

ABSTRACT

The study of personality has received much attention in recent years, because it might explain why individuals are constrained in their ability to respond to changes in their environment. Recent publications have shown that behavioural flexibility and personality might be linked; however, their interaction is not well understood and could be elucidated by studying a socially flexible species, such as the African striped mouse (*Rhabdomys pumilio*). Striped mice are an ideal species to address this topic because individuals of both sexes can follow different alternative reproductive tactics, which are reversible.

Firstly, I investigated personality in striped mice by examining whether individuals showed consistency in their behavioural traits across time and context. Secondly, I addressed the interplay between personality, behavioural flexibility and social flexibility, by performing personality tests before and after individuals adopted a new reproductive tactic. Thirdly, I examined whether personality and behavioural syndromes measured under standardised laboratory conditions correlated with personality measures obtained from the striped mice in nature. Finally, I assessed whether the open field test and the startle test, two assays typically used to measure boldness, were correlated.

The results of my research showed that personalities are well developed and highly stable over an individual's entire lifespan even in this very flexible species. I found that some personality traits measured remained stable even after individuals adopted new tactics, and comparisons between individuals before and after tactic change indicated that personality traits were unable to successfully predict which tactic an individual would choose in the future. This is important as it shows that personality does not constrain behavioural flexibility. Further, I demonstrated that sexual selection can have a strong influence on personality, with males and females differing quite remarkably in their personality traits. By using a carefully validated methodology, my research additionally provides validation and support that personality measures obtained from standardised laboratory conditions are representative of individuals' natural behaviours. Interestingly, I found that two separate latent variables (one for the field and one for the lab) underpinned all the behaviour measured indicating that there is a context-specific behavioural syndrome in this species. In sum, my study demonstrated that lifelong stable personality traits are well established in a socially flexible mammal.