

Synopsis of the Ants' Acquisition of Their Cognitive Abilities

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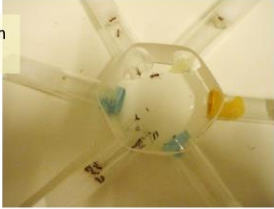

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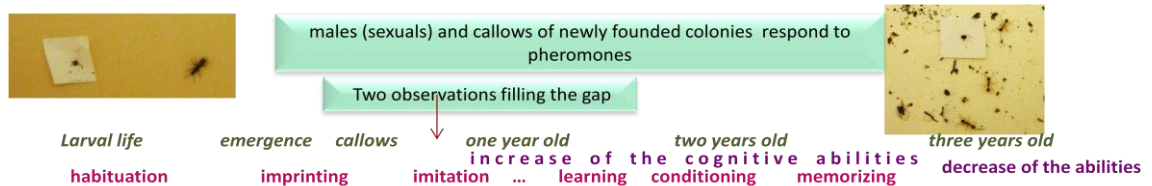
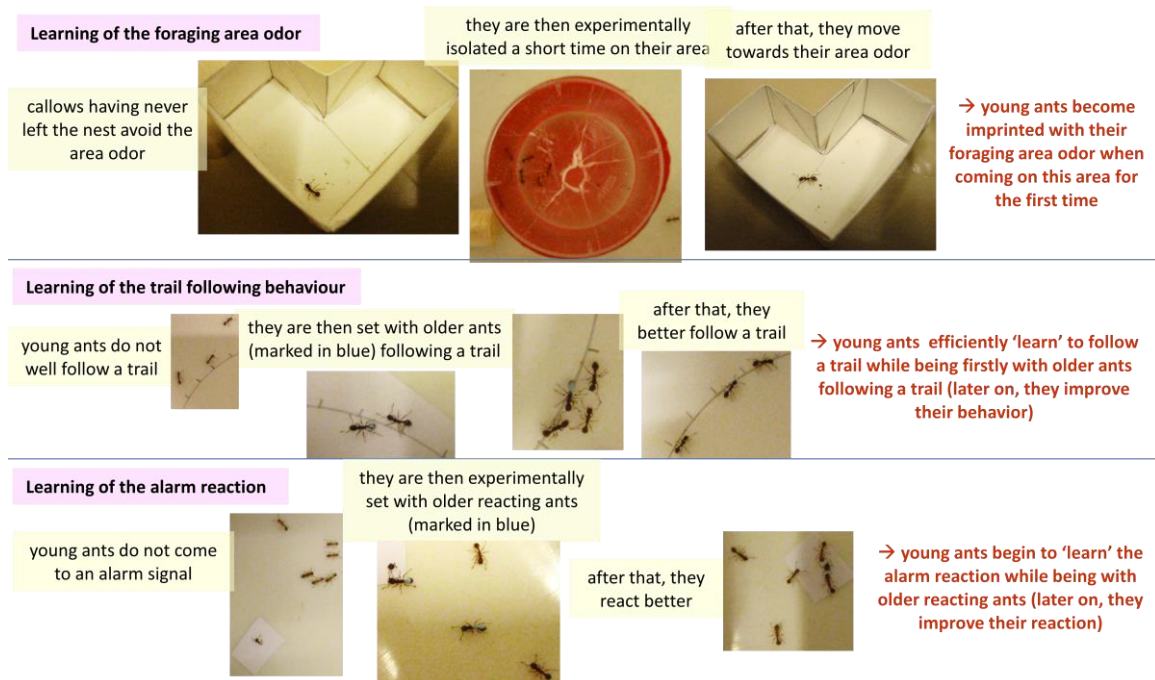
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Abstract

The paper presents synopsis of the results of [1].

Nestmates (= Kin) recognition			
emerged alone	callow ants or	emerged in their nest	callow ants
		emerged alone, aside a washed piece of thyme, tested with such a piece	emerged in their nest, tested with a washed worker corpse
			
at their emergence, move towards the odor of their nestmates → they have thus 'learned' that odor, at least partly, during their larval life		each time, move to what they had perceived at their emergence → thus, when emerging, callow ants become imprinted with visual aspects of their nestmates	
How learn the larva ?			
Callowants having lived in nests and among nestmates smelling thyme, during their larval life, respond to thyme		Callowants having received food smelling thyme, during their larval life, respond to thyme	
		→ Larvae 'learn' odors by habituation, and not conditioning	
Learning of the nest entrance characteristics			
nest entrances marked with thyme, and blue color	as long as they have never gone out of the nest, young ants chose the 'thyme' entrance	after having left and re-entered the nest a few times, young ants chose the 'blue' entrance of the apparatus	
			→ so, they progressively learn, by conditioning, their entrances' visual aspect while re-entering their nest
		→ young ants become imprinted with their entrances' odor when firstly approaching it	



References

- [1] M.-C. Cammaerts and R. Cammaerts, The Acquisition of Cognitive Abilities by Ants: A Study on Three *Myrmica* Species (Hymenoptera, Formicidae), *Advanced Studies in Biology*, Vol. 7, 2015, no. 7, 335-348. <http://dx.doi.org/10.12988/asb.2015.5424>

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