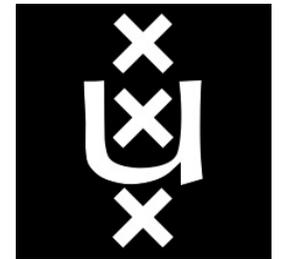


The **Unity** of Science and the **Disunity** of Economics

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16th Annual
STOREP
Conference

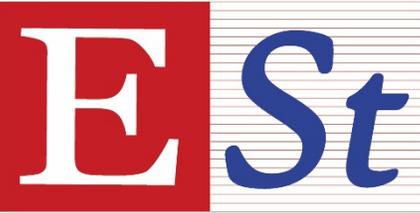
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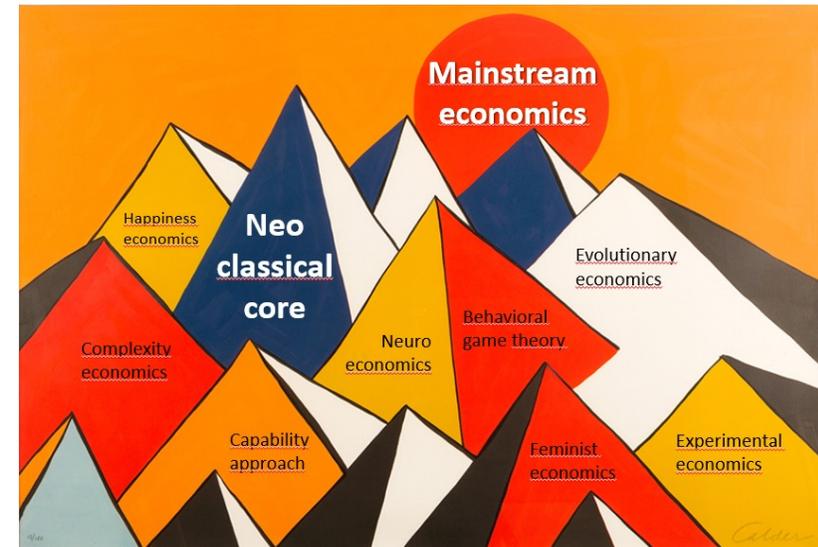
Unity of science and disunity of economics

From the “radical” **unity** of logical positivists (Vienna circle)

...to **disunity** theses (irreducible plurality of sciences)

and **flexible** versions of unity (unity as ‘integration’ between different approaches)

- Why are leading economists (Gintis, Colander, Ross...) increasingly **debating** this issue?
- Are “unity-of behavioral-sciences” projects **feasible**?



The aim: to provide a general theoretical framework in order to distinguish a set of possible options for integration (and discuss today’s disunity of economics).

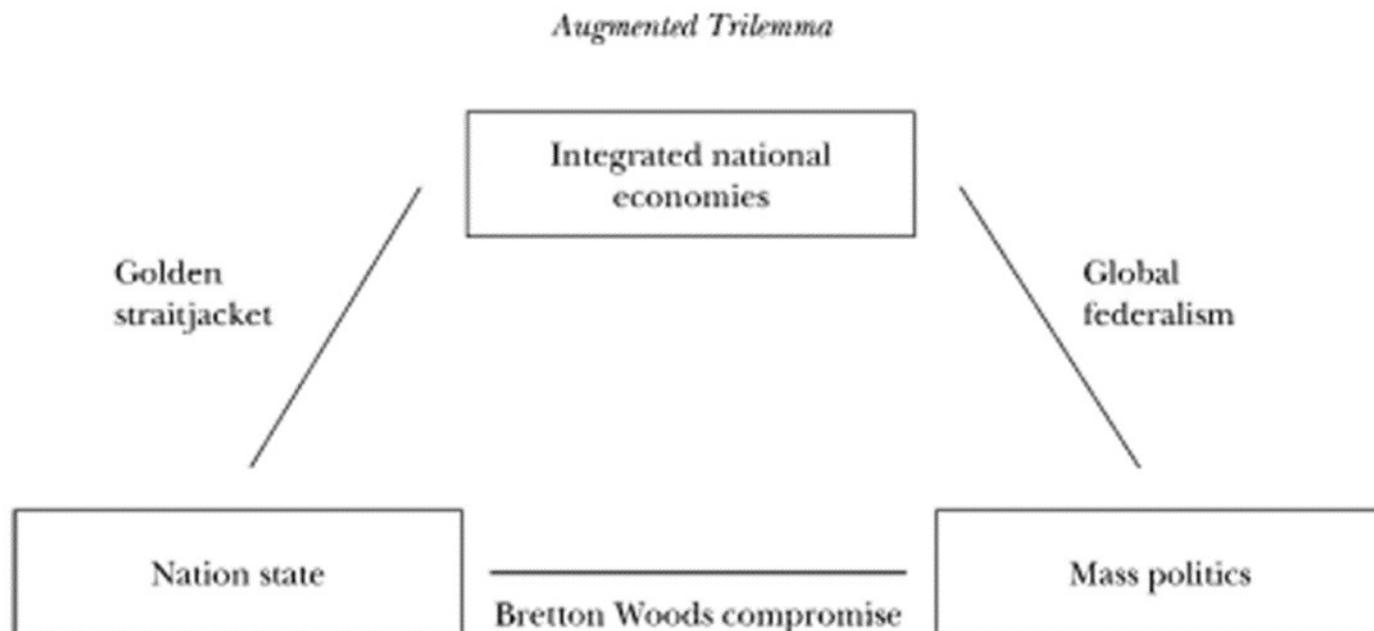


The trading nation metaphor

“Certain questions, like adjustments in income tax rates, are matters of internal politics within a sovereign nation ... **monodisciplinary approaches** are sometimes appropriate. Other matters require **international cooperation** ... Still other matters may require the forging of alliances or the creation of **transnational bodies** such as the United Nations, and there are even some people who call for **dissolving all nations into bodies** such as the European Union or a world government. These situations correspond to varying forms of **cross-, multi-, and transdisciplinary endeavors**, each appropriate for different types of inquiry (Kellert 2008, 37)



The “trading nation metaphor” and Dani Rodrik’s “world political trilemma” to investigate **three ideal types of disciplinary integration**, or three different **roads to the unity of social science**.

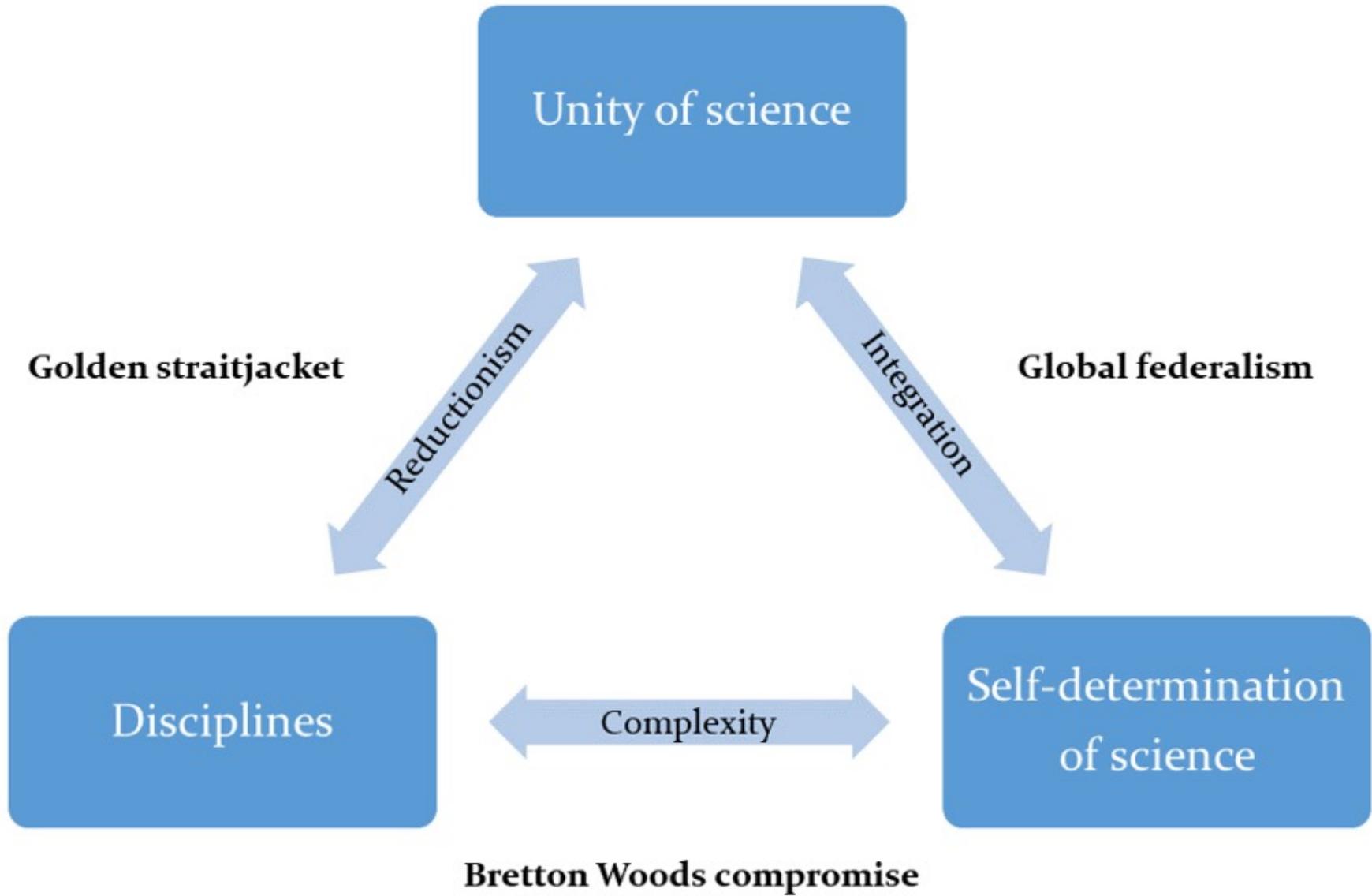


Unity of science: A general framework

“If we want true **international economic integration**, we have to go either with the **nation-state**, in which case the domain of national politics will have to be significantly restricted, or else with **mass politics**, in which case we will have to give up the nation-state in favor of **global federalism**”

(Rodrik 2000).

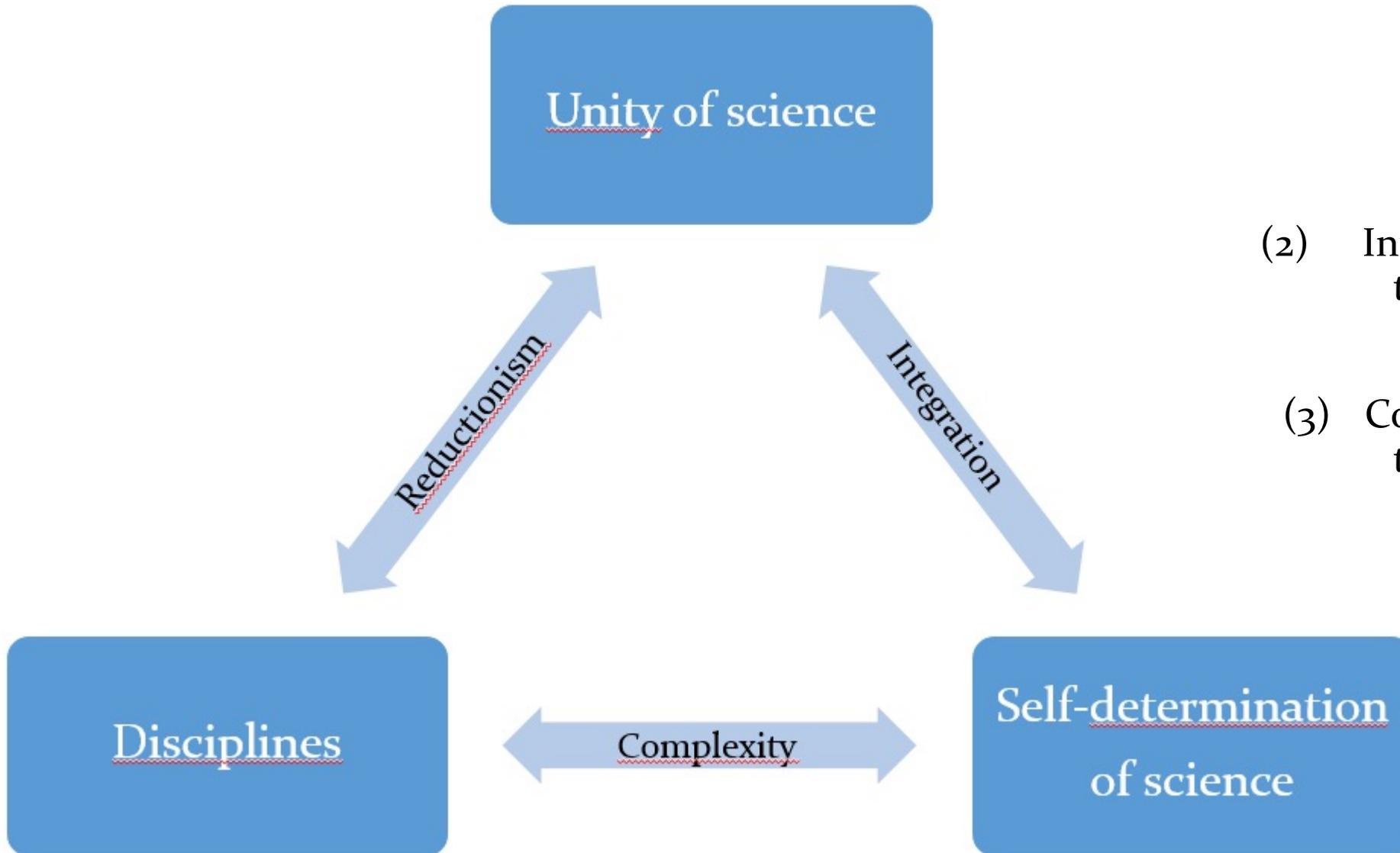




(1) “Golden straitjacket”
(reductionism)

(2) “Global federalism”
(integration)

(3) the Bretton Woods
compromise
(complexity)



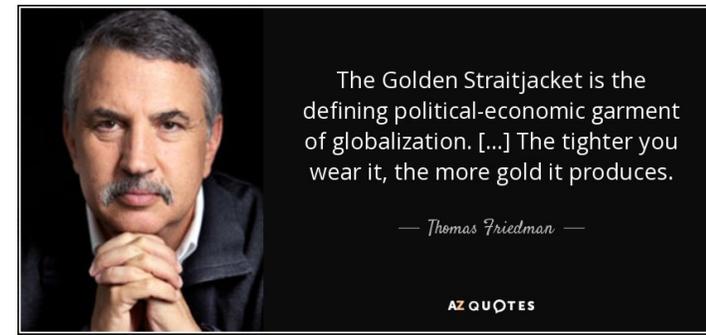
(1) **Reductionism**
(interdisciplinarity)

(2) Integration (from multi-
to trans-disciplinarity)

(3) Complexity (from cross-
to trans-disciplinarity)

Golden Straitjacket

(Unity of science *plus* disciplines)



Each (**independent**) **discipline** has to ensure that the development of its various (sub)approaches are **compatible** with other disciplines, so as to allow the emergence of an **integrative** theoretical framework.

- Disciplines' internal **standardization** around dominant programs of research.
- Emphasis on **export-led growth** (import-substitution strategies **threaten** disciplines' independence).

Form of disciplinary interaction: *interdisciplinarity* (which “creates a new discipline or project, such as interfield research, often leaving the existence of the original ones intact” – Cat 2017).

Gintis's (2007) “framework for the unification of the behavioral sciences”

Unity as a solution to a perceived **problem** of “**scandalous**” but hitherto “tolerated” pluralism - “incompatible models” – in behavioral disciplines.

- Adoption of a “**common underlying model**, enriched in different ways to meet the **particular needs of each discipline**”.

A new framework with five “**conceptual units**”:

a general “gene-culture coevolution” perspective

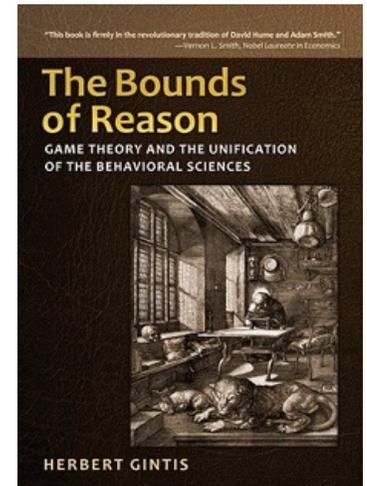
a rational actor model based on choice consistency;

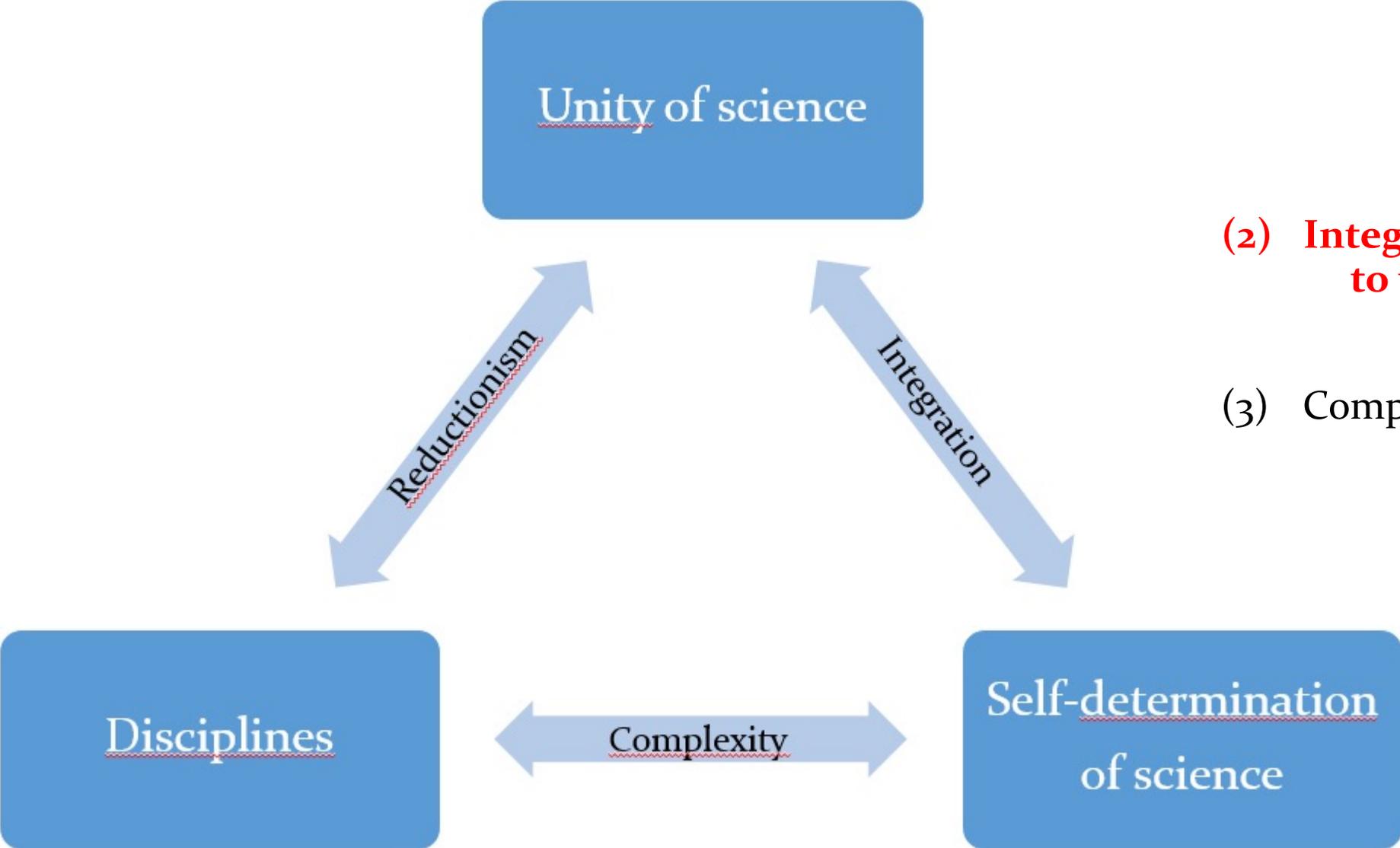
a “sociopsychological theory of norms”;

(Evolutionary) game theory as “universal lexicon of life”

complexity theory.

- The unifying bridges can make behavioural sciences compatible **only by triggering a reform of the core of disciplines themselves.**





(1) Reductionism
(interdisciplinarity)

**(2) Integration (from multi-
to transdisciplinarity)**

(3) Complexity (from cross- to
transdisciplinarity)

Global Federalism

(Unity of science *plus* self-determination of science)



Unity as a solution to a perceived **problem** of **fragmentation** in social sciences, requiring the construction of a **new hybrid field** that develops in a free-standing way fully outside of the fields which contribute to it.

- **Disciplinary Boundaries** as obstacles to **inter-disciplines communication**:
(integration occurs via development of an independent framework and language)
- **Emphasis on disciplines' variety is not negative**; the polemical target is **distinctness** and social science disciplines' self-perception as distinct.

Form of disciplinary interaction: *transdisciplinarity*, or a forward movement from *multidisciplinarity* to *transdisciplinarity* (a transdisciplinary approach proceeds by progressively diluting the imprint of contributing disciplines).

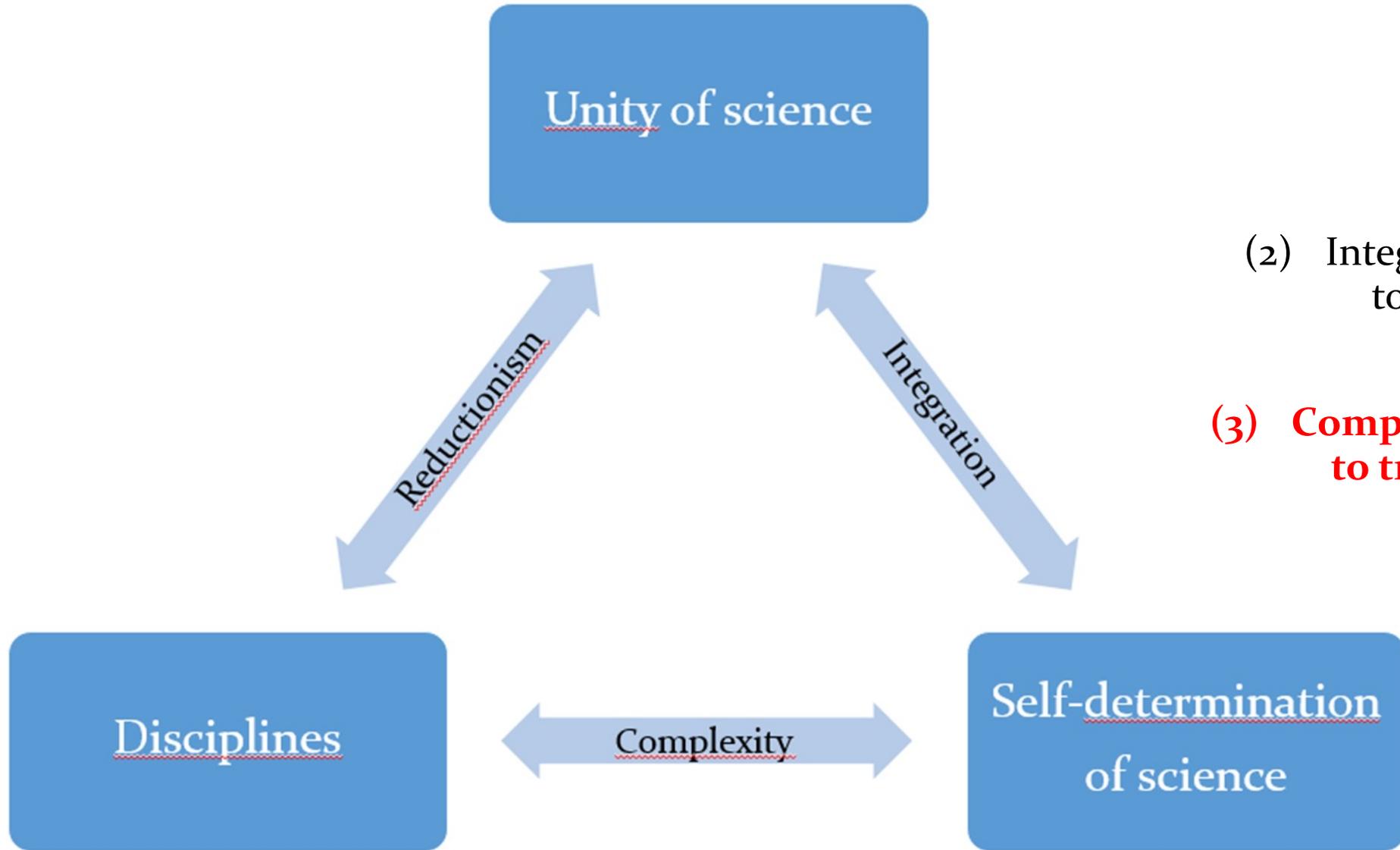


Colander's (2010, 2014) “transdisciplinary” social science

“Each social science follows a relatively narrow methodological approach, and **there is little conversation and cross fertilization of methods and approaches** from one social science to another”.

- **Solution: to reintegrate the specific contributions of behavioural disciplines into the core of all social science training.**
- The common “**scientific foundation** for all social sciences” includes as unifying **bridges** statistics, complexity and modelling foundations of social science, game theory, but also “philosophical and methodological” and “humanistic” foundations of social sciences.





(1) Reductionism
(interdisciplinarity)

(2) Integration (from multi-
to transdisciplinarity)

(3) Complexity (from cross-
to transdisciplinarity)

The Bretton Woods compromise

(Disciplines *plus* self-determination of science)



Unity of science as a by-product of disciplines' growth *cum* specialization.

- **Integration jeopardizes the institutional power** of autonomous disciplines, and trespassing the boundaries of one's own discipline is possible at rising **transaction/translation costs**.
- But a discipline' **growth increases imports...** and, by diminishing transaction costs, internal **specialization** favors **exchange at the periphery** with other disciplines.
- “Frontier” specialists from borrowing disciplines **domesticate “foreign” ideas** to serve their disciplinary goals, while new research programmes thereby created **blur disciplinary boundaries**.

Form of disciplinary interaction: cross-disciplinarity. Disciplines interacting to serve independent goals finally have a **transformative impact** on one another.

Unity of science and disunity of economics: a complex-system view

“Unity of science” proposals in economics as:

- a **reflection** of the **disunity** (mainstream pluralism) of economics (which reflects pluralism in social sciences)
- **either undesirable** (reductionism) or **unachievable** (intentional integration)

Still, in a **complex-system view of science**, if unity (however flexible) can stem from disciplinary interactions, **disunity of economics (pluralism)** is to be celebrated exactly for weakening the **core-periphery** (orthodox-heterodox) structure that has hitherto prevented the discipline from contributing to a **transdisciplinary social science**.



Cartoon: Sophie Bédard Script: Neil Lancaster

