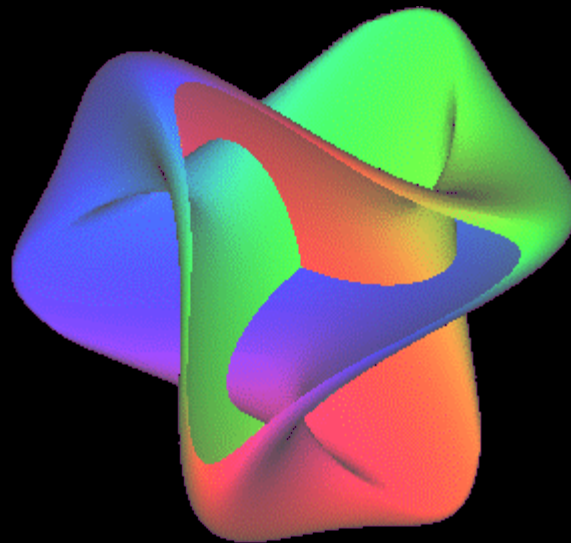


Jonathan Cohen's Colour

Relationalism

subjects



contexts

objects

Jonathan Cohen



Introduction

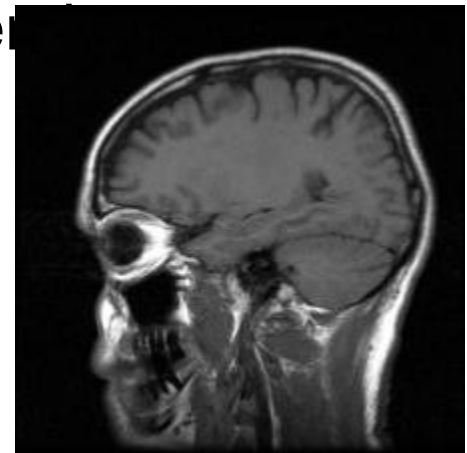
Relationalism vs. Non-relationalism

Relationalism is *not* about the nature of colour

- It *is* about what kind of properties they are
- It is *not* about which sort of relational properties they are

Are colour properties relational or non-relational properties?

- Cohen argues that they **are** relational
- Therefore colour is **not** independent



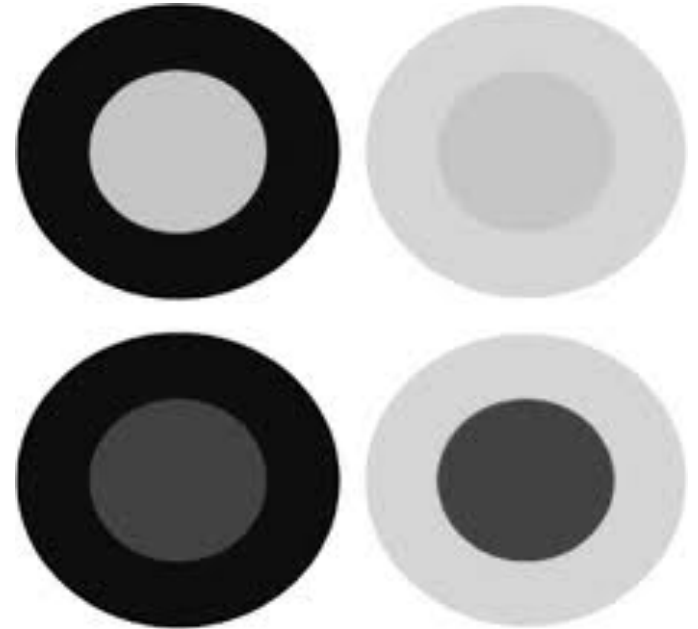
Motivation for relationalism

Cohen's 'Master Argument'

Two Parts:

1. A single stimulus can create a variety of perceptual effects

2. There is no principled way of picking out one or the other perceptual report as veridical

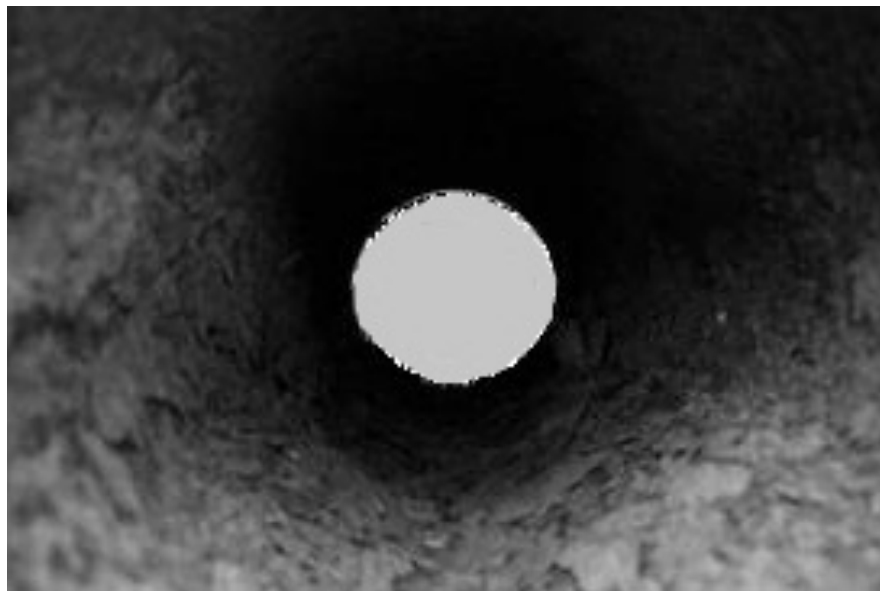


How should we reconcile the variants?

Is the 'Master Argument' Unmotivated?

Colour contrast? No problem!

- Reduction tubes give us veridical colour



Motivation for relationalism

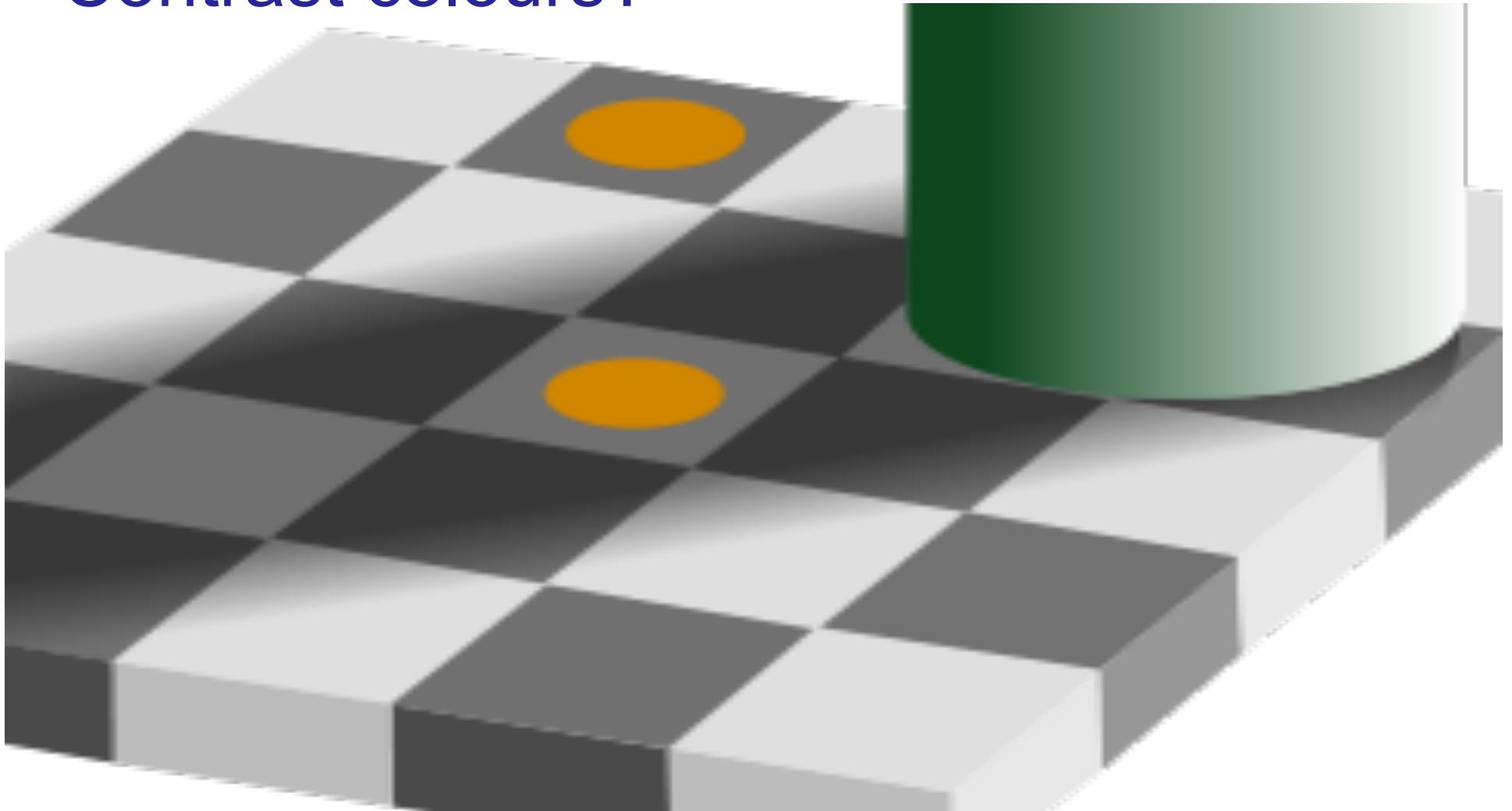
Ecological validity?



- Some things just cannot be observed by reduction tubes

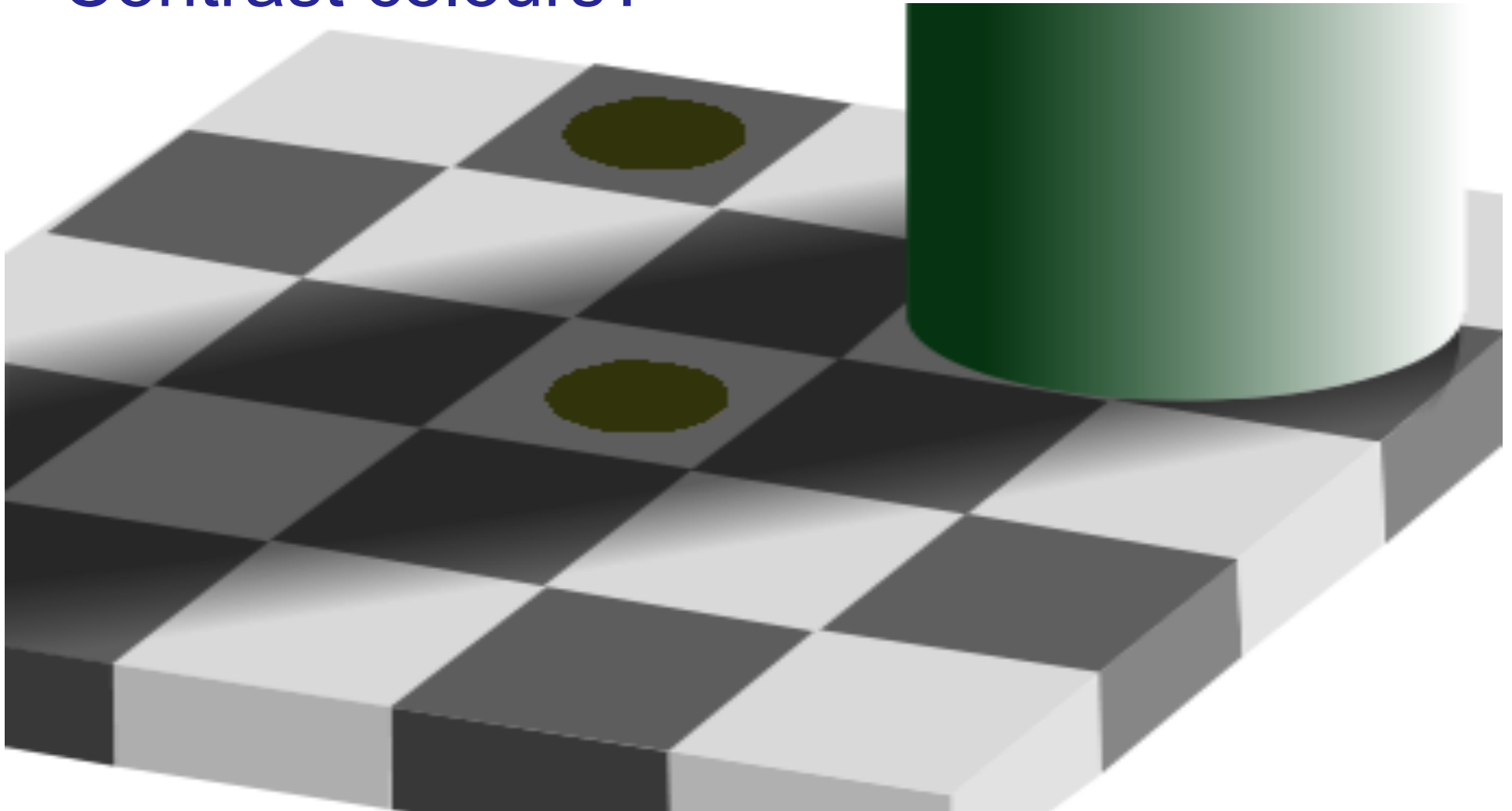
Motivation for relationalism

Contrast colours?



Motivation for relationalism

Contrast colours?



Is the 'Master Argument' Unmotivated?

Okay but there is
colour constancy...



Motivation for relationalism

Colour constancy requires two judgments?



Is the 'Master Argument' Unmotivated?

Different interpretation of the judgments

- Subjects distinguish between brightness and illumination (not colours)



- Subjects judge that objects differ in illumination but are the same in colour (Arend & Spehar, 1993)

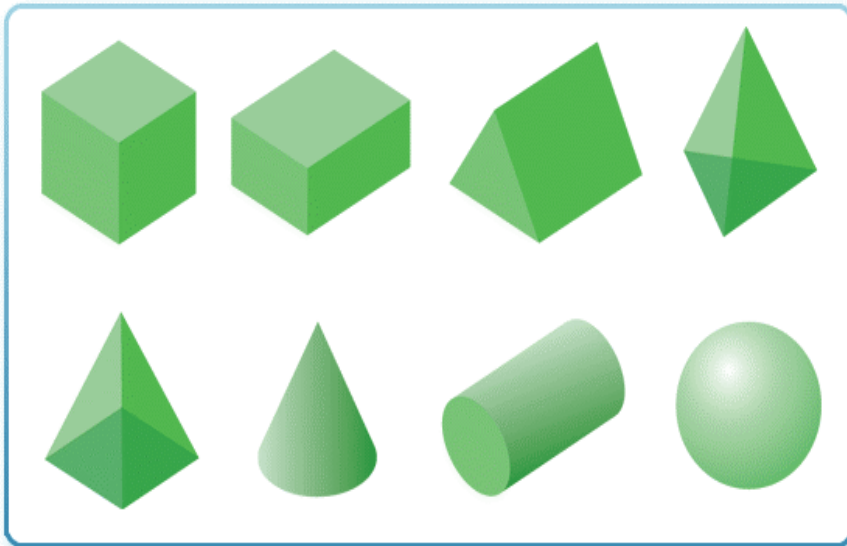
Response

- First part of the Argument from Variation

Is the 'Master Argument' Unmotivated?

Are all properties relational?

- Is perceptual variation a sufficient condition for relationalism?



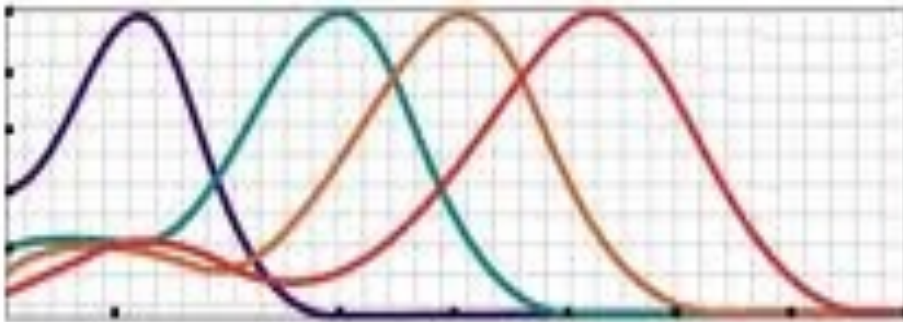
NO – see second part of the argument from variation!

- Necessary - Lack of principle by which to determine veridicality

Perceptual Variation

Interspecies, Interpersonal, and Intrapersonal

- Who observes veridically?



Objections from ordinary language



n blue

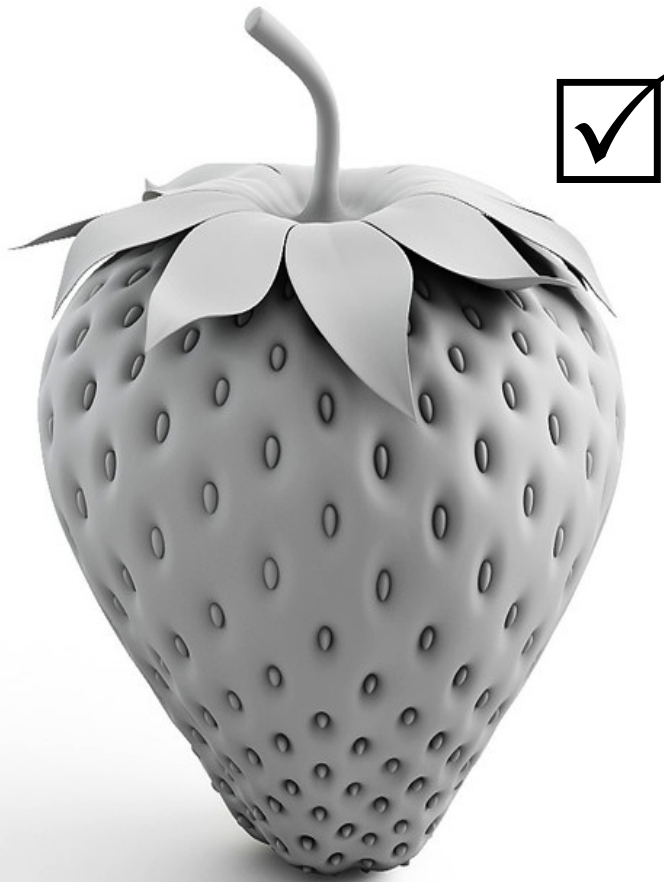


pple



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Objections from ordinary language



Objections from ordinary language



All of these are
veridical

Language involves tacit knowledge

Implicit presuppositions in language

- “*The present king of France is bald*”
- $\exists x(Fx \ \& \ \forall y(Fy \rightarrow y=x) \ \& \ Bx)$

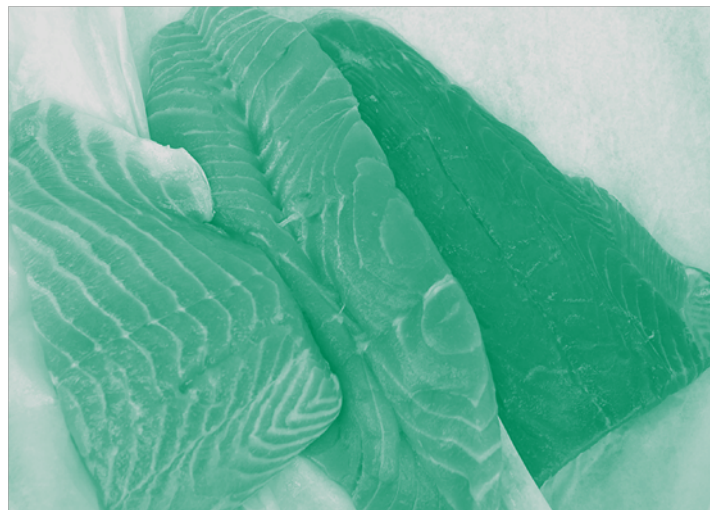
This lemon is Yellow

Implies:

This lemon has the property of being yellow to typical observers under ordinary conditions



Language is species relative



- Ascribing green colour to fresh Salmon has no meaning for humans

Colour errors and relationalism

↳ Possibility of errors contradicts reconciliation

Argument from Error

↳ Intrapersonal variation only

- A perceptual effect of a stimulus is either veridical or non-veridical (i.e. an error)
- If there are various perceptual effects influenced by one stimulus, then either all are veridical, one is veridical, or only some are veridical.
- If either one or only some are veridical then the others are errors
- If all are veridical then none are errors
- Cohen: “all are veridical”
- Therefore, none are errors

Colour errors and relationalism

Why are errors important?

- We want to preserve the intuition and practice of claiming that someone has made a mistake
- It seems necessary for the notion of representation
- Without errors, our colour theory threatens to become too permissive



Colour errors and relationalism

Error is found in colour expectations – “top-down” error

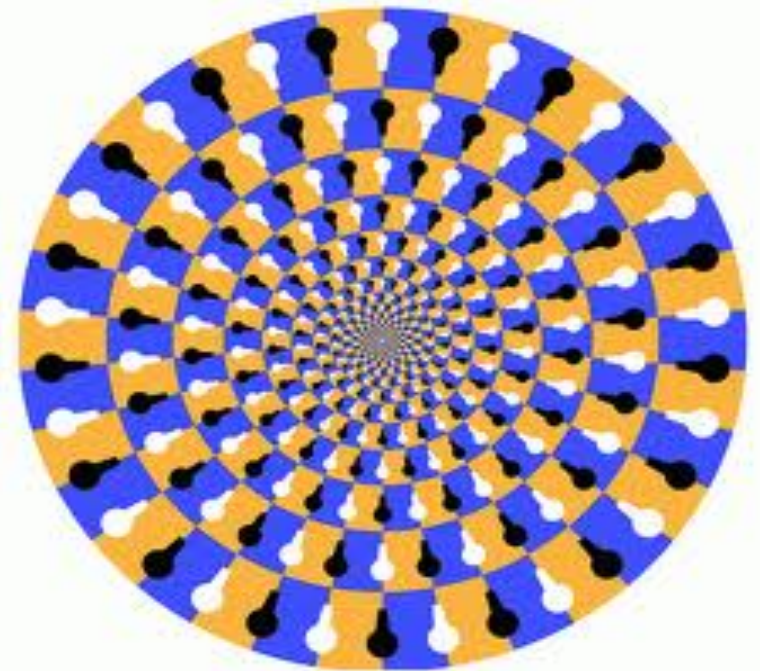
- Sally reports that the tomato looks red.



- What she really means is that the tomato looks red for ordinary people under ordinary conditions

Colour errors and relationalism

Hallucinations and Illusions



Ontological Worries

Overintellectualizing error?



- Colour errors are errors of cognition not of sensation
- Errors of attribution
- What about prelinguistic children and other animals

Ontological Worries

The Colour Explosion



“Cohen's relativism is far too liberal”
(Mizrahi 2006)

Ontological Worries

Cohen: Colour explosion? Not worried!

Mizrahi: Problem is...two perceivers cannot see the same chromatic properties

Byrne and Hilbert: Problem is...object reidentification.

Even minor changes in viewing circumstances threatens object recognition based on colour



Alex Byrne



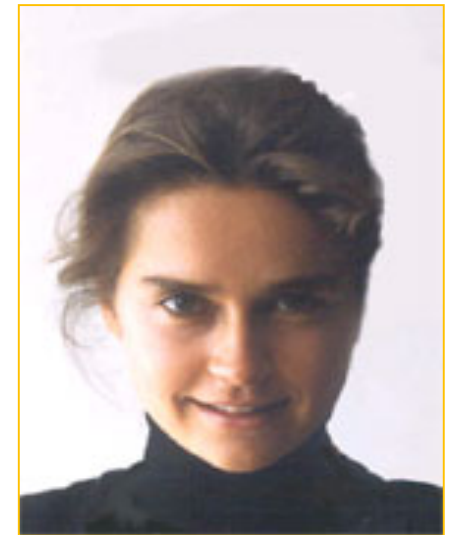
David Hilbert

Going Back to Properties

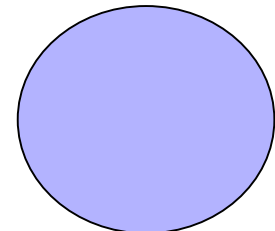
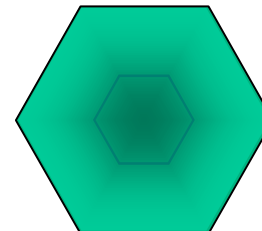
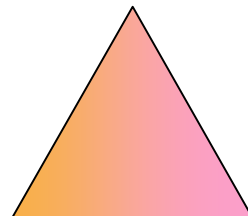
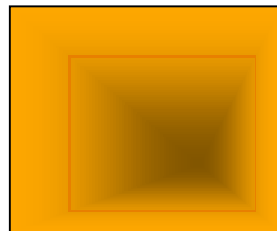
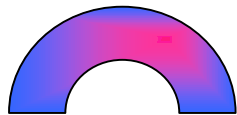
Accounting for perceptual variation without relational properties

Mizrahi (2006)

- Colour Pluralism
- Non-relational object properties



Vivian Mizrahi



Objects Have Many Colours



Objects Have Many Colours

Colours are...

- Colour is to be identified with “surface reflectance relative to wave length.”
- Though there is a relational dependency, the property is non-relational in its constitution (not abstract) the properties are real (mind independent) and are the property of the object. Whether you see them is relational

Is relationalism circular?

A conceptual analysis of red in terms of a relation is circular and therefore not informative

- *An object is red if and only if it looks red to an observer in circumstances in which it look red to an observer*

Visual Content

- Circularity threatens visual content
- To look red is to look like it is red

Is relationalism circular?

Averill & Hazlett (2010)

(1) If x looks red-to-S-in-C then x is red-to-S-in-C

(2) If x looks colored-to-S-in-C then (x is red-to-S-in-C iff x looks red-to-S-in-C).

- if (1) is true, then so is (2).

Analytic

- if x looks red-to-S-in-C, then x looks like it is red-to-S in-C.

Is relationalism circular

- If c looks red-to-y-in-a
 - then c looks colored-to-y-in-a
 - and c looks like it is red-to-y-in-a
- Given: (2) If x looks colored-to-S-in-C then (x is red-to-S-in-C iff x looks red-to-S-in-C)
 - then, it follows that c looks like it looks red-to-y-in-a.
 - This reasoning can be repeated; it follows that c looks like it looks like it looks red-to-y-in-a. And so on.

Is relationalism circular?

Phenomenology of looking red is wrong

“*When the matador’s cape looks red to you in the arena, it is just not the case that the cape looks (to you, in the arena) like it looks red-to-you-in-the-arena. The cape simply looks like it is red; it does not look like it looks red, much less like it looks like it looks red, and so on.*”

“The content of looking red is not about itself; much less is it about itself an infinite number of times. For this reason Cohen’s relationalism is untenable.”

Is relationalism circular?

Is circularity a problem for a relationalist/relativist account?

- If relationalism entails that colours are abstract properties then it is not incoherent to say that red is red for S in C. The concept red simply abstracts this relationship.
- Circular is not uninformative
 - The argument explains how we can think of a colour's existence