The Dilemma of the 'Trust' Game

The investigation of trust dynamics and it's neurology was undertaken through the playing of a co-operative dilemma called the 'trust' game. In these experiments volunteers were sorted into anonymous pairs, and labelled randomly as decision maker 1 (DM1) and decision maker 2 (DM2).

Both were paid money as compensation for their participation.

- 10 USD for showing up, and agreeing to have blood samples taken
- Up to 40 USD dependent on their performance

The rules of the game outlined that participants were not to contact one another before, during or after the game and all interactions were done digitally with the participants being physically separated from each other. The game is generated by a pre-programed software program which both DM1 and DM2 interact with from their own screens. Both 'players' were given identical instructions.

The Game:

- DM1 is prompted to send any whole number (integer) amount including zero of their money to
- DM2.
- Both know that whatever amount is sent by DM1 is tripled in DM2's account.
- The program informs DM2 how much money they were sent by DM1, and prompts them to send some money (integer amount including zero) back to DM1.
- Transfers from DM2 to DM1 are not enhanced and it is a dollar for dollar deposit from DM2 to DM1's account.

The research is designed to quantify trust (DM1 to DM2) and trustworthiness (DM2 to DM1). Professor Zak, took blood samples prior to the decisions about how much money to send, and he measured the levels of the hormone oxytocin (known as the 'love' chemical).

The research showed that the receipt of money denoting trust, but not money in general, causes the brain to synthesise oxytocin in the pre-frontal lobe (the executive brain). And that the amount of oxytocin produced was a predictor of trustworthiness (the amount returned to DM1 – who had initiated the trust).

The researchers deduced that the intention behind someone's actions when it comes to trust.

Furthermore, they created a direct causal linkage between the level of the hormone and the level of trust by:

- Infusing synthetic oxytocin (through the nose) into participants brains and compared the outcomes to
- Those who were infused with a placebo

They found that those who received oxytocin trusted the other person with 17% more of their money, than did those who received the placebo, and were twice as likely to show ultimate trust by sending all their money to the other person.

Oxytocin, reduces the wariness humans are wired for around strangers. MRI scans real time confirm this. Thus the first part of the puzzle was solved.

Subsequent research shows that Oxytocin influences trust by increasing our emotional connection to others. That is, it enhances our empathy, and when this happens we are more motivated to help others, even strangers.

BUT :

There are a number of neurological processes and chemicals that inhibit the production of Oxytocin. Thus not every positive encounter will result in reciprocated behaviour. We will explore this next.