

Comments on Hana Möller Kalpak:
Delusions and Other Question-sensitive Beliefs

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24 October 2020

Möller-Kalpak's Project

Two Goals:

1. Formulate satisfactory constraints on rationality of fragmented, question-relative beliefs
2. Argue that standard models of fragmented belief run the risk of classifying delusions (if understood as beliefs) as rational

Handout: Show that these rationality constraints serve also to classify delusions as irrational beliefs.

Outline

Fragmented Belief

Individuating Fragments

Fragmentation and Rationality

Q-sensitive Belief and Delusions

Fragmented Belief

- (F1) An individual's overall belief state is fragmented into several distinct fragments.
- (F2) Each belief fragment is consistent and closed under entailment.
- (F3) Fragments of the same overall belief state are (somewhat) independent of each other. They may not be logically consistent with each other, and a belief that is entailed by two or more fragments taken together may not be a belief of the overall belief state.
- (F4) Different fragments of the same overall belief state are available for different purposes.

Cf. Kindermann & Onofri (forthcoming)

Yalcin on Fragmented Belief

- (F1) An individual's **doxastic state** is fragmented into several distinct **belief states**.
- (F2) Each **belief state** is consistent and closed under entailment.
- (F3) Belief states of the same **doxastic state** are (somewhat) independent of each other. They may not be logically consistent with each other, and a **belief** that is entailed by two or more **belief states** taken together may not be a **belief** of the overall **doxastic state**.
- (F4) Different **belief states** of the same **doxastic state** are available/**accessible** for different purposes.

Yalcin (2018, forthcoming)

Two Projects

What is a fragmented view of belief meant to account for?

1. **Descriptive:** Realistic description of ordinary subjects' cognitive lives
2. **Normative:** Account of what ordinary subjects' cognitive lives **should** be like, rationally/epistemically speaking

(?Difficult to distinguish? Assumption: Belief = rational belief)

Motivation for Fragmented Belief, Descriptive Project

1. Failures of logical omniscience, inconsistent beliefs:
 - Lewis, with his mutually inconsistent beliefs about Princeton's geography, still counts as believing.
 - We make successful predictions about the actions of non-ideal subjects on the basis of ascribing beliefs ([Cherniak, 1986](#)).
2. Belief/information access in memory:
 - [Elga & Rayo \(forthcoming\)](#): Is there a word of English ending in the letters 'MT'?
Is 'dreamt' a word in English ending in the letters 'MT'?
 - [Stalnaker \(1991, 438\)](#):
[I]t will take you much longer to answer the question, 'What are the prime factors of 1591?', than it will the question, 'Is it the case that 43 and 37 are the prime factors of 1591?' But the answers to the two questions have the same content, even on a very fine-grained notion of content. Suppose that we fix the threshold of accessibility so that the information that 43 and 37 are the prime factors of 1591 is accessible in response to the second question, but not accessible in response to the first. Do you know what the prime factors of 1591 are or not?
3. Implicit bias, cognitive dissonance
4. ... (see e.g. [Egan \(forthcoming\)](#), [Kindermann & Onofri \(forthcoming\)](#))
5. Delusions?

Motivation for Fragmented Belief, Normative Project

Failures of logical omniscience, inconsistent beliefs:

- We want to distinguish between ordinary agents-with-limited-cognitive-capacities who are rational (in their belief-forming mechanisms) and those who fall short of being fully/minimally rational.
- **Cherniak (1986): *Minimal Rationality***

Delusions:

- Help account for the irrationality of delusions by means of fragmentation
- **Möller-Kalpak**

...

Individuating Fragments

How are a subject's fragments/belief states individuated?

1. Frequency of co-activation/co-retrieval from memory (Cherniak, 1986)
2. 'Headings', environment, ... (Bendana & Mandelbaum, forthcoming)
3. Purposes, tasks, contexts, kinds of actions (Stalnaker 1984, Kindermann forthcoming)
4. **Questions**, subject matter, modes of presentation (Yalcin (2018), Kindermann (forthcoming), **Möller-Kalpak**)

Yalcin & Möller-Kalpak

- **Questions:** resolutions of logical space/partitions $\pi(W)$
- **Doxastic state** (fragmented belief state) $\mathcal{B}: \Pi \mapsto \mathcal{P}(W)$
Function from resolutions/partitions of logical space to sets of possible worlds
- **Belief state** (fragment): pair of resolution/partition/question and subset of cells of that resolution ('subpartition')
- **Semantics of questions:**
 - Extension of an interrogative sentence Q at a world: its true exhaustive answer at that world (a proposition)
 - Intension of an interrogative sentence Q : partition of W (one cell being the true exhaustive answer at the actual world)

Möller-Kalpak

Fragments are individuated by questions: partitions/ resolutions of logical space. What we believe depends on the question we pursue.

Questions:

1. How does this technical, semantic notion of a question^T relate to the intuitive notion of a question^I?
 - Questions^T needn't be expressible as questions^I for the likes of us.
 - Questions^T can be complex and be/have a very heterogeneous subject matter: 'What time is it, why ain't I rich, and is my name Dirk?'
- 1.1 What makes a number of intuitive questions^I belong to a single question^T, i.e. a single fragment?

M.K.: If we accept question entailment, then "the conjunction of two questions will always entail its conjuncts."

"(5) Is Ana's favorite color blue, and is Bea's favorite color yellow?
 \models Is Ana's favorite color blue?, Is Bea's favorite color yellow?"

- 1.2 What about the reverse? (Don't we want it to hold *sometimes*?)
- 1.3 Do we need to look outside any logic of questions to get the individuation conditions right? (Active questions, question related to a task/goal at hand, action-guiding questions, ...)

Questions continued

Fragments are individuated by questions a.k.a. partitions/resolutions of logical space. What we believe depends on the question we pursue.

2. Problems of Intensionality: Is this semantic notion of a question^T fine-grained enough to distinguish questions^I that a fragmented model of belief should distinguish?

Asking the same question in different ways:

- (1) Will Robin win?
- (2) Will everyone who does not compete, or loses, will have done something Robin will not have done?

Cf. Heim & Kratzer (1998, 310)

Isn't this case similar to the cases of accessible/available belief (Elga & Rayo's 'dreamt', Stalnaker's prime factors of 1591)?

Some Questions

1. Is it always more rational, for non-ideal agents, to be unified than to be fragmented? Does rationality require unification? [Synchronic]
 - Yes ([Stalnaker, 1984](#))
 - No ([Egan \(2008\)](#), [Yalcin \(forthcoming\)](#), [Möller-Kalpak](#))
2. Which fragmented belief states are rational, which irrational? What makes a fragmented belief state rationally better or worse off?
 - ⇒ [Cherniak \(1986\)](#)
 - ⇒ [Möller-Kalpak](#)
3. What are rationality constraints on the transitions between fragmented belief states? [Diachronic]
 - Cf. [Egan, forthcoming](#)
 - ⇒ [Möller-Kalpak](#)

Intrafragmentary Rationality Constraints?

2. Which fragmented belief states are rational, which irrational? What makes a fragmented belief state rationally better or worse off?

2.1 **Intrafragmentary Rationality Requirements:** Are there rationality constraints applying to individual fragments?

(FC) Fragmentary coherence.

It is rationally required that the belief fragments of a doxastic state (considered individually) be consistent. (Yalcin, forthcoming)

⇒ Yes, there is e.g. (FC). (Yalcin, Möller-Kalpak)

Interfragmentary Rationality Constraints?

2. Which fragmented belief states are rational, which irrational? What makes a fragmented belief state rationally better or worse off?

2.2 **Interfragmentary Rationality Requirements:** Are there rationality constraints applying to the overall fragmented belief states (the doxastic state at large)?

(IC) Interfragmentary coherence.

It is rationally required that all of the belief fragments of a doxastic state be consistent. (Yalcin, forthcoming)

⇒ No, there are none (Yalcin, forthcoming).

⇒ Yes, there are some (though not (IC), Möller-Kalpak).

Möller-Kalpak with (IIE) on Lewis's case

(IIE) Interfragmentary inclusion under entailment

It is rationally required that the belief states with respect to two resolutions related by entailment are related by inclusion. That is, if a doxastic state \mathcal{B} is defined for two resolutions $\pi(W)$, $\pi'(W)$ such that $\pi(W) \models \pi'(W)$, then it is rationally required that $\mathcal{B}(\pi(W)) \subseteq \mathcal{B}(\pi'(W))$.

M.-K. on the (ir)rationality of Lewis's beliefs:

- (a) Lewis's doxastic state pre-epiphany was not irrational (by IIE): $\pi_{ns}(W)$ and $\pi_r(W)$ are not related by entailment.
 \Rightarrow Pre-epiphany, Lewis's fragmented state isn't irrational.
- (b) "However, a doxastic state which is just like this, but also defined for $\pi_{ns}(W) \wedge \pi_r(W)$, *would* be irrational, given (IIE)."
 \Rightarrow Were Lewis to hold his three beliefs *together*, he would be irrational.

A Question

☞ Don't we get these verdicts with (FC) alone, i.e. without any interfragmentary rationality constraints like IIE (Yalcin's solution)?

- Pre-epiphany, Lewis's fragmented state isn't irrational, as he doesn't offend intrafragmentary coherence requirement (FC).
(Btw, he can still be said to be epistemically at fault for believing falsehoods.)
- Lewis would be irrational if he didn't revise his beliefs *upon considering them together*. When he considers them together, he *a fortiori* (attempts to) conjoin them in a single fragment/belief state; this fragment would be inconsistent, violating (FC).

Delusions in M.K.'s Fragmented Belief Model: Questions

- Yalcin's & M.-K.'s framework individuates fragments by questions/subject matter.
- Delusions as beliefs would be quarantined from non-delusional beliefs by being in a separate fragment(s). But this seems to individuate fragments, at least in part, by the functional role of the attitude – regular beliefs vs delusional beliefs.

Questions:

1. Does the technical implementation of fragmentation in terms of question-sensitive belief contribute anything to an account of delusion within a fragmented account of belief? Is it compatible with it?
2. Yalcin follows Stalnaker in coupling the fragmented model with a dispositional-functionalist account of belief. Does this basic assumption sit well with a fragmented account of delusion on which the 'delusional fragment' has a functional/dispositional profile significantly different from that of regular belief-fragments?
3. Can lessons from fragmented accounts of implicit bias and cognitive dissonance be helpfully applied to the case of delusions? (Cf. Bendana, forthcoming)
4. Re the risk of models of fragmentation classifying delusional belief as rational: Does the irrationality of delusion need to stem from features of fragmentation? (E.g. irresponsiveness to evidence isn't a feature tied to fragmentation as such.)

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