Grupo de Estudos em Estruturalismo — GEST

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1 Proposta

Estudarmos obras de autores(as) que são centrais para o **estruturalismo** na **ciência** e na **matemática**, por exemplo: Carnap, Worrall, Ladyman, Suppes, van Fraassen; e também Benacerraf, Shapiro, Landry, Linnebo, etc.

Além disso, estudaremos textos que tratam de questões adjacentes relevantes para o debate mais amplo sobre epistemologia e ontologia nesses temas, como: distinção teórico/observacional, realismo/anti-realismo, identidade, subdeterminação semântica, etc.

2 Estrutura e cronograma

A ideia é que os encontros sejam **virtuais**, a cada **14 dias**, e sem 'plano fidelidade' (ou seja, quem quiser participar apenas de uma sessão específica será muito bem vindo(a); procuraremos divulgar os textos da semana com certa antecedência). O cronograma ainda será determinado em uma primeira reunião.

Para participar, envie-me uma mensagem (joaovitorfr@gmail.com) com o tema **Grupo de Estudos**, e eu incluirei seu e-mail na lista onde repassarei as informações. Farei também o upload das informações e do material em minha página pessoal.

3 Proposta inicial de bibliografia

Sugestão de textos centrais, dispostos em uma possível ordem de leitura:

[Estruturalismo na ciência]

1. J. Worrall. Structural realism: The best of both worlds? *Dialectica*, 43:99–124, 1989. Reprinted in D. Papineau (Ed.). The Philosophy of Science (pp. 139–165). Oxford: Oxford University Press, 1989.
2. R. Carnap. Observation Language and Theoretical Language. In Jaakko Hintikka, editor, *Rudolf Carnap, logical empiricist: materials and perspectives*, pages 75–85. D. Reidel Pub. Co., 1975.
3. P. Suppes. *Representation and Invariance of Scientific Structures*. CSLI Publications (distributed by Chicago University Press), 2002. [Seleção]
4. W. Balzer, U. Moulines, and J. Sneed. *An Architectonic for Science*. Reidel, Dordrecht, 1987. [Seleção]

5. S. French and J. Ladyman. Remodelling Structural Realism: Quantum Physics and the Metaphysics of Structure. *Synthese*, 136:31–56, 2003.

6. S. Psillos. Is Structural Realism Possible? *Philosophy of Science*, 68(S3):13–24, 2001.

7. B. C. van Fraassen. *Scientific Representation: Paradoxes of Perspective*. Oxford University Press, Oxford, 2008. [Seleção]

8. H. Halvorson. What Scientific Theories Could Not Be. *Philosophy of Science*, 79(2):183–206, 2012.

[Estruturalismo na matemática]

1. P. Benacerraf. What Numbers Could not Be. *The Philosophical Review*, 74(1):47–73, 1965.

2. S. Shapiro. *Philosophy of Mathematics: Structure and Ontology*. Oxford University Press, 10 2000. [Seleção]

3. C. Parsons. *Mathematical Thought and its Objects*. Cambridge University Press, 2008. [Seleção]

4. G. Hellman. Structuralism Without Structures. *Philosophia Mathematica*, 4(2):100–123, 1996.

5. E. Landry. How to Be a Structuralist All the Way Down. *Synthese*, 179(3):435–454, 2011.

6. Ø. Linnebo. Structuralism and the Notion of Dependence. *Philosophical Quarterly*, 58(230):59–79, 2008.

7. T. Button and S. Walsh. Structure and Categoricity: Determinacy of Reference and Truth Value in the Philosophy of Mathematics. *Philosophia Mathematica*, 24(3):283–307, 2016.

8. G. Schiemer and J. Wigglesworth. The Structuralist Thesis Reconsidered. *British Journal for the Philosophy of Science*, 70(4):1201–1226, 2019.

Sugestão de outros textos que também são importantes:

1. R. Carnap. *The Logical Structure of the World*. University of California Press, Berkeley, 1967. [Seleção]

2. J. Stachel. The Relations between Things vs The Things between Relations: The Deeper Meaning of the Hole Argument. In D. Malament, editor, *Reading Natural Philosophy: Essays in the History and Philosophy of Science and Mathematics*, pages 231–266. Open Court, Illinois, 2002.

3. G. Maxwell. Structural Realism and the Meaning of Theoretical Terms. *Minnesota Studies in the Philosophy of Science*, 4:181–192, 1970.

4. Ladyman, J. and Ross, D. *Every Thing Must Go: Metaphysics Naturalized*. Oxford University Press, Oxford, 2007.

5. W. Demopoulos and M. Friedman. Critical notice: Bertrand Russell's The Analysis of Matter: Its historical context and contemporary interest. *Philosophy of Science*, 52:621–639, 1985.

6. R. Frigg and I. Votsis. Everything You Always Wanted to Know About Structural Realism But Were Afraid to Ask. *European Journal for Philosophy of Science*, 1:227–276, 2011.

7. J. Ketland. Empirical Adequacy and Ramsification. *British Journal for the Philosophy of Science*, 55:287–300, 2004.

8. L. Laudan. A Confutation of Convergent Realism. *Philosophy of Science*, 48(1):19–49, 1981.

9. S. Lutz. What's Right with a Syntactic Approach to Theories and Models? *Erkenntnis*, 8(79):1475–1492, 2014.

10. J. Melia and J. Saatsi. Ramseyfication and Theoretical Content. *British Journal for the Philosophy of Science*, 57:561–585, 2006.

11. S. Psillos. *Scientific Realism: How Science Tracks Truth.* Routledge, New York, 1999. [Seleção]

12. H. Putnam. *Reason, truth, and history.* Cambridge University Press, Cambridge, 1981. [Seleção]

13. E. Scheibe. The Origin of Scientific Realism: Boltzmann, Planck, Einstein. In E. Agazzi and M. Pauri, editors, *The Reality of the Unobservable: Observability, Unobservability and Their Impact on the Issue of Scientific Realism*, pages 31–44. Springer Netherlands, Dordrecht, 2000.

14. F. P. Ramsey. *The Foundations of Mathematics and Other Logical Essays (R. B. Braithwaite ed.).* Harcourt, Brace and company, New York, 1931. [Seleção]

15. W. Stegmüller. *The Structuralist View of Theories.* Springer, New York, 1979. [Seleção]

Bibliografia reunida

[1] W. Balzer, U. Moulines, and J. Sneed. *An Architectonic for Science.* Reidel, Dordrecht, 1987.

[2] P. Benacerraf. What Numbers Could not Be. *The Philosophical Review*, 74(1):47–73, 1965.

[3] T. Button and S. Walsh. Structure and Categoricity: Determinacy of Reference and Truth Value in the Philosophy of Mathematics. *Philosophia Mathematica*, 24(3):283–307, 2016.

[4] R. Carnap. *The Logical Structure of the World.* University of California Press, Berkeley, 1967.

[5] R. Carnap. Observation Language and Theoretical Language. In Jaakko Hintikka, editor, *Rudolf Carnap, logical empiricist: materials and perspectives*, pages 75–85. D. Reidel Pub. Co., 1975.

[6] W. Demopoulos and M. Friedman. Critical notice: Bertrand Russell's The Analysis of Matter: Its historical context and contemporary interest. *Philosophy of Science*, 52:621–639, 1985.

[7] S. French and J. Ladyman. Remodelling Structural Realism: Quantum Physics and the Metaphysics of Structure. *Synthese*, 136:31–56, 2003.

[8] R. Frigg and I. Votsis. Everything You Always Wanted to Know About Structural Realism But Were Afraid to Ask. *European Journal for Philosophy of Science*, 1:227–276, 2011.

[9] H. Halvorson. What Scientific Theories Could Not Be. *Philosophy of Science*, 79(2):183–206, 2012.

[10] G. Hellman. Structuralism Without Structures. *Philosophia Mathematica*, 4(2):100–123, 1996.

[11] J. Ketland. Empirical Adequacy and Ramsification. *British Journal for the Philosophy of Science*, 55:287–300, 2004.

[12] Ladyman, J. and Ross, D. *Every Thing Must Go: Metaphysics Naturalized*. Oxford University Press, Oxford, 2007.

[13] E. Landry. How to Be a Structuralist All the Way Down. *Synthese*, 179(3):435–454, 2011.

[14] L. Laudan. A Confutation of Convergent Realism. *Philosophy of Science*, 48(1):19–49, 1981.

[15] Ø. Linnebo. Structuralism and the Notion of Dependence. *Philosophical Quarterly*, 58(230):59–79, 2008.

[16] S. Lutz. What's Right with a Syntactic Approach to Theories and Models? *Erkenntnis*, 8(79):1475–1492, 2014.

[17] G. Maxwell. Structural Realism and the Meaning of Theoretical Terms. *Minnesota Studies in the Philosophy of Science*, 4:181–192, 1970.

[18] J. Melia and J. Saatsi. Ramseyfication and Theoretical Content. *British Journal for the Philosophy of Science*, 57:561–585, 2006.

[19] C. Parsons. *Mathematical Thought and its Objects*. Cambridge University Press, 2008.

[20] S. Psillos. *Scientific Realism: How Science Tracks Truth*. Routledge, New York, 1999.

[21] S. Psillos. Is Structural Realism Possible? *Philosophy of Science*, 68(S3):13–24, 2001.

[22] H. Putnam. *Reason, truth, and history.* Cambridge University Press, Cambridge, 1981.

[23] F. P. Ramsey. *The Foundations of Mathematics and Other Logical Essays (R. B. Braithwaite ed.).* Harcourt, Brace and company, New York, 1931.

[24] E. Scheibe. The Origin of Scientific Realism: Boltzmann, Planck, Einstein. In E. Agazzi and M. Pauri, editors, *The Reality of the Unobservable: Observability, Unobservability and Their Impact on the Issue of Scientific Realism*, pages 31–44. Springer Netherlands, Dordrecht, 2000.

[25] G. Schiemer and J. Wigglesworth. The Structuralist Thesis Reconsidered. *British Journal for the Philosophy of Science*, 70(4):1201–1226, 2019.

[26] S. Shapiro. *Philosophy of Mathematics: Structure and Ontology.* Oxford University Press, 10 2000.

[27] J. Stachel. The Relations between Things vs The Things between Relations: The Deeper Meaning of the Hole Argument. In D. Malament, editor, *Reading Natural Philosophy: Essays in the History and Philosophy of Science and Mathematics*, pages 231–266. Open Court, Illinois, 2002.

[28] W. Stegmüller. *The Structuralist View of Theories.* Springer, New York, 1979.

[29] P. Suppes. *Representation and Invariance of Scientific Structures.* CSLI Publications (distributed by Chicago University Press), 2002.

[30] B. C. van Fraassen. *Scientific Representation: Paradoxes of Perspective.* Oxford University Press, Oxford, 2008.

[31] J. Worrall. Structural realism: The best of both worlds? *Dialectica*, 43:99–124, 1989. Reprinted in D. Papineau (Ed.). The Philosophy of Science (pp. 139–165). Oxford: Oxford University Press, 1989.