



**PASCASARJANA
UNIVERSITAS JEMBER**

WEBINAR KULIAH UMUM

"Realisme Kritis sebagai alternatif paradigma baru untuk memperkuat Riset multi- dan inter-disiplin."

Narasumber:



DUDI HIDAYAT, M.Sc., Ph.D
LIPI

Keahlian: Kebijakan Iptek dan Inovasi; Sistem Inovasi
Bidang Kepakaran: Politik dan Kebijakan,
Kebijakan dan Administrasi

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Realisme Kritis sebagai Aternatif Paradigma Baru untuk Memperkuat Riset Multi- dan Inter-disiplin: Sebuah Introduksi

DUDI HIDAYAT

PUSAT PENELITIAN KEBIJAKAN DAN MANAJEMEN IPTEKIN - LIPI

WEBINAR KULIAH UMUM, FAKULTAS PASCA SARJANA UNEJ

30 SEPTEMBER 2020, 09:00 – 12:00 WIB

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Tata Saji

I. Riset Interdisiplin

1. Karakteristik dan Definisi Riset Interdisiplin
2. Tahapan Riset Interdisiplin
3. Pluralisme Epistemologis: Modernisme & Postmodernisme

II. Realisme Kritis sebagai sintesis Modernisme dan Postmodernisme

1. *Science War* Modernisme VS Postmodernisme: Perdebatan epistemologis
2. *Ontological turn* dalam perkembangan ilmu sosial
3. Realisme Kritis sebagai sintesis dari Positivisme [Modernisme] dan Konstruktivisme [Postmodernisme]
4. Asumsi Ontologis dan Epistemologis dalam Realisme Kritis
5. Implikasi metodologis

III. Riset interdisiplin berbasis Realisme Kritis

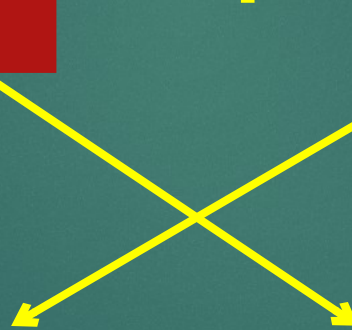
1. Definisi Riset Interdisiplin
2. Tahapan Riset Interdisiplin

Asal mula istilah Realisme Kritis

**TRANSCENDENTAL
REALISM**

+

**CRITICAL
NATURALISM**



**CRITICAL
REALISM**

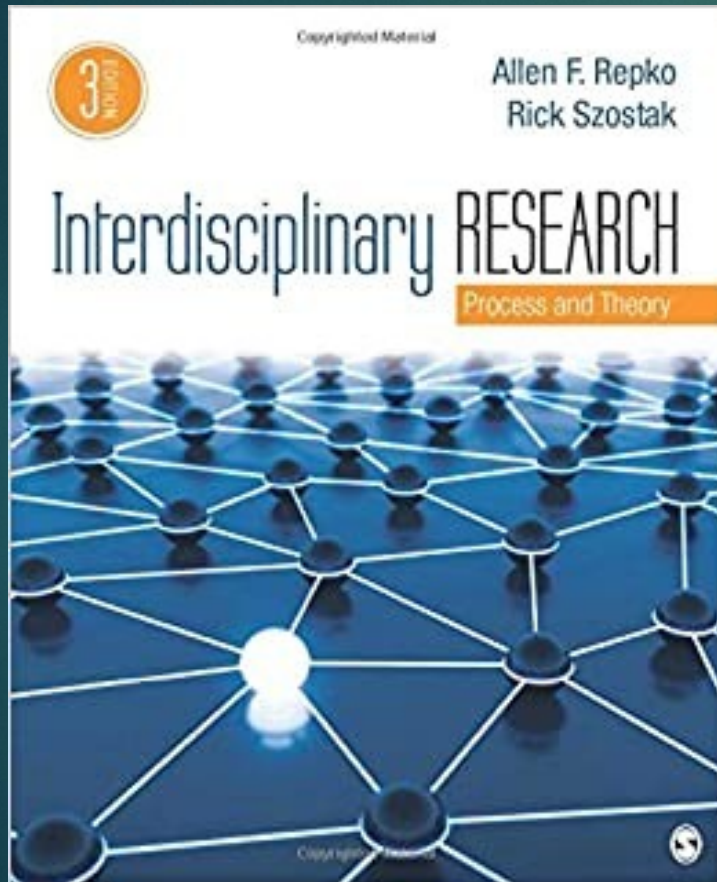
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**CRITICAL
THEORY**



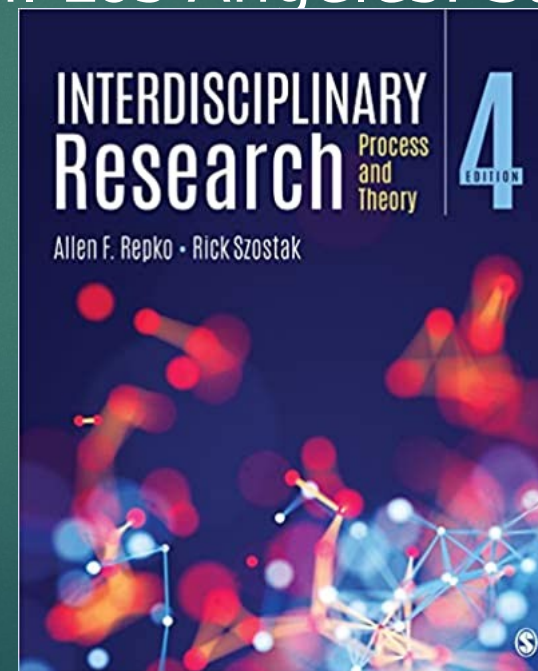
Karakteristik dan Definisi Riset Interdisiplin, dan Pluralisme Epistemologis

Referensi Utama Riset Interdisiplin



Interdisciplinary research : process and theory.

Allen F. Repko, Rick Szostak
Third edition. Los Angeles: Sage,
[2017]



8 Karakteristik riset interdisiplin

1. Interdisciplinary research has a **particular substantive focus**.
2. The focus of interdisciplinary research **extends beyond a single disciplinary perspective**.
3. A distinctive characteristic of interdisciplinary research is that it **focuses on a problem or question that is complex**.
4. Interdisciplinary research is characterized by an **identifiable process or mode of inquiry**.
5. Interdisciplinary research **draws explicitly on the disciplines**.
6. **The disciplines provide insights about the specific substantive focus** of interdisciplinary research.
7. Interdisciplinary research has **integration as its goal**.
8. **The objective of the interdisciplinary research process is pragmatic**: to produce a cognitive advancement in the form of a new understanding, a new product, or a new meaning.

Definisi Riset Interdisiplin

- ▶ a process of answering a question, solving a problem, or addressing a topic that
 - ▶ is too broad or complex to be dealt with adequately by a single discipline,
 - ▶ and draws on the disciplines
 - ▶ with the goal of integrating their insights
 - ▶ to construct a more comprehensive understanding

Model Riset Interdisiplin: 2 tahap utama

TABLE 3.1

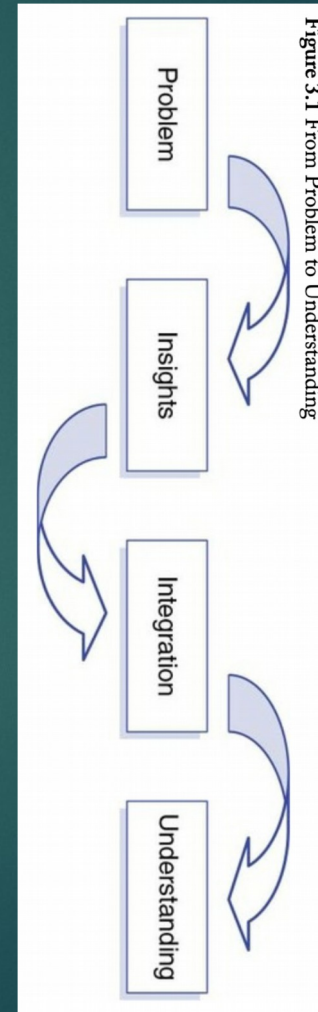
The Integrated Model of the Interdisciplinary Research Process (IRP)

A. Drawing on disciplinary insights^a

1. Define the problem or state the research question
2. Justify using an interdisciplinary approach
3. Identify relevant disciplines
4. Conduct the literature search
5. Develop adequacy in each relevant discipline
6. Analyze the problem and evaluate each insight or theory


B. Integrating disciplinary insights

7. Identify conflicts between insights and their sources
8. Create common ground between insights
9. Construct a more comprehensive understanding
10. Reflect on, test, and communicate the understanding



Pluralisme Epistemologi Riset interdisiplin

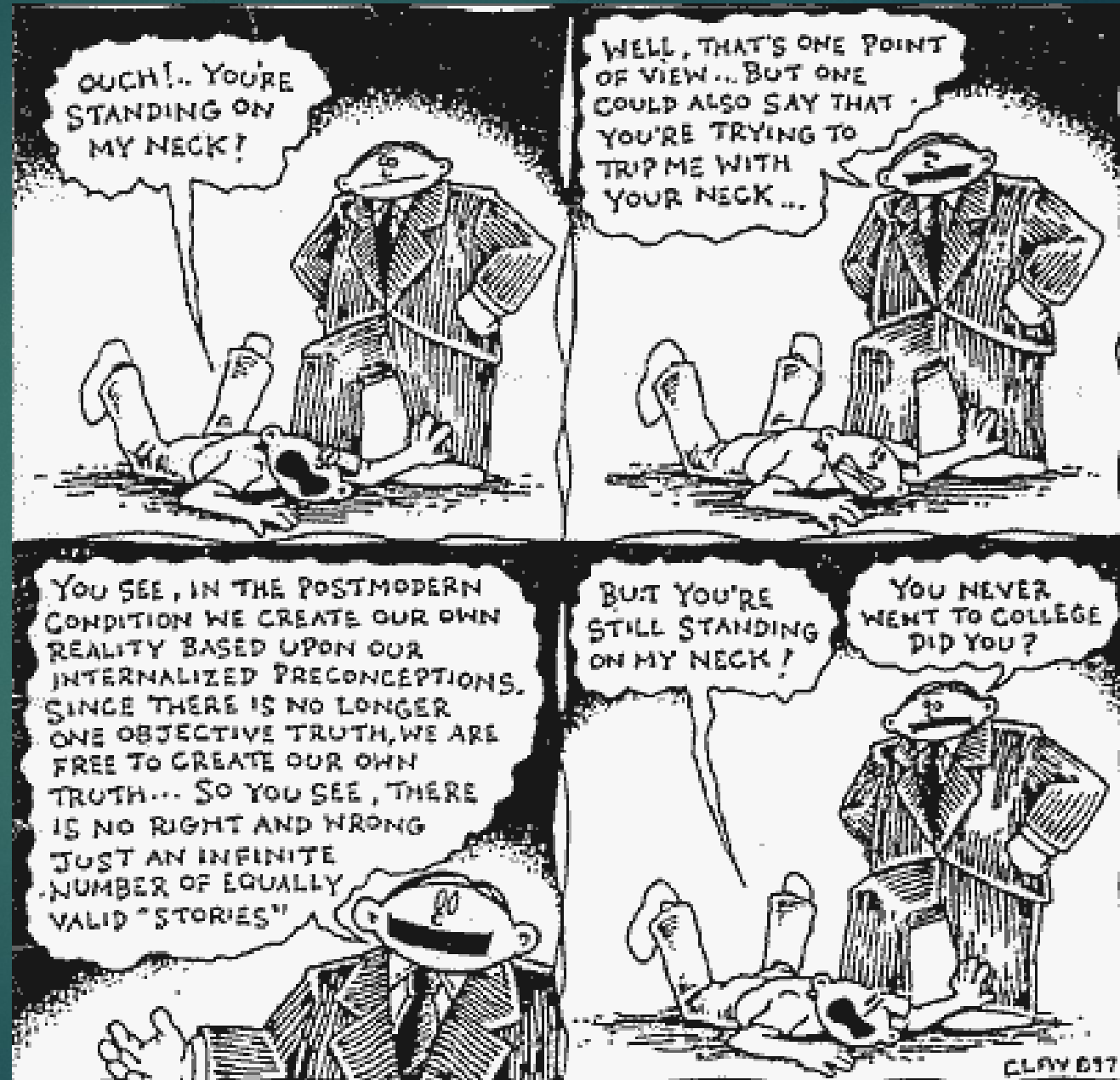
- ▶ Interdisciplinarity seeks to avoid both the extremes of **modernist [positivist]** optimism and **postmodernist [construcutivist]** pessimism:
 - ▶ If we doubt that enhanced understanding is possible [**postmodernism**], then there is no use in doing interdisciplinary research.
 - ▶ But if we doubt the importance of perspective [**modernism**], then interdisciplinarity is unnecessary.
- ▶ Interdisciplinarians **should respect diverse epistemologies**, but should not think that “anything goes.”



Science war Modernisme VS
Postmodernisme: Perdebatan
Epistemologis

Science War

Foundationalism
[Modernism]
VS
Relativism
[Postmodernism]



Science War

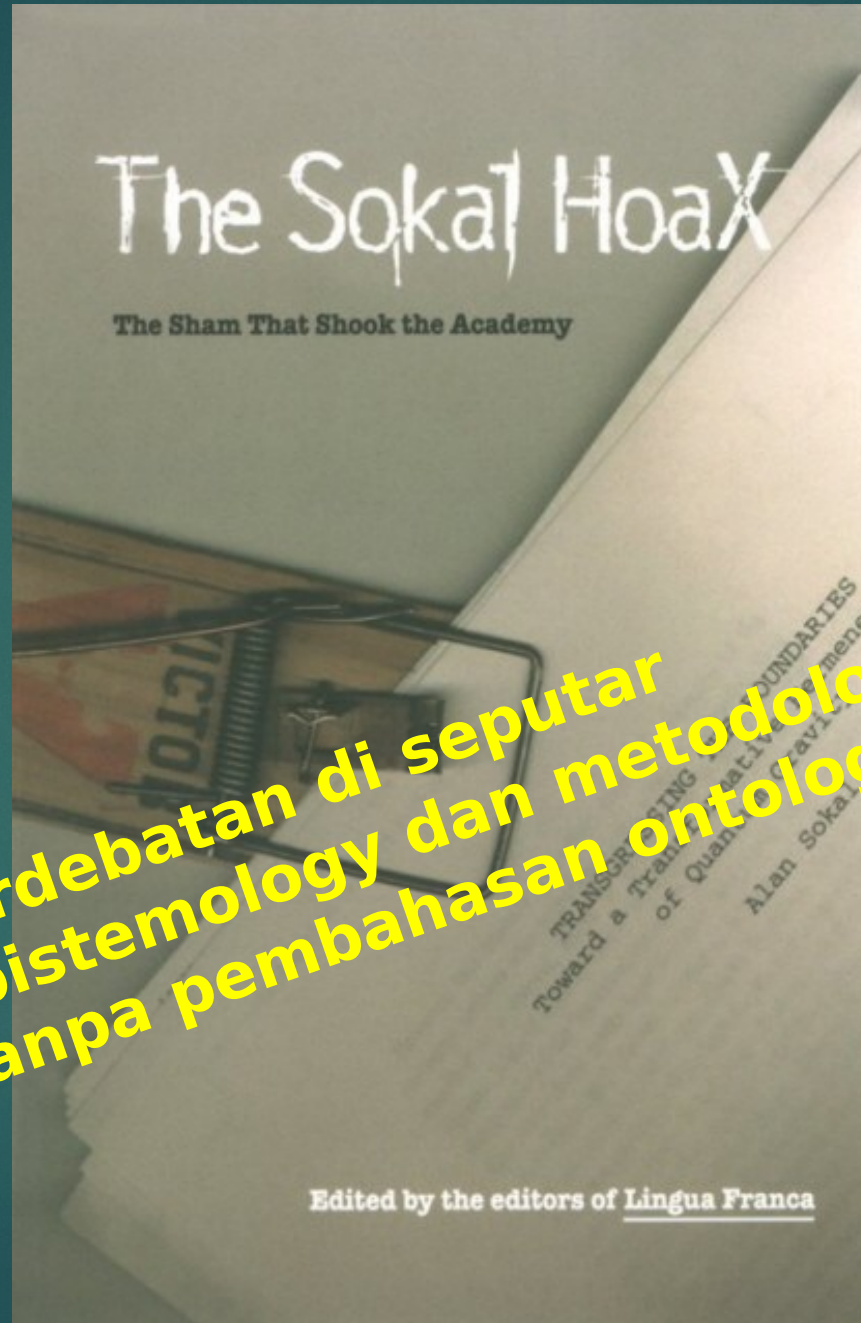
Foundationalism
[Modernism]
VS
Relativism
[Postmodernism]



Science War

Foundationalism
[Modernism]
VS
Relativism
[Postmodernism]

Perdebatan di seputar
epistemology dan metodologi,
Tanpa pembahasan ontologi,





Ontological turn dalam
perkembangan ilmu sosial

Ontology First! (1)

- ▶ “prior to any choice of methods of investigation, are questions of social ontology.
 - ▶ What sort of object are we trying to describe and explain?
 - ▶ To what extent is it a product of the interpretations of human beings, and
 - ▶ to what extent is it structured by “deeper causes” that are opaque to human consciousness? (Outhwaite 1987: 57)”

Ontology First! (2)

- ▶ all theoretical positions are dependent upon particular assumptions about
 - ▶ ontology (theory of being: what is the world made of? What objects do we study?),
 - ▶ epistemology (theory of knowledge: how do we come to have knowledge of the world?), and
 - ▶ methodology (theory of methods: what methods do we use to unearth data and evidence?). (Kurki and Wight 2006: 14)

Ontology First! (3)

- ▶ The epistemological questions such as “how we provide scientific knowledge” should not be prioritized over the investigations into the (transcendentally) necessary conditions of science.
- ▶ In other words, it is the ontological question of “what the world must be like for science to be possible” (Bhaskar 1978a: 29) that should be dwelt on.
- ▶ Bhaskar holds that a number of contemporary philosophers tend to confuse “what is” with “how we know,” (***Epistemic Fallacy***) with idealists and empiricists reducing the reality to our ideas and perceptions.

Ontology First! (4)


- ▶ social researchers in various disciplines have come to recognize that
 - ▶ “it is impossible to engage in any sort of ordered thinking about the socio-economic world without making a commitment (if only implicitly) to some social ontology,
 - ▶ because any attempt to conceptualize socio-economic phenomena of interest inevitably involves the adoption (if only implicitly) of some picture of the nature of social being” (Lewis 2005: 291).

Pertanyaan ontologis

- ▶ Apakah ada yang disebut entitas sosial?
- ▶ Jika ya, terdiri dari apa saja?
- ▶ Apakah ia eksis secara sendirinya?
- ▶ Dengan dasar apa dan sejauh mana , ia dapat diidentifikasi, dikaji dan diperbandingkan?
- ▶ Adakah perbedaan antara realitas sosial dengan realitas kealaman?

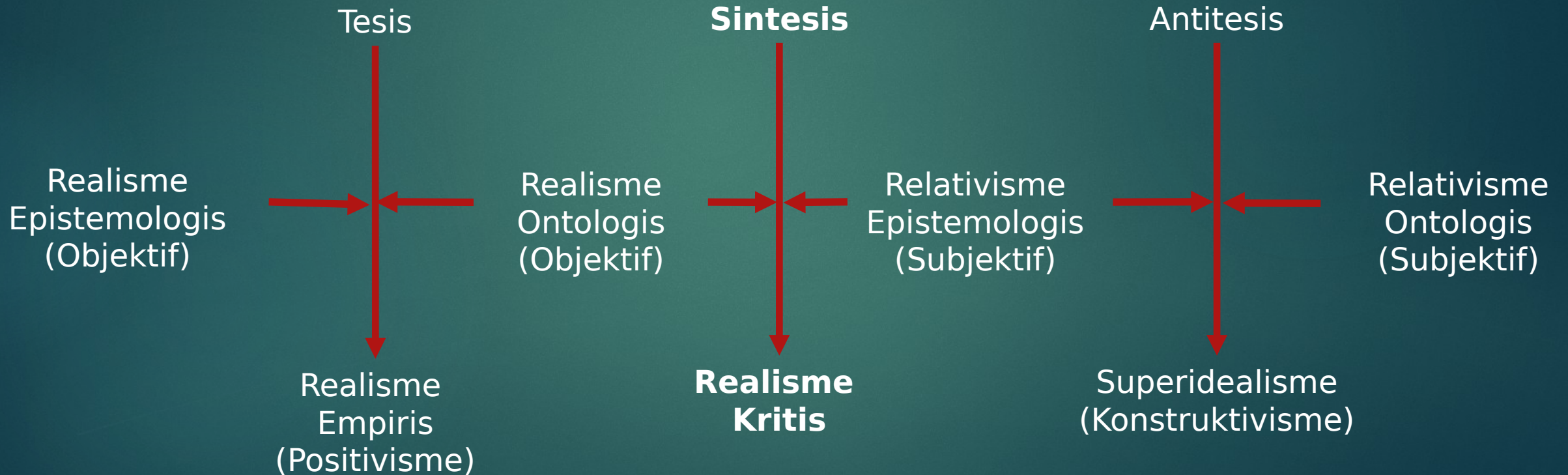
Pertanyaan ontologis

- ▶ Apakah masyarakat (*society*) lebih berpengaruh pada individu? Atau sebaliknya? Adakah hukum kemasyarakatan selain hukum yang mengatur perilaku individu?
- ▶ Semua pertanyaan di atas perlu dijawab jika kita sepakat bahwa tujuan penelitian ilmu social adalah memberikan penjelasan kausal tentang realita social.



Realisme Kritis sebagai sintesis
dari Positivisme dan
Konstruktivisme

Sintesis Bhaskar: realisme kritis



Realitas
independen

Ontologi
Terstratifikasi

Kausalitas
Non-Humean

*Relational
Emergence*
(Kemunculan)

Perspektif
Sistem
Terbuka

Asumsi Ontologis

1. Realita yang independen

- ▶ Terdapat realita eksternal yang eksis tidak bergantung pada pengetahuan kita ☾ **Ontological Objectivity**

2. Ontology terstratifikasi

- ▶ Domain empirik: peristiwa (*events*) yang teramati dan dirasakan
- ▶ Domain actual: peristiwa yang tidak teramati
- ▶ Domain real: Struktur dan Mekanisme yang menyebabkan peristiwa

Empirisisme melakukan reduksi ganda: Mekanisme direduksi menjadi aktual, aktual direduksi menjadi experience

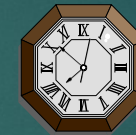
Ontologi terstratifikasi

The Real, the Actual, and the Empirical

The EMPIRICAL: events that are actually observed and experienced



The ACTUAL: events (and non-events) that are generated by the mechanisms

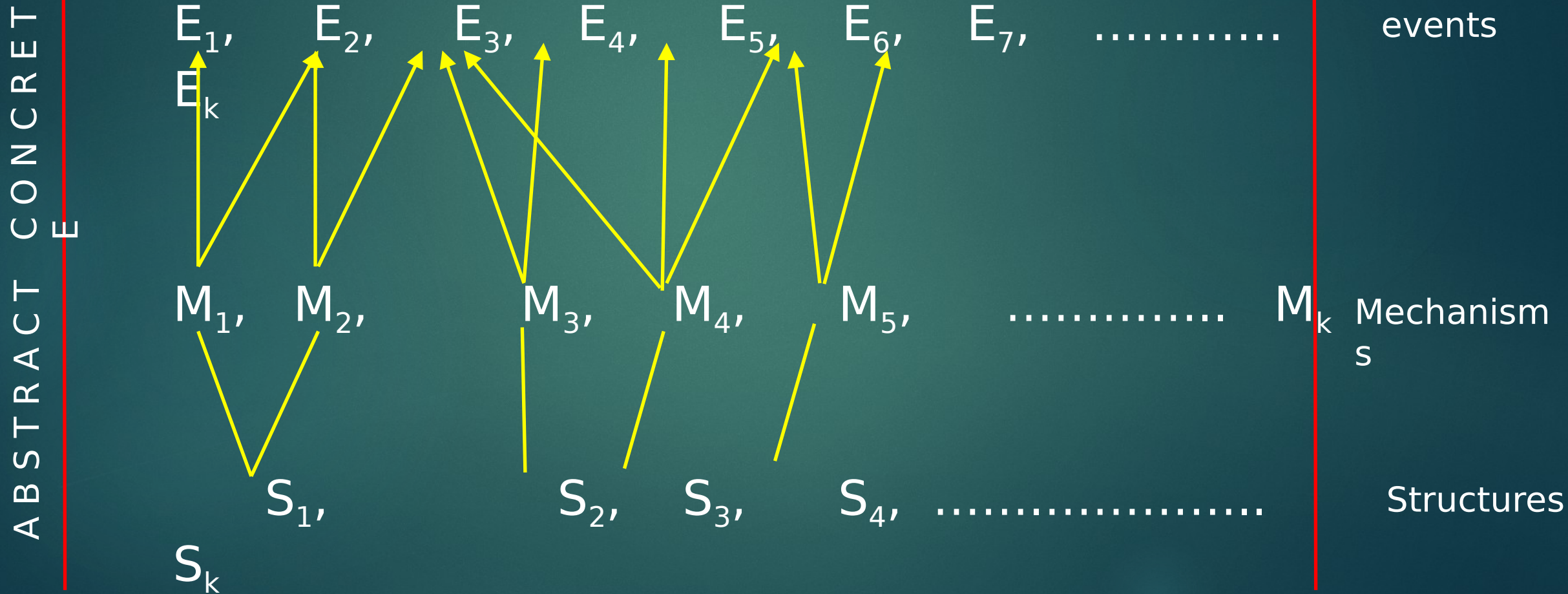


The REAL: mechanisms and structures with enduring properties



STRUCTURES, MECHANISMS AND EVENT:

3. KAUSALITAS NON-HUMEAN



Realitas
independen

Ontologi
Terstratifikasi

Kausalitas
Non-Humean

*Relational
Emergence*
(Kemunculan)

Perspektif
Sistem
Terbuka

Asumsi Ontologis

4. *Relational Emergence* (kemunculan akibat interaksi relasional)
 - ▶ Entitas independen dari atau tidak dapat direduksi menjadi komponen-komponen pembentuknya.
 - ▶ Sifat dan daya kausal dari suatu entitas atau struktur bukan hanya merupakan hasil susunan komponen-komponenya tetapi juga hasil interaksi relasional komponen tersebut
 - ☉ suatu entitas memiliki daya kausal tertentu karena terdiri dari komponen tertentu dalam bentuk pengorganisasian tertentu
5. Perspektif Sistem terbuka
 - ▶ Realita sosial selalu terbuka berada dalam pengaruh banyak hal
 - ▶ Sistem tertutup seperti diperoleh dalam eksperimentasi ilmu alam tidak mungkin dicapai oleh realita social.

Realitas
independen

Ontologi
Terstratifikasi

**Kausalitas
Non-Humean**

*Relational
Emergence*
(Kemunculan)

Perspektif
Sistem
Terbuka

Asumsi Ontologis



*Mediated
Knowledge*

Eksplanasi,
bukan
Prediksi

Eksplanasi
dengan
Mekanisme

Ketidak-
terlihatan dari
mekanisme

Kemungkinan
eksplanasi
beragam

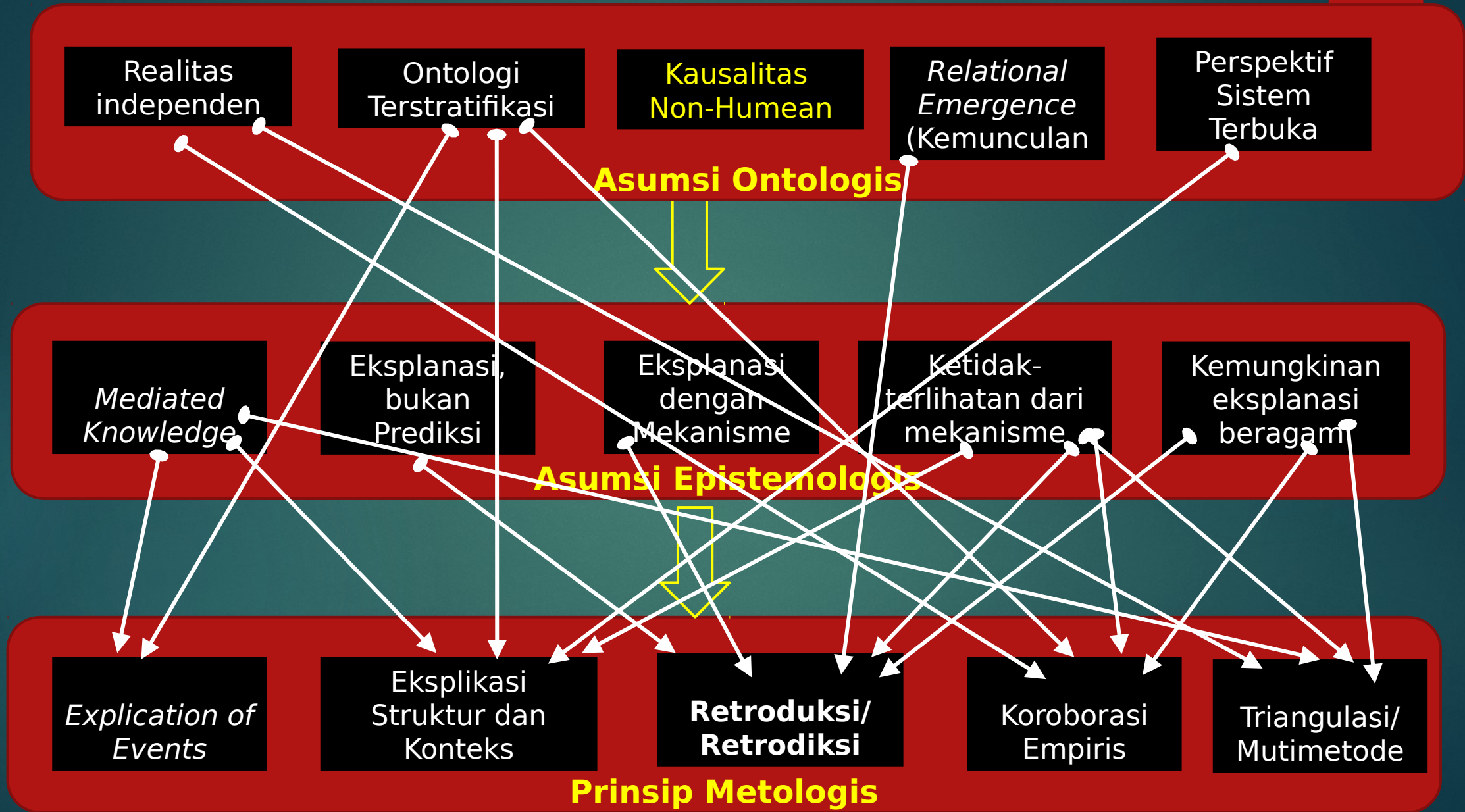
Asumsi Epistemologis

Asumsi Epistemologis dalam Realisme Kritis

- ▶ *Mediated knowledge*
 - ▶ 2 dimensi pengetahuan tentang realita
 - ▶ Intransitif: realita independen
 - ▶ Transitif: pengetahuan tentang realita. Yang bisa salah atau tidak lengkap ☹ CR tidak menganut paham *Correspondence theory of truth*
 - ▶ **Epistemic relativity** dan **Jugdemental Rationality**
 - ▶ Pengetahuan transitif selalu dimediasi oleh observasi dan kerangka pikir yang dimiliki peneliti
- ▶ Eksplanasi, bukan prediksi
 - ▶ Tujuan penelitian adalah untuk menjelaskan bagaimana struktur dan mekanisme menyebabkan realita

Asumsi Epistemologis dalam Realisme Kritis

- ▶ *Eksplanasi dengan mekanisme*
 - ▶ Eksplanasi dicapai dengan mengungkap mekanisme, struktur dan konteks yang menghasilkan outcome berupa realita yang teramati
- ▶ Ketidakterlihatan mekanisme
 - ▶ Mekanisme dan struktur tidak dapat diamati langsung
 - ▶ Harus diinferensi dari efek yang teramat ☾
Retroduksi, bukan induksi maupun deduksi



Explication of Events

Eksplikasi Struktur dan Konteks

Retrodiksi

Koraborasi Empiris

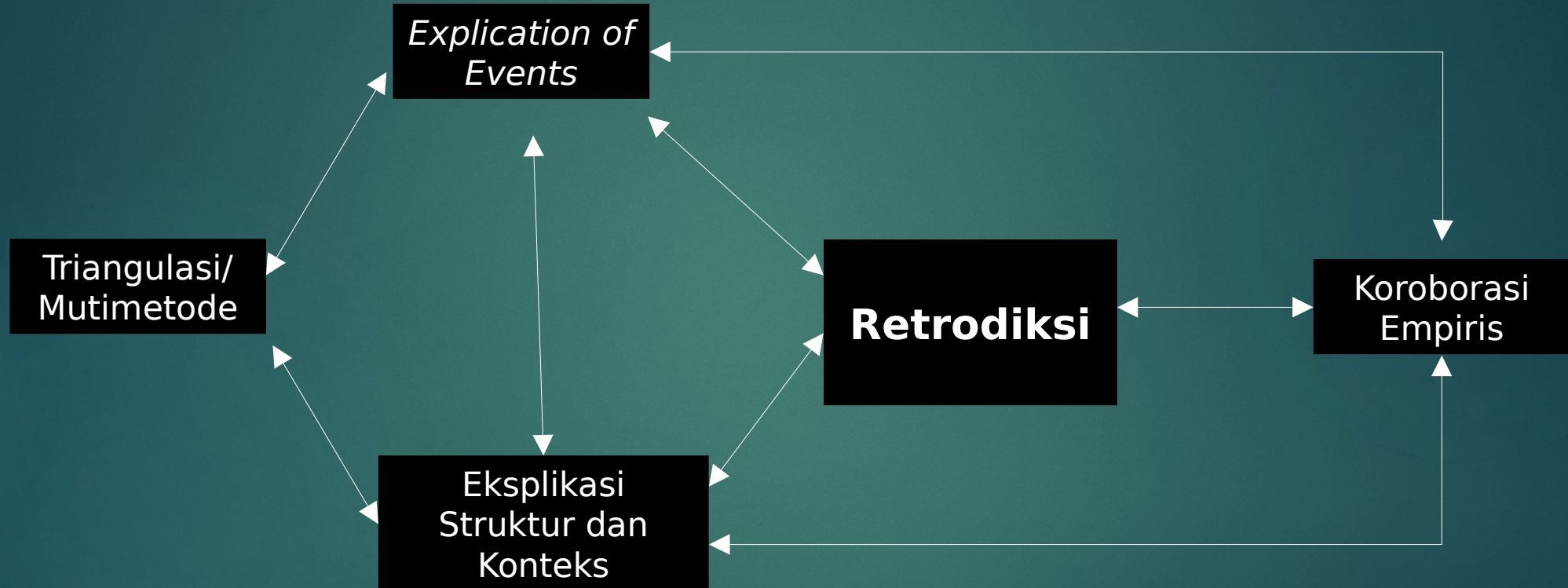
Triangulasi/
Mutimetode

Prinsip Metodologis

Critical realist methodology - *RRREIC*:

- *Resolution* of complex phenomena into components
- *Redescription* in an explanatory meaningful way
- *Retrodiction* of potential, hypothetical explanatory mechanisms
- *Elimination* of alternative competing explanations
- *Identification* of causally efficacious mechanisms
- *Correction* of earlier findings/theories

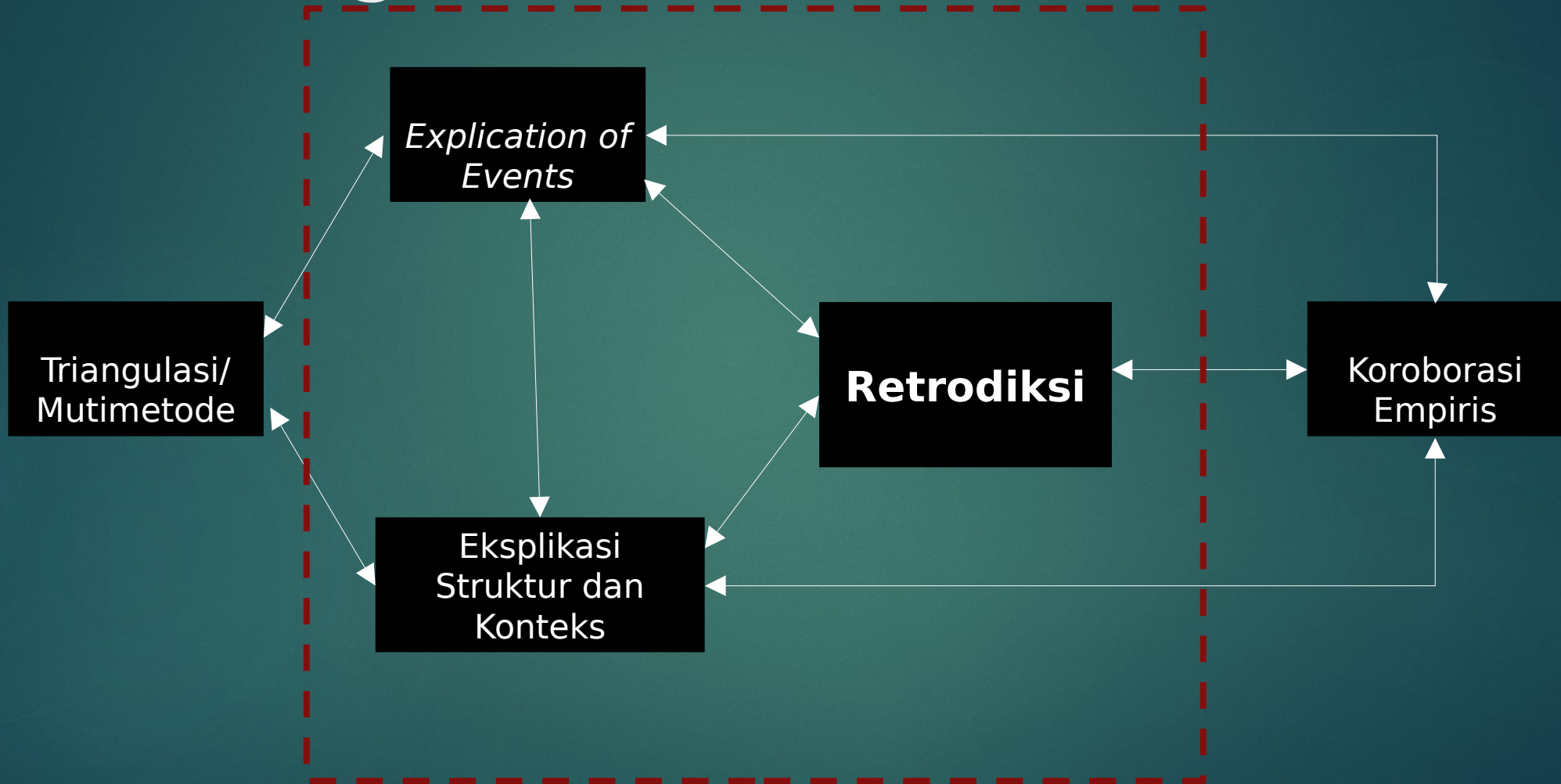
Relasi antar metode dalam Realisme Kritis



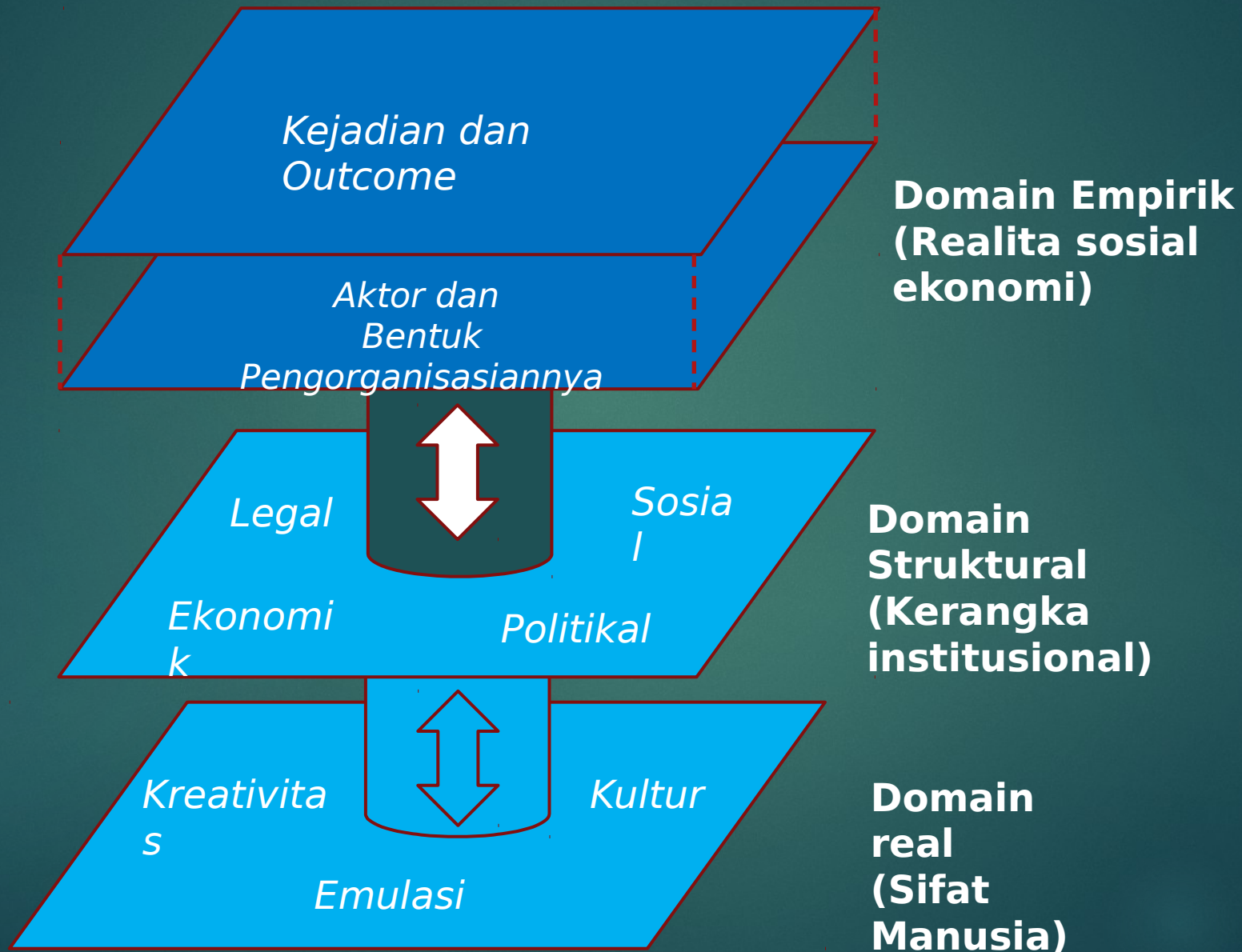


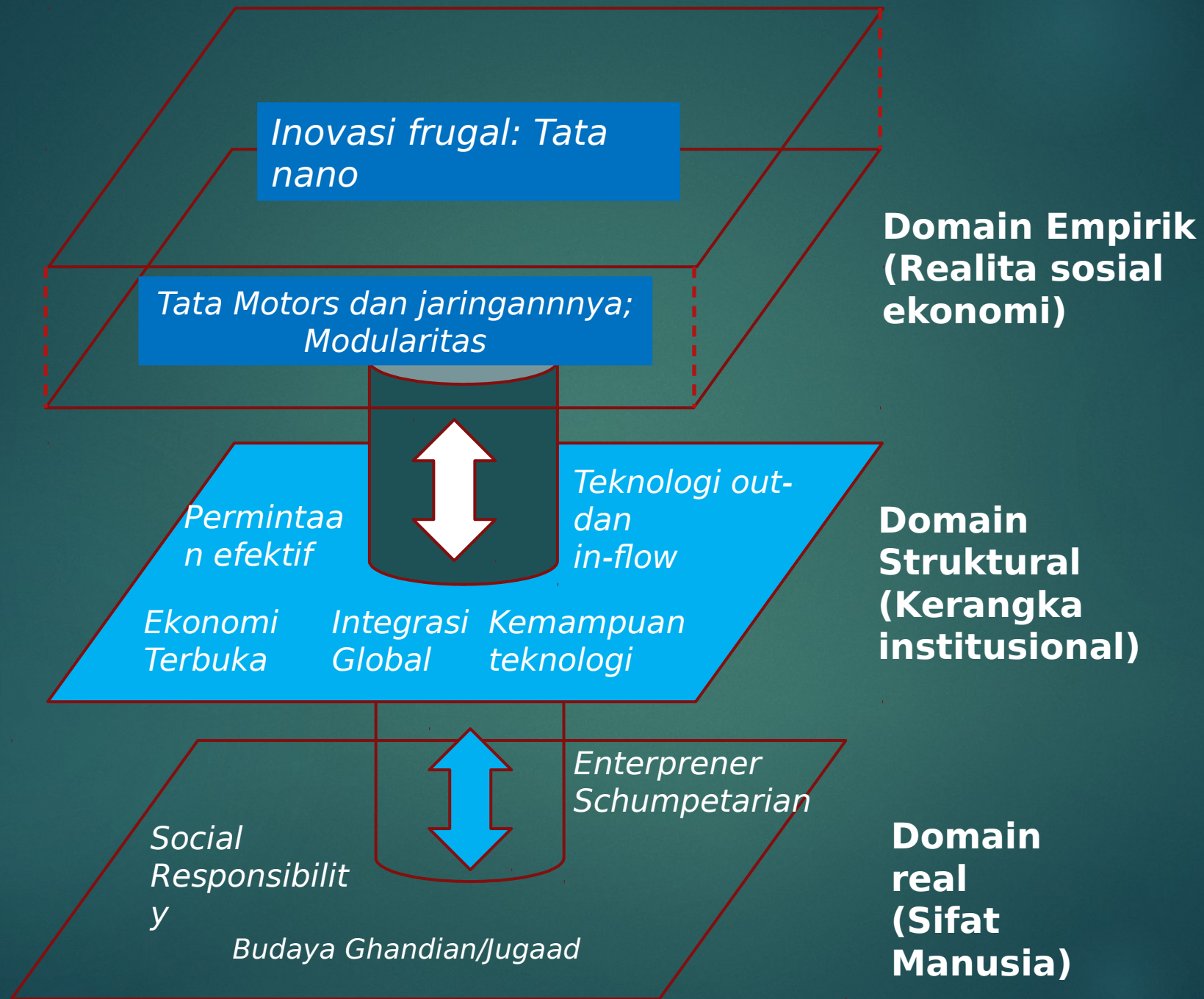
Contoh:
Analisis Perkembangan Inovasi
Frugal di India

Upaya menjelaskan fenomena inovasi frugal di India

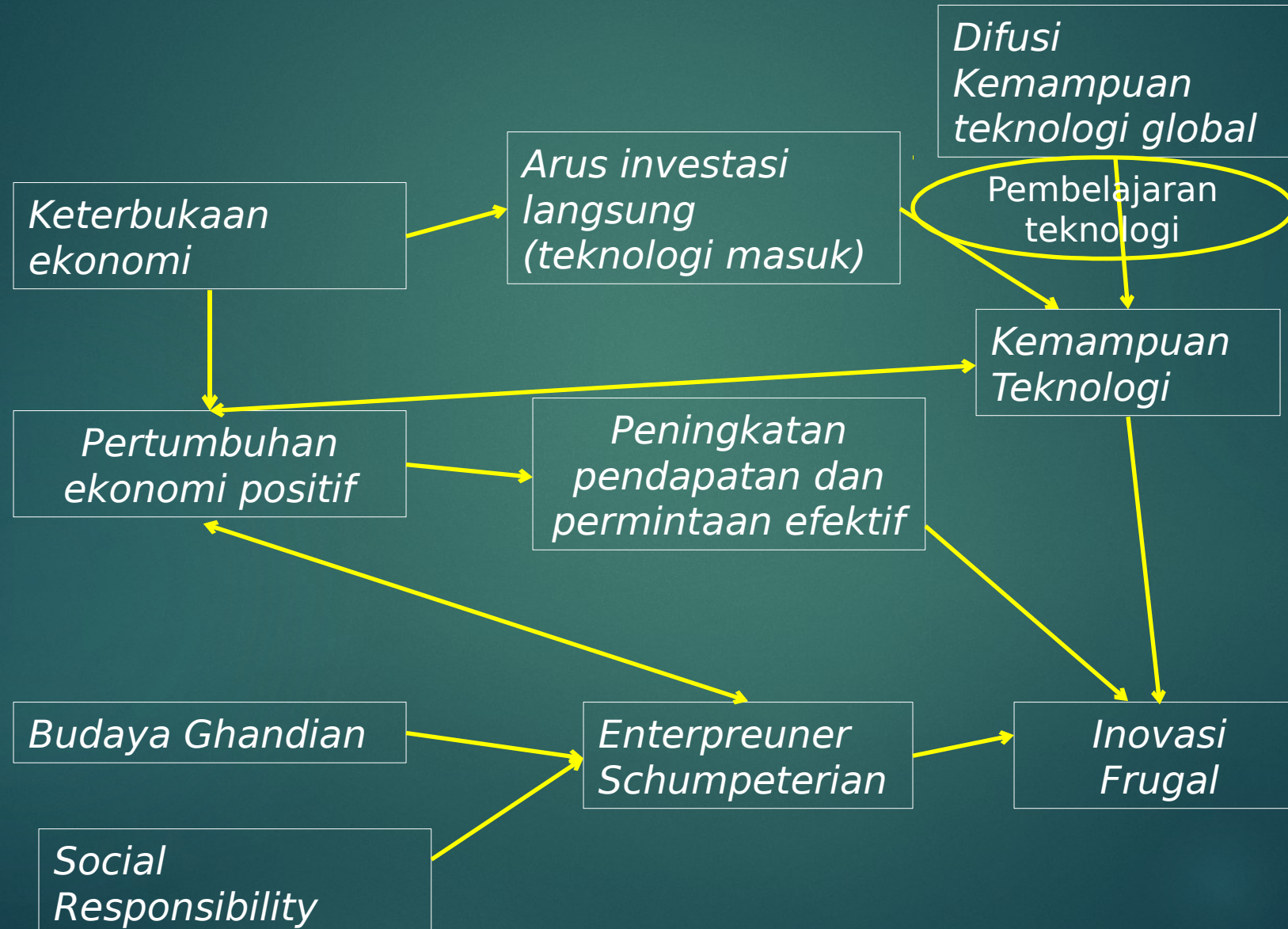


Realitas sosial ekonomi dalam pandangan realisme kritis





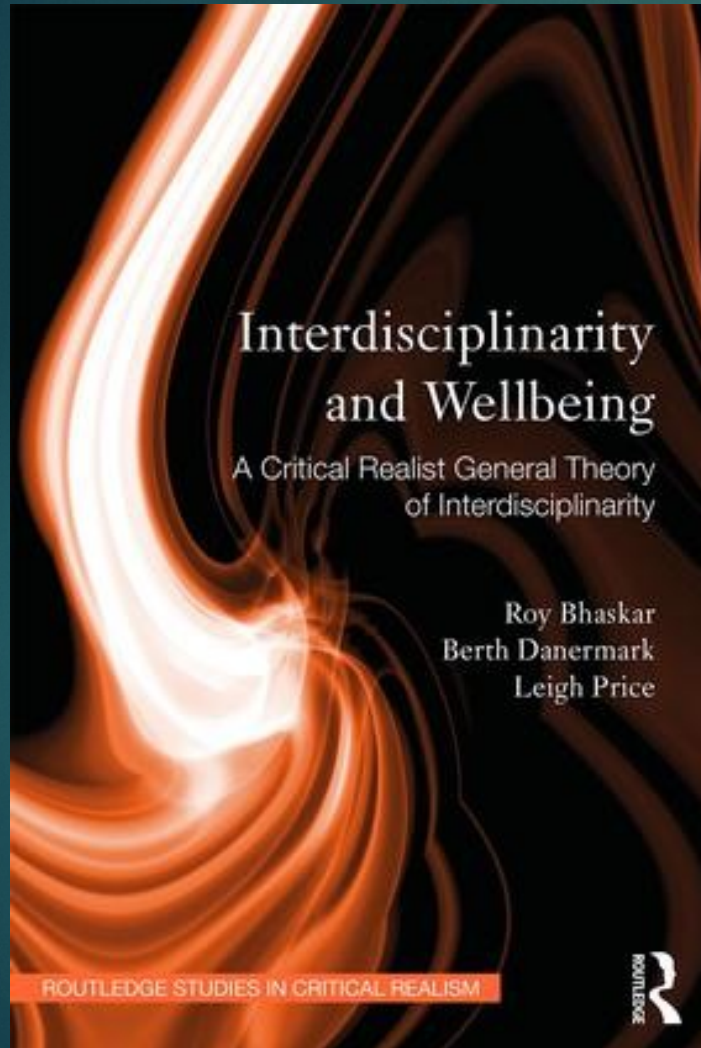
Kondisi yang diperlukan bagi pengembangan inovasi frugal





Riset Interdisiplin berbasis Realisme Kritis

Critical Realist Interdisciplinary Research



JOURNAL OF CRITICAL REALISM
2019, VOL. 18, NO. 4, 368–382
<https://doi.org/10.1080/14767430.2019.1644983>

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Applied interdisciplinary research: a critical realist perspective

Berth Danermark

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ABSTRACT

This article uses the philosophy of critical realism to overcome the problem that most contemporary guidelines for interdisciplinary research fail to provide would-be researchers with adequate advice. It arrives at five important steps in the interdisciplinary research process: an initial planning phase; a disciplinary phase; a teamwork phase characterized by cross-disciplinary understanding; and a transdisciplinary, creative phase that involves epistemic emergence, and that results in the integration of knowledge. The fifth phase is the result of the integrative fourth phase; it provides a holistic interdisciplinary understanding of the involved structures and mechanisms of the issue at hand. To make interventions derived from interdisciplinary research useful, they must be disseminated in such way as to include a return to reality, that is, there must be a movement from epistemology to ontology.

KEYWORDS

interdisciplinary research;
applied critical realism;
ontology

Definisi Riset Interdisiplin menurut Realisme Kritis

- ▶ any study or group of studies undertaken by scholars from all relevant levels that are needed to answer the research question.
- ▶ The research is integrating analysis of structures, mechanisms, and outcomes at these levels by using study design and methodology that are most appropriate for respective levels.
- ▶ The output is knowledge emergence, which requires the use of skills of the involved researchers throughout multiple phases of the research process. (Danermark 2018, 52–53)

*Explication of
Events*

Eksplikasi
Struktur dan
Konteks

Retroduksi

Koroborasi
Empiris

Triangulasi/
Mutimemode

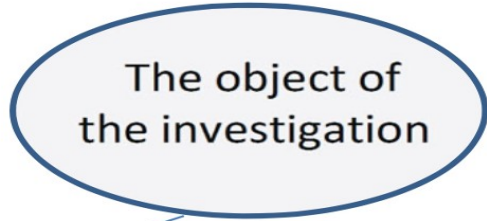
Prinsip Metodologis

Critical realist methodology - RRREIC:

- *Resolution* of complex phenomena into components
- *Redescription* in an explanatory meaningful way
- *Retrodiction* of potential, hypothetical explanatory mechanisms
- *Elimination* of alternative competing explanations
- *Identification* of causally efficacious mechanisms
- *Correction* of earlier findings/theories

Tahapan riset interdisiplin realisme

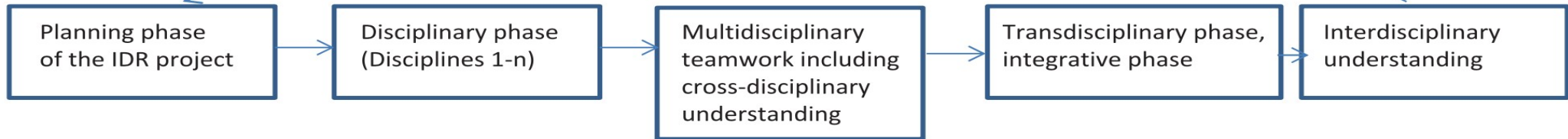
Ontology (intransitive dimension):



The disambiguation
(avoiding the epistemic fallacy)

Intervention

Epistemology (transitive dimension):



R

1. Resolution of the object into its components

R

2. Redescription of these components

RE

3. Retroduction/retroduction, elimination of competing

IC

4. Identification of relevant structures and mechanisms,

5. Holistic explanation

- 1. Definisi masalah
- 2. Justifikasi
- 3. Disiplin yang relevan
- 4. Review literatur
Level yang relevan
Emergence
Laminated system

- 5. *Pendalaman disiplin*
- 6. *Insight dari disiplin*
 $S + C + M = O$
Tahap Reduksionis
Riset multidisiplin
Hindari *epistemic fallacy* & *ontological monovalence*
Absence

- Cross-disciplinary understanding*
- Reflexive self-critique*
- Methodological specificity*
- Pluaralisme teoretis

- 7. Identifikasi konflik
- 8. *Common ground*

- Epistemic emergence*
- Necessary laminated system*
- Four-planar social being*
- Seven scalar model*

- 9. *Pemahaman komprehensif*
- 10. *Refleksi & komunikasi*
A true melding of disciplines
☉ emergent understanding

Evaluasi hasil riset interdisiplin

- ▶ *Does the output constitute “more than the sum of” the specific disciplinary inputs?*
- ▶ *Do the theoretical discussions/contributions reflect interdisciplinary exchange and synthesis of knowledge?*
- ▶ *Does the output draw on data/materials, methods and forms of analysis of the various disciplines involved?*
- ▶ *Does the output create novelty by the integration of established knowledge within disciplines?*
- ▶ *Have the different scales and objects of study of the participating disciplines been successfully connected and/or integrated?*



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- 1989 *Reclaiming Reality*: General overview, includes critiques of Fereyabend, Bachelard, Rorty
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