# Publication Review
## Recent books and articles related to constructivist approaches

For more information, visit http://www.constructivistfoundations.info/bib/

► **Purpose:** Starting with the March issue of Constructivist Foundations, this section lists publications related to constructivist approaches – constructivism, second-order cybernetics, enactivism, non-dualism, biology of cognition, etc. – that have been published elsewhere since 2008, and which the reader of the journal might find interesting.
► **Content:** The entries are ordered alphabetically and clustered according to their respective primary disciplinary backgrounds. The list of publications can also be found in the journal's database at http://www.constructivistfoundations.info/bib/. The section will be regularly updated so that over time this will become a standard reference for constructivist literature.
► **How to contribute:** To have your constructivism-related publications listed in this section, send an email to ariegler@vub.ac.be. Please format your list in the same way as the entries in this section. Add information about the disciplinary background and, optionally, a short abstract of one or two sentences (which should describe the link to constructivist approaches), and a URL that points to the full-text version. If you would like to review one of the books listed, write to ariegler@vub.ac.be.

## Communication science

Averbeck-Lietz S. (2009) **Konstruktivismus in der deutschen und französischen Kommunikationswissenschaft.** In: Schulz P. J., Hartung U. & Keller S. (eds.) Identität und Vielfalt der Kommunikationswissenschaft. UVK, Konstanz: 65-87.
*"The author compares the development of constructivist approaches in two national communities of communication researches, France and Germany. Radical approches are nearly unvisible in the French community, here social constructivism relies mainly on action and speech theory."*

## Education Science

Larochelle M., Bednarz N. & Garrison J. (eds.) (2009) **Constructivism and education.** Cambridge University Press, New York (first edition 1998).
*"Drawing on perspectives from a range of different fields (ethics, mathematics education, philosophy, social psychology, science education, social studies), the essays in this book invite us to reposition ourselves in relation to the major currents that have influenced education in this century, namely pragmatism, genetic epistemology, and social interactionism. They call for new reflection on the validity of knowledge and types of knowledge, the compartmentalization of school subjects, the mediating role of teachers, and, above all, the ends of education."*

Davis B., Sumara D. & Luce-Kapler R. (2008) **Engaging minds: Changing teaching in complex times**. Second Edition. Routledge, New York.
*"This is the first book to interpret the new perspectives in learning theory (complexity theory, enactivism) into a coherent text for teacher education."*

Hackenberg A. J. & Tillema E. S. (2009) **Students' whole number multiplicative concepts: A critical constructive resource for fraction composition schemes**. Journal of Mathematical Behavior 28: 1–18.
*"This article reports on students' construction of fraction composition schemes. Students' whole number multiplicative concepts were found to be critical constructive resources for students' fraction composition schemes. Specifically, the interiorization of two levels of units, a particular multiplicative concept, was found to be necessary for the construction of a unit fraction composition scheme, while the interiorization of three levels of units was necessary for the construction of a general fraction composition scheme."*

Kahveci A. & Ay S. (2008) **Different approaches – common implications: Brain-based and constructivist learning from a paradigms and Integral Model perspective**. Journal of Turkish Science Education 5(3): 108–123.
*"The purpose of this study is to closely analyze brain-based and constructivist learning approaches, to reveal their relationship, and in light of paradigms and the integral model, to elaborate on the meaning and importance of this relationship for the field of education."*
http://www.tused.org/internet/tused/default13.asp

Le Moigne J.-L. (2008) **The intelligence of complexity**. SISIFO Educational Sciences Journal 4: 115-126.
*"Do the ethical aims of research and intervention in education and training not lead us to a 'new discourse on the study method of our time'?*
http://sisifo.fpce.ul.pt/?r=14&p=115

Taber K. S. (2009) **Progressing science education: Constructing the scientific research programme into the contingent nature of learning science**. Springer, Dordrecht.
*"The notion of scientific research programmes is used to understand the development, limitations and potential of constructivism. It is shown that constructivist work in science education fits into a coherent programme exploring the contingencies of learning science. The author goes further to address criticisms of constructivism; evaluate progress in the field; and suggest directions for future research. It is con-*

cluded that constructivism has provided the foundations for a progressive research programme that continues to guide enquiry into learning and teaching science."

## Interdisciplinary

Clancey W. J. (2008) **Scientific antecedents of situated cognition.** In: Robbins P. & Aydede M. (eds.) Cambridge handbook of situated cognition. Cambridge University Press, New York: 11-34.

"This review article argues that 'situated cognition' is a manifestation of a broadly shared perspective on the nature of causality in complex systems. Crosscutting disciplinary themes reveal that human cognitive processes are inherently social, interactive, personal, biological, and neurological, which is to say that a variety of systems develop and depend on one another in complex ways. The concepts, perspectives, and theoretical frameworks that influenced the situated cognition of the 1980s are still alive in potential for thoughtful reconsideration in tomorrow's cognitive research."
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http://homepage.mac.com/wjclancey/
%7EWJClancey/ClanceyCUUS366_02.pdf
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Sokolovskiy S. (2008) **Essentialism in the Russian constitutional law.** In: Laruelle M. (ed.) Russian nationalism: social and cultural contexts. New Literary Review, Moscow: 184-232 [in Russian].

"Essentialist and constructivist approaches in ethnicity theory are assessed in the case of the Russian constitutional law terminology (ethnic groups designations)."

## Mathematics

Van Bendegem J. P. & Van Kerkhove B. (2009) **Mathematical arguments in context.** Foundations of Science 14(1/2): 45–57.

"The paper gives currency to the humanist case for mathematics as an open-ended endeavor by revealing the irreducible rhetorical nature of mathematics: Mathematical arguments do not stand in isolation of other mathematical arguments. Rather, they form trains of formal and informal arguments, adding up to interconnected theorems, theories and eventually entire fields."

Van Kerkhove B. & Van Bendegem J. P. (2008) **Pi on earth, or mathematics in the real world.** Erkenntnis 68(3): 421–435.

"The authors argue in favor of the view that in mathematics, which increasingly relies on computers to warrant mathematical results, the hunt for absolute certainty will become more and more expensive."

## Neuroscience

Olivier G. & Labiale G. (2008) **Ocular pursuit and visual memory of moving shapes.** Neuropsychologia 46: 2831–2835.

"According to enactivism, the brain does not process information but rather simulate behaviors. In our experiment, rather than memorizing moving visual targets per se test subjects more globally memorized a situation during which they acted upon the object, i.e., themselves visually tracking the moving target."

Olivier G. & Velay J. L (2009)) **Visual objects can potentiate a grasping neural simulation which interferes with manual response execution.** Acta Psychologica 130: 147-152.

"In our experiment investigating the 'visuomotor priming effect' we show that this effect is due to the interference created by simultaneous unfolding of two cerebral sensorimotor events: manual response motor control and the mental simulation of visual stimulus reach and grasp movement. The data suggest that the main function of the brain is to simulate behaviors."

## Philosophy

Le Moigne J.-L. (2008) **Les épistémologies constructivistes.** PUF, Paris.

"This classic French text introduces the epistemology of constructivism and complexity which has been shaped throughout the 20th century. Among other topics, it investigates how 'valid knowledge' can be legitimated in the scientific context."

Quale A. (2008) **The game of prediction and retrodiction: A radical-constructivist perspective on the notion of time in physics.** Journal of Educational Thought 42(2): 105–125.

"Based on the discussion of prediction and retrodiction – an ordering scheme for experiential world – in the context of classical and quantum physics the conclusion is made that scientific knowledge, of both the past and the future, is (and must be) constructed in the present, and that there can be no conception of 'true knowledge,' either of the future or of the past."

Raskin J. D. (2008) **The evolution of constructivism.** Journal of Constructivist Psychology 21: 1–24.

"Donald T. Campbell's evolutionary epistemology is used as a framework for examining five issues facing constructivism: (1) realism, (2) cognitivism, (3) relativism, (4) dualism, and (5) social constructionism. It is suggested that a nuanced application of evolutionary epistemology facilitates fresh ways for constructivists to accommodate these issues."
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http://www2.newpaltz.edu/~raskinj/
scholarship/reprints/
Evol_of_Constructivism.pdf
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## Psychotherapy

Raskin J. D., Harasym M. T., Mercuri M. A., & Widrick R. M. (2008) **Construing stigmatized identities: A golden section study.** Psychology and Psychotherapy: Theory, Research and Practice 81: 285-296.

"Golden section studies based in Kelly's personal constructivism

Raskin J. D. (2009) **Striking the golden section in stigma research.**

"Golden section studies based in Kelly's personal constructivism have a long history within personal construct psychology."
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http://www.charaktery.eu/
the_psychologist/1356/Striking-the-
golden-section-in-stigma-research/
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Raskin J. D. (2009) **Living aggressively.** In: Butler R. (ed.) Reflections in personal in construct theory. John Wiley: Chichester UK: 161–176.

"This paper examines Kelly's notion of aggression."