

The History, Philosophy and Biology Teaching Lab (LEFHBio), associated with the Institute of Biology/ Federal University of Bahia and the National Institute of Science and Technology in Interdisciplinary and Transdisciplinary Studies in Ecology and Evolution (INCT IN-TREE), Brazil, will continue its seminar cycle on 13 September 2022 with the talk by Dr. Antoine Dussault (Collège Lionel-Groulx, Centre Interuniversitaire de recherche sur la science et la technologie/CIRST and Centre de recherche en éthique/CRÉ, Canada) addressing the following topic: “**On the possibility of generalized selected effects ecological functions**”.

**Date and time:** 13 September 2022, 10:00AM BRT (Bahia, Brazil time zone)

**Zoom link:** <https://us06web.zoom.us/j/85200246679?pwd=cU9HQ3h0bFNmRXlY2aFQxRFhJYjZuQT09>

### About the event

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Abstract: In this presentation, I will discuss whether Justin Garson’s (2017; 2019) generalized selected effects (GSE) theory of function, and the understanding of natural selection in terms of differential persistence (e.g. Bouchard 2014; Bourrat 2014), make a selected effects account of ecological functions more promising than has been assumed in discussions of ecological function (see e.g. Odenbaugh 2010; Nunes-Neto, Moreno, and El-Hani 2014; Dussault 2018). The GSE theory, in contrast to the classical selected effects (CSE) theory, admits the possibility that items acquire functions through differential *persistence*, besides differential reproduction. This seems to open the possibility that ecological items (e.g. organisms, populations, abiotic items) acquire selected-effects ecological functions not only through community- or ecosystem-level selection, but also through processes of community assembly and ecological fitting. Since these processes are much more prevalent in the ecological world than community- or ecosystem-level selection, the GSE theory seems to potentially make more of the functions recognized by ecologists interpretable as selected effects functions, thus making a selected effects account of ecological functions more promising. I will give reasons why, despite its many merits, the GSE theory poorly applies to ecology. One of these reasons has to do with the importance of the service dimension of function (e.g. Godfrey-Smith 1994; Price 2001), which, I will argue, a GSE account of ecological functions should incorporate. In part for this reason, I will maintain that, despite the advantages of the GSE theory over the CSE theory, a forward-looking persistence-based account of ecological functions (Bouchard 2013; Dussault and Bouchard 2017) remains more promising than a selected effects account.

### References

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Garson, Justin. 2017. "A Generalized Selected Effects Theory of Function." *Philosophy of Science* 84 (3): 523–43.

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Nunes-Neto, Nei, Alvaro Moreno, and Charbel N. El-Hani. 2014. "Function in Ecology: An Organizational Approach." *Biology and Philosophy* 29 (1): 123–41.

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Price, Carolyn. 2001. *Functions in Mind: A Theory of Intentional Content*. Oxford: Clarendon Press.

### **Speaker's biography**

Antoine C. Dussault teaches philosophy at Collège Lionel-Groulx, close to Montréal, and is also a researcher at the Montréal-based Centre Interuniversitaire de recherche sur la science et la technologie (CIRST) and Centre de recherche en éthique (CRÉ). His research focuses on the philosophy of ecology, environmental ethics, and the philosophy of medicine.

### **Previous events of the Seminar Cycle of the Teaching, Philosophy and History of Biology Laboratory (LEFHBio) are available in the LEFHBio channel on You Tube**

Kostas Kampourakis, Students' "teleological misconceptions" in evolution education: why the underlying design stance, not teleology per se, is the problem: [https://www.youtube.com/watch?v=dg\\_mz\\_OrDLc](https://www.youtube.com/watch?v=dg_mz_OrDLc)

Adela Molina, Matriz comprensiva da educação científica com uma abordagem intercultural

<https://www.youtube.com/watch?v=WWu8TR3KAoA>

<https://www.youtube.com/watch?v=leDjwz3NGt8>

Maël Montévil, How should we think scientifically about biological objects?

<https://www.youtube.com/watch?v=ZGsRqlpm7TI>

Celso Sánchez, A pesquisa em educação ambiental e a perspectiva comunitarista na pesquisa em educação

[https://www.youtube.com/watch?v=IIZP791n\\_9A](https://www.youtube.com/watch?v=IIZP791n_9A)

Luiza Machado e Ahyapunã Gwa Tawato, Povo Maraguá: Vida e Luta

<https://www.youtube.com/watch?v=Lwg7yzzl5z4>