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SLIME MOULD AND PHILOSOPHY

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Slime Mould and Philosophy

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Abstract: *Physarum polycephalum*, also known more colloquially as ‘the blob’, ‘acellular slime mould’, or just ‘slime mould’, is a unicellular multinucleate protist that has continued to attract the interest of biologists over the past century because of its complex life cycle, unique physiology, morphology, and behaviour. More recently, attention has shifted to *Physarum* as a model organism for investigating putative cognitive capacities such as decision making, learning, and memory in organisms without nervous systems. The aim of this Element is to illustrate how *Physarum* can be used as a valuable tool for approaching various topics in the philosophy of biology. *Physarum* and its behaviour not only pose a challenge to some of the received views of biological processes but also, I shall argue, provide an opportunity to clarify and appropriately sharpen the concepts underlying such received views.

Keywords: slime mould, philosophy of biology, niche construction, biological individuality, non-neuronal memory

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Contents

1	Introduction	1
2	Niche Construction and Complex Life Cycles	4
3	On the Biotic Status of Spores	25
4	Biological Individuals: A Puzzle Concerning Plasmodial Fragmenting and Fusing	42
5	Externalised Spatial Memory?	60
6	Conclusion	72
	References	75