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### Introduction to the special issue on: pluralism and the future of cognitive science

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## **Introduction to the special issue on: pluralism and the future of cognitive science**

Eric Dietrich, who usually does this job, has graciously relinquished it for this special issue devoted to a topic he has strong opinions about (illustrated by his own contribution to this issue). To motivate these opinions, he likes to compare the mind/brain to other very complex but familiar things. One of his favourites is the Amazon rainforest. To Dr Dietrich, saying you can have a unified theory of the mind/brain is akin to saying you can have a unified theory of the Amazon rainforest. It just doesn't seem to make much sense. The notion that there could be one unified theory for the mind/brain can seem overly simplistic and idealistic, denying the diverse range of measures and explanatory goals present in cognitive science. The opposite of this perspective, that there will be more (perhaps many more) than just one good theory for the mind/brain, is the perspective of pluralism. This is the topic of the special issue.

This issue by no means introduces pluralism to cognitive science. It already exists in several excellent papers by philosophers, psychologists, computer scientists, and other cognitive scientists, found in various journals around our field. Nevertheless, pluralism is not widely embraced. This special issue makes a strong case for it.

In the first article of this issue, I survey some general issues that a plural approach faces, and review prior recommendations for pluralism (or something like it) made by other cognitive scientists. Following this, two target articles offer endorsements of pluralism. The first, by Shimon Edelman, is an elegant argument for theoretical integration of computational and dynamical approaches. The second, by Dave Jilk, Christian Lebiere, Randy O'Reilly and John Anderson, is an important advance that a plural approach could provide, through integrating diverse theories in cognitive architecture building. A series of commentaries by Guy Van Orden, Eric Dietrich, Michael Spivey, Sarah Anderson and Art Markman, incisively support or attack the approach, and bring up valuable issues that a discussion of pluralism invokes. The issue ends with author replies.

This issue is explicitly forward-looking (hence its title). Extensive theoretical debate has characterised our diverse interdisciplinary endeavours in cognitive science since its inception. It has been relatively rare to consider the plural option: that theories should be systematically bound by certain domains of phenomena or measurement, and that conciliation between competing theories should at least be considered alongside the standard approach of urging one over another (or all others). Pluralism inevitably raises many issues, from fear of descent into relativism, to displacing the explanatory coherence sought by a (still promissory) unified approach. These issues come up in various places throughout the contributions to this special issue. Final answers are not supplied. But we hope that debate on such issues can be broadcasted more broadly in cognitive science in the future.

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