Navigating Modal Space

On A Husserlian Theory of the Epistemology of Modality

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Introduction

Modal Epistemology

→ What is the source of our knowledge of modal propositions?

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Flavors of Modality

- Epistemic Modality   (relative to a body of knowledge)

- Objective Modality
    - 'Practical' Modality   (restricted by practical constraints)
    - Nomological Modality   (restricted by, say, the laws of nature)
    - Metaphysical Modality   (unrestricted)

Introduction

Modal Epistemology

→ What is the source of our knowledge of modal propositions?

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Modal Epistemology

→ What is the source of our knowledge of modal propositions?

CONCEIVABILITY   We derive justification for ◊p from conceiving p.

IMAGINABILITY   We derive justification for ◊p from imagining p.

SIMILARITY   We can infer from an observed entity, x being F that the relevantly similar entity y can be F too.

PERCEPTION   We can see that ◊p.

INTUITION   We can have an intuition that ◊p or □p.

ESSENCE   We can come to know that ◊p or □p by knowing what it is for (a constituent of) p to be.

Introduction

The purpose of this talk

- ... sketch a Husserlian account of modal epistemology (HME)

  → a systematically consistent account that is inspired by Husserl
  → show how HME can be of interest in contemporary ME

- ... compare a circularity-problem that HME might suffer from with issues in contemporary accounts

- ... propose a new terminological framework with which these sorts of problems could be tackled (and apply it to HME).

Overview

1. A Husserlian Theory of the Epistemology of Modality

2. Circularity Issues in Modal Epistemology

3. Navigating Modal Space

4. Husserlian Modal Epistemology Revisited

5. Conclusion

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1　A Husserlian Theory of ME

Key Concepts in Husserlian Modal Epistemology (HME)

- essence

- intuition

- imagination

- similarity

1   A Husserlian Theory of ME

The Role of Essences in HME

- Essentialist propositions **ground (explain)** modal propositions.

- Essentialist propositions are also the **epistemic guide** to (some kind of) modal propositions.

- Essentialist propositions are conceived in a **Finean** way.

- Yet, there are 2 ways to conceive of Finean Essentialism:

  - **'reductive'** Finean essentialism—essences are **not** among the (wider) modal package (Fine 1994, Correia 2012)
  - **'non-reductive'** Finean essentialism—essences belong to the (wider) modal package (Hale 2013, Husserl 1973)

1   A Husserlian Theory of ME

Eidetic Variation (EV)

- We are able to '**see**' or **intuit essences** …

- … by **varying** an object of a specific kind in **imagination.**

→ One can distinguish 4 steps in EV.

1   A Husserlian Theory of ME

Eidetic Variation (EV)

(St1) Start w/ an example of a particular *object of a specific kind.*

(St2) Turn it into an *arbitrary example of that kind* (i.e. into a guiding model).

(St3) Start *voluntarily* and *arbitrarily* varying the guiding example in **imagination** by varying an **arbitrary feature** of the original.

(St4) A **unity** (an **invariant structure**) becomes **evident** in the multiplicity of variants. → **intuiting ('seeing') the essence** of the object qua example of the kind.

1   A Husserlian Theory of ME

Eidetic Variation (EV)

(St1) Start with an example of a particular ***object of a specific kind*** that you have experienced or imagined.

- Start: ***object of a specific kind***

- Result: essence of the object ***qua instance of a kind***.

Example:

Start: this bottle as an instance of the kind 'bottle'

Result: eidos 'bottle' (what is ess. for this bottle *qua bottle*)

Start: this bottle as an instance of the kind 'material object',

Result: eidos 'material object' (ess. of this bottle *qua mat. obj.*)

1   A Husserlian Theory of ME

Eidetic Variation (EV)

(St2) Turn it into an *arbitrary example of that kind* (i.e. into a guiding model).

- This **modifies the way this object is regarded**.

- <u>Example</u>: regard this specific bottle as merely one possible instance of a kind (say, 'material object') among other instances of that kind—i.e. as *a guiding example* of that kind.

- <u>Purpose of (St2)</u>: to treat actualities as **mere possibilities among other possibilities**.

1 A Husserlian Theory of ME

Eidetic Variation (EV)

(St3) Start *voluntarily* and *arbitrarily* varying the guiding example in **imagination** by varying an **arbitrary feature** of the original.

- The imaginative variation must be **free** (arbitrary), except for **one restriction**:

- All variants must be '*concretely similar*' to the guiding example with respect to the *relevant* **properties** pertaining to the *type* under considerations.

- **arbitrariness** → makes it reasonable to stop EV

1 A Husserlian Theory of ME

Eidetic Variation (EV)

(St4) Intuit ('see') the **unity** (the **invariant structure**) that becomes **evident** in the multiplicity of variants!

- This essence presents itself as an **essentialist law** about the kind.

- We can then *see* that it applies to every instance of this kind.

- The essence bears in itself "*necessary laws* which determine what must necessarily belong to an object in order that it can be an object of this kind". (Husserl 1973, 352)

- **Essentialist** knowledge and **modal** knowledge are **entangled**: By apprehending the essentialist law we apprehend what is necessary for every object of the kind in question.

1   A Husserlian Theory of ME

Eidetic Variation (EV)

(St1) picking an example

(St2) turning it into an arbitrary example of the kind in question

(St3) varying the example in imagination

(St4) intuiting/'seeing' the essence (the invariant structure) and thereby apprehending modal knowledge.

1   A Husserlian Theory of ME

The Circularity Objection (C)

- EV presupposes the kind of knowledge that it is purported to elucidate or to provide access to.

  (C)   If we were not acquainted with the essential features of the kind in question, we obviously could not recognize which of the arbitrarily produced variants still belong and which do not belong to the kind in question. (St3)

→ In order to yield essentialist knowledge, EV has to presuppose essentialist knowledge.

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1 A Husserlian Theory of ME

Defense Strategy against the Circularity Objection (C)

- Distinction betw. 2 universals: **empirical types** vs. **pure essences**

- **No circle!** EV does not presuppose essentialist knowledge but **knowledge of empirical types.** (Kasmier 2010)

- EV is a *purification* of an antecedently apprehended empirical type into a pure essence.

→ How do we acquire knowledge of empirical types?

1   A Husserlian Theory of ME

Universal Intuition of Empirical Types

- 2 blue objects **affect you as a unity**.

- Your **focus** shifts from the 2 particulars to what makes them **similar**.

- A **universal**—a **type**—emerges.

- As soon as we apprehend the universal 'blue', we realize that it is **possible** that more than just one thing instantiates this type, i.e. that more then just one thing can be blue.

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1   A Husserlian Theory of ME

Universal Intuition of Empirical Types

- Apprehending a universal is apprehending the **possible** continuity of **possible** like experiences.

- Since the acquisition of the universal took its start in the **experience of actual objects**, the kind of universals we have acquired in this vein are *empirical types* or *empirical generalities*.

- Thus, empirical types are **tied to the actual world**.

1 A Husserlian Theory of ME

Empirical vs. Pure Generalities

<u>Empirical Types</u>

- open extension of **possible instantiations**

- '*worldly*' (restricted) poss.

- **tied to the actual world**

- founded on the (**contingent**) progress of **actual** experience (restricted)

<u>Pure Essences</u>

- open extension of **possible instantiations**

- '*pure*' (absolute) possibility

- **not tied to the actual world**

- **independent** of such contingencies — free imagination (not restricted)

1 A Husserlian Theory of ME

The Circularity Objection (C) Revisited

- In order to yield essentialist knowledge EV presupposes essentialist knowledge.

  (C) If we were not acquainted with the essential features of the kind in question, we obviously could not recognize which of the arbitrarily produced variants still belong and which do not belong to the kind in question. (St3)

- Husserl: The variants have to be **concretely similar** to the guiding example in the **relevant respects**.

- We have to know what the **relevant** respects are.

- How do we know what the **relevant** respects are?

1   A Husserlian Theory of ME

The Circularity Objection (C) Refuted

How do we know what the **relevant** respects are?

- Is this **essentialist knowledge**?

- No! Being **acquainted with the empirical type** which we wish to purify in an EV suffices to know what the relevant respects are.

- Being acquainted with the type, say 'material object' already means knowing in which respect the variants have to be concretely similar—they all have to be material objects.

- Knowledge of the empirical type under consideration suffices to tell variants of the type from examples that do not belong to the type.

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1 A Husserlian Theory of ME

The Circularity Objection (C) Refuted

- So, EV does not presuppose essentialist knowledge but rather **knowledge of empirical types**.

- The latter is brought about by **universal intuition (UI)**.

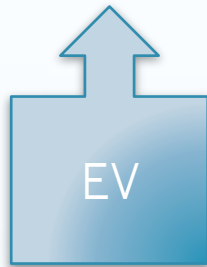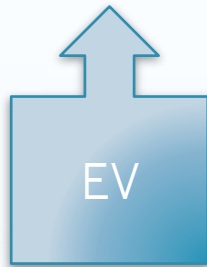Knowledge of Pure Essences

EV

Knowledge of Empirical Types

UI

1   A Husserlian Theory of ME

A Different 'Circularity' Objection (P)

Knowledge of Pure Essences ⟹ Modal Knowledge

EV

Knowledge of Empirical Types

1 A Husserlian Theory of ME

A Different 'Circularity' Objection (P)

Knowledge of Pure Essences ⟹ Modal Knowledge

EV

Knowledge of Empirical Types (= Modal Knowledge)

→ EV might not be circular in virtue of presupposing essentialist knowledge but in virtue of presupposing **modal knowledge**.

1 A Husserlian Theory of ME

A Different 'Circularity' Objection (P)

Knowledge of empirical types classifies as modal knowledge:

- Apprehending an empirical generality is apprehending the **possible** continuity of **possible** like experiences.

- If I am acquainted with the empirical type 'blue',…
    - I know that more than the just perceived objects **can** be blue;
    - I also know how an object **must** be to be classified as blue.

→ knowledge of a **'worldly' kind of modality (**tied to @)

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1   A Husserlian Theory of ME

A Different 'Circularity' Objection (P)

(P)

- EV presupposes modal knowledge.

- Thus, EV cannot be the fundamental epistemic access point to modality on pain of circularity.

- So, HME is inapt to elucidate our epistemic access to modality.

Overview

1. A Husserlian Theory of the Epistemology of Modality ✔

2. **Circularity Issues in Modal Epistemology**

3. Navigating Modal Space

4. Husserlian Modal Epistemology Revisited

5. Conclusion

2 Circularity Issues in ME

D. Chalmers' Conceivability-Based Account in ME

(WMR) **Ideal**, primary, positive conceivability *entails* primary possibility. (Chalmers 2002, 194)

(IC) S is *ideally* conceivable when there is a possible subject for whom S is prima facie conceivable, with justification that is **undefeatable** by better reasoning. (Chalmers 2002, 148)

→ Being able to judge whether or not p is ideally conceivable seems to amount to (antecedently) having **modal knowledge**.

2   Circularity Issues in ME

A Circularity Issue for Chalmers' Conceivability-Based Account

(1) (WMR) presupposes modal knowledge.

(2) Thus, (WMR) *cannot be the fundamental epistemic access point to modality* on pain of **circularity**.

(3) So, (WMR) is inapt to elucidate our epistemic access to modality.

2   Circularity Issues in ME

T. Williamson Counterfactual-Based Account in ME

Metaphysical modality reduces to counterfactual conditionals:

(□) □p ↔ (¬p □→ ⊥)

      (The necessary is that whose negation *would* imply a ⊥.)

(◇) ◇p ↔ ¬(p □→ ⊥)

      (The possible is that who *would* not imply a ⊥.)

      (Williamson 2007)

- ME is just a special case of the epistemology of counterfactuals.
  (For criticism cf. Jenkins 2008, Casullo 2012)

2 Circularity Issues in ME

T. Williamson Counterfactual-Based Account in ME

(R) If the bush had not been there, the rock would have ended in the lake.

The epistemology of counterfactuals:

- Suppose the antecedent by imagining that scenario.

- Counterfactual Development (CD) of the supposition by adding
  - reasoning,
  - offline predicative mechanisms and other offline judgments and
  - **background knowledge** and beliefs.

- If CD leads to adding the consequent: assent to counterfactual.

- If not (even after a considerable thorough CD): dissent from it.

2 Circularity Issues in ME

A Circularity Issue for Williamson's Counterfactual-Based Account

The problem of cotenability:

- What is the (**relevant**) background knowledge needed in CD?

- Williamson: **constitutive** (i.e. **essentialist**) facts must be hold fixed in CD.

- Essences belong to the **wider modal package**.

- Essentialist knowledge is some kind of **modal knowledge**.

- So, CD cannot be our fundamental access point to the modal space on pain of circularity.

(See also Roca-Royes 2011a, 2011b, 2012, Casullo 2012)   Appendix 1

2 Circularity Issues in ME

S. Roca-Royes' Similarity-Based Account in ME

... elucidates our knowledge of *de re* possibility claims about concrete entities, like:

(M) It is possible that Messy, the wooden table in my office, breaks.

(A) K: ◇ **Twin-Messy breaks** (because we saw it break).

(B) K: ***SMUSE*-Principle** (*S*imilar *M*ake-*U*p, *S*imilar *E*ffects)
Objects similarly made out of the same sort of materials are susceptible to similar effects. (Roca-Royes 2017, 227)

(C) K: Messy has a **similar make-up** as Twin-Messy.

(D) Thus, K: ◇ **Messy breaks** (M).

2   Circularity Issues in ME

A Circularity Issue for Roca-Royes' Similarity-Based Account

- The main epistemic work is done by the SMUSE-principle.

- SMUSE: Objects similarly made out of the same sort of materials are suscept*ible* to similar effects.

- SMUSE: It is *possible* for objects similarly made out of the same sort of materials to suffer similar effects.

- So, SMUSE is **modal**.   Appendix 2

- Therefore, the similarity-based account **cannot** elucidate our **fundamental access point** to modality on pain of circularity.

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2 Circularity Issues in ME

Common Problem in ME

In summation, what generates these circularity worries is that the respective accounts of ME presuppose:

- knowledge of empirical types (Husserl)

- knowledge about what is undefeatable (Chalmers)

- knowledge of constitutive (essential) facts (Williamson)

- knowledge about specific effect-susceptibility (Roca-Royes)

→ If these problems are persistent: *abductive arg. for **modalism**?*

Modalism: Modal kn. is basic (not derived from non-modal kn.).

Overview

3   Navigating Modal Space

2 Questions in the Epistemology of Modality

- Note that these **circularity issues** arise if the respective accounts are taken as an answer to the *'penetration question'*.

  (PQ) How are we to epistemically *penetrate* the modal space from outside the modal space?

- There are, however, a different, interesting questions in ME that have been widely neglected so far—*'navigation questions'*.

  (NQ) How are we to epistemically *navigate* within the modal space?

3 Navigating Modal Space

2 Questions in the Epistemology of Modality

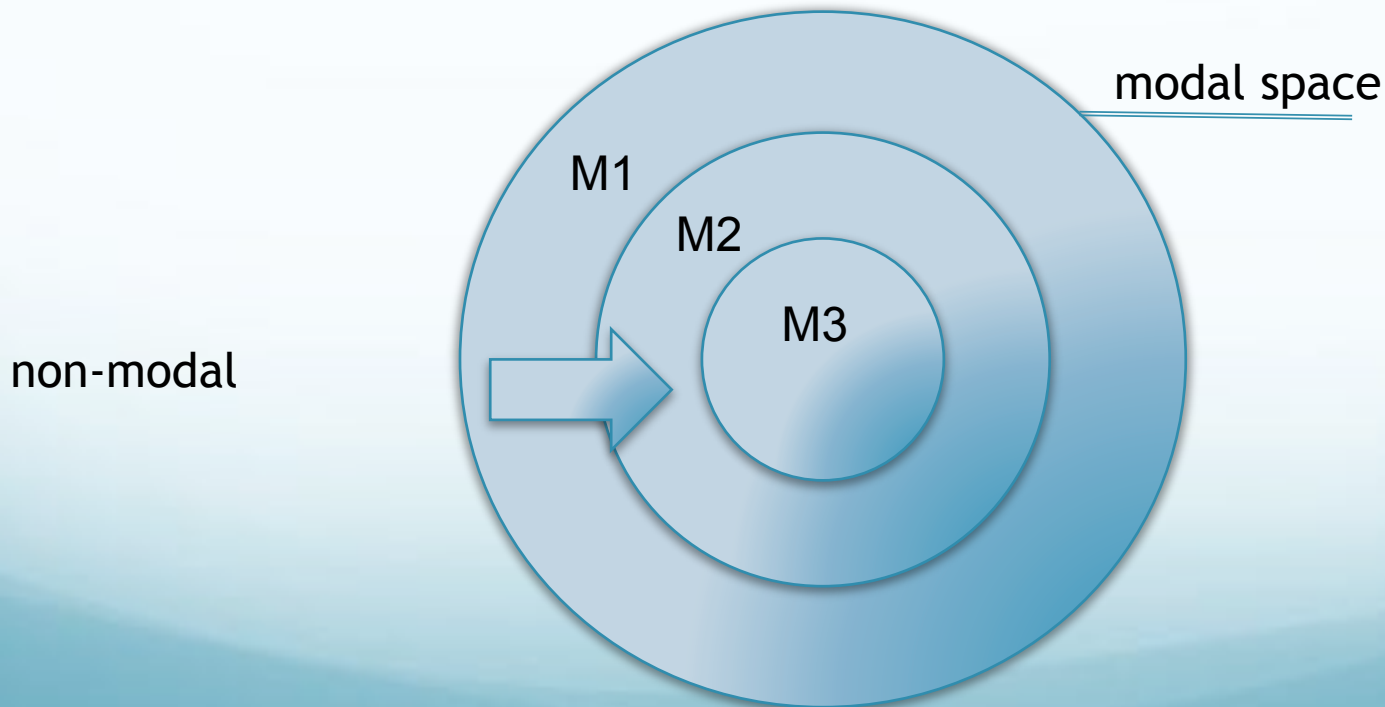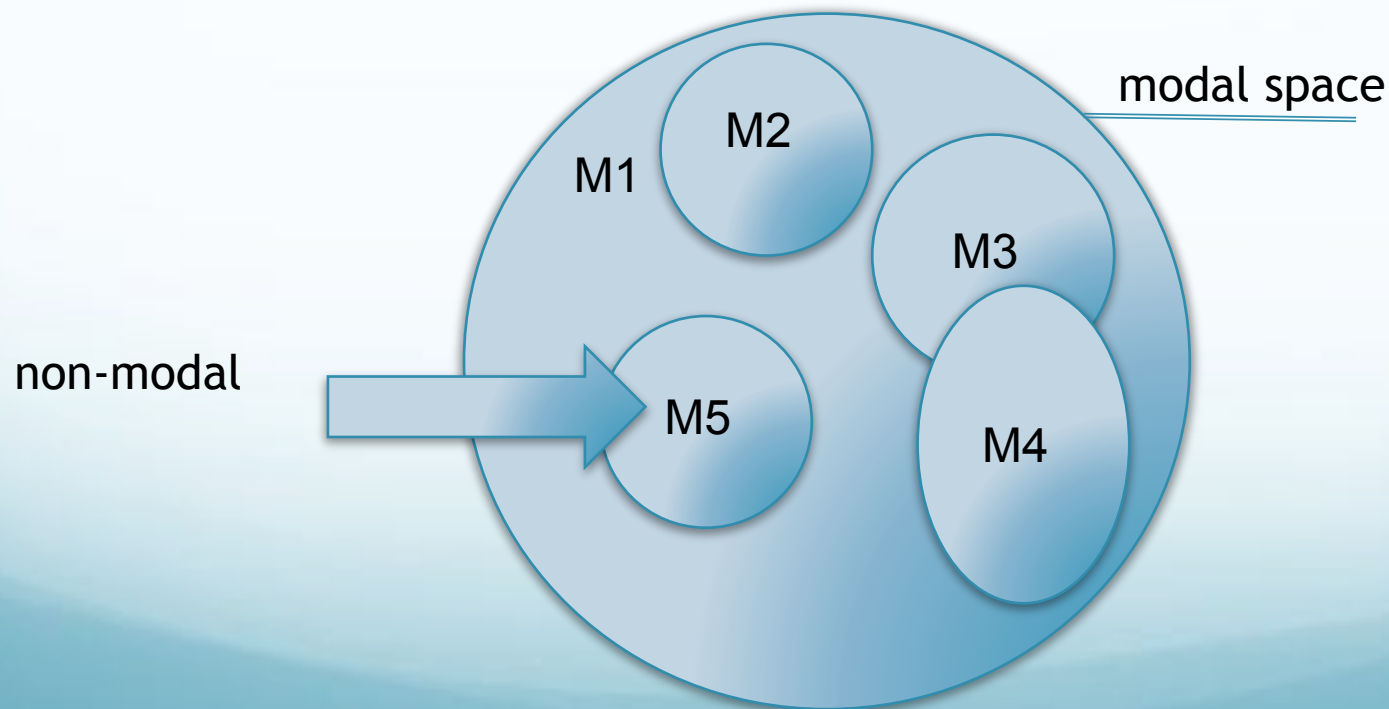(PQ) How are we to epistemically *penetrate* the modal space from outside the modal space?

M1

M2

M3

modal space

non-modal

3   Navigating Modal Space

2 Questions in the Epistemology of Modality

(NQ) How are we to epistemically *navigate* within the modal space?

modal space

M1

M2

M3

non-modal

3 Navigating Modal Space
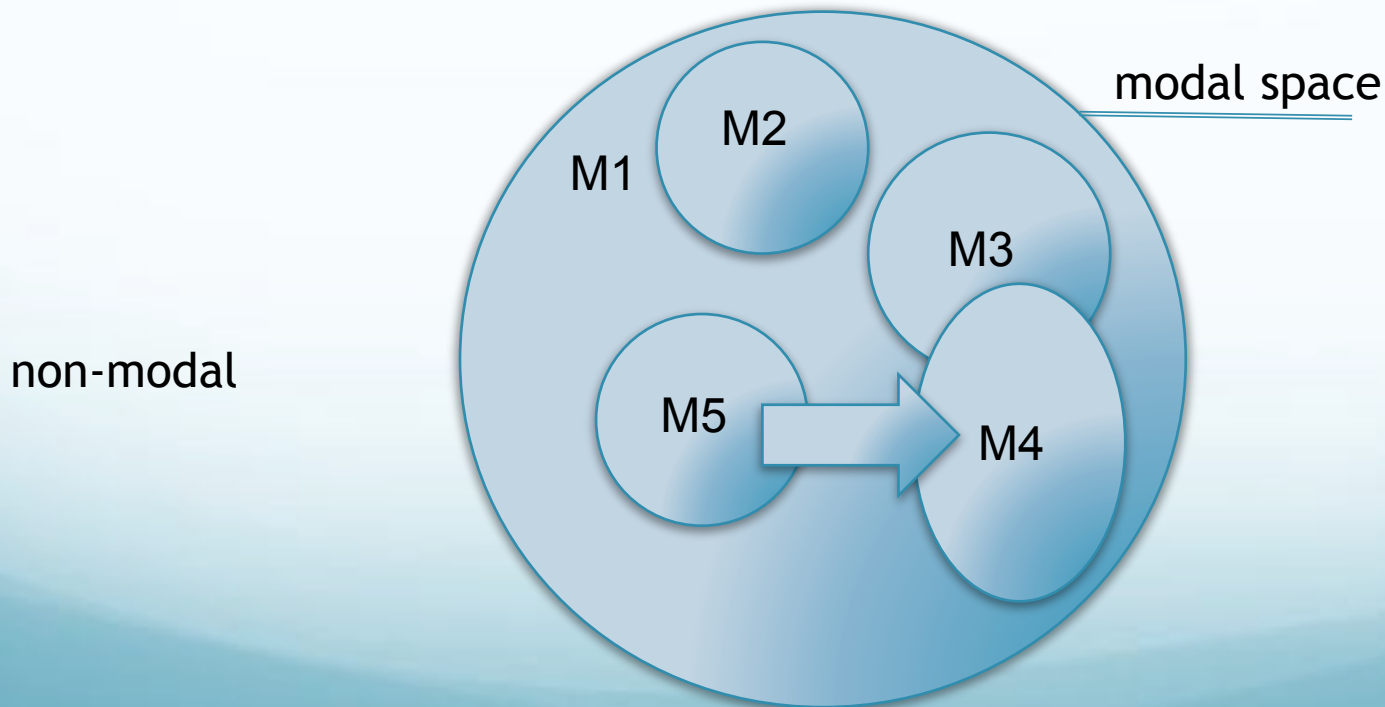
2 Questions in the Epistemology of Modality

(PQ) How are we to epistemically *penetrate* the modal space from outside the modal space?

3 Navigating Modal Space
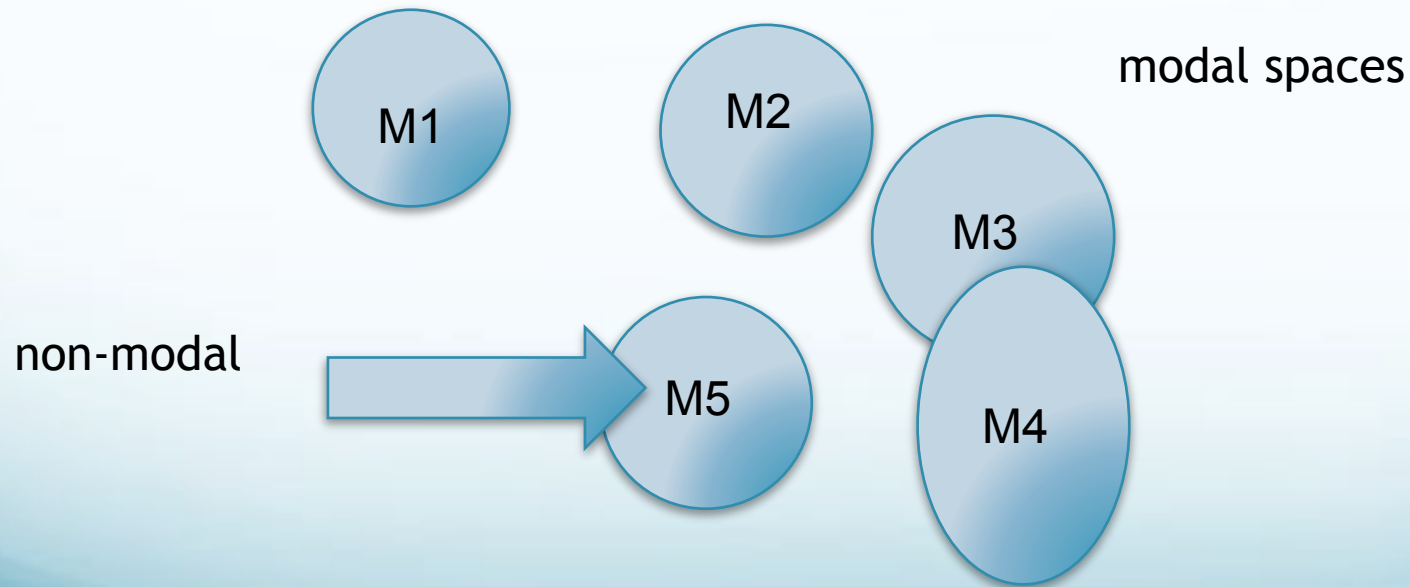
2 Questions in the Epistemology of Modality

(NQ) How are we to epistemically *navigate* within the modal space?

3 Navigating Modal Space
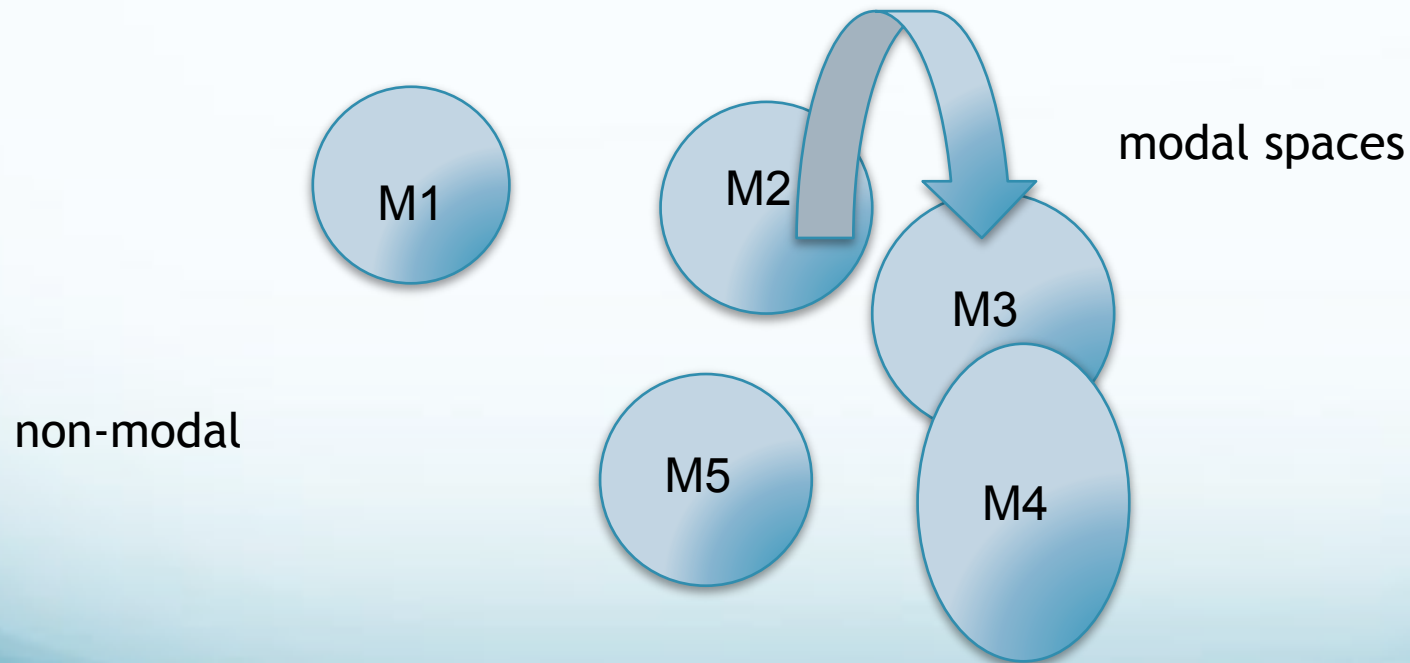
2 Questions in the Epistemology of Modality

(PQ) How are we to epistemically *penetrate* the modal space from outside the modal space?

3 Navigating Modal Space

2 Questions in the Epistemology of Modality

(NQ) How are we to epistemically *navigate* within the modal space?

modal spaces

M1   M2   M3

non-modal

M5   M4

3   Navigating Modal Space

Epistemically Pernicious Presuppositions (EPP)

- Trade the notion of 'circularity' for '**epistemically pernicious presuppositions**' (EPP)!

- Accounts that try to answer the PQ: '*Penetration Accounts*' (PA)

(Pern$_{PA}$) A ***PA*** relies on epistemically pernicious presuppositions iff it **presupposes epistemic access to modality** (of any kind whatsoever).

3   Navigating Modal Space

Epistemically Pernicious Presuppositions (EPP)

- Trade the notion of 'circularity' for '**epistemically pernicious presuppositions**' (EPP)!

- Accounts that try to answer a NQ: '*Navigation Accounts*' (NA)

(Pern$_{NA}$) A *NA* relies on epistemically pernicious presuppositions iff it **presupposes epistemic access** to **that kind of modality** (i.e. to that subspace of modality) **it seeks to elucidate** (i.e. it seeks to navigate into).

3 Navigating Modal Space

Epistemically Pernicious Presuppositions (EPP)

→ depend on the **epistemic purpose** of the account in question.

Presupposing epistemic access to M1 in order to account for (elucidate) epistemic access to M2 will count as epistemically pernicious if

(i) the account claims to be **PA** (and M1 is in the modal space); *or*

(ii) the account claims to be only a **NA** but there really is no distinction between M1 and M2.

E.g. the distinction between M1 and M2 could be too fine-grained as to be joint-carving.

3   Navigating Modal Space

2 Moving Parts

1) What exactly belongs to the modal space?

→ What counts as a PQ?

→ What counts as a pernicious presupposition in a PA?

2) How (fine-grained) are we to carve up the modal space?

→ What and how many different NQ are there?

→ What counts as a pernicious presupposition in different NA?

3   Navigating Modal Space

2 Moving Parts

2) How (fine-grained) are we to carve up the modal space?

a)   distinctions pertaining to the threat of moderate modal
      skepticism (cf. van Inwagen 1998, Fischer 2017)
  - (i)   ordinary vs. extraordinary modal claims
  - (ii)   near vs. remote modal claims
  - (iii)   widely agreed upon vs. fundamentally disagreed upon modal claims
  - (iv)   intuitive vs. counterintuitive modal claims
  - (v)   interesting vs. mundane modal claims

b)   epistemic, deontic, objective modality

c)   restricted (e.g.) physical, metaphysical (unrestricted) modality

3   Navigating Modal Space

2 Moving Parts

2) How (fine-grained) are we to carve up the modal space?

a)   distinctions pertaining to the threat of moderate modal
     skepticism

- … do not refer to a difference in the kind of modality but rather
  in *accessibility* or in subject matter.

- … are **not joint-carving with regard to modality**.

- … do not really carve up the modal space but rather the
  epistemic space.

3   Navigating Modal Space

2 Moving Parts

2) How (fine-grained) are we to carve up the modal space?

b)   epistemic, deontic, objective modality

- … does not really partition 1 modal space.

- … rather denotes 3 different modal spaces.

→ What we seek access to in modal epistemology is the space of **objective modality**.

3 Navigating Modal Space

2 Moving Parts

2) **How (fine-grained) are we to carve up the modal space?**

c) Restricted (e.g. physical), metaphysical (unrestricted) modality

● … seems to be a joint-carving distinction of kinds of modalities.

Example:

Physical modality is a kind of modality that is essentially **tied to the actual world**, in as much as it is tied to the laws of nature as they are in the actual world.

Metaphysical modality can be seen as a kind of **absolute modality** that is not tied to the actual world.

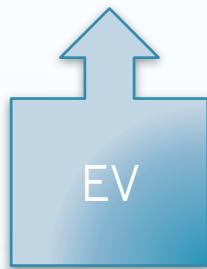→ This is a distinction that really pertains to the kind of modality.

Overview

4   Husserlian Modal Epistemology Revisited

A Different 'Circularity' Objection (P)

Knowledge of Pure Essences ➡ Modal Knowledge

EV

Knowledge of Empirical Types (= Modal Knowledge)

→ EV might not be circular in virtue of presupposing essentialist knowledge but in virtue of presupposing **modal knowledge**.

4 Husserlian Modal Epistemology Revisited

Does EV rely on epistemically pernicious presuppositions?

- Since EV presupposes modal knowledge, **EV can't be a PA**.

- Can EV be seen as a **NA**? Does it answer a (genuine) NQ?

  (Pern$_{NA}$) A *NA* relies on epistemically pernicious presuppositions iff it **presupposes epistemic access** to **that kind of modality it seeks to elucidate**.

→ EV presupposes knowledge of '**worldly' modality** to generate knowledge of '**pure' modality**.

→ Taken as an **NA**, EV does **not rely on EPP**, if the distinction between '**worldly**' and '**pure**' modality is **joint-carving**.

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4   Husserlian Modal Epistemology Revisited

Is the distinction 'worldly' vs. 'pure' modality joint-carving?

Dependent Modality (tied to the actual world)	Absolute Modality (*not* tied to the actual world)
worldly modality	pure modality

4 Husserlian Modal Epistemology Revisited

Is the distinction 'worldly' vs. 'pure' modality joint-carving?

Dependent Modality (tied to the actual world)	Absolute Modality (*not* tied to the actual world)
worldly modality	pure modality
physical modality	metaphysical modality

4 Husserlian Modal Epistemology Revisited

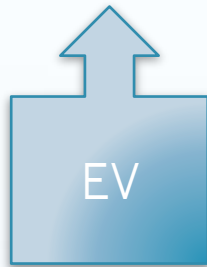**Is the distinction 'worldly' vs. 'pure' modality joint-carving?**

Dependent Modality (tied to the actual world)	Absolute Modality (*not* tied to the actual world)
worldly modality	pure modality
physical modality	metaphysical modality

- worldly-pure-distinction ≠ physical-metaphysical-distinction

- However, the 2 distinctions are drawn along similar lines.

→ If the physical-metaphysical-distinction is joint-carving, then so is the worldly-pure-distinction.

→ So, if EV is taken as NA, it does not rely on EPP.

4   Husserlian Modal Epistemology Revisited

The 2 Parts of HME

Knowledge of Pure Essences $\longrightarrow$ Knowledge of Pure Modality
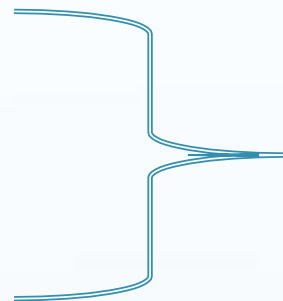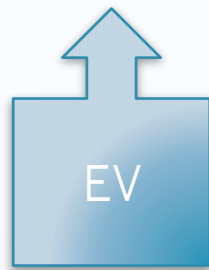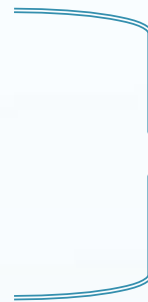
EV

Knowledge of Empirical Types (= Knowledge of Worldly Modality)

UI

4 Husserlian Modal Epistemology Revisited

The 2 Parts of HME

Knowledge of Pure Essences ➡ Knowledge of Pure Modality

EV

Answer to a NQ

Knowledge of Empirical Types (= Knowledge of Worldly Modality)

UI

The 2 Parts of HME

Knowledge of Pure Essences ➡ Knowledge of Pure Modality

EV

Answer to a NQ

Knowledge of Empirical Types (= Knowledge of Worldly Modality)

UI

Answer to the PQ???

4   Husserlian Modal Epistemology Revisited

The 2 Parts of HME

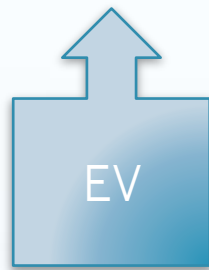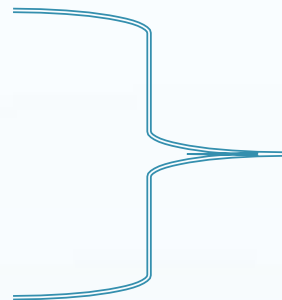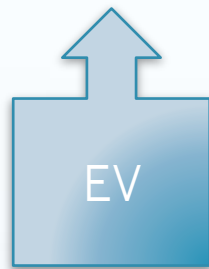Knowledge of Pure Essences ⟶ Knowledge of Pure Modality

EV

Answer to a NQ

Knowledge of Empirical Types (= Knowledge of Worldly Modality)

UI
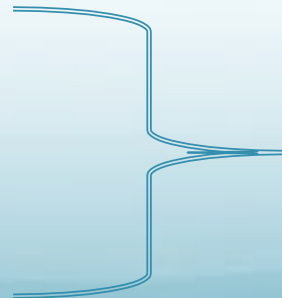
a) Easy Answer to the PQ

b) PQ is obsolete

4 Husserlian Modal Epistemology Revisited

The 2 Parts of HME

Universal Intuition (UI) of empirical types could either be

a) an easy way to answer PQ; or

b) a way of rendering PQ obsolete.

Regardless of whether a) or b) is true, HME might teach us that…

… the **hard part** of the epistemology of metaphysical ('pure') modality might not be the part about modality but the part about the metaphysical ('purity'). ($\rightarrow$ **NQ**)

Overview

1. A Husserlian Theory of the Epistemology of Modality ✔

2. Circularity Issues in Modal Epistemology ✔

3. Navigating Modal Space ✔

4. Husserlian Modal Epistemology Revisited ✔

5. Conclusion

5 Conclusion

What I Have Argued For:

- EV does not suffer from the circularity objection (C).

- EV does not suffer from the perniciousness objection (P), *if* taken as an answer to a *NQ*.

- HME is composed of 2 parts:
  - UI of empirical types and
  - EV → essentialist laws and pure modality

- Apprehending universals is already a 'modal business'.

- The distinction between between PQ and NQ and the notion of 'EPP' might enlighten our way of looking at some issues in ME.

5   Conclusion

What I Still Owe You:

- an argument to the effect that (Finean) essences belong to the wider package of modality   Appendix 1

- a precise account of how the modal space should be partitioned

- a detailed discussion as to what our terminological framework (PQ, NQ, EPP) can do for the contemporary accounts discussed

- a determination of where HME stands in current debates
  - about empiricism vs. rationalism
  - about a priori, a posterior, armchair knowledge
  - about exceptionalism vs. anti-exceptionalism

5   Conclusion

Is HME Exceptionalist?

Anti-Exceptionalism

The epistemology of metaphysical modality should **not** resort to a **special cognitive capacity** exclusive to philosophy and **absent in ordinary life.** (Williamson 2007, 136)

Is intuiting ('seeing') essences such an exceptional capacity?

- **No**, because intuiting universals is pervasive in ordinary life.

- UI of empirical types is claimed to be a psychologically realistic account of how we become acquainted with universals.

5 Conclusion

Is HME Empiricist or Rationalist?

- The 2nd part of HME (EV) is a rationalist endeavor.

- The 1st part of HME (UI) relies on empirical data.

Is Knowledge of 'Pure' Modality A Priori Knowledge on HME?

- Knowledge of pure modality relies on knowledge of worldly modality, which in turn relies on empirical data.

- Hypothesis: Empirical data plays **more than just an enabling role** in HME.

- Knowledge of pure modality might be **armchair knowledge** on HME.

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Overview

1. A Husserlian Theory of the Epistemology of Modality ✔

2. Circularity Issues in Modal Epistemology ✔

3. Navigating Modal Space ✔

4. Husserlian Modal Epistemology Revisited ✔

5. Conclusion ✔

Thank You!

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Appendix 1: Circularity Worry for Williamson

A Circularity Issue for Williamson's Counterfactual-Based Account

(1) In CD we have to hold fixed some backgr. knowledge and beliefs (BKB).

(2) In order to hold fixed some BKB we have to have epistemic access to these BKB.

(3) Among the BKB we have to hold fixed in CD are the essentialist facts.

(4) Thus, CD presupposes epistemic access to essentialist facts.

(5) Essentialist facts belong to the wider package of modality.

(6) Thus, having epistemic access to essences is having epistemic access to the modal space.

(7) Therefore, CD presupposes epistemic access to the modal space.

(8) So, we cannot conceive of CD as the fundamental access point to the modal space on pain of circularity.

Appendix 1: Circularity Worry for Williamson

(5) Essentialist facts belong to the wider package of modality.

Objection against (5):

- Fine (1994) has shown that essences are not modal.

Answer:

- Fine (1994) has shown that essences are not to be defined solely in terms of possibility and necessity.

- This does not mean that essences can't be part of the wider modal package.

Appendix 1: Circularity Worry for Williamson

(5)   Essentialist facts belong to the wider package of modality.

Blackburn's Dilemma

(B1) In an explanation of the source of necessity '$\Box$A because F', the *explanans*, F, can either be contingent or necessary.

(B2) *Necessity Horn*: If F is necessary, necessity will not be explained, because the explanation would appeal to a necessity to explain necessity.

(B3) *Contingency Horn*: If F is contingent, necessity will not be explained but undermined.

Appendix 1: Circularity Worry for Williamson

(5)   Essentialist facts belong to the wider package of modality.

Cameron's Argument for the *Necessity Horn*

(1)	$q < \Box p$	(read: q grounds $\Box p$, or: $\Box p$ because q)
(2)	$(B < A) \rightarrow (\neg B \Box\!\!\rightarrow \neg A)$	(also functions w/ a might-counterfactual)
(3)	$\neg q \Box\!\!\rightarrow \neg \Box p$	*(from 1, 2)*
(4)	$\Diamond \neg q$	*(assumption, Contingency Horn)*
(5)	$\Diamond \neg \Box p$	*(from 3, 4)*
(6)	$\Box p \rightarrow \Box\Box p$	*(S4)*
(7)	$\neg \Box\Box p \rightarrow \neg \Box p$	*(from 6)*
(8)	$\Diamond \neg \Box p \rightarrow \neg \Box p$	*(from 7)*
(9)	$\neg \Box p$	*(from 5, 8)*
(10)	$\Box p$	*(from 1 by the facticity of grounding)*
(11)	$\bot$	*(from 9, 10)*

Appendix 1: Circularity Worry for Williamson

(5) Essentialist facts belong to the wider package of modality.

Cameron's Argument for the *Necessity Horn*

The point of the *Necessity Horn* is that the *explanans* of necessity must itself be necessary.

Thus, if essentialist facts explain (ground) necessary facts, essentialist facts must be necessary.

$$\forall p \ (\Box_x \, p \rightarrow \Box\Box_x \, p)$$

Appendix 1: Circularity Worry for Williamson

(5) Essentialist facts belong to the wider package of modality.

Hale's (2002, 2013) non-transmissive explanation of necessity:

- The *explanans* of necessity has to be necessary. (*Necessity Horn*)

- Finean Essentialism: ($\Box_x p < \Box\, p$)

- For essentialism this means: $\forall p\, (\Box_x p \rightarrow \Box\Box_x p)$

- An essentialist explanation of necessity is **non-transmissive** in the sense that the **necessity** of the essentialist claim **does not play an explana-tory role**.

- Even though $\Box_x p$ is necessary, it's just the truth of $\Box_x p$ that explains $\Box p$.

Appendix 1: Circularity Worry for Williamson

(5)   Essentialist facts belong to the wider package of modality.

Hale's (2002, 2013) non-transmissive explanation of necessity:

- Essentialist explanations of necessity do not claim to leave no necessity unexplained.

- The point of the essentialist theory is to **locate a base class of necessities**—those which directly reflect the natures of things—in terms of which the remainder can be explained.

- Particularly, the necessity of essentialist propositions cannot be explained.

- The **essentialist explanation of necessity** is not an entry point into the modal space from outside—**no 'external' explanation** of necessity!

Appendix 1: Circularity Worry for Williamson

(5) Essentialist facts belong to the wider package of modality.

The wider modal status of essentialist propositions:

- If the necessity of $\square_x p$ does not play a role in the explanation of $\square p$, where does the necessity of the *explanandum* come from?

- If essentialist facts weren't special in some sense, every necessity would be capable of non-transmissively explaining necessity.

- What makes essentialist facts fit to non-transmissively explain necessites is that they have what could be called **modal export**—a modal status in the wider sense.

- **Modal export**: Stating what a ting is amounts to stating what it can and must be.

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Appendix 1: Circularity Worry for Williamson

(4) Thus, CD presupposes epistemic access to essentialist facts.

Roca-Royes (2011b) makes a stronger claim:

  (4_R) CD presupposes *knowledge* of essentialist facts.

Yli-Vakkuri (2013) criticizes (4_R) and claims instead:

  (4_Y) CD presupposes 'something short of knowledge' of ess. facts.

→ Can (4_Y) save Williamson from the circularity objection?

Appendix 1: Circularity Worry for Williamson

(4) Thus, CD presupposes epistemic access to essentialist facts.

Roca-Royes, for her part, makes use of the premise that "if our counterfactual judgments are to amount to counterfactual knowledge, it cannot be a matter of chance that we just *happen* to hold fixed (the) constitutive facts", and moreover we "must *knowledgeably* hold them fixed" (38, original emphases). This is an implausible requirement, as we can see by considering an analogy with perception. For your judgment that the patch of grass is green to count as knowledge, it is not sufficient that your visual system just by *chance* presents you with a green experience when you glance at the grass—that much is true. But it would be highly implausible to say that you do not know that the patch of grass is green unless you are knowledgeably sensitive to the right wavelengths. Something short of knowledge is enough: e.g., for a reliabilist it suffices that your visual system is reliably sensitive to the appropriate wavelengths. (Yli-Vakkuri 2013, 619)

Appendix 1: Circularity Worry for Williamson

(4)   **Thus, CD presupposes epistemic access to essentialist facts.**

   (4_Y) CD presupposes 'something short of knowledge' of ess. Facts.

→ Can (4_Y) save Williamson from the circularity objection?

- A relation 'short of knowledge' will still be an epistemic relation.

- 2 option: internal vs. external epistemic relation

- *Internal*: The epistemic subject would still need epistemic access to essentialist facts and the objections would still stand.

- *External*: If no epistemic *access* to ess. facts were required, CD would **fall short of Williamson's *anti-exceptionalism***: an external relation to ess. facts might seem spooky.

Appendix 2: SMUSE is modal

A Circularity Issue for Roca-Royes' Similarity-Based Account

Consider the following case:

Twin-Messy is made of yellowish-white material (birch wood), while Messy is made of brownish-black material (ebony wood).

- Do Twin-Messy and Messy have a **similar make-up** such that we can project the **modal property of breakability** from Twin-Messy to Messy via SMUSE?

- We have to know which respects of similarity are *relevant* with regard to the modal property of **breakability.**

- I.e. we have to know **in virtue of what** something is breakable.

- This amounts to knowing that e.g. it's **possible** for all wooden (or all material) objects to break. → **modal knowledge**
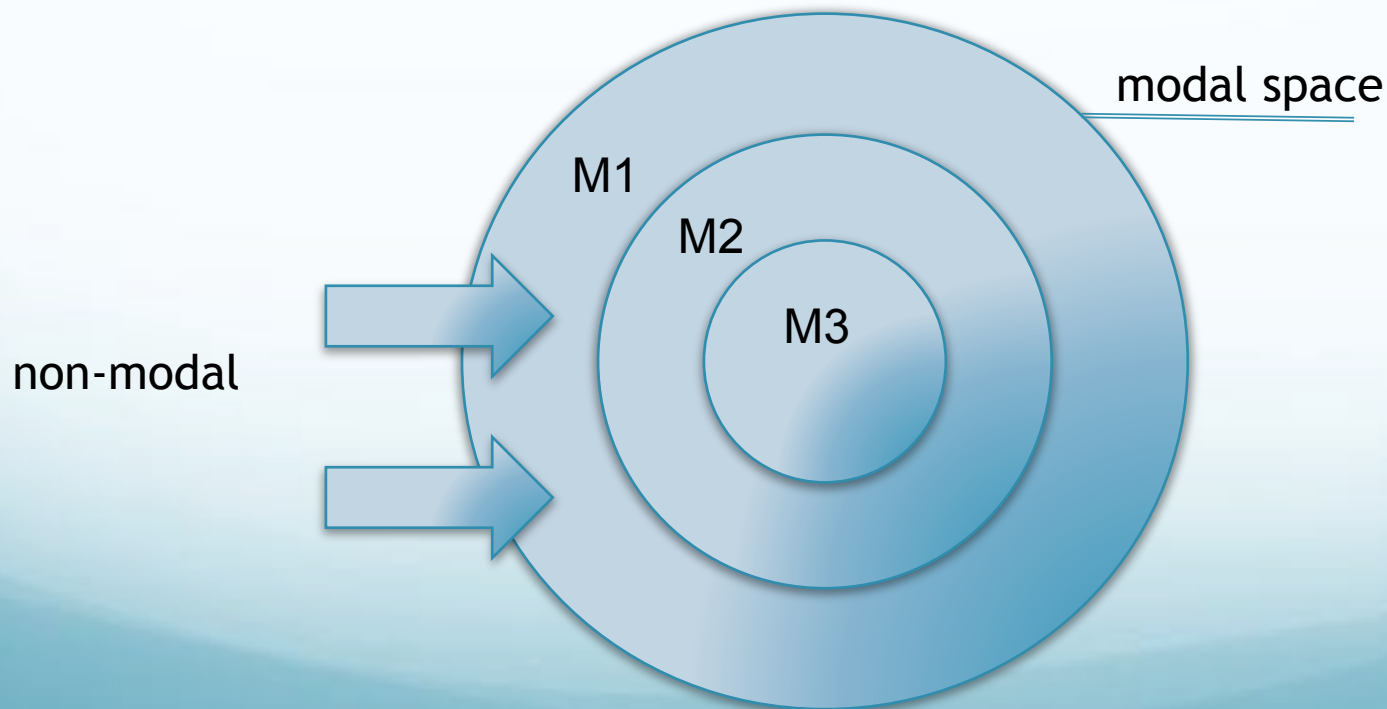
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Appendix 3: (Non-)Uniformism about PQ & NQ

Partitioning Modal Space and (Non-)Uniformism in ME

(UF)   There is only one uniform account of modal knowledge.

(NUF) There are multiple accounts of modal knowledge.

- The distinction between UF and NUF is orthogonal to the distinction between PA and NA.

(NUF1)   There is more than one way to answer the PQ.

(NUF2)   There is more than one way to answer each NQ.

(NUF3)   Conjunction of (NUF1) and (NUF2).

Appendix 3: (Non-)Uniformism about PQ & NQ

Partitioning Modal Space and (Non-)Uniformism in ME

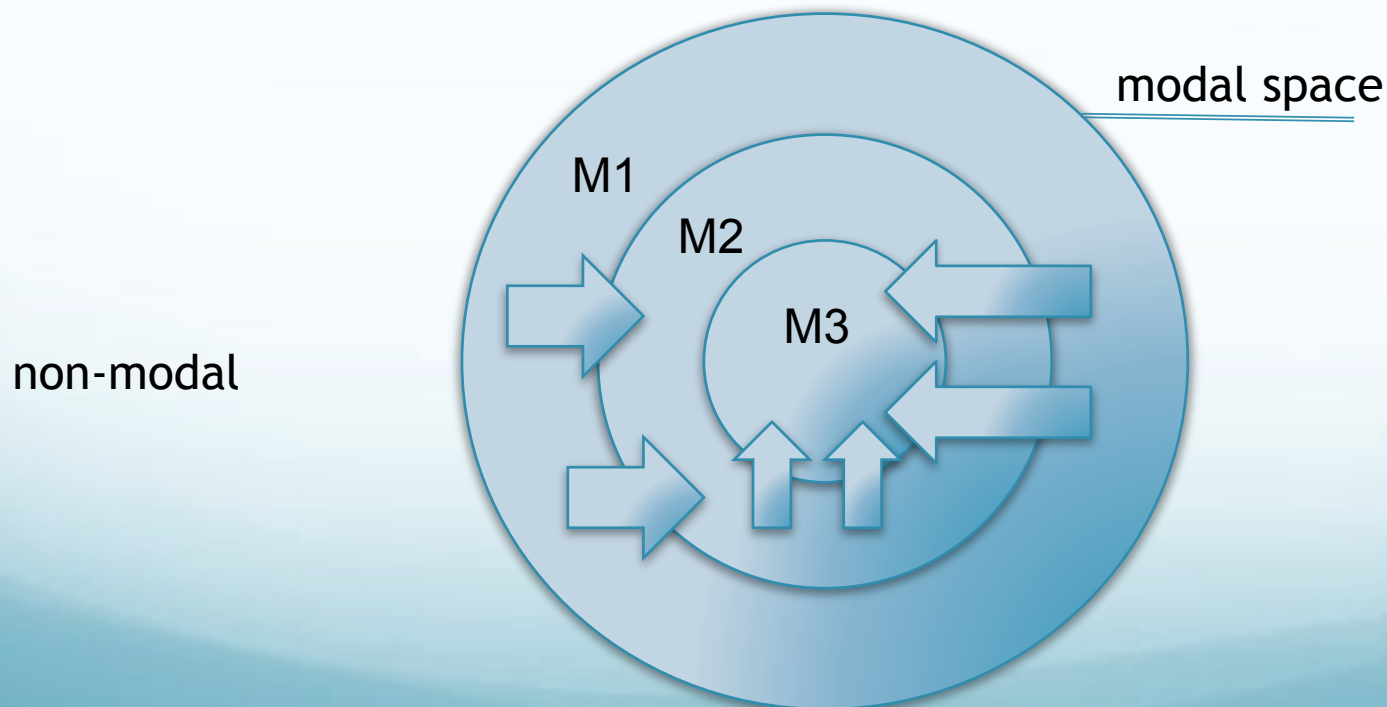(NUF1) There is more than one way to answer the PQ.

Partitioning Modal Space and (Non-)Uniformism in ME

(NUF2)   There is more than one way to answer each NQ.

modal space

M1

M2

M3

non-modal

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Partitioning Modal Space and (Non-)Uniformism in ME

(NUF3)   Conjunction of (NUF1) and (NUF2).

modal space

M1

M2

M3

non-modal

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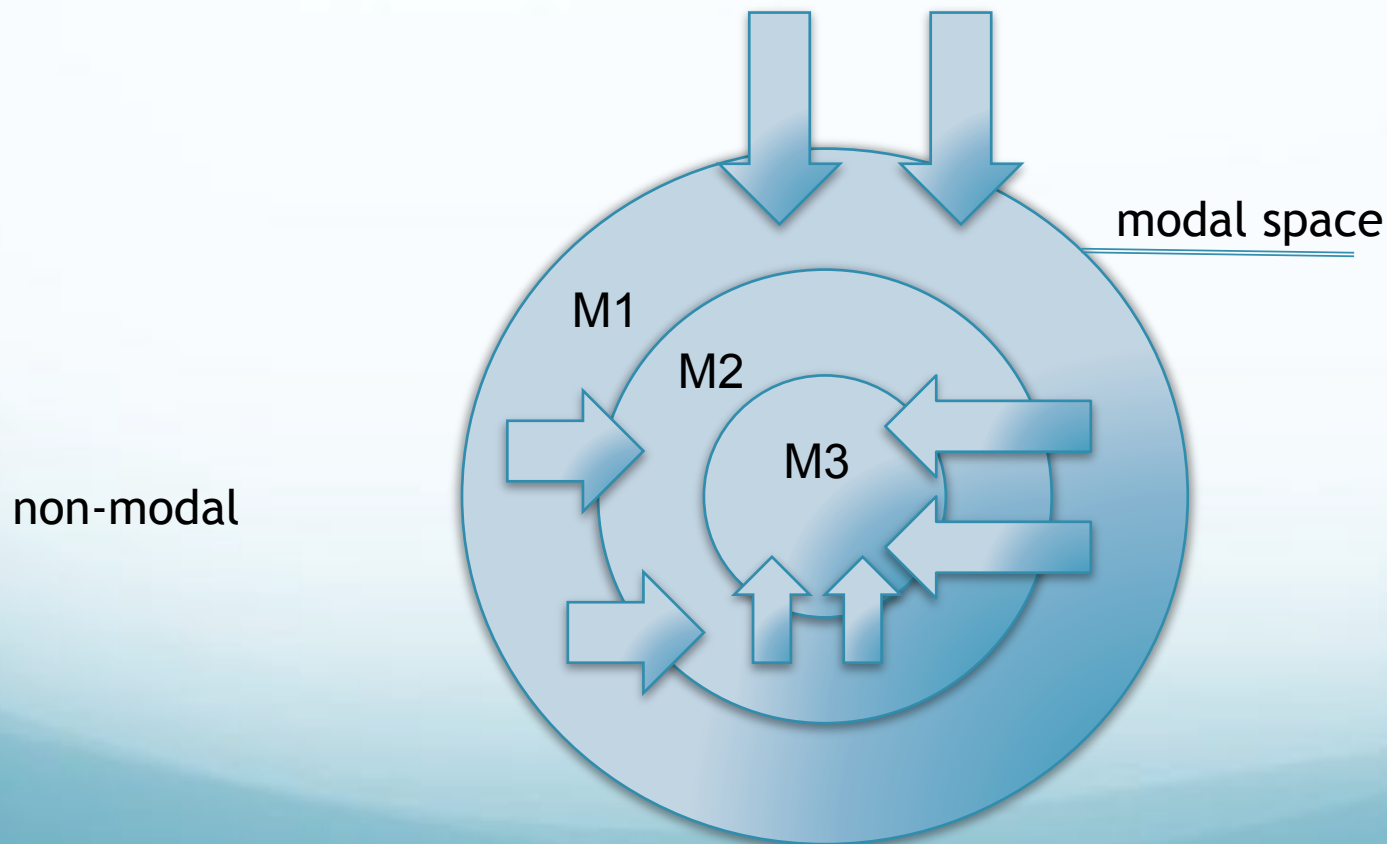
Appendix 3: (Non-)Uniformism about PQ & NQ

Partitioning Modal Space and (Non-)Uniformism in ME

- Is it easier to avoid EPPs on (NUF)?

- Suppose, my PA presupposes modal knowledge. Can I avoid EPPs by siding with (NUF)?

- That there are other ways of answering the PQ does not render presupposing modal knowledge in my PA less pernicious.

- Also, that there are other ways of answering a NQ does not render presupposing knowledge of that kind of modality that I try to navigate into less pernicious.