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# 第 15 回注意研究会

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開催日時：平成23年5月18日（水曜日） 午後4時半より  
開催場所：京都大学 吉田南総合館（東南棟）1階 101演習室  
（京都大学吉田南キャンパス内、吉田南総合館1階東南角）

話題提供： **Professor Alan C. Kamil**

**Department of Psychology, University of Nebraska-Lincoln, USA**  
(京都大学大学院文学研究科 Visiting Professor)

講演タイトル：

## Selective attention and its effects on prey

講演概要：

We have combined sophisticated operant procedures, evolutionary concepts and genetic algorithms to study effects of the perceptual characteristics of predators on the evolution of their prey. We hypothesized that selective attention would bias predators towards the detection of prey similar to those recently encountered. This would favor survival of novel prey types, enhancing the evolution of variability in prey appearance.

In a series of experiments we demonstrated: (1) selective attention is an important component of visual search by predators (“search image”); (2) detection of less common prey was reduced while common prey were detected at high levels (“apostatic selection”); and, (3) selective attention by a predator does, in fact, lead to the evolution of increased variability in prey appearance (polymorphism). This research highlights one way the cognitive abilities of animals play an important role in biological systems.

参考文献：

- Pietrewicz, A. T., & Kamil, A. C. 1979. Search image formation in the blue jay (*Cyanocitta cristata*). *Science*. 204: 1332-1333.  
Bond, A. B., & Kamil, A. C. 1998. Apostatic selection by blue jays produces balanced polymorphism in virtual prey. *Nature*. 395: 594-596.  
Bond, A. B., & Kamil, A. C. 1999. Searching Image in Blue Jays: Facilitation and Interference in Sequential Priming. *Animal Learning and Behavior*. 27:461-471.  
Bond, A. B., & Kamil, A. C. 2002. Visual Predators Select for Crypticity and Polymorphism in Virtual Prey. *Nature*. 415:609-614.

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