DÜSSELDORF
GRADUATE WORKSHOP
FOR PHILOSOPHY

# ON WHAT THERE ISN'T

## Imagination, Impossibilities and Counterfactual Reasoning

SCHEDULE & ABSTRACTS

# WORKSHOP SCHEDULE

# Thursday, 05/09/2019

*Haus der Universität (Schadowplatz 14, 40212 Düsseldorf)*

9:30-10:00 Registration & Welcome

10:00-11:30 **Evidence for Possibility, and the Possibility of Evidence**
Dr. Dominic Gregory (Sheffield)
*Inivted Talk*

11:30-11:45 Coffee Break

11:45-12:30 **Towards a Univocal Understanding of the Imagination**
Jo Ahlberg (Hertfordshire)

12:30-13:15 **Why Can't We Imagine Impossibilities?**
William Bondi Knowles (Manchester)

13:15-14:45 Lunch Break

14:45-16:15 **Supposition, Imagination and Offline Belief**
Dr. Margot Strohminger (Oxford)
*Inivted Talk*

16:15-16:30 Coffee Break

16:30-17:15 **Concrete Imagination and the Epistemology of Possibility**
Tom Schoonen (Amsterdam)

17:15-18:00 **Simulations and Actuality-Oriented Imaginings**
Daniel Munro (Toronto)

18:30 **Conference Dinner**
Restaurant Beethoven (beethoven-flingern.de)
Ackerstraße 106, 40233 Düsseldorf

# Friday, 06/09/2019

*Haus der Universität (Schadowplatz 14, 40212 Düsseldorf)*

10:00-11:30 **How People Think About Counterfactual Possibilities**
Prof Dr. Ruth Byrne (Trinity College Dublin)
*Inivted Talk*

11:30-11:45 Coffee Break

11:45-12:30 **Doing the Impossible With Possible Worlds**
Louis Rouillé (Paris, Institut Jean Nicod)

12:30-13:15 **A Predicate Logic for Aboutness in Imagination**
Christopher Badura (Bochum)

13:15 Pizza

The 2nd *Düsseldorf Graduate Workshop for Philosophy* is organised jointly by Till Gallasch (Würzburg), Paul Hasselkuß (Düsseldorf), Sara Ipakchi (Düsseldorf) and Jessica Struchhold (Duisburg-Essen). More information can be found on our website: dgwp.org.

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# INVITED TALKS

# How People Think About Counterfactual Possibilities

*Prof. Dr. Ruth Byrne (Trinity College Dublin)*

People often create counterfactual alternatives to reality, to explain the past, and to prepare for the future. The counterfactual possibilities they imagine also affect their emotional experiences of regret and relief, and their moral judgments of blame and fault. People reason from counterfactual conditionals by simulating the imagined counterfactual alternative to reality, and they also recover the known or presupposed facts. The dual possibilities they envisage ensure that they make different inferences from counterfactual conditionals compared to indicative conditionals. I discuss competing psychological explanations of the nature of the mental representations and cognitive processes that underlie human counterfactual thinking, based on the construction of possibilities, or on the computation of probabilities. I consider recent experimental evidence on how people create counterfactuals and how they understand and reason from counterfactuals, that helps to distinguish between alternative theories.

**Prof. Dr. Ruth Byrne** is the Professor of Cognitive Science at Trinity College Dublin, University of Dublin, in the School of Psychology and the Institute of Neuroscience. Her PhD is from the University of Dublin, Trinity College Dublin and has worked as a postdoctoral researcher at the MRC Cognition and Brain Sciences Unit in Cambridge. Her books include *The Rational Imagination: How People Create Alternatives to Reality* published in 2005 by MIT press, and *Deduction*, co-authored with Phil Johnson-Laird, published in 1991 by Erlbaum Associates. Dr. Byrne has published over 100 articles and is among others an Associate editor for Memory and Cognition, journal of the US Psychonomic Society.

# Evidence for Possibility, and the Possibility of Evidence

*Dr. Dominic Gregory (Sheffield)*

We sometimes take the possibility of evidence for a certain proposition as evidence for its possibility. When is that a reasonable thing to do? The talk will identify an apparently powerful but simple form of inference that seems to underwrite many uses of this strategy, one whose power depends in particular upon the potential parts that contingently true counterfactuals play within it. The talk will also explore some issues arising from the importance of contingent background conditions to the truth of the relevant counterfactuals.

**Dr. Dominic Gregory** is a member of the Philosophy department at Sheffield University. He has a PhD from Trinity College, Cambridge and spent three years as a Research Fellow at Jesus College, Cambridge. Dr. Gregory has done work in a range of philosophical areas, including aesthetics, epistemology, logic, metaphysics and the philosophy of mind. A focus of his work is modality and recently sensory contents. He is the author of *Showing, Sensing and Seeming* published in 2013 by OUP.

# Supposition, Imagination and Offline Belief

*Dr. Margot Strohminger (Oxford)*

There are many ways of securing knowledge of conditionals and related modal claims. Still, one of the more distinctive methods involves performing a kind of thought experiment. The dominant approach characterizes this method using the terms 'supposition' and 'imagination'. In this talk I defend an alternative approach, which makes use of a propositional attitude that I call 'offline belief'.

**Dr. Margot Strohminger** is a Marie Curie Fellow at Oxford's Faculty of Philosophy and Junior Research Fellow at St. Cross College. She has done her PhD at the Arché Research Centre at the University of St. Andrews and has held postdoctoral Fellowships at the Humboldt University of Berlin and the Universities of Salzburg and Antwerp. Dr. Strohminger primarily works in epistemology and the philosophy of mind. Much of her research focusses on the epistemology of modality and how it connects to the epistemology of perception and imagination.

# CONTRIBUTED TALKS

# Towards a Univocal Understanding of the Imagination

*Jo Ahlberg (Hertfordshire)*

At the centre of most contemporary discussions concerning the imagination lies a conception of the imagination which has it divided it into two different kinds: propositional imagination and sensory imagination.

Propositional imagination is a type of mental state which is thought to essentially be without imagistic or sensory phenomenological content. It is an intentional attitude which takes propositions as its content. It is usually described as involving cases where we "imagine-that such and such is the case". Sensory imagination is described as an intentional mental state which is essentially imagistic, and non-propositional. It is usually described as imaginings which involve imagining objects and their properties directly, such as when we imagine a red ball and represent the ball with a mental image.

There is a trend among philosophers of the imagination to ignore or side-line the imagistic nature of sensory imagination when considering how the imagination works and what the imagination is. Instead there is a marked focus in the literature in favour of constructing analyses with non-imagistic propositional imagination when approaching questions of counterfactual reasoning, games of pretence, or addressing what kind of relationship the imagination has with other mental states. Mental imagery is a tricky thing to incorporate into any model of the imagination, because mental imagery is phenomenological.

I take the view that the theoretical abstraction of propositional content from sensory imagination is in error. By focusing on the imagistic aspect of imagination, I argue that imagery, specifically visual mental imagery, is teeming with propositional content. When the content of our

imagining features a representation such as a visual mental image, there is often far more propositional content involved than there is in paradigmatic "imagine-that" cases.

When imagination is directed at some imaged object such as a ball, the image of the ball expresses either many propositions, or a complex proposition. The ball might be a baseball, a football, or a tennis ball. It might be oval, spherical, and be many different colours, or just one colour. The way in which we imagine the ball expresses that the ball is one way or another. So, we inescapably *imagine that* it is one way or another: That the ball is big, that it is yellow, that it is soft, and so on. Such sensory imaginings express a complex state of affairs. The more informationally rich a visual mental image is, the more propositional content it is likely to express. When we imagine a ball, the content of our imagining is propositionally richer than if we imagine-that there is a ball.

By arguing that imagination is essentially propositional, I not only aspire to move closer to a univocal conception of the imagination, but I also aim to draw philosophical attention to propositional content expressed within the mental images of imaginative thoughts. It is only by accepting the propositional nature of mental imagery that operational, ontological and metaphysical questions concerning the imagination can be fully developed.

# A Predicate Logic for Aboutness in Imagination

*Christopher Badura (Bochum)*

Francesco Berto (2017) proposes a logic for aboutness in imagination. He understands imagination as a kind of mental simulation which has an input content and an output content. On his account, acts of imagining are always expressible as "In imagining (content expressed by) *A*, the agent also imagines (content expressed by) *B*". The content expressed by *A* is the initial content and the content expressed by *B* is the output content. The truth condition for sentences of this form is conjunctive. The first component requires us to look at all the worlds that are accessed by the formula expressing the initial content and see whether the formula expressing the output content is true at those worlds. This is just the truth condition for variably strict modal operators often used in conditional logic.

Berto also takes into account that there must be a connection between the two contents. Simply speaking, the output content must already be part of the initial content. While this takes reasonably good care of the content relations between complex formulas, it is shortcoming when it comes to content relations between atomic formulas, showing that the requirement on contents is too draconian. Consider the example "In an act of imagining that she takes Gwenny to the lake, Helena imagines that Gwenny is going to swim in the lake". It is not obvious that the content of "Gwenny is going to swim in the lake" is *a part of* the content of "Helena takes Gwenny to the lake". Even if it was the case that the parthood relation obtained in the relevant way, Berto's semantics is not expressive enough to explain why this is so. On his account, both sentences are atomic and the content inclusion between atomic sentences is simply given by a function that assigns to each atomic formula some atomic content.

Nevertheless, there is a connection between Helena taking Gwenny to the lake and Gwenny swimming in the lake. After all, the sentences share sin- gular terms, which are in fact intended to refer to the same object across sentences. So, the sentences are about the same object(s). To take this into account, I use a language with predicates and individual constants instead of a propositional language. With such a language is at hand, I identify the content expressed by a sentence with its topic, where "topic" is defined in Hawke's (2017) sense. I show how the theory can account for the aforemen- tioned relation between the contents. Several relations between topics are defined and discussed with respect to their usefulness in the truth condition for the imagination operator. It is concluded that the contents in rational imagination, which is aimed to be modelled by Berto, are connected by simi- larity, and the contents in creative imagination are connected by association. Both can be modelled with the semantics presented. The latter has often be taken to be anarchic. I argue that even creative imagination is not entirely anarchic.

**References**

Berto, Francesco. 2018. „Aboutness in Imagination". *Philosophical Studies* 175 (8): 1871–86.

Hawke, Peter. 2018. „Theories of Aboutness". *Australasian Journal of Philosophy* 96 (4): 697–723.

# Why Can't we Imagine Impossibilities?

*William Bondi Knowles (Manchester)*

In this paper I address a potential problem for those who reject that our possibility beliefs are justified, or can be justified, by the imagination. The problem is as follows: if the imaginable is not a good guide to the possible, then why do we seem to be unable to imagine impossibilities?

In the first part of the paper I motivate skepticism about the idea that the imagination can justify our possibility beliefs. Assuming – *pace* e.g. Blackburn (1993) – that being imaginable is not just the same, or close to the same, as being possible, how can it even be relevant to something's possibility that we can imagine it? Sometimes it is said that the imagination stands to possibility as our ordinary senses stand to reality. But it seems to me that this is difficult to make precise. Some attempts, from Kung (2010), Hanrahan (2007) and Gregory (2010), are briefly discussed and found inadequate.

In the second half of the paper I turn to the title question: if the imagination doesn't justify possibility beliefs, then why is it that we seemingly cannot imagine impossibilities such as 2+2 not being equal to 4? The reverse of the above problem arises: why should something being impossible even be relevant to whether we can imagine it? Unlike the earlier question, however, I think this question may be answerable.

The answer lies, I think, with the old view that necessities are true solely in virtue of what they mean; that they are *analytic*. Exactly how analyticity works is of course a big question, but to take a slightly naïve formulation from Ayer (1934) for illustrative purposes, suppose the necessary truth 'all bachelors are unmarried men' is true just because of the synonymy of 'unmarried man' and 'bachelor'.

I think that if – though I admit that for many it's a big 'if' – necessities depend only on their meaning for their truth, then it's easy to see why we cannot imagine impossibilities. For how could we imagine the falsity of something which is true by its very meaning? We are interested in the kind of imagining where we represent whatever we are imagining as true; where we imagine *that* so and so is the case. But to represent something which is true solely in virtue of its meaning as not true requires changing its meaning; for as long as the meaning is the same as the actual meaning, its truth follows. Hence we can only imagine, say, the falsity of 'all bachelors are unmarried men' by changing the meaning of this sentence. But then in what sense have we really imagined that some bachelor fails to be an unmarried man? Certainly not in any interesting sense, perhaps none at all. It seems, therefore, that pointing to the analyticity of necessities will yield an explanation of why we cannot imagine impossibilities.

Of course, this explanation depends on the somewhat unfashionable view that necessities are analytic. But we need not go full-blown conventionalism here. We need not claim that *all* necessities are analytic, just the ones whose negations we cannot imagine. If there are kripkean a posteriori necessities whose negations we can imagine, for example, that is entirely consistent with our approach.

**References**

Ayer, Alfred Jules. 1936. *Language, Truth and Logic*. London: Victor Gollancz.

Blackburn, Simon. 1986. „Morals and Modals". In *Fact, Science & Morality: Essays on A. J. Ayer's Language, Truth & Logic*, edited by Gaham Macdonald, and Crispin Wright, 119–41. Oxford: Blackwell.

Hanrahan, Rebecca. 2007. „Imagination and Possibility". *The Philosophical Forum* 38 (2): 125–46.

Gregory, Dominic. 2010. „Conceivability and Apparent possibility". In *Modality: Metaphysics, Logic and Epistemology*, edited by Bob Hale, and Aviv Hoffman. Oxford, Oxford University Press.

Kung, Peter. 2010. „Imagining as a Guide to Possibility". *Philosophy and Phenomenological Research* 81 (3): 620–63.

# Simulations and Actuality-Oriented Imaginings

*Daniel Munro (Toronto)*

This paper focuses on "actuality-oriented imagining," our capacity to use mental imagery to represent things as they are in the actual world. Imagination is sometimes referred to as "simulating" the states of affairs it represents (e.g., De Brigard 2014; Michaelian 2016; Kind 2018), though the sense of "simulation" involved is not always precisely defined. I aim to develop the suggestion that imagination is simulational into a more fleshed out theory of the way actuality-oriented imaginings represent their contents.[1] I then defend this theory by arguing that it appears well-positioned to resolve two key questions which we should expect a full theory of actuality-oriented imagining to answer. The paper has two parts.

Part one first explains the two questions for our full theory of actuality-oriented imagining, each of which is familiar given that analogues arise in the context of theorizing about perception. The first question concerns the factors that determine which particular object(s) a mental image represents; the second concerns the success conditions for imaginative representations. I briefly consider a possible approach to answering each question based on prominent strains of thought in recent literature. However, I argue that these approaches fail to properly explain certain cases of actuality-oriented *mis*-imagining, cases in which subjects attempt, but fail, to imaginatively represent the actual world. Noting the gaps in these approaches, though, furnishes two important lessons to which a theory of actuality-oriented imagining must be sensitive.

[1] Note that the sense of "simulation" here is different from the one invoked in discussions of our ability to simulate others' perspectives and points of view. Here, what's simulated is not a perspective on the world but states of the world itself.

Part two develops a theory of actuality-oriented imagining based on the claim that imagining is simulational. I first explain the general notion of a simulational representation, one most often discussed in philosophy of science. Simulations begin with a model representing both some system's initial states and information about how that system evolves over time. The states of the model then imitate the states of the target system over time, allowing observers to study the model of the system as a proxy for directly observing the system itself. With this notion in hand, I argue that, given some plausible assumptions about the way actuality-oriented mental imagery is constructed, the structure of actuality-oriented imaginings parallels that of simulational representations. When a subject imagines some part of the world, she draws on her store of beliefs which represent that part of the world as being a certain way, a set of beliefs which constitutes a model of that part of the world. She uses this model to mentally construct a representation of the imagined state of affairs, a representation she can then observe as a proxy for directly observing that state of affairs. I conclude part 2 by arguing that this simulational theory successfully accommodates the mis-imagining cases I described in part 1. While I won't purport to give a full, thorough answer to either of the questions I began with, I'll conclude that the simulational theory seems well-positioned to do so.

**References**

De Brigard, Felipe. 2014. „Is Memory for Remembering? Recollection as a Form of Episodic Hypothetical Thinking". *Synthese* 191 (2): 155–85.

Kind, Amy. 2018. „How Imagination Gives Rise to Knowledge". In *Perceptual Imagination and Perceptual Memory*, edited by Fiona Macpherson, and Fabian Dorsch. Oxford: Oxford University Press, 227-46.

Michaelian, Kourken. 2016. *Mental time travel: episodic memory and our knowledge of the personal past*. Life and mind: philosophical issues in biology and psychology. Cambridge, Massachusetts: MIT Press.

# Doing the Impossible with Possible Worlds

*Louis Rouillé (Paris, Institut Jean Nicod)*

The problem of truth in fiction consists in explaining contrasts like the following:
(1) Hamlet is a human being. (True in Shakespeare's *Hamlet*)
(2) Hamlet is a crocodile. (False in Shakespeare's *Hamlet*)

Lewis 1978 famously offered a counterfactual account of truth in fiction. He argues that the contrast between sentences like (1) and (2) is the same as the contrast between these two counterfactuals:
(1') If Shakespeare's *Hamlet* were told as known fact rather than fiction, Hamlet would be a human being.
(2') If Shakespeare's *Hamlet* were told as known fact rather than fiction, Hamlet would be a crocodile.

Following Lewis's account of counterfactuals, (1') is predicted to be true at the actual world, because all the possible worlds where the antecedent of (1') is true and (1) is true are closer to the actual world than the possible worlds where the antecedent of (1') is true and (1) is false. (Same reasoning applies to (2'))

There are principled objections to Lewis's analysis because possible world semantics is arguably too strong a framework for the modeling of truth in fiction. These are the objections from the *incomplete* and *inconsistent* fictions. Possible worlds are, by definition, complete and consistent; but fictions often point toward incomplete worlds and sometimes inconsistent ones.

One popular solution to the problem of incomplete fictions is to use super-valuationism over a set of possible worlds. One popular solution to the problem of inconsistent fictions is to appeal to impossible worlds.

Priest 1997 takes impossible fictions to justify an impossible world semantics. Berto 2017 argued that impossible world semantics provides a formal model for imaginative attitudes in general.

I propose instead to model inconsistent fictions using sub-valuationism over a set of possible worlds. First, it nicely provides dual solutions to, I argue, dual problems. Second, it fits quite closely, I argue, Priest's own analysis of his inconsistent fiction. Third, it avoids metaphysical problems about impossible worlds. The problem with this proposal, though, is that it cannot model the being true in the fiction that a contradiction obtains. Arguably, some fictions require that, for instance John Wood's very short fiction: "Once upon a time, there was $p \wedge \neg p$".

To meet this worry, I shall argue that, when it comes to fictional imagination, we virtually never imagine that a contradiction obtains. According to Walton's theory of fictional imagi- nation, what is true in a fiction is what the story prescribes imagining. This puts a deontic flavour at the heart of fictional imagination. Imagining contradictions, on this view, boils down double binds: one is to imagine p at some point and one is to imagine not-p at another but one is not to imagine p and not-p at the same time. In legal systems as well as in computer programs, double binds are all over the place, although a contradiction rarely obtains; same goes for fictional imagination. Sub-valuationism, I argue, is the natural formalization of such double-bind phenomena.

**References**

Berto, Francesco. 2017. „Impossible Worlds and the Logic of Imagination". *Erkenntnis* 82 (6): 1277–97.

Lewis, David. 1978. „Truth in Fiction". *American Philosophical Quarterly* 15 (1): 37–46.

Priest, Graham. 1997. „Sylvan's Box: A Short Story and Ten Morals". *Notre Dame Journal of Formal Logic* 38 (4): 573–82.

Walton, Kendall L. 1990. *Mimesis as make-believe: on the foundations of the representational arts*. Cambridge, Mass: Harvard University Press.

# Concrete Imagination and the Epistemology of Possibility

*Tom Schoonen (Amsterdam)*

Throughout history, people have suggested that imagination might justify our beliefs about *non-actual possibilities*. That is, people have suggested that the way we come to know how this glass *could* break even though it is not broken, is through imagination. However, it is also agreed by many that imagination is very heterogenous and can be completely unrestricted. The question thus arises, what do we mean when we talk about imagination and how is it supposed to justify our beliefs about non-actual possibilities.

In this talk, I will focus on *Concrete Imagination* (following Yablo 1993 and Dohrn 2018). One concretely imagines *p* if they imagine a suitably concrete and detailed representation of a situation that makes *p* true (or that verifies *p*). Such accounts of imagination have been appeal to in recent attempts to explain the justificatory role of imagination for our knowledge of modality (cf. Yablo 1993, Kung 2010, Dohrn 2018). First, I will provide a general sketch of such an account and how it is that they are supposed to justify our beliefs about non-actual possibilities. These accounts have some interesting motivations and claim to provide us with an epistemology of possibility that is able to correctly classify instances of *a posteriori* necessities and impossibilities (something that epistemologies of modality struggle with).

I will argue, however, that these accounts, if they aim to provide us with a significant epistemology of possibility, need to allow in non-qualitative or assigned content. Yet, given that assigned content is the gateway to impossibilities, the assigned content needs to be restricted some how. I argue that the restricting of the assigned content *cannot* be done without a very problematic reliance on prior knowledge of necessities. This suggests that epistemologies of possibility reliant on

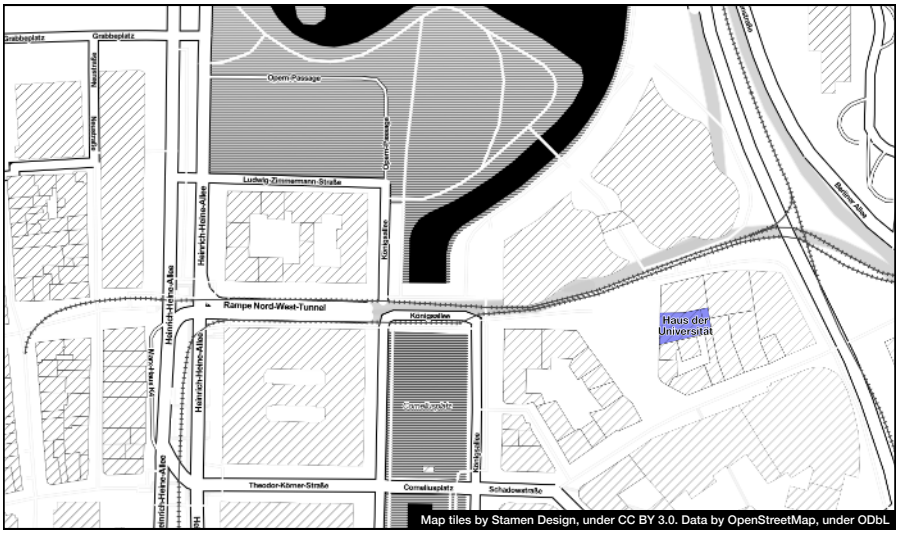
concrete imagination face a very deep, methodological problem. In particular, I will argue that there are pairs of situations that are each other's *modally bad company*: one situation will be a non-actual possibility, whereas the other will be a non-actual impossibility. I suggest that theories of concrete imagination cannot distinguish between these two instances. This results in a trilemma: they have to predict both cases to be possible; they have to rule out both cases as impossible; or they have to rely on prior knowledge of necessity. I argue that the number of cases that have to be ruled out or in, make it such that going for either of the first two options is highly unattractive and, at the very least, takes away from the initial plausibility of the concrete imagination theories. On the other hand, relying on prior knowledge of necessity within an epistemology of possibility is a methodological non-starter (Hale 2003, Fischer 2016, Roca-Royes 2017).

In general, I conclude that the concrete imagination theories fail to provide us with a satisfactory epistemology of possibility contra what Yablo (1993), Kung (2010), and Dohrn (2018) claim.

# PRACTICAL INFORMATION

# Venue

The workshop takes place at the *Haus der Universität,* Schadowplatz 14, 40212 Düsseldorf. To reach the venue from the main station, take any underground to *Heinrich-Heine-Allee*. From there it is about 10min walk to the venue. The venue is handicapped accessible.




# Internet

Eduroam is available at the whole venue: eduroam.org.

# ATM

The nearest ATM is located at Schadowstraße 17 (distance: est. 30m).

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