

# Mental imagery in the perception of visual art

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# Big picture

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A lot has been written about **imagination** and/or make-believe in aesthetics.

Much less about **mental imagery**

**Aim:** To argue that **mental imagery** plays a crucial role in engaging with (not only visual) art.

**Mental imagery** plays a constitutive role in perception in general.

**Also** in perception of visual art.

# Plan

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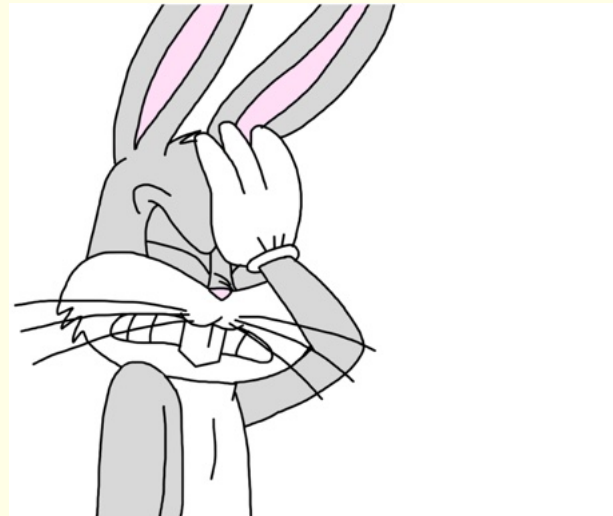
1. Aesthetically relevant properties
2. Mental imagery
3. Aesthetically relevant properties represented in mental imagery
4. Mental imagery can cognitive penetration
5. Examples



**FIFA WORLD CUP**  
**Brasil**

# Attention

- Facepalm!!





**FIFA WORLD CUP**  
**Brasil**





1976 5.2.

# Attention

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Paul Klee: Green x above left, 1915, 52.

Watercolor on paper on cardboard, 16/15.4 x 18.7/18.8 cm,  
Zentrum Paul Klee, Bern, private loan.





1976 52.

# Goldfinger!

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# Goldfinger!



# Aesthetically relevant properties

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Attending to some properties of the artwork makes an aesthetic difference.

I call these properties 'aesthetically relevant properties'.

Not the same as aesthetic properties (like beauty, etc).

This is what critics are supposed to talk about.

This is also a better tool for describing some contemporary art.



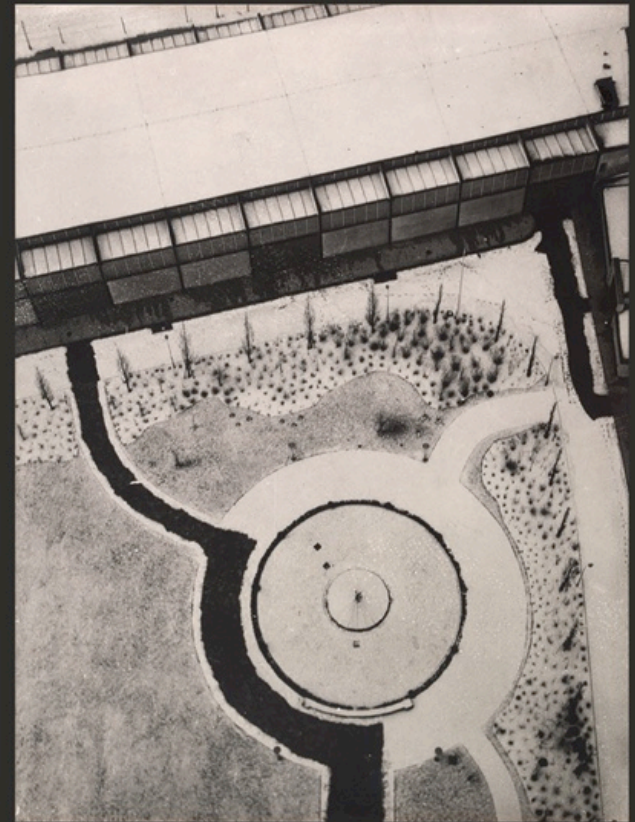
Bence Nanay

Aesthetics as  
Philosophy of Perception

Oxford University Press,  
January 2016

OXFORD

AESTHETICS  
AS PHILOSOPHY  
OF PERCEPTION



BENCE NANAY

# Aesthetic imagery

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Many aesthetically relevant properties are **perceptual**.

But not all.

Some of them are represented **non-perceptually**  
(artist's intention, social context)

And some of them are represented in **mental imagery**.

**Aesthetic imagery**: aesthetically relevant properties  
represented by mental imagery





# Mental imagery

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**Mental imagery:** “Visual mental imagery is ‘seeing’ in the absence of the appropriate immediate sensory input, auditory mental imagery is ‘hearing’ in the absence of the immediate sensory input, and so on. Imagery is distinct from perception, which is the registration of physically present stimuli.” (Kosslyn, Behrmann, and Jeannerod 1995, p. 1335).

**Perceptual processing not triggered by corresponding sensory stimulation in the relevant sense modality**

**Mental imagery**, just like perception, may be **conscious** or **unconscious**. Also, it may be **voluntary** or **involuntary**. **Egocentric** or **non-egocentric**.

# Amodal completion

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**Amodal completion**: the representation of those parts of perceived objects that we get no sensory stimulation from. (misnomer: not at all amodal)

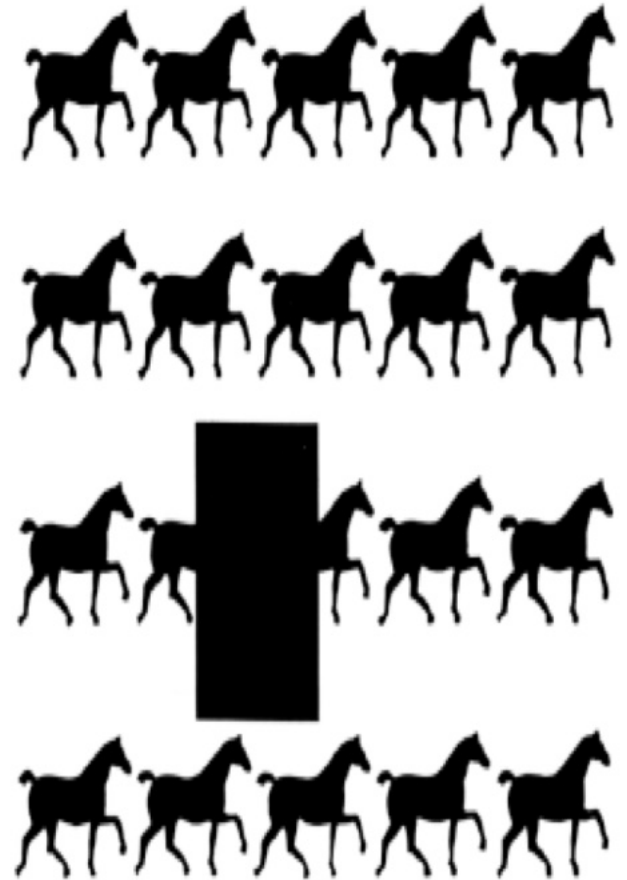
In the case of vision it is the representation of **occluded parts of objects we see**: cat behind a picket fence.

How do we represent occluded parts of objects we see?

- By a **belief** (or other post-perceptual state)
- By **perception** (not if perception entails sensory stimulation)
- By **mental imagery** – by perceptual processing in the absence of corresponding sensory stimulation

# Amodal completion

Top-down vs.  
Bottom-up



# Top-down influences on perception

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# Top-down influences on perception

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# Top-down influences on perception

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# Multimodal mental imagery

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I hear footsteps downstairs. How do I represent the visual aspects of this **multisensory event**?

Again, candidates:

- By a **belief** (or other post-perceptual state)
- By **perception** (not if perception entails sensory stimulation)
- By **mental imagery** – that's the way to go



# Crossmodal mental imagery

Predates the fashionable multimodality studies.

**Conscious** experience in one sense modality triggered by activity in another sense modality

Top-down!!



# Neuroscience of mental imagery

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Huge amount of empirical findings about **very early activation of sensory cortices** without modality-specific corresponding stimulus:

**Unimodal:** Lee & Nguyen 2001, Komatsu 2006, Scherzer & Ekroll 2015, Vrins et al. 2009, Lommertzen et al. 2009, Slotnick et al. 2005, Smith & Muckli 2010, Bakin et al. 2000, Ban et al. 2013, Bushnell et al. 2011, Emmanuoil & Ro 2014, Hazenberg et al. 2014, Lee et al. 2012, Pan et al. 2012, Shibata et al. 2011.

**Multimodal :** Hertrich et al. 2011, Pekkola et al. 2005, Zangaladze et al. 1999, Ghazanfar & Schroeder 2006, Martuzzi et al. 2007, Calvert et al. 1997, James et al. 2002, Chan et al. 2014, Hirst et al. 2012, Iurilli et al. 2012, Kilintari et al. 2011, Muckli & Petro 2013, Vetter et al. 2014.

# Attention and mental imagery

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Normally, very **determinable** properties are attributed in mental imagery. But **attention** can increase the determinacy of these properties (assuming this is what attention does).

And this extra determinacy often (not always) comes from a top-down source.

This is true of the mental imagery involved in amodal completion and also of multimodal mental imagery.

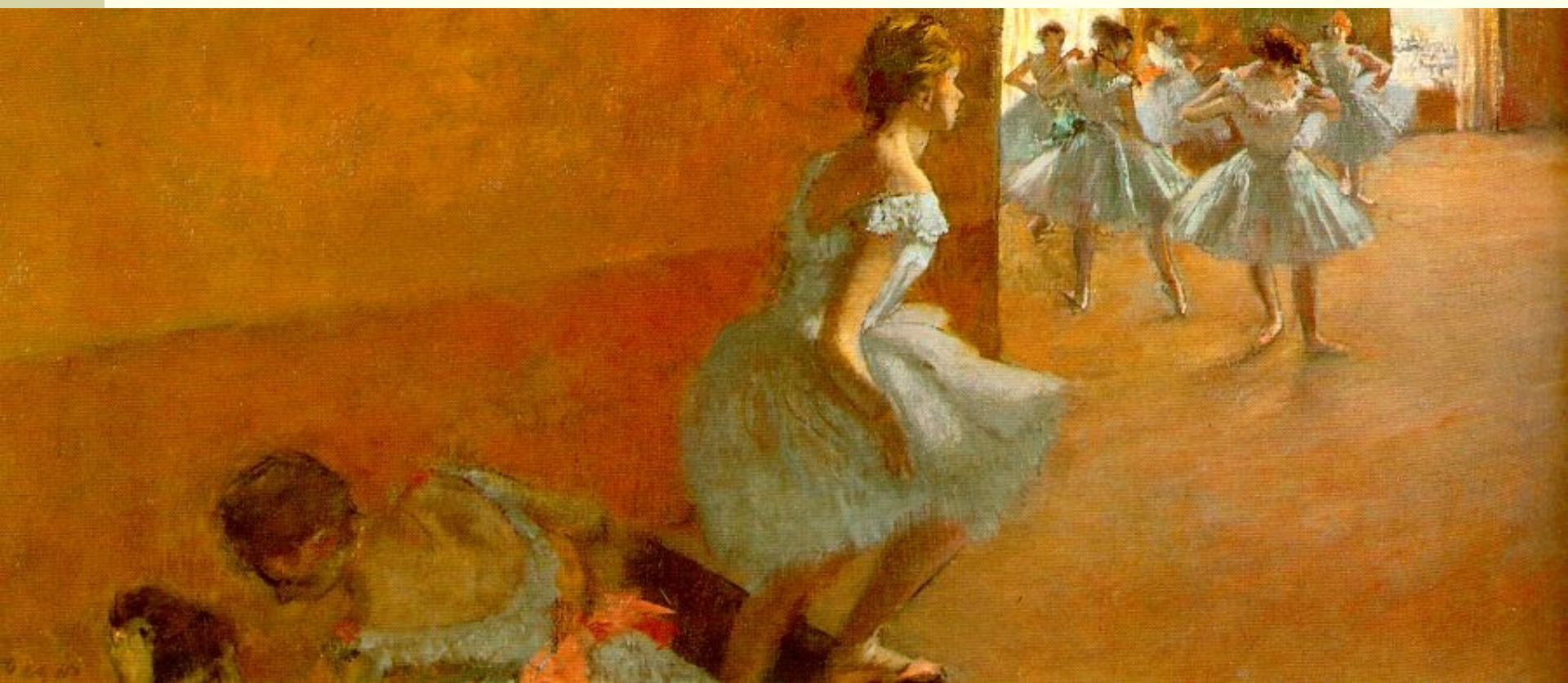
**Crossmodal mental imagery** is a special case of multimodal mental imagery – where the imagery is **conscious, determinate** and especially **salient**.

# Off screen

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ReactionGIFS.me

# Inside the frame

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# Occlusion

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# Temporal

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# Multimodal

from *It's Always Sunny in Philadelphia*.



# Conceptual art

Robert  
Rauschenberg:

Erased de Kooning  
drawing



# Conceptual art

L.H.O.O.Q.

and

Mona Lisa Rasee



# Conceptual art

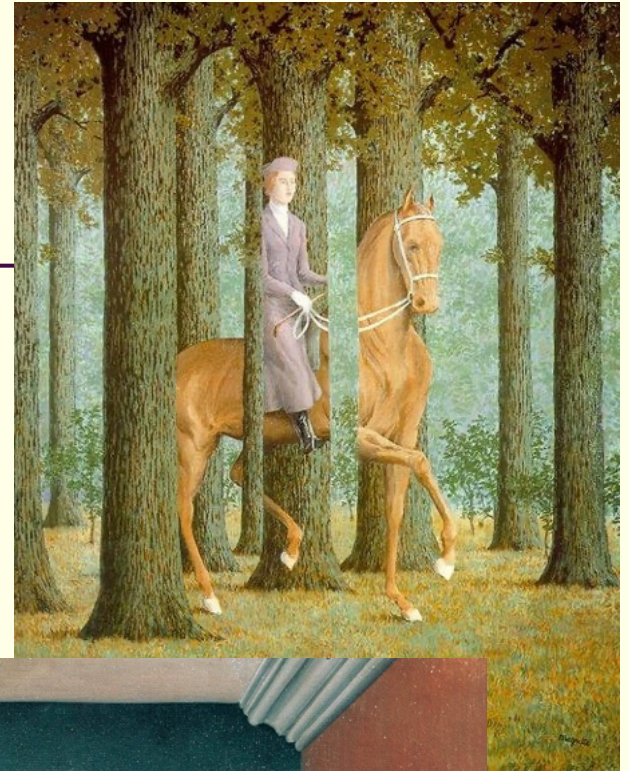
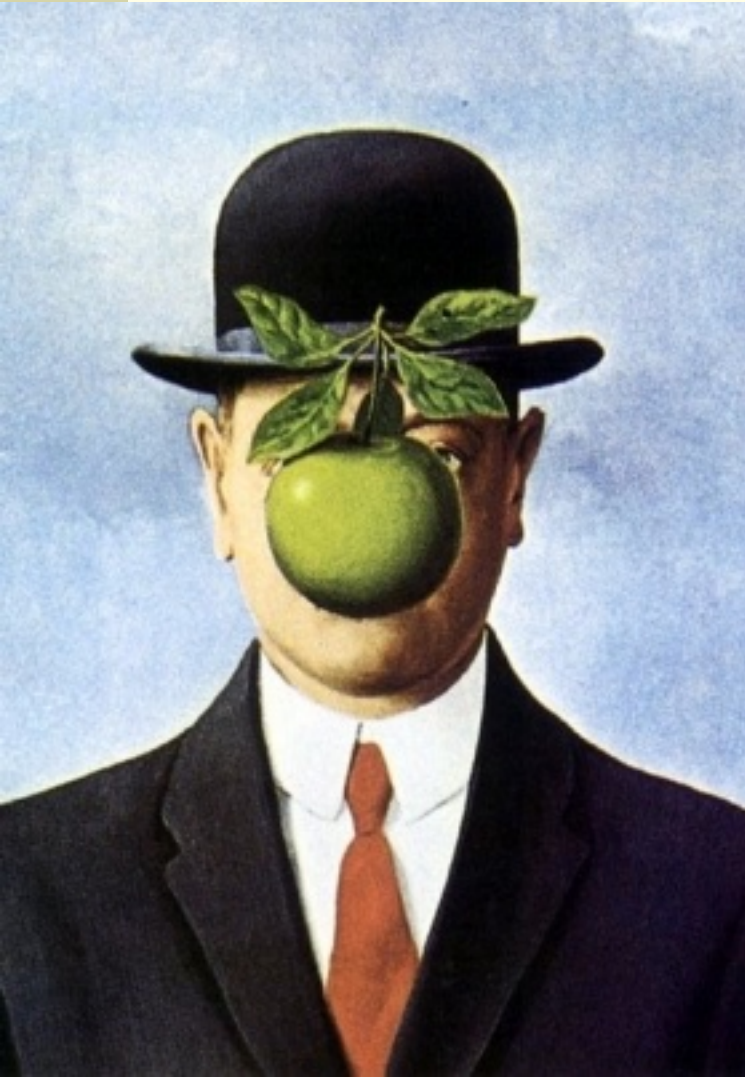
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Man Ray





# Magritte





# Serrano



# Take home messages

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Some important aesthetically relevant properties are represented in mental imagery.

They can be more or less **determinate**

Some of these are subject to **top-down** influences.

Cultural variations in **mental imagery** →  
History of mental imagery (straight Wolfflin)

**Imagination** has played a huge role in aesthetics and art history. But what is even more important is a much simpler concept: **mental imagery**.

# Thank you!

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