Slithering vs walking: do infants look longer at threat-relevant biological motion?
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SLITHERING VS. WALKING: DO INFANTS LOOK LONGER AT THREAT-RELEVANT BIOLOGICAL MOTION?

BACKGROUND
Snake represents one of the greatest threats for primates and aversion for snake is largely spread in adult humans (LoBue & DeLoache, 2011; Fredrikson et al., 1996). If there is no evidence of an innate fear of snake in humans, experimental results suggest an early attentional bias towards snake that may facilitate its rapid detection (Bertels et al., 2017).

Snake, having no legs, have an unique way to move. Slithering may be crucial in snake detection (LoBue & DeLoache, 2009). It is known that, biological motion attracts the visual attention of neonates (Simion et al., 2008) and infants (Bardi et al., 2011). Will an unusual biological motion attract more their attention?

In this study, we investigated whether slithering could be the critical factor of an early visual attentional bias towards snake. We used Point-Light Displays (PLDs) in order to isolate motion from other snake’s attributes.

HYPOTHESIS
If infants present an early attentional bias towards slithering, they should look longer at slithering PLD compared with walking PLD of human and non-human bipedes.

Alternatively, if no specific attentional bias towards slithering exists, we will find a visual preference for bipedic PLDs (human and non-human).

Attentional bias towards snake could develop with the infant’s ability of walking (around 12-month-olds). In this case, we expect that visual preference towards slithering PLD emerges from 12-months of age.

Age Effect
We examined whether infants will look longer at slithering as participants grows older.

**Snake vs. Human**

\[ F(3.60) = 1.14, n.s., \eta^2_p = 0.05 \]

No age difference was found in both conditions.

**Snake vs. Chicken**

\[ F(3.40) = 1.80, n.s., \eta^2_p = 0.12 \]

CONCLUSION
No early attentional bias toward snake biological motion was found. Our results show that infants look longer at bipedic biological motion (human and non-human), in line with previous studies (Simion et al., 2008; Bardi et al., 2011).

Therefore, slithering seems insufficient to induce a visual attraction for snake in infants.

Moreover, we did not observe a developmental difference. Starting walking do not change the attentional bias.

It is possible, however, that the slithering PLD was not perceived as a biological motion. Future research should investigate whether the slithering PLD is perceived as a biological motion by comparing it with its scrambled version.

We found an unexpected visual preference for walking chicken when paired with walking human. We are currently investigating this result.