

Running to catch the sun

We are all heading for the grave in an indifferent universe. How do we cope with such existential concerns? **Dan Jones** investigates

So you run and you run to catch up
with the sun but it's sinking,
Racing around to come up behind you
again.
The sun is the same in a relative way,
but you're older,
Shorter of breath, and one day closer
to death.

'Time' by Pink Floyd
The Dark Side of the Moon, 1973

Human vanity often drives us to exalt our unique intellectual abilities – for language, culture, abstract thought, and conscious self-reflection. In part, they are what makes human existence so rich. Combined with an unmatched capacity for thinking about the future, they enable us to draw on past experience and think about our long-term goals, meaning we can function more effectively in the present.

Yet these cherished gifts come at a price. Our self-awareness and unparalleled foresight mean that we humans, unlike other animals, realise that we will all shuffle off this mortal coil sooner or later. This poses a potentially devastating challenge to our psychological equanimity – the prospect of annihilation threatens to rob life of ultimate purpose, and render the pursuit of a meaningful life a futile effort.

Facing up to the facts of life

The fear of death is far from being the only existential concern about which we

exercise ourselves. Irvin Yalom, an existential psychotherapist and emeritus professor at Stanford University (see p.584), has described three other potent 'givens of existence' or facts of life that can lead to existential distress: freedom – whether we are really in control of our choices, and the responsibility that comes with making those decisions; existential isolation – the need to be connected to others, and the fundamentally isolated nature of our subjective experience of the world; and, finally, meaninglessness – the desire to believe that our lives are meaningful, even though the slings and arrows of life's fortunes often seem random and in violation of the bases that imbue our lives with meaning.

These issues have historically been addressed by existentialist philosophers such as Jean-Paul Sartre and novelists, including Albert Camus, who have tended to rely on introspection and armchair rumination. In recent years, however, the questions posed by these givens of existence have increasingly been

subjected to the experimental techniques of modern psychology, and given rise to a new subfield: experimental existential psychology, or XXP as it's more snappily known.

XXP crystallised out of a conference held in Amsterdam in 2001 organised by psychologists Jeff Greenberg, Sander Koole and Tom Pyszczynski. In 2004 the fledgling field received another boost when the organisers published the *Handbook of Experimental Existential Psychology*.

Since then, the field has continued to grow, and now hundreds of researchers around the globe are exploring the 'human confrontation with reality'.

'A large body of research suggests that existential concerns play a major role in everyday life and behaviour,' says Koole of the Free University in Amsterdam. 'This wasn't self-evident, as it was traditionally thought that people were only affected by these issues when they sat down to consciously think about them.'

The emergence of XXP has, however, required traversing traditional academic boundaries. 'In the past experimentalists and existentialists generally either ignored each other or viewed each other with suspicion or

even disdain, partly because they assumed that existential issues could not be studied with rigorous scientific methods or that such methods necessarily entailed stripping human experience of its depth and complexity,' says Pyszczynski, of the University of Colorado. 'One of the first times I used the XXP term in a talk, an older psychologist burst into laughter and

Research suggests that existential concerns play a major role in everyday life and behaviour

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Beyond death

While the consequence of awareness and fear of death is the best-studied existential issue, explorations of other issues are also beginning to shed new light on the existential human condition.

I Isolation

Brain-imaging studies suggest that the pain of social exclusion is more than metaphorical, and recruits the same brain systems that register physical pain (Eisenberger et al., 2003). Surprisingly, it is not just exclusion from our preferred ingroup that can cause existential distress: in a recent experiment (Gonsalkorale & Williams, 2007), even ostracism from a despised group (the Ku Klux Klan) produced decreases in self-esteem and in a sense of meaningful existence.

Other forms of separation also create existential concerns. We experience the world from a very personal perspective, and reminding people of this isolation creates

a desire to connect with others who we perceive to share our subjective experiences, a phenomenon called 'I-sharing'. Experimental studies that manipulate perceived I-sharing, such as making people believe they respond in the same way to, say, the music of Bob Dylan, reveal that when existential isolation is salient, I-sharers are seen more positively than people that are like us in other less subjective ways, such as being from the same town (e.g. Pinel et al., 2006).

I Identity

We all feel the need to 'find ourselves' – to make sense of our diverse views and experiences of the world, and to integrate them into a coherent and consistent sense of who we are. Uncertainty about our identity can lead to defensive psychological moves, such as a more zealous defence of our attitudes (McGregor, 2006). 'Work on the self has told us a great deal about the malleability and

multiplicity of identities, their socially constructed nature, and the desire to sustain a coherent sense of self over the lifespan – a story about the self, or self-narrative,' says Greenberg.

I Freedom

Existentialists have long stressed the importance of freely made rational choices in living an authentic, meaningful life. Current research, however, shows freedom to be a double-edged sword. On the one hand, people generally feel better about their choices when they are free from external pressures or constraints. Threats to freedom create a negative psychological state called reactance, which motivates people to reassert their freedom. 'Work in XXP clearly shows that people can achieve greater well-being through emphasising their own responsibility,' says Koole. On the other hand, too much choice can be paralysing, and lead to less satisfaction in the choices we make because we have so many alternatives to fret about passing over (Iyengar & Lepper, 2000). 'XXP is now empirically supporting many of the ideas of late 19th- and early

20th-century philosophers and artists, who, along with authors like Thomas Mann and James Joyce, saw that the modern age would be one in which too much knowledge and too many possibilities would create massive problems of alienation, anxiety and depression,' says Greenberg.

I Meaning

As Koole et al. (2006) write, 'In a world where the only real certainty is death, where one can never fully share one's experiences with others, where one's identity is uncertain, and where one is prodded by external forces while facing a bewildering array of choices, what meaning does life have?' While XXP can't answer this, it is beginning to unravel the central human desire to lead a meaningful life. One line of research has suggested that while traumatic experiences (such as succumbing to serious illness) can undermine our sense of life's meaning ('What sort of world would allow these things to happen?'), making it through these hardships can also lead to personal growth and an enhanced appreciation of life (Janoff-Bulman & Yopyk, 2004).

pointed out that this juxtaposition of "experimental" and "existential" was an oxymoron – an absurd and logically inconsistent pairing – but one that he found compelling.'

A crucial factor in overcoming scepticism about the possibility of a psychology of existential concerns has been the development of rigorous experimental tools for probing these issues. The rise of XXP has coincided

with, and drawn inspiration from, renewed attention to the role of non-conscious psychological processes in guiding attitudes and behaviour (see 'Mind wide open', May 2008). Indeed, a key tenet of XXP is that the effects of existential concerns are mediated by processes outside of conscious awareness. 'A great deal of work suggests that the majority of the determinants of our actions are factors we are not aware of

and that we cannot consciously control,' says Greenberg of the University of Arizona.

XXP and the givens of existence

To date, XXP has focused most intensely on five key existential concerns: Yalom's original four (death, isolation, freedom and meaning), as well the issue of personal identity – who am I, and how do I fit into

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the world? (see 'Beyond death') The fear of death, however, has received by far the greatest attention. Indeed, Greenberg and Pyszczynski, working with Sheldon Solomon of Skidmore College, have been exploring responses to awareness of our own mortality for more than 20 years. Drawing on the work of Ernest Becker and Irvin Yalom, among many other existentialist philosophers and psychologists, they have developed a broad psychological theory to explain how we cope with this fundamental fact of life, which goes under the moniker of terror-management theory (TMT).

According to TMT, we are potentially exposed to a paralysing terror and sense of pointlessness via awareness of our vulnerability and inevitable demise. These concerns are assuaged by embracing a meaningful conception of reality or 'cultural worldview' that enables us to achieve a sense of purpose or self-esteem by adhering to the norms and values prescribed by that worldview. Self-esteem, in turn, serves as a buffer against the anxiety that can be aroused by reminders of death (see 'The politics of fear').

This anxiety-buffering conception of self-esteem has been experimentally confirmed. Momentarily elevating self-esteem by providing (false) positive feedback on an IQ test led to lower self-reported anxiety after watching gory video footage, and reduced physiological arousal as measured by skin conductance, compared to control conditions (Greenberg et al., 1992).

The specific fear of death, and the psychological effects this existential concern has on us, has principally been explored using the mortality salience (MS) paradigm. In this approach, participants are reminded of their own mortality, typically by asking them to describe the emotions that the thought of their own death elicits or what they think will happen as they physically die (control subjects are often asked about either a neutral issue, like watching television, or an aversive but death-unrelated event, such as failing an exam or experiencing dental pain). After the MS manipulation, subjects are then tested on an attitudinal or behavioural measure.

TMT predicts that if the function of adopting a particular cultural worldview and the beliefs it embodies is to protect us against the terror of awareness of

death, then MS should increase the need for such protection. This, in turn, should cause greater affection for, and agreement with, those who hold similar views to ourselves, as well as increased hostility towards those who do not – what Greenberg, Solomon and Pyszczynski call 'worldview defence'.

Again, this prediction of worldview defence has been empirically confirmed in numerous studies. In an early example, Christian participants who underwent an MS manipulation were better disposed

towards a Christian target and had a more negative reaction to the Jewish target, both of whom were similar demographically. Similarly, MS induction led Americans to feel more affection for a pro-American author, and increased disdain for an anti-American author (Greenberg et al., 1990).

But might these effects be the result of generalised anxiety or negative feelings and mood? Research on TMT suggests not: getting people to think about upcoming exams, speaking in public, being paralysed after a car crash of enduring physical pain does not produce the same effects as MS induction (reviewed in Solomon et al., 2004).

Other studies have explicitly tested the hypothesis that self-esteem serves as a buffer against the negative effects of MS. If true, then individuals high in self-esteem, whether the result of their disposition or through situational manipulations (such as positive feedback on a personality test), should show reduced MS-induction effects. A series of studies led by Eddie Harmon-Jones found just such a result using situationally elevated self-esteem (Harmon-Jones et al., 1997). Other researchers have found that reminding people of their mortality also increases efforts to boost self-esteem (e.g. by enhancing their physical attractiveness and showing off their strength).

Just as elevated self-esteem can militate against worldview defence, so too can certain kinds of belief. Eva Jonas and Peter Fischer of the Ludwig-Maximilians-Universität, Germany have found (Jonas & Fischer, 2006) that worldview defence following mortality salience is reduced among religious believers, in particular those who score highly on intrinsic

religiosity (a deep, heartfelt faith characterised by striving for meaning and value), as opposed to extrinsic religiosity (a more utilitarian approach that treats religion more as a means to an end, such as social acceptance or increased status).

Perhaps counter-intuitively, MS manipulations do not typically produce much in the way of a negative emotional response. When thinking about their own death people initially and consciously tend to play down the issue, by reminding themselves that they are young or healthy, for example. However, after a few minutes, when death is no longer the focus of attention, non-conscious processes kick in, and the defences described above – hunkering down into our worldview or bolstering our self-esteem – come into play.

Recently, Nathan DeWall of the University of Kentucky and Roy Baumeister of Florida State University have suggested that our 'psychological immune system' protects us from the fear of death by making us tune into positive thoughts in the immediate wake of death reminders. In one experiment, participants who underwent MS induction were more likely to complete word stems such as 'jo_' with the positive 'joy' rather than the neutral 'jog' compared with controls asked to think about dental pain.

The same effect was seen when subjects were asked to say whether a target word, such as 'mouth', was more similar to the semantically related 'cheek' or the positive emotionally associated 'smile'. In both cases, self-reported mood assessed before the word tasks was the same in MS and control conditions, suggesting unconscious factors were at work. Bolstering this interpretation, a final experiment found that subjects mistakenly believed that MS would lead to a negative mood, and they also failed to predict they would be more attuned to positive or emotionally pleasant words (DeWall & Baumeister, 2007).

Death and the meaning of life

Research in TMT brings to the fore deep questions about how we can overcome the diversity that competing worldviews and ideologies, exacerbated by reflecting on our mortality, naturally creates. Pyszczynski points to the possibility that hostile reactions to those different from oneself can be curtailed by emphasising cultural standards that encourage compassion, tolerance and cooperation. 'The hope is that these will guide people away from hostility and conflict by reminding people of the universals of



'We can approach our absurd lives with irony'

human experience to create a sense of shared humanity that encourages inclusion of those who are different into a broader group to which we all belong,' he says.

This may not, however, be easy to achieve, cautions Greenberg. 'Whether conscious awareness of why and how we are being defensive can reduce that defensiveness is as yet unclear,' he says. 'Such anxiety-arousing consciousness raising, without paths toward durable, constructive ways of sustaining meaning and personal significance, may do more harm than good. Ernest Becker struggled with this problem at the end of each of his great books, most notably *The Birth and Death of Meaning*, *The Denial of Death*, and *Escape from Evil*.'

The problem of creating a meaningful life, and sustaining a sense of personal significance, touches on perhaps the most vexing and difficult question that humans face in reflecting on our lives: what does it all mean? The philosopher Thomas Nagel has suggested that we have an 'incurable tendency' to take ourselves and our endeavours seriously, and to feel that what we do isn't just important to us personally, but important in some larger sense – 'important, period'. This sense of seriousness and importance often fuels our ambitions, and drives us forward. As Nagel observes:

If we have to give this up, it may threaten to take the wind out of our sails. If life is not real, life is not earnest, and the grave is its goal, perhaps it's ridiculous to take ourselves so seriously. On the other hand, if we can't help taking ourselves so seriously, perhaps we just have to put up with being ridiculous. Life may be not only meaningless but absurd. (Nagel, 1987)

Nagel suggests that if we can accept this, then perhaps 'We can approach our absurd lives with irony instead of heroism or despair' (Nagel, 1979). Such reflections resonate with the thoughts of existential psychology. 'The value of humour in life is seriously underestimated by psychologists and other scholars, yet it can be easily seen in the popularity of humour that puts humankind in its place by pointing to the absurdity of much of what we do,' says Pyszczynski. 'Humour is one form of transformation in the way we view our lot in life and Nagel hits the nail on the head by pointing to its potential for not just distracting us from our daily concerns, but also transforming the way we go about living.'

Yet Greenberg also calls for some qualifications. 'The animal inside us is

The politics of fear

When our worldviews are threatened symbolically or materially, charismatic leaders who promise to fight a just battle against the forces of evil can gain powerful support. By voting such leaders in, people can plausibly bolster their self-worth and esteem by participating in a larger project to vanquish the evildoers. To test this idea, Cohen et al. (2005) explored the role mortality salience could have played in securing George Bush a second term as US President.

Six weeks before the 2004 election, the researchers looked at the voting intentions of students at Rutgers – whether they planned to vote for George Bush (Republican), John Kerry (Democrat) or Ralph Nader (Independent). Half of the students were first reminded of their mortality in a similar way to previous TMT studies, and then questioned about a number of social issues before finally declaring their preferred candidate (the other half in the control condition went through the same procedure but without the mortality reminder).

In the control condition, students expressed overwhelming support for Kerry over Bush. Mortality salience, however, reversed the picture, with Bush now emerging as the clear favourite. The changes in voting intentions were statistically significant for Bush and Kerry across the mortality salience and control conditions, while those for Nader and being undecided were not.

Just as TMT sheds light on how fear affects political behaviour, so too have the effects of terrorism against the US helped people better understand TMT. 'The terrorist attacks of 9/11 certainly provided an impetus for greater openness to the role of concerns with death and meaning in the human psyche, particularly here in the United States, where the attacks were a startling and serious blow to Americans' security-providing meaning systems,' says Greenberg. 'I recall being at a conference in October 2001 and having a prominent social psychologist comment to me that he finally understood the terror-management work we have been doing since the mid-1980s.'

In recent years, however, alternative accounts of the psychological basis of ideological thought, and support for conservative agendas, have emerged. 'System-justification theory', for example, suggests that people are motivated to justify and rationalise the status quo, and to perceive existing social, economic and political arrangements as fair and therefore legitimate (Jost & Hunyady, 2005). This tendency, argues Jost, is governed by certain dispositional traits (such as the need for order and structure as well as openness to experience), in addition to being moderated by situational factors (such as perceived threats to the system, uncertainty about the future, and reminders of mortality). 'These situational factors are capable of eliciting behavioural effects that are very similar to what the terror management researchers have observed,' says Jost. 'There is generally a better match between certain ideologies – political conservatism, for example – and psychological needs to minimise threat and uncertainty. There is no reason to think that all ideologies are equally successful in terms of satisfying epistemic, existential and relational needs.'

built to take things seriously and not to accept death or absurdity, and I suspect Nagel takes at least his own musings on absurdity seriously,' he says. 'Fully embracing reality, including absurdity and eventual non-existence, leads to only cowardly, desperate hedonistic grasping, or total despair. The alternative, which I attribute to Camus, is to create meaning and take it seriously even though one knows it is ultimately illusory. Luckily we humans are very prone to accepting things on faith, so we can do this.'

Striking a balance between seriousness and absurdity, and between pursuing heroic endeavours and falling into a pit of despair at the futility of it all, is a tricky but worthwhile goal. 'Taking ourselves less seriously could probably go a long way toward helping us better deal with our lot in life, but there are powerful psychological forces that push us toward

wanting to be important, significant, and heroic,' says Pyszczynski. 'Completely abandoning these pursuits is not the answer, but seeing the absurdity of them seems a step in the right direction.'

Even if we could free ourselves of the existential concerns that threaten to take the 'wind out of our sails', would this really be desirable? 'Perhaps we shouldn't want to be unburdened of these concerns – they are part of what makes us human,' says Koole. 'Running away from them may cause problems, as many existential thinkers have argued. If you have the courage to confront them it can be a source of strength, and help you achieve psychological growth and well-being.'

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