

Peggy Mason - selected references

- 1 Ben-Ami, B., I, Rodgers, D. A., Bernardez Sarria, M. S., Decety, J., & Mason, P. (2014). Pro-social behavior in rats is modulated by social experience. *Elife.*, 3, e01385.

Notes: In mammals, helping is preferentially provided to members of one's own group. Yet, it remains unclear how social experience shapes pro-social motivation. We found that rats helped trapped strangers by releasing them from a restrainer, just as they did cagemates. However, rats did not help strangers of a different strain, unless previously housed with the trapped rat. Moreover, pair-housing with one rat of a different strain prompted rats to help strangers of that strain, evidence that rats expand pro-social motivation from one individual to phenotypically similar others. To test if genetic relatedness alone can motivate helping, rats were fostered from birth with another strain and were not exposed to their own strain. As adults, fostered rats helped strangers of the fostering strain but not rats of their own strain. Thus, strain familiarity, even to one's own strain, is required for the expression of pro-social behavior.

- 2 Ben Ami, B., I, Decety, J., & Mason, P. (2011). Empathy and pro-social behavior in rats. *Science*, 334, 1427-1430.

Notes: Whereas human pro-social behavior is often driven by empathic concern for another, it is unclear whether nonprimate mammals experience a similar motivational state. To test for empathically motivated pro-social behavior in rodents, we placed a free rat in an arena with a cagemate trapped in a restrainer. After several sessions, the free rat learned to intentionally and quickly open the restrainer and free the cagemate. Rats did not open empty or object-containing restrainers. They freed cagemates even when social contact was prevented. When liberating a cagemate was pitted against chocolate contained within a second restrainer, rats opened both restrainers and typically shared the chocolate. Thus, rats behave pro-socially in response to a conspecific's distress, providing strong evidence for biological roots of empathically motivated helping behavior

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