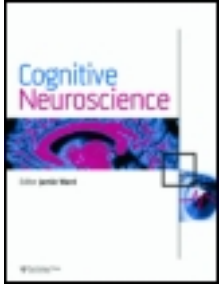


This article was downloaded by: [Joh Gutenberg Universitaet], [Michael Madary]

On: 23 April 2014, At: 00:58

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Cognitive Neuroscience

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/pcns20>

Perceptual presence without counterfactual richness

Michael Madary^a

^a Theoretische Philosophie, Universität Mainz, Mainz, Germany

Published online: 16 Apr 2014.

To cite this article: Michael Madary (2014): Perceptual presence without counterfactual richness, Cognitive Neuroscience, DOI: [10.1080/17588928.2014.907257](https://doi.org/10.1080/17588928.2014.907257)

To link to this article: <http://dx.doi.org/10.1080/17588928.2014.907257>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

Commentary

Perceptual presence without counterfactual richness

Michael Madary

Theoretische Philosophie, Universität Mainz,
Mainz, Germany

E-mail: madary@uni-mainz.de

<http://dx.doi.org/10.1080/17588928.2014.907257>

Abstract: In this commentary, I suggest that non-visual perceptual modalities provide counterexamples to Seth's claim that perceptual presence depends on counterfactual richness. Then I suggest a modification to Seth's view that is not vulnerable to these counterexamples.

In the target article, Anil Seth defends a Predictive Perception account of SensoriMotor Contingencies (PPSMC). This account is a synthesis of sensorimotor approaches to perception on one hand, and a predictive coding generative model approach to the mind, on the other. Seth's account remedies two shortcomings of sensorimotor approaches. First, it offers some suggestion about the neural implementation of sensorimotor know-how. Second, it explains how synesthesia might fit with a sensorimotor approach to perception. The main idea behind PPSMC is that the sense of perceptual presence depends upon the richness of sensorimotor contingencies encoded in our probabilistic generative models. Concurrent synesthetic experiences lack perceptual presence because they depend on counterfactually poor generative models. Normal perceptual experience, Seth claims, depends on rich counterfactual information about how appearances would change as we move, and therefore includes a sense of presence.

PPSMC is, by my lights, a valuable contribution to our interdisciplinary understanding of perceptual experience. I find it to be complementary to themes about perceptual anticipation that I have defended in

the philosophy of perception (Madary, 2013), themes which have roots in phenomenological philosophy from the early twentieth century (Madary, 2012). Despite my broad agreement with PPSMC, here I would like to raise one critical point, and propose a modification to PPSMC as a solution. The critical point involves a possible counterexample to Seth's suggestion that the degree of perceptual presence depends upon counterfactual richness.

One main element of PPSMC is the idea that the sense of perceptual presence "depends precisely on the counterfactual richness of the corresponding generative models" (Seth, 2014). Seth is suggesting that "the degree of perceptual presence" increases with the richness of the counterfactuals in the generative model (Seth, 2014, Abstract). A problem with this idea is that there may be cases of robust perceptual presence that are counterfactually poor. Such cases arise if we consider variations in counterfactual richness across different perceptual modalities. Human vision, for example, is typically counterfactually rich. Single objects can visually appear in many different ways as we change perspectives and lighting conditions. Other perceptual modalities, such as human olfaction, are counterfactually poor, at least when compared to vision. Olfactory counterfactuals, it seems, only vary according to intensity. One might expect the smell of a rose to become more intense as one leans closer to the bud and takes a sniff. But an increase or decrease in intensity is poor when compared to the range of visual appearances that an object might have.

If my claims about the differences in counterfactual richness between vision and olfaction are correct, then it should follow, according to PPSMC, that olfactory properties are always less present than visual properties. The problem is that it seems wrong to distinguish degrees of presence in this way for different modalities. To illustrate this point, imagine two cases in which you perceive an object with a powerful odor—I will leave the details to the reader's imagination. In Case A, you are shown the object under a smell-proof glass dome. In Case B, you are blindfolded and the dome is removed; you perceive the object only by its overpowering smell. The visual counterfactuals in Case A would be far richer than the

This work was supported by the European Commission [Grant 257695].

© 2014 Taylor & Francis

olfactory counterfactuals in Case B. Following Seth, you should experience the smelly object as more present in Case A (when you only see it) than in Case B (when you only smell it). But that seems wrong. I see no reason to think that the object is more perceptually present in Case A than Case B.

Perhaps this problem—if it is a problem—can be solved by slightly modifying Seth’s position. Instead of saying that the degree of presence depends on the degree of richness, one could say that *some* counterfactual information in the generative model regarding sensorimotor contingencies is necessary for perceptual presence. The degree of richness required for presence may be modality relative: We need rich counterfactuals for visual presence, but only poor counterfactuals for olfaction, for example. (Counterfactuals about sensorimotor contingencies would not be *sufficient* for perceptual presence because of the kinds of experiences associated with derealization disorder, as Seth notes.) This modification would then cover counterfactually-rich modalities, such as vision, while not excluding counterfactually-poor modalities, such as olfaction. It would generally avoid odd issues about variations in the degree of perceptual presence across modalities.

The remaining question, though, is whether my proposed modification would explain the lack of perceptual presence for concurrent synesthetic experiences. If the modification is to do the explanatory work of Seth’s original version of PPSMC, then such experiences should not only be counterfactually poor, but they should involve no counterfactuals whatsoever about sensorimotor contingencies. Are there sensorimotor contingencies at all in concurrent synesthetic experiences? I suspect not, but answering this last question would involve a closer look at the phenomenology of a broad range of synesthetic experiences.

REFERENCES

- Madary, M. (2012) Husserl on perceptual constancy. *European Journal of Philosophy*, 20, 145–165. doi:10.1111/j.1468-0378.2010.00405.x
- Madary, M. (2013) Anticipation and variation in visual content. *Philosophical Studies*, 165, 335–347. doi:10.1007/s11098-012-9926-3
- Seth, A. K. (2014) A predictive processing theory of sensorimotor contingencies: Explaining the puzzle of perceptual presence and its absence in synesthesia. *Cognitive Neuroscience*. doi:10.1080/17588928.2013.877880