People willing to pay painful price for friendship

**31 March 2011**

**WORDS – 497**

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People will suffer more pain for their close friends than for their acquaintances and sometimes more than they would for themselves, an Oxford University scientist has found.

Dr Freya Harrison of Oxford University’s Department of Zoology asked 19 members of a research group at the University to squat against a wall with knees at right angles – a ski training exercise which becomes increasingly painful with time.

Individuals performed the exercise five times, once for themselves and once for four different colleagues, to whom they claimed varying strengths of social tie.

They were paid 1p per second squatted and were asked to perform the exercise for as long as they wanted. When close friends won the money, people squatted for much longer than when they squatted for acquaintances – and often squatted longer (on average around 1.5 times longer) for their closest friends than when they were paid the money themselves.

The study by Dr Harrison and colleagues at the University of Bath, published in this week’s PLoS ONE, is thought to be one of the first to measure co-operation between friends and colleagues rather than between strangers.

The researchers believe that, in humans, social ties increase co-operation, a finding that echoes similar studies on other species.

For example: the guppy, a popular aquarium fish, works most closely on predator look-out duties with other guppies with which it has social ties. Similarly, spider monkeys more readily share food with those they groom.

Dr Harrison does not believe that the scientific expertise of many of the 19-member research group was a factor in her findings.

‘People will always try to second guess an experiment but because all we asked was whether people would suffer pain for others, I don’t think the nature of our group skewed the results.

She believes the outcome from a more tightly structured group might be different however: ‘If you were low down the pecking order in the police, say, you might expect the fact that someone had power over you to cancel out friendships.

And in the armed forces you would imagine a very strong alignment of interests.

The Oxford University study reports analogous results to research published in 2007 that found that participants squatted longer to earn money for closer relatives.

Social closeness therefore seemed to have exactly the same effect on willingness to cooperate with others as biological relatedness.

However, in the earlier study people seemed unwilling to squat longer for relatives than for themselves.

Maybe that’s because friends are a lot more important in determining social benefits than relatives,’ said Dr Harrison.

‘Alternatively, it could be that the role of a relative doesn’t need working on because family members have genes in common already.

Perhaps we can rely on help from our parents or siblings because it's almost always in our best interest to help someone who shares our genes.

The old adage that one can choose one’s friends, but not one’s relatives, may well have a bearing on social investment rules.

**Notes for editors**

* A report of the research, entitled ‘Strength of Social Tie Predicts Cooperative Investment in a Human Social Network’ is published in PLoS ONE .
* The research was supported by the EC FP6 via the consortium ‘Integrating Cooperation Research Across Europe’ (NEST 043318)[http://incore.ich.ucl.ac.uk/](http://incore.ich.ucl.ac.uk/%20) and the University of Oxford