STUDENT WRITER COMPETITION JUDGES' REPORT

This was the seventh annual Student Writer Competition, sponsored by *The Psychologist*, the Research Board and the Professional Practice Board. We received 41 entries; many thanks to all those who entered, it was a close competition this year, and a lot of thought had gone into making the articles engaging and informative.

Articles were rated blind on quality of writing; clarity of argument; and accessibility, relevance and interest for *The Psychologist's* audience. We hope you agree that the chosen winners score highly on all criteria. We thought that the winner in the undergraduate category grabbed the reader's interest and kept it throughout, with an interesting update on some older theory. The winner in the postgraduate category tackled a subject we can all identify with from a variety of psychological angles, throwing up some fascinating and unexpected links.

We are pleased to publish the two articles here, with our congratulations. The winners get an expenses-paid trip to the Society's London Lectures or Annual Conference. We look forward to all your entries next year.

Jon Sutton (Editor, *The Psychologist*)
Mumtaz Ahmed Khan (Professional Practice Board)
Paul Redford (Chair, Psychologist Policy Committee)

Reason and the 'yuck' factor

A man goes to the supermarket once a week and buys a dead chicken. But before cooking the chicken, he has sexual intercourse with it. Then he cooks it and eats it. (Haidt, 1993)

Both reason and emotion inform moral judgements, but which is in the driving seat? **SARAH LEE**, *winner in the undergraduate category, investigates.*

WHAT is your reaction to this scenario? Is this act right or wrong? Perhaps you are revolted or disgusted, and therefore think it is wrong. Or maybe, like most moral philosophers, you make a more reasoned judgement and argue that, regardless of our emotional response, this act is not immoral, principally because no harm has occurred to any sentient being. If you thought it was wrong, does this sort of reasoning change your mind? Or do you, like most people, still have an uneasy feeling in your stomach? You can't explain why it's wrong – it just 'feels' wrong. Are you what psychologist Jonathan Haidt (2001) would call 'morally dumbfounded'?

Most current theories of moral development are based on a rationalist cognitive approach, which emphasises the role of reason in making moral decisions. It seems, however, from our reactions to the scenario above, that both gut feelings – emotions – and deliberative reasoning play a part in the formation of moral judgements. Contrary to traditional thinking, emotions seem to play the larger role. New hypotheses and research in moral psychology has ignited a fresh debate about whether reason or emotion causes everyday moral judgements – prompting a revision of traditional cognitive theories of moral development.

Debates about moral decision-making are not new. In the 18th century,

philosopher David Hume noted: 'There has been a controversy started of late, much better worth examination, concerning the general foundation of Morals; whether they be derived from Reason, or from Sentiment' (Hume, 1777/1902). Hume argued that there are no moral truths, just preferences and values, and that moral judgements are rooted in the emotions. Reason enables us to calculate the most efficient means to an end, but 'Reason is, and ought only to be the slave of the passions' (Hume, 1739/1896).

This approach, known as emotivism, put emotions firmly in the driving seat of moral decision-making. However, it was the cognitive revolution, nearly 200 years later, that had the biggest impact on moral psychology. Current theories about moral development derive from Lawrence Kohlberg, who built on the work of Jean Piaget. Kohlberg believed that deliberative reasoning was the single driving force behind moral decision-making and set out to correct what he saw as 'irrational emotive theories' (Kohlberg, 1971). Kohlberg kicked emotion out of the driving seat and banished it to the boot.

Kohlberg claims that moral decisions are not merely subjective preferences but reflect moral truths discovered through argument and deduction. Moral appraisals occur through reason alone – emotions do not cause moral judgements. Like Piaget, Kohlberg believes that moral development depends on cognitive development, although the latter does not guarantee the former. As we mature, we develop a better understanding of the social and physical world, and are able to make better inferences based on this new knowledge. For Kohlberg, the cognitive mechanisms that guide moral judgements are conscious and language-based, and can therefore be measured by analysing language. Using this technique Kohlberg devised a stage theory of moral development, in which the stages are distinct, invariant and universal, and occur at certain ages. Crudely put, as our cognitive abilities develop so too do our reasoning abilities, allowing us to move up through the stages to reach a new level of moral maturity (Bee, 1992).

Although Kohlberg's model has been criticised, it remains the predominant theory in moral psychology. But is Kohlberg right? Is reason in the driving seat when making moral judgements? Jonathan Haidt would argue no. Controversially, Haidt advocates a return to the emotivist's claim that emotions are the gatekeeper to the moral world. Instead of a solely rationalist approach, which is too narrow and overemphasises the role of deliberative reasoning, Haidt asks us to adopt a social intuitionist model, which integrates reason, emotion, intuition and social factors.

The scenario at the top of this article is one of many designed by Haidt and his colleagues. The stories, which often involve taboo violation, are carefully constructed to avoid any representation of harm. However, most participants still believed that the actions were wrong, even when they could not provide reasons; they would 'stutter, laugh, and express surprise at their inability to find supporting reasons' (Haidt, 2001). Haidt found that the participants' emotional reactions were better predictors of their moral judgements than the reasons they cited, and suggests that these gut feelings are in fact evolved moral intuitions. Haidt argues that our moral sense does not develop independently when we learn to speak and reason, but evolved like, and alongside, capacities such as language. Research on primates by Frans De Waal (1991) supports this notion: chimpanzees demonstrate a moral sense without the use of language. Haidt believes that it is this innate sense that allows us to reach a moral judgement 'without any conscious awareness of having gone through steps of searching, weighing evidence, or inferring a conclusion'. For him, 'moral reasoning is rarely the direct cause of moral judgement'. Instead, he argues that moral intuitions, shaped by evolution, culture and social interactions, are what influence our everyday moral decisions. Moral judgements, in most cases, are an 'ex post facto rationalization of [a] gut feeling'; the gut feeling comes first and rationalisation second. A social intuitionist model offers scope for reason as a causal factor in moral decision-making, but states that this is an exception and not the rule; the fact that moral action co-varies with moral emotion more that with moral reasoning supports this point.

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Haidt advocates a dual-process model that comprises a quick unconscious process (intuition) and a slow conscious process (reasoning), and argues that it is the quick unconscious arm that guides our everyday moral judgements. Research from other areas of psychology suggests that a lot of behaviours occur automatically and lends support for a dual-process model. Haidt cites evidence from research into attitude formation, where it has been found that people form opinions about other people instantaneously without 'a process of deliberation and reflection'. Moral judgements, Haidt proposes, are produced in a similar way, and heuristics – simple rules that allow use to make decisions using minimum cognitive effort – play an important role in this process. Cognitive resources are limited and deliberative reasoning is slow. Simple heuristics, such as 'I agree with people I like', offer a fast and effective solution for making moral judgements. When heuristics are employed, deliberative reasoning is only needed when conflicts between intuitions arise or when we are questioned.

A recent study by Joshua Greene and colleagues (2001) supports a dual-processing model. Greene used neuro-imaging techniques to analyse the brain while his participants were solving ethical dilemmas. In one dilemma, a runaway train is heading towards the left fork of a switch track and will kill five people unless you throw a switch to divert the train. This action will, however, kill one person standing on the right fork. In another scenario a locomotive is about to kill five people and will only be stopped if you push a man in front of the train to his death. What would you do in these situations? Greene found that most participants decided to throw the switch but were unable to push the man, even though the results were logically equivalent; one person dies. Interestingly, neuro-imaging showed that small areas in the brain, associated with grief and fear, were active when considering pushing the man, but were not active during consideration of the other scenario. Participants who decided to push the man also displayed signs of inner struggle; a brain region involved in emotional processing was over-active and they took longer to reach a conclusion.

Haidt's social intuitionist model has received support from psychologists such as Steven Pinker (2002) and Paul Bloom (2003, 2004). However, there is contention about the central claim that 'moral

reasoning is rarely the direct cause of moral judgement' (Haidt, 2001). Bloom argues that Haidt's dual-process model is consistent with modern rationalist theories, and accepts that 'people possess intuitively given…first principles', but states that they 'serve as a starting point for deliberative reasoning' (Bloom, 2003). Bloom points out that cognitive appraisals can affect our automatic response – a jealous partner might respond with intense jealousy on finding a stranger's phone number in their spouse's pocket, a less paranoid partner may just be curious. We are also able to control situations that may elicit intuitional responses: we can avert our eyes when we walk pass a homeless person for instance. Bloom believes that moral intuitions can be (and are) informed by conscious deliberation, and this deliberation plays a central role in moral judgements. For Bloom (2004) this is the key to understanding moral development, as it is only through deliberative reasoning that we are able expand our moral circle.

■ *Sarah Lee is an undergraduate with the Open University. E-mail: Sarah.Lee@pebbledbeach.com.*

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The unbearable lightness of procrastination

CEDRIC GINESTET *with the winning entry in the postgraduate category.*

EVERYBODY procrastinates. You suddenly become absorbed in tidying your desk when the assignment is due the next day. Or you just remember you should walk the dog when you promised yourself to clean the house.

Legions of managers have been enrolling their employees on time management training courses, hoping that they could be cured from this pervading affliction. Yet despite a proliferation of self-help books on the subject, procrastination – the 'thief of time'– continues to defy logic, reason and even free will.

This tendency to delay action may be so ingrained in our psychological fabric that suppressing it would amount to suppressing parts of our humanity. Perhaps this would explain why procrastination is so ubiquitous. About 25 per cent of the US population sees it as a 'significant problem' and more than half of the people surveyed confess procrastinating from time to time (McCown *et al.*, 1989). Yet

procrastination remains conspicuously absent from our psychology dictionaries, though this is not for a lack of theories. Many schools of thought quarrel over finding the last word on the origins of the phenomenon.

Psychodynamic and behaviourist theories

Staunch Freudians see procrastination as a way of combating thanatos, the unconscious drive towards death. Procrastinators transcend death by ignoring clocks, calendars and other timekeeping devices, for they are too reminiscent of the passing of time (Blatt & Quinlan, 1967). Other psychodynamic theories relate childrearing practices with adult procrastinating behaviour. Research shows that a coercive upbringing predicts adult procrastination (Lay, 1987). The tyranny of the clock would here constitute a surrogate authority figure, against whom procrastinators vent their anger.

Behaviourists, by contrast, account for procrastination with operant conditioning. Reinforcement theory strengthens the link between this behaviour and positive outcomes. Student procrastinators seem indeed to remember more instances of successful last-minute works than non-procrastinators (Ferrari *et al*., 1995). Alternatively, negative reinforcement views procrastination as intrinsically reinforcing because it allows the elimination of unpleasant stimuli. Indeed, the more unpleasant the task, the higher the odds of a person procrastinating (Solomon & Rothblum, 1984).

In academia, the main problem is that tasks and rewards are often temporally distant from each other. This is directly in breach of one of the founding tenets of behaviourism: contingency between task and reinforcement. The discounting principle builds upon this discrepancy and hypothesises that the further away the reward, the more likely people are to procrastinate (Schouwenburg, 1995). This hypothesis has been verified in a longitudinal survey of academic procrastination, showing a clear decrease in postponing behaviour when approaching assignment deadlines (Moon & Illingworth, 2005).

Not all research sees procrastination as maladaptive, however. The area of cognitive psychology has been particularly fertile with positively laden explanations of procrastination.

An elixir of creativity?

Problem-solving researchers speculate that procrastination provides the incubating period necessary for subconscious processing. One may register a problem and decide to deal with it later, but this does not mean that the mind is not working. During these periods of fruitful gestation people are not so much searching for something new, rather they are forgetting what they have on their mind. Individuals often face periods of blocking or fixation when trying to find a solution. It is only after focusing on another activity that they eventually come up with a creative solution (Smith *et al*., 1995). Delaying the completion of a task could therefore be instrumental in providing individuals with the incubation period necessary to give birth to a more creative solution (van Eerde, 2003a).

Other cognitive psychologists envisage procrastination as a coping strategy. People procrastinate to avoid confronting their lack of ability. The self-discrepancy theory argues that procrastinators are not able to cope with the difference between reality and their ideal expectations. These discrepancies fuel a need to distance themselves from any confrontation with reality, which leads to avoidance behaviour. Such a self-handicapping attitude conveniently shifts responsibility away from internal causes, such as lack of ability, to external circumstances, such as lack of time. Hence this method permits avoidance of any ego-dystonic or self-critical cognitions (Ferrari, 1991).

'Procrastination always goes in the same direction, away from the tedious and towards the pleasant'

Procrastination is also conceptualised as a motivation-monitoring strategy. This is the 'I-work-better-under-pressure' syndrome. Research showed that people do not procrastinate indiscriminately; boring tasks are more likely than exciting ones to be put off to the next day (Blunt & Pychyl, 2000). Students rarely postpone watching TV to avidly indulge in doing their assignments. Procrastination always goes in the same direction, away from the tedious and towards the pleasant and the effortless.

Once under the pressure of an approaching deadline, however, what was initially boring becomes suddenly infused with a sense of urgency, which generates an excitement similar to aggressive behaviour (Ferrari, 2001). This in turn affects the sympathetic autonomous nervous system and augments the secretion of hormonal catecholamines such as adrenalin (Haller *et al*., 1998). Procrastinators may subconsciously wait for such fight/flight responses to be activated, in order to increase their level of arousal. In this view, procrastination becomes a self-regulating mechanism, which maximises one's utilisation of cognitive resources.

From procrastination to procreation

The personality connoisseur will surely make a parallel between such motivation-monitoring strategies and extraversion. Eysenck demonstrated that extraverts are cortically under-aroused and are continuously seeking external stimulation in order to attain an optimal level of arousal (Eysenck, 1953). One would therefore predict higher degrees of extraversion among procrastinators.

As expected extraverts procrastinate more (Liberty, 1993; McCown & Johnson, 1991). Extraversion, however, is only one of the multiple personality traits associated with dilatory behaviour. The constellation of characteristics gravitating around procrastination includes perfectionism, fear of failure and different forms of anxiety, such as exam, performance and general anxiety (Fritzsche *et al*., 2003; Sub & Prabha, 2003), and also encompasses impulsivity, aggression and sensation-seeking (Schouwenburg & Lay, 1995; Watson, 2001).

What is striking is that all these personality traits – impulsivity and sensation seeking (McCoul & Haslam, 2001), extraversion (Heaven *et al*., 2003) and aggression (Valois *et al*., 1999) – have been linked with a higher than average number of sexual partners. Could procrastination therefore be related to sexual appetite?

The answer lies in the hands of ethologists and evolutionary psychologists. In the animal kingdom, 'doing-as-little-as-you-can' is not just a way of life; it is a way of surviving. There has been extensive research on energy conservation strategies and time budgeting among animals. Most of it showing a clear link between sparing one's energy and augmenting one's

procreating ability. Whether we are considering green turtle diving behaviour in the South Atlantic (Hays *et al*., 2000), neotropical tree frogs calling for females (Schwartz *et al*., 1995) or the pigeon's thermoregulatory system of body temperature (Rashotte & Henderson, 1988), energy conservation always relates to some breeding advantages.

Sexual selection could therefore have trimmed animal behaviour to its minimal utility (Gaulin & McBurney, 2001). Humans are no exception to this founding evolutionary principle. There is a possibility that 'selective laziness' has been encoded in our gene pool. Procrastination would hence constitute the sole vestige of our idle past.

Never put off till tomorrow...

Readers should not be lured, however, into thinking that procrastination is but an innocuous, mildly irritating habit. It remains one of the best predictors of low final marks among university students (Beck *et al*., 2000) and has been related to poorer health outcomes (Sirois, 2004). The pending question is therefore whether or not we should treat procrastination.

The jury is still out on the question. Chronic procrastination can be an integral part of certain psychopathologies, including mood, anxiety and substance misuse disorders. The linkage of procrastination with impulsivity suggests that the dopaminergic system, and particularly the nucleus accumbens, are the neurological substrates of this behaviour (Cardinal *et al*., 2001). Ritalin, which accelerates the take-up of dopamine, could therefore be the drug of choice for chronic procrastinators.

'people could learn energy conservation techniques and how to waste their time more judiciously'

Most dilatory behaviours, however, never attain pathological proportions. In these cases, time management coaching typically suffices to help people treating their proclivity (van Eerde, 2003b). But for well-adjusted readers with a procrastinating penchant this article may be the sole remedy they need to eliminate the guilt attached to their behaviour. Now, they can confidently reclaim their natural right to be idle and seek refuge in long incubatory periods of lethargy.

Procrastination is a disease of civilisation. In our future-oriented societies, the rise in dilatory behaviour parallels the diminution of our leisure time. Therapeutic interventions in this field have too often focused on the maladaptive aspects of procrastination, hence ignoring the functions that it fulfils (Harris & Sutton, 1983).

The treatment of procrastination may therefore gain from casting the nomological net wider and taking into consideration other psychophysical resources. Therapy based on 'structured procrastination' could show the way forward, where people could learn energy conservation techniques and how to waste their time more judiciously. Research in this field is certainly a tall order as time is more than ever on the side of procrastination.

■ *Cedric Ginestet is a postgraduate at Thames Valley University. E-mail: cedric.ginestet@tvu.ac.uk.*

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