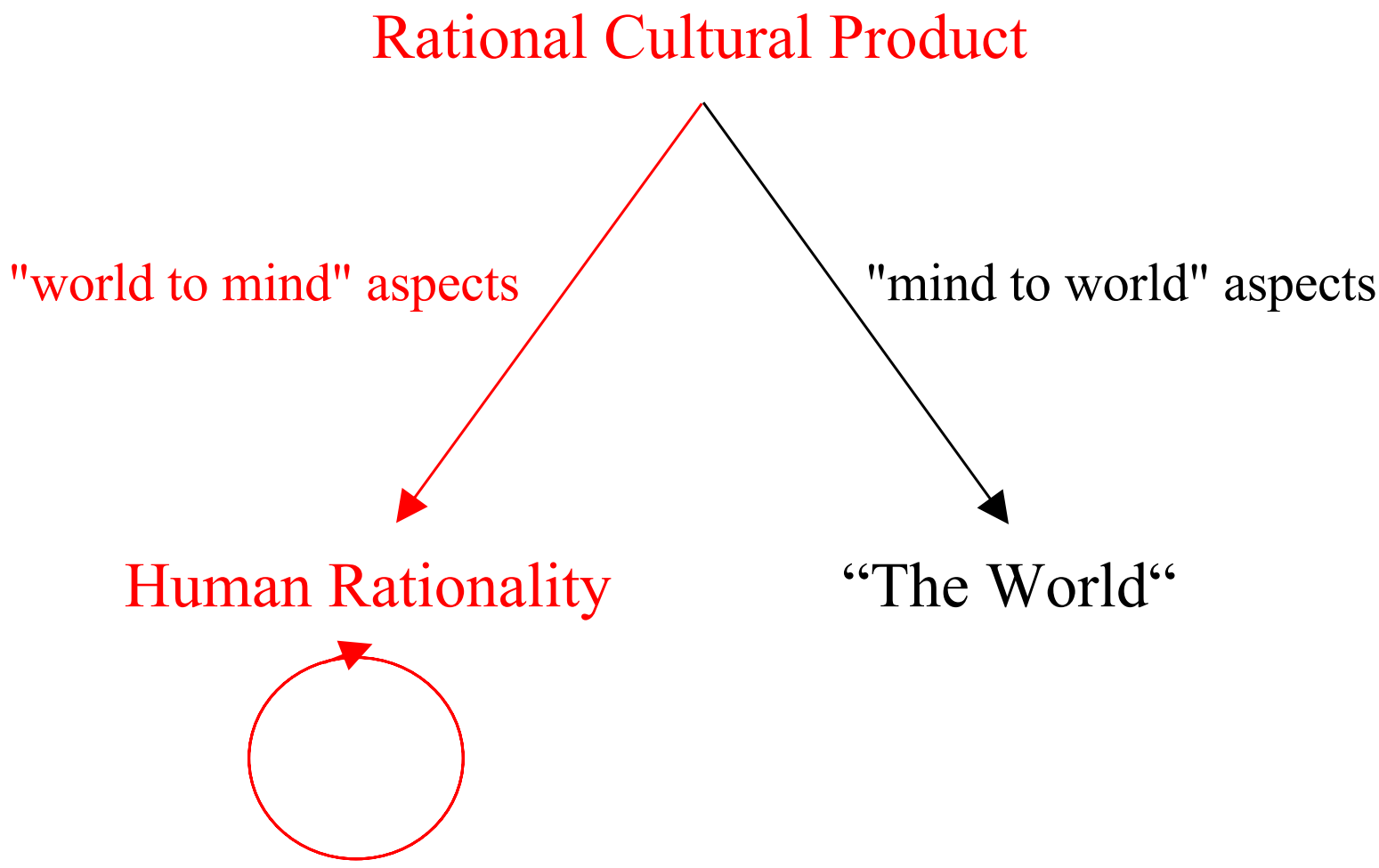
The Idea: Philosophy as rational construction



(Closely related:

first-person vs. third-person; normative vs. descriptive; “Vernunft” vs. “Verstand”)

The Idea: Philosophy as rational construction



Metaphilosophical proposal: Let us understand philosophy as devoted to

- *rational intellectual constructions* that do not aim to describe “the world” but *that aim at realizing norms of rationality as such*.

Call this proposal: *Rational Constructionism*.

Ultimately, the hope is:

this proposal is not too revisionary, it clarifies our self-image,
and it may help philosophy (just a bit) in the long run.

(It is *not* my goal to capture everything that was called ‘philosophy’ once,
nor to *police* philosophers.)

Plan:

1. Rational Intellectual Constructions...
2. ... Aiming at Realizing Norms of Rationality as such
3. Rational (Re-)construction vs. Science
4. Conclusions

My case study will be *formal theories of truth* in philosophical logic.

Rational Intellectual Constructions...

First part of the proposal: Let us understand philosophy as aiming at

- *rational intellectual constructions* (of a certain kind).

For a start, it is useful to focus on special rational constructions:

- rational *re*constructions.

I take the term 'rational reconstruction' from Rudolf Carnap (e.g. in his *Aufbau*, 1928); it was used later also by Reichenbach, Habermas,...

(From 1945 Carnap also spoke of 'explication'. Explication is restricted to concepts, while rational reconstruction is broader.)

I will explain 'rational reconstruction' first and then turn to 'construction proper'.

Rational reconstruction is a special kind of activity/process (or its result):

- '*Re-*' means that one starts with a given X upon which one reflects:
  X is an intellectual cultural product with rationality features.

- '*-construction*' means that one is taking apart X:
  studying, amending, and reassembling it—a kind of engineering.

  (This includes but goes beyond *conceptual* engineering.)

- '*rational*' means that, when doing so, one is taking a particular normative stance:

  (i) one determines X's rational/irrational features;

  (ii) one evaluates X's rational/irrational features;

  (iii) if sufficiently rational, one leaves X as it is; if overly irrational, one rejects X; else, one corrects X's irrational features and enhances X's rational features by replacing X by a similar but more rational X'.

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But, *contrary to* Wittgenstein:

- the object of the “therapy” need not be linguistic: one may also rationally reconstruct *concepts, frameworks, beliefs, reasoning, decisions, methods, norms, ideals, plans of institutions, how they all relate to each other*,. . .
- the “therapy” need not be exhausted by a “diagnosis” (clarification through examples, analysis) or “amputation” (rejection) but may involve actual “treatment”:

  precisification (where necessary), *systematization*, and various kinds of *rationality-improvement* mediated by: the definition of concepts, the defense of philosophical theses, the construction of philosophical theories and models, the development of new conceptual frameworks, applications of logical-mathematical methods, applications to concrete circumstances.

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- Diachronically, *analysis* is typically the first stage of reconstruction:

$$\left.\begin{array}{l}\text{Stage 1: Analyze } X\\ \hline \text{Stage 2: Destruct } X \text{ / Replace by } X'\end{array}\right\} \text{ Rational reconstruction}$$

- The outputs of rational analysis and rational reconstruction *coincide*, when clarification indicates that not much "rationality repairing/criticism" needs to be done:

$$\left.\begin{array}{l}\text{Stage 1: Analyze } X\\ \hline \text{Stage 2: []}\end{array}\right\} \text{ Rational analysis}$$

- But often rational reconstruction *should* go beyond plain analysis:

  E.g., an inferential pattern, or the reasons for an action, or the presuppositions of a question, might be perfectly clear (and exact and systematic), but *wrong*, in which case they ought to be *rejected* / *rectified*.

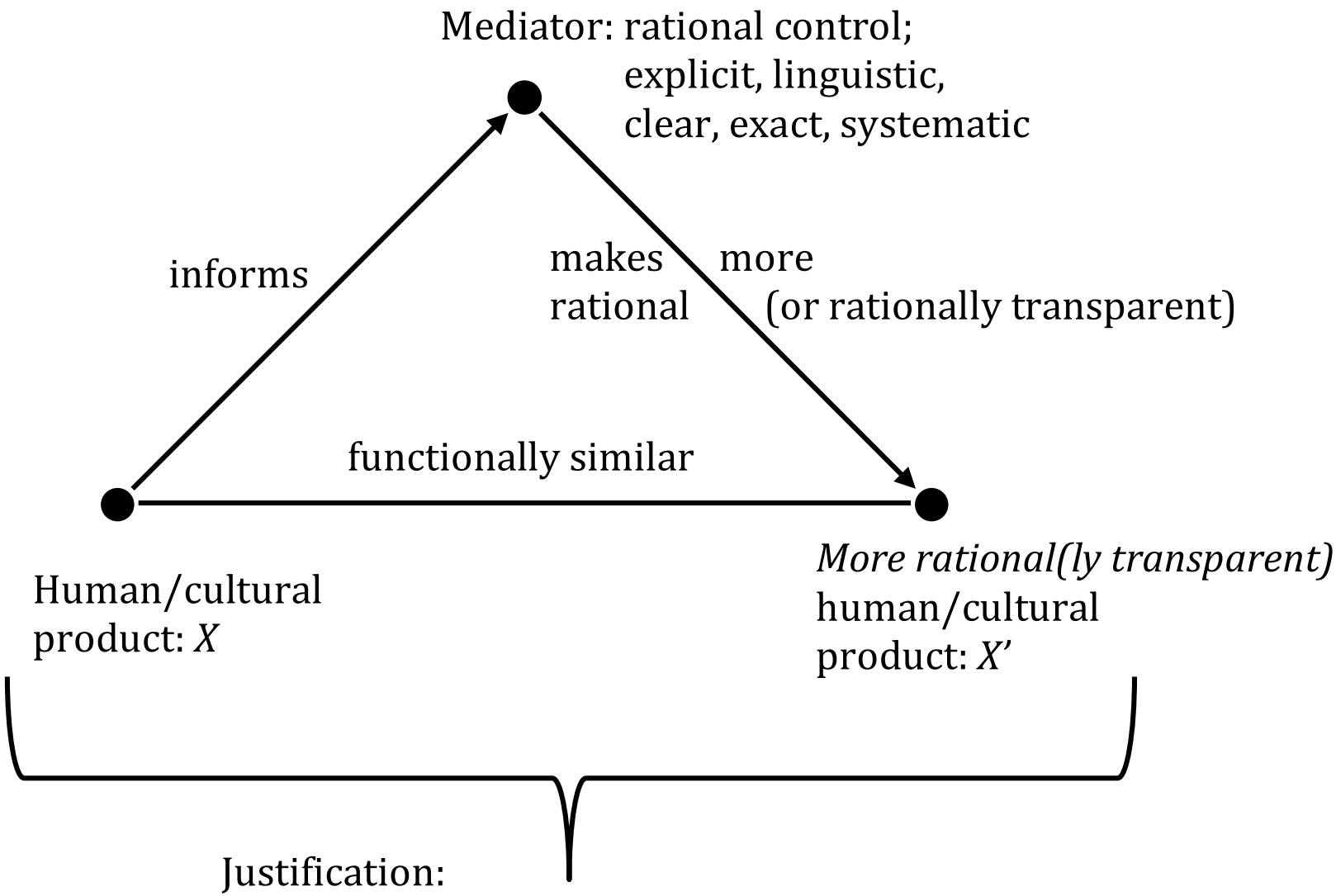
- Rational construction: either rational analysis of X, or rational reconstruction of X by X', or a *completely new* X' gets constructed:

$$\left.\begin{array}{l}\text{Stage 1: []}\\ \hline \text{Stage 2: Construct } X'\end{array}\right\} \text{ Rational construction (proper)}$$

Clarification, precisification (where necessary), and systematization *facilitate* rational criticism and improvement of X, by improving our understanding of X, the informativity of X, and the order/structure of X.

But the ultimate goal is rationality-improvement itself:

- X' should be more rational than (a partially irrational) X but at the same time functionally similar enough to X for the relevant purposes.
- The 'rational' in 'rational construction' is to be understood very broadly (theoretical and practical; not necessarily just instrumental).
- The study of the norms, mediators, and presuppositions of rationality informs this kind of project and is therefore crucial for it. The norms, mediators, and presuppositions are themselves subject to rational (re-)construction again.



Justification:

- Similarity
- Theoretical rationality: norms concerning truth
- Practical rationality: norms concerning fruitfulness, power, simplicity, morality, aesthetics,...

Case study: What do we mean by the predicate ‘true (sentence)’?

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Famously, Tarski (1933) suggested an answer, and he did so by *rationally reconstructing* truth (this is one of Carnap’s 1950 examples of explication):

- Tarski starts by looking at examples and the history of the subject; he detects a pattern: all instances of the truth scheme

  ‘*A*’ is true if and only if *A*

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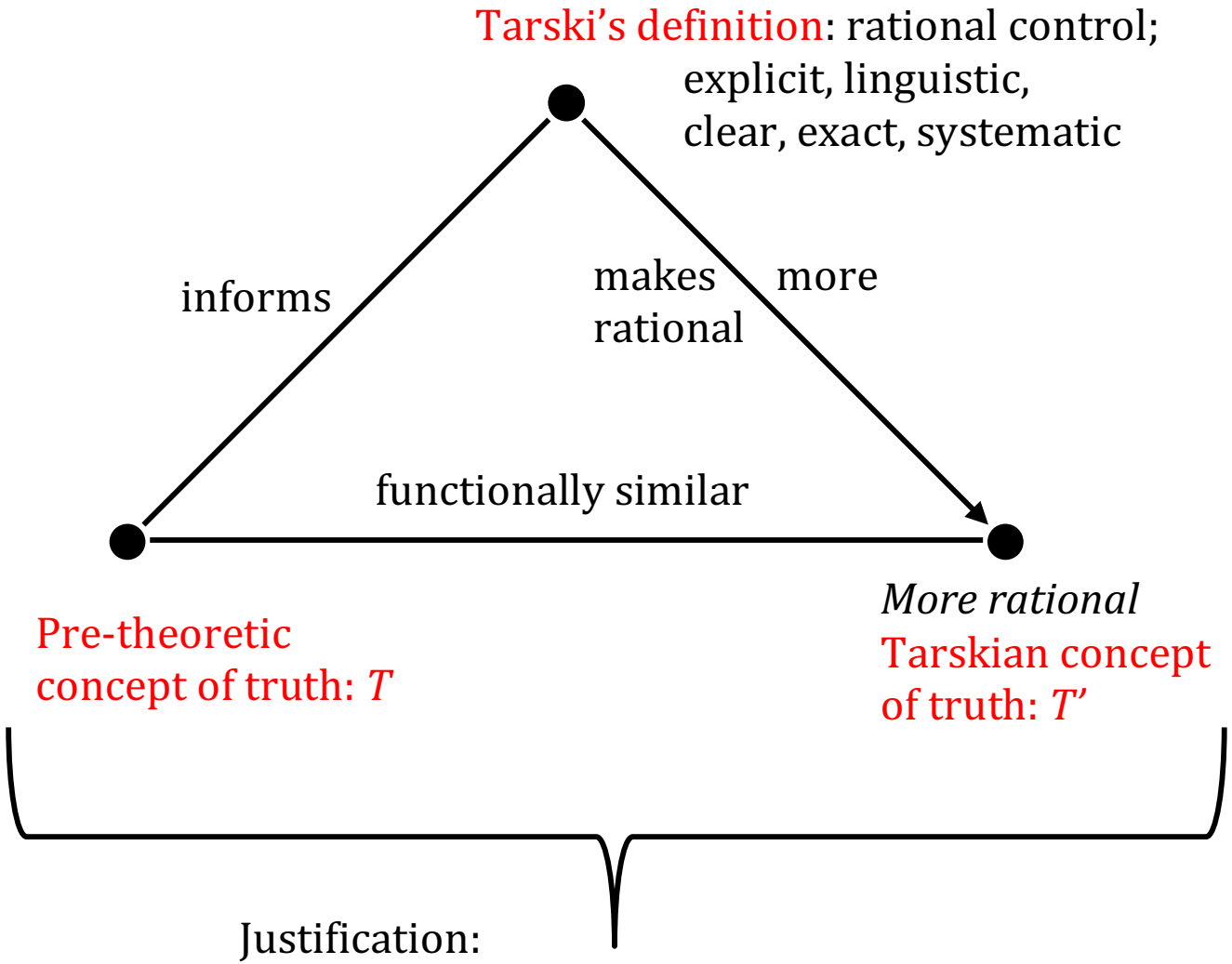
  And then he develops a way of doing better than that.

- He shows how we can define truth for a great variety of formalized fragments of natural or scientific language in a precise framework of syntax and higher-order logic, such that the definition is materially adequate but no paradoxical claims follow. The standard laws of truth can be derived, the theory is provably consistent, and it turned out to be enormously fruitful in logic, philosophy of language, and linguistics.



Justification:

- Similarity (material adequacy)
- Theoretical rationality: norms concerning truth (formal correctness)
- Practical rationality: norms concerning fruitfulness, power, simplicity,... (expressiveness, consequences, applications)

. . . Aiming at Realizing Norms of Rationality as such

Second part of the proposal: Let us understand philosophy as devoted to

- rational intellectual constructions *that aim at realizing norms of rationality as such*.

Aiming at realizing norms of rationality as such:

- aiming to construct an X' that satisfies A, where rationality requires that it *ought to be the case that* A;
- such that the corresponding norms are *"world"-independent*:

  the norms do not concern particular ways "the world" is like or any particular universe of discourse.

  (E.g.: X' *ought to be clear, precise, systematic, consistent,. . .*).

According to that proposal, none of the following should count as philosophical:

- Constructions of bridges, glasses, artificial hearts,. . .:

  For their aim is not rational *intellectual* constructions.

- Constructions of scientific concepts/theories in physics, biology, mathematics,. . . for scientific purposes:

  For their aim is not to realize norms of rationality as such but rather to serve specific scientific domains: realizing such norms concerns *particular ways "the world" is like* and *particular universes of discourse*.

  (This also applies to *empirical* investigations of rationality in cognitive psychology. $\hookrightarrow$ Psychologism debate $\checkmark$)

But, as intended, the proposal to understand philosophy as aiming at

- rational intellectual constructions that realize norms of rationality as such

does match features that have been ascribed to philosophy in the past:

- For philosophy has been claimed to be meta, normative, apriori, general, increasing our self-understanding. ✓
- Compare: Socratic maieutics; the emphasis on clear and distinct ideas in Descartes, Leibniz,. . .; Kant on philosophy as “Die Gesetzgebung der menschlichen Vernunft”; philosophy as *Geisteswissenschaft*; logical construction in early analytic philosophy. ✓

What can be rationally constructed in that way (that is, rationally analyzed, rationally reconstructed, or rationally constructed proper)?

Everything that is to be found in philosophy!

- Logical constants, form, and validity (logic). Meaning, truth, and communication (philosophy of language). Belief, justification, theoretical rationality, and knowledge (epistemology). Scientific concepts, theories, methods, and confirmation (philosophy of science). Moral action, moral attitudes, and moral maxims (ethics). Preference, decision-making, and desire-belief rationality (decision theory). Historical philosophical concepts and positions (history of philosophy). Existence, identity, necessity, and conceptions of the world (metaphysics). . . . ✓

(Even metaphysics? *Yes!* But that is for another day. . .)

Rational (Re-)construction vs. Science

- The aim of scientific theories is to describe, predict, and explain "worldly" phenomena by means of true informative declarative sentences.

  Rational (re-)constructions also occur in science, but in science they are auxiliary and realize "world"-dependent norms.

- In contrast, the aim of theories of truth is to rationally reconstruct 'true'.

  Since the truth predicate is quasi-logical (a merely expressive device), its rational reconstruction realizes rationality norms that do not concern *particular ways "the world" is like* or *particular universes of discourse*.

  (This holds for all modern theories of truth: Tarski's, Kripke's, Field's,...)

So how come some philosophers (e.g. Williamson 2017) seem to understand philosophical logic as a science "much like" empirical science?

Because it is easy to mistake features of rational (re-)construction for features of scientific theory-choice!

About data/evidence:

- Rational reconstruction requires the result of reconstruction (X') to be similar enough to what is reconstructed (X) for the chosen purposes.
- Science requires theories to fit the evidence.

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However:

- Similarity and fitting the evidence are not the same:
  Rational reconstruction may start from initial verdicts ("intuitions") but then aims to *correct* initial irrational verdicts.
  In science there are *no "irrational data"* (only badly collected data or data that are, with bad conscience, idealized for simplification).
- Scientific evidence may empirically underdetermine scientific theories, but we still think there is a fact of the matter "out there" that makes some of these theories true.

  But there is no fact of the matter "described" by rational reconstructions: we can merely reconstruct more or less wisely. (E.g.: What should be the fact of the matter that would make Tarski's theory of truth *true*?)

About methodology:

Compare Carnap (1950), “The explicatum must fulfill the requirements of similarity to the explicandum, exactness, fruitfulness, and simplicity”, with:

> *We make the standard assumption that scientific theory choice follows a broadly abductive methodology. Scientific theories are compared with respect to how well they fit the evidence, of course, but also with respect to virtues such as strength, simplicity, elegance, and unifying power. We may speak loosely of inference to the best explanation. . . (Williamson 2017)*

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So there is an overlap of methodology, however:

- one should distinguish between “pragmatic” abduction and IBE proper: not every case of *abductive success* yields a *scientific explanation of a phenomenon*. IBE proper requires subsequent inductive confirmation by observable/measurable data! (Maddy 1997, Novick 2016.)

  Science relies on IBE proper, rational reconstruction on mere abduction. But they share the pragmatic abductive virtues!

About methods:

- Mathematical methods play a huge role in modern science.
- Logical-mathematical methods (higher-order logic, set theory) play a crucial role in Tarski's rational reconstruction of truth.

More generally: rational construction shares *methods* with science;
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As far as mathematical methods are concerned: since mathematics is a

- general theory of structure that can be applied *everywhere*,

the application of mathematical methods in philosophy does not undermine the aim of realizing norms of rationality as such.

About progress:

- Both science and philosophy make progress.

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However:

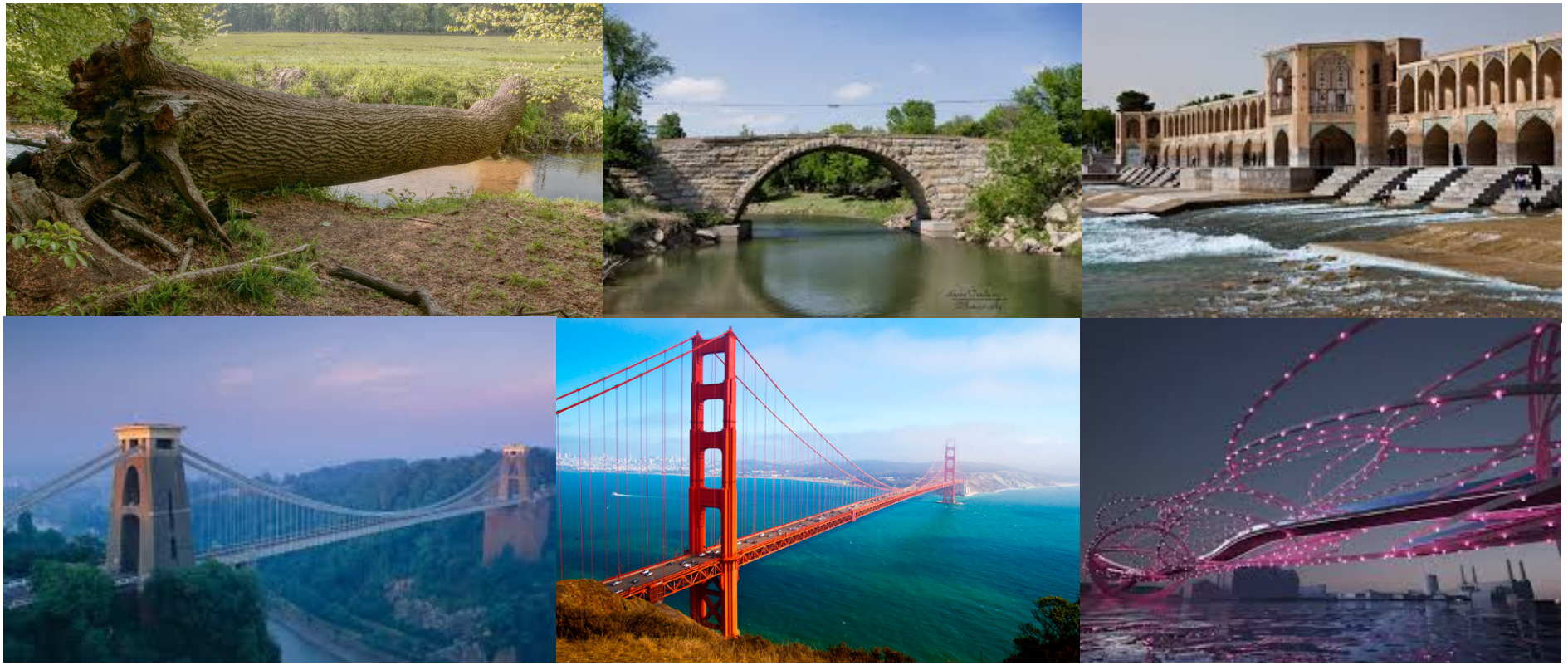
- Scientific progress leads to (some degree of) *convergence* because the phenomena “out there” stabilize theory-choice.

- Philosophical rational (re-)constructions have improved a lot over time (their clarity, exactness, systematicity, their rationality features, the methods by which they are carried out, new possibilities,...).
  But they do not aim at describing a stabilizing phenomenon “out there”!

  That is why philosophical progress does *not necessarily lead to convergence* (cf. Chalmers 2015).

  Philosophical (re-)construction is driven by rational choices that are “free”: not committed to what the world is like or any universe of discourse, and the choice criteria can be weighted differently (cf. Leitgeb 2007 on truth).
  Thus, rational (re-)construction is open-ended/not uniquely determined.

Philosophy as rational (re-)construction is compatible with progress. . .



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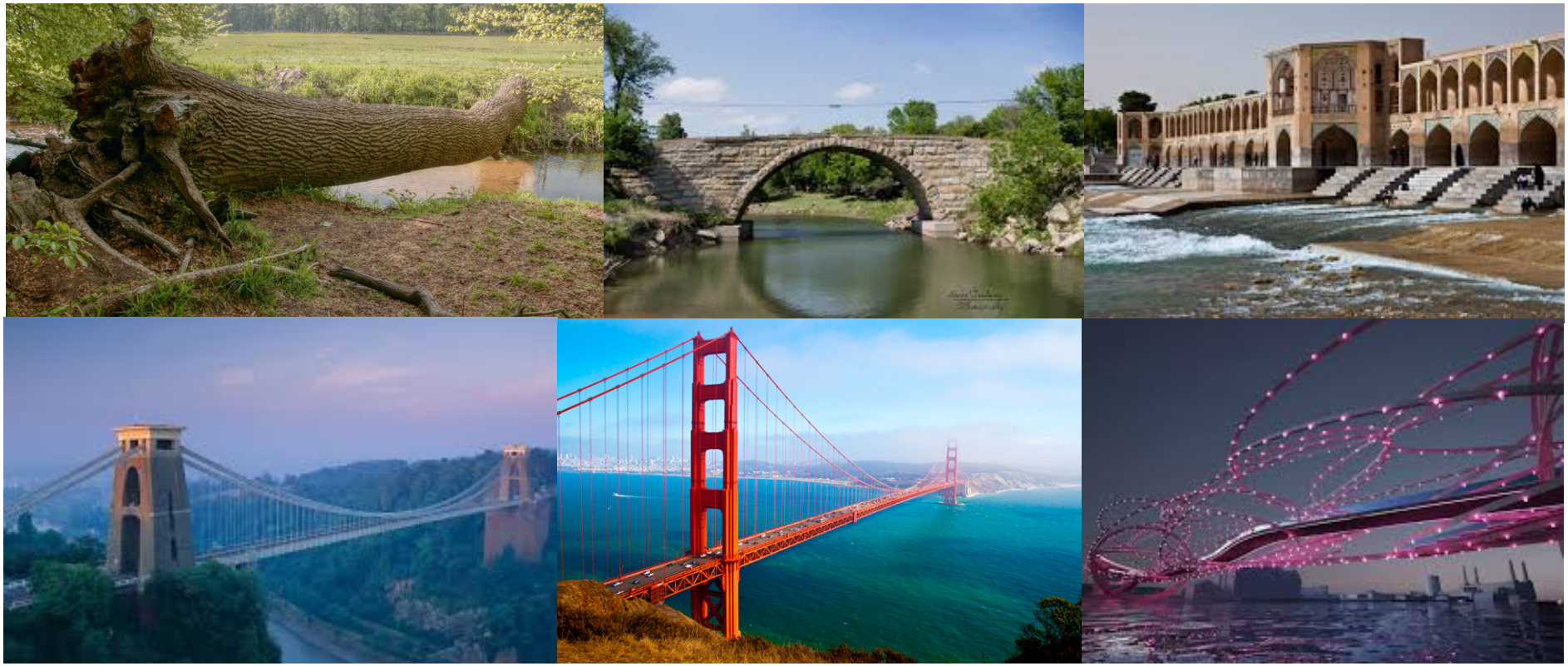
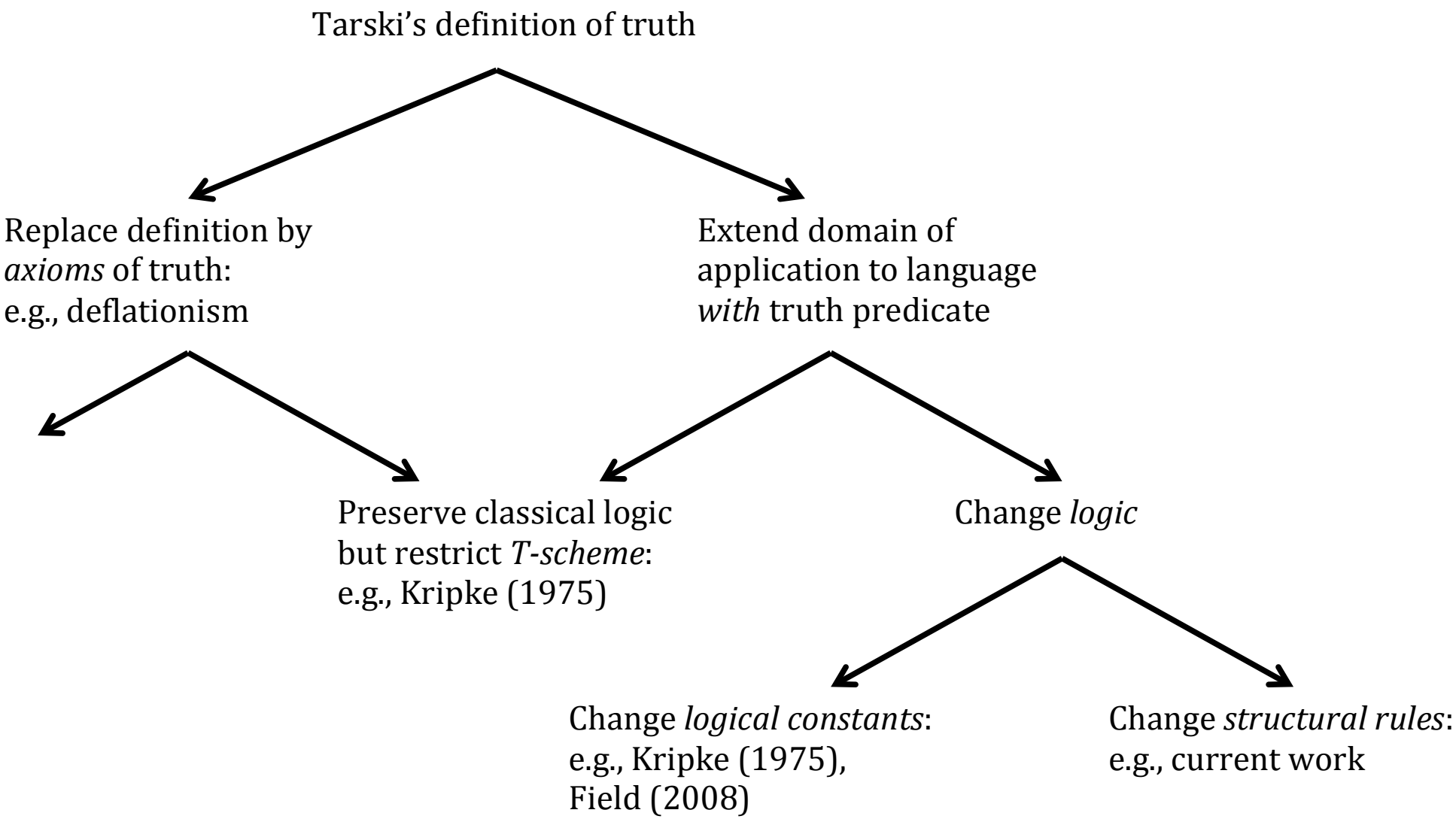


without convergence. . .

Open-endedness and non-uniqueness in the case of the concept of *truth*:



(See e.g. Scharp 2013.)

Conclusions

- Rational constructionism might itself amount to a fruitful rational reconstruction of scientific philosophy.
- Philosophy differs in its aims from science, but both are helped by scientific (e.g. mathematical) methods and both make progress.
- Rational constructionism may be viewed as reviving what was good about the logical empiricist project while leaving behind what was bad about it.

Thank you!

About philosophy turning into science:

- At times, what starts as philosophical rational (re-)construction turns into a scientific theory: e.g., atomism-as-framework into atomism-as-theory, the analysis of mental concepts into psychology, Tarski/Carnap on philosophical semantics into Montague on linguistic semantics,...

Philosophy has this enabling function due to its independence of empirical assumptions and domains. (We should cherish this creative power!)

The transition takes place when it becomes possible to apply methods from rational (re-)construction while making claims about specific domains (e.g. applying logical methods in linguistic models/theories of natural language).

However, when this happens, we do not speak of the resulting theory as philosophical anymore.

(X-phi may count as philosophical, but my proposal somewhat restricts its importance to similarity checks between X and X'; cf. Naess 1938 on truth.)