



*Photo: Ioanna Berthoud Papandropoulou*

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### Le corps et l'esprit

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**Piaget was right : Thinking and learning close to the sensory-motor surface creates knowledge that transcends the here and now**

par Linda Smith, Professeur de psychologie, Université de Indiana



Dr. Smith is a Distinguished Professor and the Chancellor's Professor of Psychological and Brain Sciences and Cognitive Science at Indiana University - Bloomington. She received her B.S. degree in 1973 from the University of Wisconsin - Madison and her Ph.D. in psychology from the University of Pennsylvania in 1977. She joined the faculty at Indiana University in 1977. Her research is directed to understanding developmental processes especially as it applies to early cognitive development and to the interaction of perception, action and language in that developmental process. She has published over 100 research articles and is co-author with Esther Thelen of *A Dynamical Systems Approach to the Development of Cognition and Action*. Her research is supported by grants from the National Institutes of Child Health and Development and the National Institute of Mental Health. You may find out more about her research and laboratory at [www.iub.edu/~cogdev](http://www.iub.edu/~cogdev)

### Résumé de la conférence

Cognition, behavior, and development all happen in real time, through sensory-motor interactions with a physical world. In his classic theory of the emergence of cognition, Piaget proposed that infant cognition was grounded in these sensory-motor interactions and, indeed, limited by its very sensory-motor nature. One phenomenon that Piaget used to illustrate these ideas was the object concept as manifested in a task that has come to be known as the A not-B task. Infant's perseverative searches for hidden objects in that task suggested object representations tightly tied to the here and now of perceiving and acting.



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*[Résumé de la conférence de L. Smith, suite]*

In this talk, I will present evidence that Piaget was right; infant performance in the classic tasks used to measure the object concept are deeply tied to sensory-motor processes. I will then argue and present evidence that this seeming example of the sensory-motor nature of immature is revealing about a fundamental aspect of all of human cognition and its tie to the physical world through the sensory-motor system. In making this case, I will present an overview of the dynamic field model, new evidence on infant performance in the A-not-B task, and an extension of that model to and new evidence on children's binding of names to objects.

### **Lecture proposée**

Smith, L. B., Thelen, E. (2003) Development as a dynamic system.  
TRENDS in Cognitive Science, 7, 343-348.

Sheya, A. & Smith, L. B. (submitted) Development through Sensory-Motor  
Coordinations