



# What Is the Unity of Consciousness?

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Tim Bayne & David Chalmers

# Unity of Consciousness

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- Conscious subjects have multiple simultaneous conscious states.  
E.g.
    - Visual experiences
    - Bodily sensations
    - Emotional experiences
    - ...
  - These states are (often? always?) **unified**: i.e., they are subsumed by a single encompassing conscious state.
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# Questions

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(1) What is unity?

(2) Is unity necessary?

(3) How can unity be explained?

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# The Unity Thesis

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## Unity Thesis:

Necessarily, all of the conscious states of a subject at a time are unified.

## Project:

Find an understanding of unity so that the unity thesis is plausible and nontrivial.

(N.B. We are concerned with **synchronic** unity)

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# Varieties of Unity

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- Object unity
    - experiences as of a single object
  - Spatial unity
    - experiences as of a spatial manifold
  - Field unity
    - experiences within same phenomenal field
  - Subject unity
    - experiences by the same subject
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# Access & Phenomenal Consciousness

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(Block, “On A Confusion about a Function of Consciousness”)

- Mental state A is **access conscious** if  
The content of A is accessible (for report, reasoning, control of behavior)
  - Mental state A is **phenomenally conscious** if  
There is something it is like to be in A.
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# Access & Phenomenal Unity

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- Conscious states A & B are **access unified** if  
the contents of A & B are jointly accessible  
(I.e. if the conjunction of their contents is accessible)
  - Conscious states A&B are **phenomenally unified** if  
A&B are jointly experienced  
(I.e. if there is something it is like to have A&B.)
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# Classifying Varieties of Unity

	Access	Phenomenal
Object Unity	Neural/cognitive binding	Phenomenal binding
Spatial Unity	Spatial integration	Phenomenal space
Field Unity	Informational integration	Unified phenomenal field
Subject Unity		



# Breakdown of Access Unity

- Sperling experiment (iconic memory of briefly presented matrix)

Z	H	W
P	N	F
D	T	A

- Rows reportable singly but not jointly
- Perception of rows is access conscious but not access unified:  
**access disunity**
- But phenomenal unity is preserved?

# Moral

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- Access unity can break down  
e.g. due to *access bottlenecks*



- A unity thesis for access unity is false
  - Failure of access unity does not entail failure of phenomenal unity.
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# Neuropsychological Cases

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- Split brain cases



TAXI | CAB

- Access unity appears to fail
  - But maybe: phenomenal unity is preserved?
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# Status of Phenomenal Unity

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- A phenomenal unity thesis is prima facie plausible
    - It is not obviously coherent/conceivable that there could be phenomenal character for A, for B, but not jointly for A and B.
  - The empirical case against it is inconclusive
  - Further investigation requires more precise ways of understanding phenomenal unity.
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# Subsumptive Unity

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- Phenomenal states A & B are **subsumptively unified** if there is a phenomenal state C that subsumes A and B.
- Subsumptive Unity Thesis:  
Necessarily, for {any two | any set of | all} phenomenal states of a subject at a time, there is a phenomenal state that subsumes those phenomenal states.

(Subsumption = mereological part/whole relation for phenomenal states?)

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# Entailment Unity

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- Phenomenal states A & B are **logically unified** if there is a phenomenal state C that entails A and B.

(State C entails state A when it is impossible to have C without having A.)

- Entailment Unity Thesis:

Necessarily, for {any two | any set of | all} phenomenal states of a subject at a time, there is a phenomenal state that entails those phenomenal states.

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# Subsumption vs. Entailment

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- If C subsumes A, C entails A.
  - Question: If C entails A, does C subsume A?
    - Maybe not, due to **gestalt unity**: holistic constraints on the co-occurrence of distinct local phenomenal states.
  - But: Entailment Unity Thesis  $\rightarrow$  Subsumptive Unity Thesis in gestalt-free subjects
    - (as entailment  $\leftrightarrow$  subsumption or gestalt)
  - This plausibly implies the Subsumptive Unity Thesis in general
    - (as gestalt unity poses no special barrier to subsumptive unity)
  - If so: Subsumptive Unity Thesis  $\leftrightarrow$  Entailment Unity Thesis
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# Versions of Entailment Unity

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- The equivalence between the Subsumptive Unity Thesis and Entailment Unity Thesis allows us to analyze the phenomenal unity thesis in terms of entailment – useful!
- Entailment Unity Thesis:
  - Necessarily, for {any two | any set of | all} phenomenal states of a subject at a time, there is a phenomenal state that entails those phenomenal states.
- Yields three related versions of the phenomenal unity thesis...



# Totality Thesis

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- For a subject at a time, the subject has a phenomenal state  $T$  such that for any phenomenal state  $A$  of the subject at that time,  $T$  entails  $A$ .
  - Intuitively:  $T$  = the subject's **total phenomenal state**, capturing what it is like to be the subject at that time.
  - Easy to see:  $T$  = the conjunction of the subject's phenomenal states.
  - So, Totality Thesis says: the conjunction of a subject's phenomenal states at a time is a phenomenal state.
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# Pairwise Conjunctivity Thesis

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- If A and B are co-instantiated phenomenal states, then A&B is a phenomenal state.
  - I.e.: If there is simultaneously something it is like to have A, and something it is like to have B, then there is something it is like to simultaneously have A&B.
  - Closure of phenomenal states under pairwise conjunction.
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# Generalized Conjunctivity Thesis

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- Totality Thesis does not entail Pairwise Conjunctivity Thesis
    - Might have closure for total conjunctions without pairwise conjunctions.
  - Pairwise Conjunctivity Thesis does not entail Totality Thesis
    - It entails closure for finite conjunctions, but not infinite conjunctions
  - But both are entailed by:  
**Generalized Conjunctivity Thesis:** For any set of co-instantiated phenomenal states, their conjunction is a phenomenal state.
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# Consequences of Unity

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- Question: Is the phenomenal unity thesis (so understood) trivial?
  - Answer: No. It puts significant constraints on a theory of consciousness.
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# Higher-Order Thought Thesis

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- Higher-Order Thought Thesis (HOTT) [Rosenthal, etc.]  
P is a phenomenally conscious mental state iff  
there is a **higher-order thought** (HOT) about P.
  - Unity Thesis and HOTT are incompatible.
    - HOT (A) & HOT (B) does not imply HOT(A&B)
    - So given a set of co-instantiated phenomenal states (on HOTT), there need not be a corresponding conjunctive phenomenal state.
  - Unity Thesis  $\rightarrow$  HOTT is false.
  - HOTT  $\rightarrow$  Unity Thesis is false.
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# Representationalist Thesis

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- (Functionalist) Representationalist Thesis (RT) [Dretske, Tye., etc]  
P is a phenomenally conscious mental state iff  
the content of P is accessible (or plays some other causal role)
  - Unity Thesis and RT are incompatible.
    - P accessible, Q accessible does not imply P&Q accessible
    - So given a set of co-instantiated phenomenal states, there need not be a corresponding conjunctive phenomenal state.
  - Unity Thesis  $\rightarrow$  RT is false.
  - RT  $\rightarrow$  Unity Thesis is false.
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# Explaining Unity

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- Further project: If the Unity Thesis is true, then
    - How can we explain its truth?
    - What sort of theory of consciousness is it compatible with?
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# Unity and the Self

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- An analysis of subjecthood might take us some distance
  - E.g. perhaps unified consciousness is a condition for ascription of subjecthood?
    - Then a two-stream subject will be conceptually impossible
    - This will explain why phenomenal fields correspond 1-1 to subjects
  - But we would still need to explain why conscious states come in phenomenal fields in the first place.
  - I.e. why is there a subsuming phenomenal state for any set of co-instantiated phenomenal states?
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# Metaphysics of Unity

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- Speculation: the answer lies in an underlying analysis and metaphysics of consciousness that is holistic rather than atomistic?
  - Conceptually: the fundamental notion of consciousness is what it is like to be a subject at a time – not what it is like for a subject to X at a time.
  - Metaphysically: the fundamental “unit” of consciousness is the phenomenal field, not the atomic phenomenal state.
  - Suggests: a view on which subjects of experience are basic particulars, whose intrinsic state is a phenomenal field...
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