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# Rehabilitating Resemblance Redux

A Reply to Anne-Kathrin Koch

Gerard O'Brien

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Anne-Kathrin Koch's insightful commentary places a great deal of pressure on the connection between my deployment of the triadic analysis of representation to solve the content causation problem and my contention that it makes mandatory the rehabilitation of the resemblance theory of mental content determination. She argues that if the relational character of mental content can be captured in terms of brain-based behavioural dispositions, as I claim, then this manoeuvre in its own right solves the content causation problem and hence offers no support for resemblance or any other theory of content determination. In this reply, I argue that the relation between the proposed solution to the content causation problem and the resemblance theory of content determination is stronger than Koch allows.

## Keywords

Content determination | Mental causation | Mental content | Mental representation | Resemblance

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## 1 Introduction

There is a paradoxical air surrounding mental content. On the one hand we take it to be a localized property of our minds—of our mental states—distinct from the world in which we are embedded. Yet on the other hand, it is the means by which our minds reach out and make “cognitive contact” ([Kriegel 2003](#)) with this surrounding environment. How is such action-at-a-distance possible? The standard solution to this conundrum is to assume that the **relational character** of mental content can be explained by the fact that mental content is a **relational property** of our mental states. This line of thought leads to **content externalism**, accord-

ing to which mental content is determined in part by factors beyond our heads. But once content externalism is combined with a couple of unexceptional theses about (i) the role of content in mental causation and (ii) the brain-basis of the causal determinants of behaviour, we encounter the **content causation problem**—the problem of explaining how the content of mental states can be causally efficacious of behaviour when it doesn't supervene on what's in our heads.

The solution I offered in my target paper was to sever the connection between the relational character of mental content and the as-

sumption that the latter is a relational property of our mental states (O'Brien [this collection](#)). My suggestion was that unlike a **dyadic** story that seeks to explain representation solely in terms of relations between vehicles and their represented objects, a **triadic** account of representation opens up space to explain the relational character of mental content in terms of brain-based behavioural dispositions—specifically, dispositions to respond selectively to specific features of the external environment. According to this triadic account, the **aboutness** of mental content is not some mysterious relational property that brings our minds into contact with various aspects of the surrounding environment; it is the relatively straightforward cognitive capacity, bestowed by the intrinsic properties of our brains, to regulate our behaviour in response to specific environmental conditions.

In her insightful commentary, Anne-Kathrin Koch, after carefully rendering explicit some of the background assumptions on which I rely, focuses on the connection between the proposed solution to the content causation problem and my further contention that it makes mandatory the rehabilitation of the resemblance theory of mental content determination (Koch [this collection](#)). Her counter claim is that if the relational character of mental content can be successfully captured in terms of the brain's behavioural dispositions, then this manoeuvre in its own right solves the content causation problem and hence offers no support for resemblance or any other theory of content determination. In this reply, I will show that the relation between the proposed solution to the content causation problem and the resemblance theory of content determination is stronger than Koch allows.

## 2 Rejecting resemblance (and content causation)

The great insight of Charles Sanders Peirce's analysis of representation is his claim that aboutness can't be explained solely in terms of relations between representing vehicles and represented objects (Hardwick 1977). Instead, vehicles are about their objects in virtue of hav-

ing a certain kind of effect on a cognitive subject—specifically, vehicles either trigger thoughts about objects (in cases of public representation) or they engender behavioural dispositions towards them (in cases of mental representation). According to Peirce, it is this additional relatum—known as **interpretation**—that renders representation triadic.

But once interpretation is added into the representational mix, it has the potential to overwhelm any content-grounding relations that may obtain between vehicles and objects. This is the thread that Koch astutely pulls on in her commentary. To the extent that one can appeal to the manner in which a representing vehicle modifies a subject's behavioural dispositions in order to capture the relational character of content, it seems as though one can also appeal to these dispositions to fix the content of this vehicle. In short, the triadic account would appear to make those theories of content determination that appeal to vehicle-object relations—such as resemblance—redundant (or, at least, “only indirectly relevant”, as Koch charitably puts it; [this collection](#), p. 8).

Koch is not alone in drawing out this consequence from the triadic nature of representation. It is precisely this idea about the role of behavioural dispositions in content fixation that forms the foundation of the instrumentalist approach to mental representation that Daniel Dennett has defended over many years (1978; 1987). Dennett was one of the early proponents of triadicity, insofar as he argued that it was only in virtue of their roles in cognitive systems that representing vehicles can be interpreted as bearers of information:

There is a strong by tacit undercurrent of conviction [...] to the effect that only by being rendered explicit [...] can an item of information play a role. The idea, apparently, is that in order to have an effect, in order to throw its weight around, as it were, an item of information must weigh something, must have a physical embodiment [...]. I suspect, on the contrary, that this is almost backwards. [Representing vehicles]... are by themselves quite inert as

information bearers [...]. They become information-bearers only when given roles in larger systems. (Dennett 1982, p. 217)

Dennett has also famously argued that the consequence of taking the triadic account seriously is the rejection of any story that takes mental content to be determined independently of a cognitive creature's patterns of behaviour.

Dennett's instrumentalist approach to mental representation, however, has another famous consequence. If the full burden of content determination falls on the shoulders of interpretation—if, that is, it is a cognitive system's behavioural dispositions ultimately fix the content of its representing vehicles—then content is a product of cognition, not an ingredient, and hence cannot be casually implicated in the production of behaviour.

This last point, of course, represents Dennett's own solution to the content causation problem: he abandons the thesis that mental phenomena are causally efficacious of behaviour in virtue of their representational contents (see O'Brien [this collection](#), fn. 1). This is also what Koch is hinting at when she indicates that my proposal to invoke the triadic account of representation might be better interpreted as **rejecting** the content causation problem rather than **solving** it (Koch [this collection](#), p. 8). That is, far from showing that rehabilitation of the resemblance theory of content determination is mandatory, her (implicit) objection is that my proposed solution to the content causation really shows that there is no such thing as content causation in the first place.

### 3 Rehabilitating content causation (and resemblance)

To reiterate, the problem associated with the triadic analysis of representation is that once behavioural dispositions are invoked in order to explain the relational character of mental content, they threaten to overwhelm any other story about mental content determination. But if mental content is determined by such behavioural dispositions, it can't play a robust causal role in their production. In short, the triadic ac-

count seems to suggest that there is no content causation **problem** because there is no **content causation**.

In this context, however, it is pertinent to note that, despite his insistence that representation is triadic, Peirce expends a good of effort investigating the relations between representing vehicles and represented objects. His analysis of public forms of representation famously yields three different kinds of vehicle-object relations—convention, causation, and resemblance—associated with symbols, indexes, and icons, respectively (see Hardwick 1977 and Von Eckardt 1993, Ch. 4). If content determination is ultimately just a matter of interpretation, why would Peirce have been so bothered about these vehicle-object relations?

The answer, of course, is that Peirce was concerned not just with the fact that public representing vehicles effect interpretations in cognitive subjects, but with **how** they do so. The point here is that interpretation isn't magic—it requires explanation. Consider, for example, Leonardo da Vinci's **Mona Lisa**. According to the triadic story, the painting that hangs in the Louvre is not about anything on its own. Its standing as a representing vehicle hinges on its capacity to trigger interpretations in cognitive subjects. When we look at this painting it causes us to think about a dark-haired woman with a famously enigmatic smile. But what is it about this painting that endows it with this capacity? Part of the explanation here invokes our recognition of the resemblances between the painting and a woman with a certain kind of physical appearance. The painting wouldn't have the same impact on us if these resemblances didn't obtain. So a complete account of the painting's aboutness must go beyond the fact that it triggers certain thoughts in us to include an explanation of how it does so. And it is here that vehicle-object relations such as resemblance are compulsory.

The general lesson to take away from this (far too brief) analysis is that the interpretation of public forms of representation cannot be disconnected from the cognitive subject's (conscious or unconscious) recognition of what are generally known as **content grounding** rela-

tions between vehicles and represented objects. And what goes for the interpretation of public representing vehicles also goes for the interpretation of mental vehicles. On the triadic story being entertained here, mental vehicles, just like the **Mona Lisa**, aren't about anything considered in isolation. Their aboutness is a consequence of the multifarious behavioural dispositions they create in us towards selective features of the world—dispositions to physically interact with these features, for example, or to make utterances about them. Since this form of interpretation likewise isn't magic, a complete account of mental representation must explain how mental vehicles establish these behavioural capacities. And just as with the case of public representing vehicles, it is impossible to do this without recourse to content-grounding relations (something that is demonstrated by even exceedingly simple representation-using devices such as the humble thermostat—see [O'Brien this collection](#), pp. 7–9).

Precisely because content-grounding relations must be invoked to explain how the former endow cognitive systems with behavioural dispositions towards the latter, content causation is back in business. But what kind of vehicle–object relations can turn this trick? This, of course, was one of the central questions that animated much of my discussion in the target paper ([O'Brien this collection](#)). Of the three grounding relations that Peirce found to be implicated in public forms of representation—convention, causation, and resemblance—the first is widely assumed to be unavailable for mental representation since it violates the naturalism constraint.<sup>1</sup> Despite its popularity in contemporary philosophy, the second, I argued at some length, is actually powerless to explain how mental vehicles create the requisite behavioural

dispositions ([this collection](#), pp. 6–7). This just leaves us with resemblance. Fortunately, this third vehicle–object relation is up to the task, or at least so my argument went, since the structural properties of mental vehicles that ground second-order resemblance relations can be exploited to shape the behavioural dispositions of a cognitive system towards worldly objects ([this collection](#), p. 8). This is where the rubber of resemblance meets the road of content causation. And it is why a resemblance theory of content determination is mandatory if we are to explain why mind matters.

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<sup>1</sup> This is the requirement that mental representation be explained without appeal to further forms of representation. If a vehicle is related to its object by convention, the cognitive subject must deploy a *rule* that specifies how the vehicle is to be interpreted. In the case of non-mental representation, where for example the vehicle is a word in a natural language, the application of such a rule is a cognitive achievement that must be explained in terms of processes defined over mental representing vehicles. When this same account is applied to mental vehicles, therefore, it would seem to generate an infinite regress of further representing vehicles, and hence interpretation is never achieved (see [Von Eckardt 1993](#), p. 206).