



# Thinking the unthinkable: sacred values and taboo cognitions

Philip E. Tetlock

University of California, Berkeley, USA

**Many people insist that their commitments to certain values (e.g. love, honor, justice) are absolute and inviolable – in effect, sacred. They treat the mere thought of trading off sacred values against secular ones (such as money) as transparently outrageous – in effect, taboo. Economists insist, however, that in a world of scarce resources, taboo trade-offs are unavoidable. Research shows that, although people do respond with moral outrage to taboo trade-offs, they often acquiesce when secular violations of sacred values are rhetorically reframed as routine or tragic trade-offs. The results reveal the peculiar character of moral boundaries on what is thinkable, alternately punitively rigid and forgivingly flexible.**

This article summarizes an emerging body of research that explores how people cope – cognitively and emotionally – with a fundamental contradiction of social life. The contradiction can take diverse forms but its canonical form can be stated simply. On the one hand, as economists frequently remind us, we live in a world of scarce resources in which, like it or not, everything must ultimately take on an implicit or explicit price [1]. Indeed, this austere insight prompted Oscar Wilde to define an economist as someone who knows the price of everything and the value of nothing. On the other hand, sociological observers point out that people often insist with apparently great conviction that certain commitments and relationships are sacred and that even to contemplate trade-offs with the secular values of money or convenience is anathema [2]. In the social world inhabited by most readers of this journal, to be caught calculating the opportunity costs of one's family or professional integrity or loyalty to one's country is to reveal that one 'just does not get it' – that one simply does not understand what it means to participate in these rule-governed forms of social life in the roles of parent/spouse, scientist or citizen.

When economic necessity collides with cultural-identity and moral-religious imperatives, and in the modern world such collisions are common [3,4], the resulting dissonance can be excruciating. Finite resources sometimes require placing at least implicit dollar valuations on a host of things that society at large, or vocal ideological sub-cultures, adamantly declare non-fungible: human life (what price access to medical care?), justice (what price access to legal representation?), preserving natural

environments (what price endangered species?), and civil liberties and rights (can ethnic-religious profiling to identify terrorists be justified on Bayesian and cost-benefit grounds?). This article explores these issues in two sections. The first section offers a working definition of sacred values and a set of hypotheses concerning how people cope with secular encroachments on such values. The second section sketches the principal lines of empirical work bearing on these hypotheses.

## Conceptual backdrop

Political philosophers – from Aristotle to Marx and Nietzsche – have long speculated that citizens are more likely to do what they are supposed to do if they believe the moral codes that regulate their lives are not arbitrary social constructions but rather are anchored in bedrock values that transcend the whims of mere mortals. *'Don't do x because I say so'* has less impact than *'don't do x because God says so'*. By the middle of the 20th century, prominent anthropologists and sociologists had made the complementary observation that, although there is vast variation in what groups hold sacred, sacredness seems to qualify as a functional universal across societies, both primitive and modern, and that moral communities erect a variety of psychological and institutional barriers to insulate sacred values from secular contamination [5,6].

To jumpstart social-cognitive research on this topic, Tetlock *et al.* [7] defined sacred values as those values that a moral community treats as possessing transcendental significance that precludes comparisons, trade-offs, or indeed any mingling with secular values. Of course, the policy a community proclaims towards a sacred value represents an expressed, not a revealed, preference. Our actual choices may belie our high-sounding proclamations that we have assigned infinite weight to the sacred value [8].

Tetlock *et al.* [9] advanced a sacred value protection model (SVPM) that asserted that, when sacred values come under secular assault, people struggle to protect their private selves and public identities from moral contamination by the impure thoughts and deeds implied in the taboo proposals. The SVPM can be captured in three interrelated sets of propositions: moral-outrage hypotheses, moral-cleansing hypotheses, and reality-constraint hypotheses.

## Moral outrage

Building on Durkheim's [2] observations of how people respond to affronts to the collective conscience as well as

Corresponding author: Philip E. Tetlock (tetlock@haas.berkeley.edu).

recent work on factors that inflate punitive damage awards [10–12], the SVPM model posits that when people discover that members of their community have compromised sacred values, they experience an aversive arousal state – moral outrage – that has cognitive, affective and behavioral components: harsh trait attributions to norm violators, anger and contempt, and enthusiastic support for norm and meta-norm enforcement (punishing both violators and those who shirk their fair share of the burdensome task of punishing violators for the public good).

The model also predicts derogation as a function of mere contemplation. Traditional cognitive accounts trace the difficulty people have been making trade-offs between secular values such as money and convenience and sacred values, such as love and loyalty, to the incommensurability problem – the absence of a common metric for comparing secular and sacred values [13]. The SVPM insists, however, that people find such trade-offs not only cognitively confusing but morally disturbing and traces this reaction to a deeper or constitutive form of incommensurability. Our commitments to other people require us to deny that certain things are comparable. Even to contemplate attaching a finite monetary value to one's friendships, children, or loyalty to one's country is to disqualify oneself from membership in the associated moral community. Constitutive incommensurability arises whenever values are treated as commensurable subverts one of the values in the trade-off calculus [14]. Taboo trade-offs are, in this sense, morally corrosive. The longer observers believe that a decision-maker has contemplated an indecent proposal, the harsher their assessments of that person's character, even if that person ultimately makes the 'right' choice and affirms the sacred value.

#### *Moral cleansing*

Resource constraints can bring people into disturbingly close psychological contact with temptations to compromise sacred values. The SVPM predicts that decision-makers will feel tainted by merely contemplating scenarios that breach the psychological wall between secular and sacred and engage in symbolic acts of moral cleansing that reaffirm their solidarity with the moral community. This prediction should not be confused with self-affirmation hypotheses derived from dissonance theory [15]. First, unlike dissonance theory, the SVPM predicts a mere contemplation effect: it is not necessary to commit a counter-normative act: it is sufficient for counter-normative thoughts to flicker briefly through consciousness before rejecting them. That pre-rejection interval, during which one's natural first reaction to propositions is to consent [16], can produce a subjective sense – however unjustified – that one has been contaminated [17,18]. Second, the SVPM predicts that the longer one contemplates taboo-breaching proposals, the more contaminated one should feel.

#### *Reality-constraint hypotheses*

The SVPM portrays people as engaged in a delicate mental balancing act. The model posits that people are largely sincere in their protestations that certain values are sacred. But the model recognizes that people regularly run

into decision problems in which the costs of upholding sacred values become prohibitive. If parents dedicated their net worth to their children's safety, they would impoverish themselves. Likewise, a society committed to guaranteeing state-of-the-art health care for all citizens would soon devote its entire GDP to the project. The model predicts that, without pressure to confront secular–sacred contradictions, people will be motivated to look away and be easily distracted by rhetorical smokescreens. However, when gaze-aversion is not an option, people will welcome rhetorical redefinitions of situations that transform taboo trade-offs into more acceptable routine trade-offs (one secular value against another, the sort of mental operation one performs every time one strolls into a supermarket) or tragic trade-offs (one sacred value against another, such as honor versus life, the stuff of classical Greek tragedies).

#### **Empirical research**

*Portraying people as reliable defenders of sacred values*  
Tests of the SVPM presuppose culture-specific knowledge of what people hold sacred. What counts as a taboo trade-off hinges, for example, on contending ideological worldviews. Thus, although Tetlock, Peterson and Lerner [7] found considerable agreement among liberal Democrats and conservative Republicans on the boundaries of the fungible (widely agreed-on taboo trade-offs included buying and selling body organs, adoption rights for children, and basic rights and responsibilities of citizenship), they found considerable disagreement on the ideological fringes. For example, there was a sharp contrast between libertarians who wanted to extend market-pricing norms into taboo territory and socialists who wanted to retract market-pricing norms from currently permissible domains such as medical care, legal counsel and housing (see Box 1).

Tetlock *et al.* [9] documented the importance of ideological sub-cultures in identifying two other forms of proscribed social cognition:

(1) Forbidden base rates are predictively potent generalizations about groups of human beings that a Bayesian statistician would not hesitate to insert into likelihood computations but that some observers fear could be used as justifications for racial or sexual discrimination. Decision-makers who use statistical generalizations about crime, academic achievement, and so forth, to justify disadvantaging already disadvantaged populations are less likely to be lauded for their statistical savvy than they are to be condemned for their moral insensitivity [21,22];

(2) Heretical counterfactuals are 'what-if' assertions about historical causality (framed as subjective conditionals with false antecedents) that pass conventional tests of plausibility but that undercut religious or political ontologies. Hierarchical cultures are prone to treat counterfactuals as heretical if they reduce the conduct of higher-spiritual-status beings (messiahs, saints, founding leaders, etc.) to explanatory schemas that are routinely applied to lower-spiritual-status beings [23].

In one study of forbidden base rates, Tetlock *et al.* [9] manipulated observers' beliefs about the correlation between the distribution of fires across neighborhoods and

### Box 1. The personal value of objects

Even little things can take on sacred significance. In a compelling series of experiments, Kahneman and colleagues demonstrated that people demand more to give up an object, such as a mug or pen they have just been given, than they would be willing to spend to acquire the object. Kahneman and Tversky [19] attributed this 'endowment effect' to a kink in the value function of prospect theory: the disutility of losing something is greater than the utility of gaining it.

Many economists find the effect puzzling. In an idealized world regulated by neo-classical principles, buyers and sellers are supposed to be interchangeable and the endowment effect qualifies as a nuisance that slows the rate at which markets clear. But in the

messy real world, people infuse objects with meanings that reflect their relationship histories. In a set of experiments, McGraw, Tetlock and Kristel [20] manipulated how people acquired objects. They found that whereas the customary size of endowment effects in laboratory settings is a 2:1 ratio between willingness-to-accept and willingness-to-pay prices, the ratio soared to 8:1 for objects received via communal-sharing or family rituals. They also documented a surge in confusion and outrage – as well as in refusals even to consider assigning dollar values – when people were asked to sell objects acquired in intimate relationships. Some objects apparently became infinitely valuable.

racial composition of neighborhoods. Liberal-egalitarian observers responded with outrage at executives who used the race-correlated base rates in setting premiums but not at executives who used race-neutral base rates. In a follow-up experiment, participants role-played executives who had been lured into inadvertently using a forbidden base rate. Thrust into this predicament, egalitarians were more likely to cleanse themselves morally by volunteering for good causes, especially anti-racist ones.

In a study of heretical counterfactuals, Tetlock *et al.* [9] tested the prediction that moral communities erect emotionally charged boundaries against counterfactual speculation that applies secular or scientific standards of evidence to the founders of sacred movements. Christian fundamentalists were outraged by heretical counterfactuals that implied that the life of Jesus was as subject to the vagaries of chance as the lives of ordinary mortals and that, for example, if Jesus had been brought up in a single parent household (as a result of a suspicious Joseph abandoning a pregnant Mary), Jesus would have grown up to be a less confident and charismatic personality. Fundamentalists also felt contaminated by such counterfactual logic and cleansed by renewing their commitments to serving their church. Fundamentalists, however, reacted with equanimity when the same cause-effect schema (linking infidelity to single-parenthood to adverse effects on children) was applied to the lives of regular people.

#### *Tragic trade-offs*

Thus far, the discussion has focused on the distinction between taboo trade-offs (which pit sacred values against secular ones) and routine trade-offs (which pit secular values against each other) and has ignored tragic trade-offs (which pit sacred values against each other). This last distinction is, however, worth examining because evidence suggests that the 'mere-contemplation' effect takes opposite functional forms for taboo and tragic trade-offs. In one experiment, Tetlock *et al.* [9] asked people to judge a hospital administrator who had to choose either between saving the life of one boy or another boy (a tragic trade-off), or between saving the life of a boy and saving the hospital \$1 million (a taboo trade-off). This experiment manipulated: (a) whether the administrator found the decision easy and made it quickly, or found the decision difficult and took a long time; (b) which option the administrator chose. In the taboo trade-off condition, people were most positive towards the administrator who quickly chose to save

Johnny whereas they were most punitive towards the administrator who found the decision difficult and eventually chose the hospital. In the tragic trade-off condition, people were more positive towards the administrator who made the decision slowly rather than quickly, regardless of which boy he chose to save. Thus, lingering over a taboo trade-off, even if one ultimately does the right thing, makes one a target of moral outrage. But lingering over a tragic trade-off serves to emphasize the gravity of the issues at stake.

Taboo trade-offs are also contaminating. To observe a taboo trade-off without condemning it is to become complicit in the transgression. The hospital-administrator study revealed the highest level of moral cleansing (willingness to support organ-donation campaigns) when people thought the decision-maker had not only made the wrong choice in the taboo-trade-off condition but made it after thinking about it for a long time.

#### *Portraying people as neither vigilant nor resolute defenders of the sacred*

Vexing questions remain concerning the disjunction between what people say about sacred values and the compromises that they make in the real world of scarce resources. Ultimately, someone must set priorities, a process that, however distasteful, requires attaching at least implicit monetary values to sacred values. If political elites are to avoid incurring the righteous wrath of the masses, some combination of three things must be true: (1) sacred values are merely pseudo-sacred and ordinary citizens are prepared – when elites present good arguments or tempting inducements – to abandon the illusion that certain values are infinitely important; (2) elites are skilled at reframing taboo trade-offs so that they take (more politically palatable) tragic or routine forms; (3) elites do not need to be all that rhetorically gifted because people are willing to look the other way as long as taboo trade-offs are not flagrantly paraded before them [24].

There is mounting evidence for all three propositions. Tetlock [25] found that, although most people were initially appalled by the idea of buying and selling of body organs for medical transplants, 40% qualified their opposition when convinced that: (a) such transactions are the only way to save lives that otherwise would have been lost; (b) steps have been taken to assist the poor in purchasing organs and to prevent the poor from selling

their organs in deals of desperation. The first argument made sacred the secular side of the taboo trade-off by recasting the issue as one sacred value against another: lives versus moral objections to ‘commodifying’ organs; the second argument secularized the sacred side of the trade-off by using transfer payments to neutralize egalitarian objections. Baron and Leshner [8] and Thompson and Gonzalez [26] present other evidence of flexibility in commitments to allegedly sacred values. Taboo trade-offs can often fall short of the primal Polynesian standards for taboo – absolute, automatic, unreasoned aversion to any breach of the barriers separating profane from sacred.

Recent work also suggests that no great rhetorical art is necessary to mask taboo trade-offs. In Tetlock’s toxic-waste experiment [25], people learned about a thinly fictionalized government program charged with cleaning up waste sites until they pose zero risk to public health. Last year, the program saved an estimated 200 lives at a cost of \$200 million. The Danner Commission – whose mandate is to improve the efficiency of government – investigated and recommended reforms. As a result, the program could still save 200 lives but now for only \$100 million. If the government kept funding the program at last year’s budget of \$200 million, the program could save an estimated 400 lives. The Commission, however, recommends redirecting the saving of \$100 million to other uses, including reducing the deficit and lowering taxes.

In two conditions of that experiment, the Commission makes no reference to dollar/life trade-offs but it does offer a vague smokescreen rationale that took either utilitarian form (*‘After weighing relevant costs and benefits, the Commission concludes that this is the right thing to do’*) or deontic form (*‘Based on its analysis, the Commission concludes that morally this is the right thing to do’*). In a third condition, the decision process was utterly transparent: people learned that the Commission decided that the cost of saving the additional 200 lives (at \$500 000 per life) is too high given other priorities. The Commission therefore recommends redirecting the saving of \$100 million to other uses, including reducing the deficit and lowering taxes. The results showed that support for the recommendation hovered at 72% when the trade-off was masked by vacuous moralistic rationales but plummeted to 35% when the trade-off flagrantly violated the injunction against dollar valuations of human life. Going through the right rhetorical motions therefore appears to be both necessary and sufficient to keep the Commission out of trouble (see Langer [27] on the pervasiveness of mindless processing of justifications and excuses).

Tetlock and McGraw [28] also explored the power of reframing. During the Clinton presidency, a storm of controversy arose concerning the number of big campaign donors allowed to sleep in the Lincoln bedroom. The unadorned facts suggested the buying and selling of access to a sacred site and elicited considerable moral angst from both Clinton supporters and detractors. Figure 1 shows, however, that, at least among supporters, outrage was attenuated when the facts were accompanied by a reciprocity-norm rationale (the one, incidentally, promoted by the White House) that shifted the focus from a market-pricing transgression to a friendship norm that

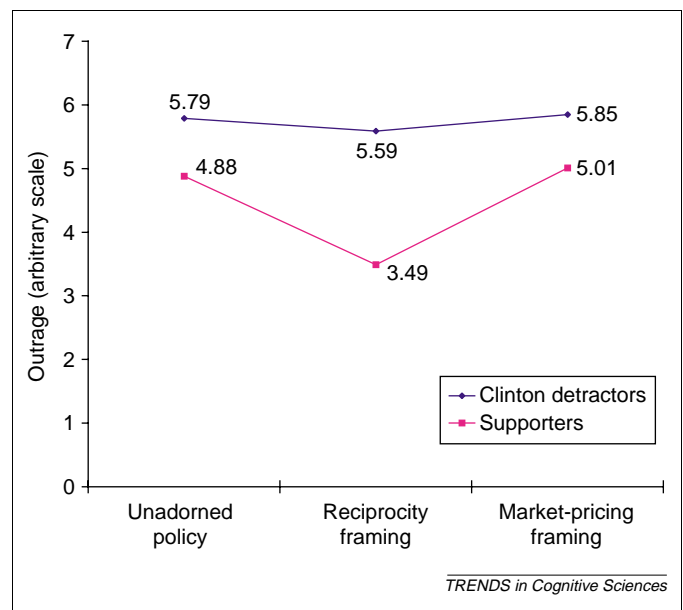


Fig. 1. The moral reactions of Clinton supporters and detractors to a fact (big campaign donors invited to stay in the Lincoln bedroom of the White House) accompanied by no explanation, an explanation stressing the reciprocity norm, and an explanation stressing market-pricing calculation. There was less outrage (measured on a scale of 1 to 7) among supporters when there was an explanation in terms of friendship reciprocity.

affirmed the right of friends to do and return favors for friends [29].

Taken together, these results suggest a dynamic process in which the boundaries of the thinkable ebb and flow as political partisans fend off charges of taboo trade-offs and fire them back at rivals. Safe positions can suddenly become dangerous. Hospital administrators wrestling with tragic trade-offs can find themselves in the dock as soon as critics wonder who set the budget constraint that made it possible to save only one child. And dangerous positions can be rendered secure – at least temporarily. Efficiency experts on toxic clean-up can escape blame for a taboo trade-off if they earmark the surplus not for general revenue but for saving lives in other ways. Rhetorical framings of choices as taboo or tragic can shift almost as rapidly as Gestalt figure-ground relations. But not everything is so readily manipulated. Some taboos – abortion rights, racism, or the sacred soil of Jerusalem or Kashmir – become so entrenched at certain historical junctures that to propose compromise is to open oneself up to irreversible vilification.

### Challenges to prevailing conceptions of rationality

Students of judgment and choice have long paid homage to normative models of rationality anchored in narrowly utilitarian perspectives on human nature: people are posited to be either intuitive economists aspiring to maximize utility or intuitive scientists trying to discern predictive regularities [30,31] (see also Box 2). Research on sacred values suggests a supplementary perspective that posits people to be intuitive theologians struggling to defend sacred values from secular encroachments [32–34] (see Box 3. Questions for Future Research). Adopting this functionalist perspective sheds new light on traditional taxonomies of judgmental errors and biases that rely on



### Box 2. Academics also have their sacred cows

Although most academics are avowedly secular in their worldview, they are not immune to the processes discussed here (see Pinker [37] on social-science reactions to evolutionary psychology). The SVPM predicts mental rigidity and moral exhibitionism whenever core values have been threatened—although it leaves as an open question whether sacred values not anchored by mandates from supernatural beings possess less long-term power to block subversive thoughts from either consciousness or public expression.

### Box 3. Questions for Future Research

Theories grounded in the intuitive-theologian metaphor also highlight new research questions:

- When are judgment and choice governed by either the utilitarian logic of consequential action (*how can I maximize expected value in this situation?*) or the deontic logic of obligatory action (*how am I supposed to act in this situation?*)?;
- How do people manage tensions between these superficially incompatible modes of making choices? As we have seen, self-proclaimed defenders of sacred values often do not pass the most demanding tests of fealty: they are less than perfectly vigilant against taboo trade-offs and they display less than absolute resistance to temptation. We still know little, however, about exactly how people strike compromises between pragmatic pressures and moral ideals. When do these compromises take the form of rule-constrained utilitarianism in which people either screen options on moral grounds and then try to maximize utility (the SVPM prediction) or screen options on utility grounds and then winnow out the morally unacceptable ones [35,36]?
- How do people justify – to themselves and to others – the compromises that a world of scarce resources thrusts upon them. When do they confront taboo trade-offs honestly? When do they conceal such trade-offs from others and even themselves? Finally, is dishonesty sometimes the best policy? Does failure to maintain the illusion that some things are sacred have morally corrosive effects on the self-restraint of individuals and on the cohesiveness of societies?

economic and scientific benchmarks of rationality. Intuitive theologians are suspicious, and unapologetically so, of the classic Enlightenment values of open-minded inquiry and free markets. Opportunity costs be damned, some trade-offs should never be proposed, some statistical truths never used, and some lines of causal/counterfactual inquiry never pursued.

### References

- 1 Becker, G. (1981) *A Treatise On The Family*, Harvard University Press
- 2 Durkheim, E. (1925/1976) *The Elementary Forms of the Religious Life*, 2nd edn, Allen and Unwin
- 3 Bell, D. (1976) *The Cultural Contradictions of Capitalism Basic Books*
- 4 Calabresi, G. and Bobbit, P. (1978) *Tragic Choices*, Norton
- 5 Aberle, D.F. et al. (1951) The functional prerequisites of a Society. *Ethics* 1, 60–111
- 6 Radcliffe-Brown, A. (1952) *Structure and Function in Primitive Society*, Cohen and West, London
- 7 Tetlock, P.E. et al. (1996) Revising the value pluralism model: incorporating social content and context postulates. In *Ontario Symposium on Social and Personality Psychology: Values* (Seligman, C. et al., eds), pp. 27–58, Erlbaum
- 8 Baron, J. and Leshner, S. (2000) How serious are expressions of protected values? *J. Exp. Psychol. Appl.* 6, 183–194
- 9 Tetlock, P.E. et al. (2000) The psychology of the unthinkable: taboo trade-offs, forbidden base rates, and heretical counterfactuals. *J. Pers. Soc. Psychol.* 78, 853–870
- 10 Kahneman, D. et al. (1998) Shared outrage and erratic awards: the psychology of punitive damages. *J. Risk Uncertain.* 16, 1–42
- 11 MacCoun, R.J. (2000) The costs and benefits of letting juries punish corporations: comment on Viscusi. *Stanford Law Rev.* 52, 1821–1828
- 12 Viscusi, W.K. (2000) Corporate risk analysis: a reckless act? *Stanford Law Rev.* 52, 1
- 13 Mellers, B. et al. (1998) Judgment and decision making. *Annu. Rev. Psychol.* 49, 447–477
- 14 Raz, J. (1986) *The Morality of Freedom*, Clarendon Press/Oxford University Press
- 15 Steele, C.M. (1988) The psychology of self-affirmation. In *Advances in Experimental Social Psychology* (Vol 21) (Berkowitz, L., ed.), pp. 261–302, Academic Press
- 16 Gilbert, D. (1991) How mental systems believe. *Am. Psychol.* 46, 107–119
- 17 Rozin, P. and Nemeroff, C. (1995) The borders of the self: contamination sensitivity and potency of the body apertures and other body parts. *J. Res. Pers.* 29, 318–340
- 18 Wegner, D.M. (1994) Ironic processes of mental control. *Psychol. Rev.* 101, 34–52
- 19 Kahneman, D. and Tversky, A. (1984) Choices, values and frames. *Am. Psychol.* 39, 341–350
- 20 McGraw, P. et al. (2003) The limits of fungibility: relational schemata and the value of things. *J. Consum. Res.* 1, 1
- 21 Koehler, J. (1996) The base rate fallacy reconsidered: descriptive, normative, and methodological challenges. *Behav. Brain Sci.* 19, 1–53
- 22 Tribe, L.H. (1971) Trial by mathematics: precision and ritual in the legal process. *Harv. Law Rev.* 84, 1329–1393
- 23 Eire, C., (2003) Jesus lives. In *Unmaking the West: Exploring Counterfactual Histories of Possible Worlds* (Tetlock, P.E. et al., eds), University of California Press (in press)
- 24 Brunsson, N. (1989) *The Organization of Hypocrisy: Talk, Decisions and Actions in Organizations*, John Wiley & Sons
- 25 Tetlock, P.E. (2000) Coping with trade-offs: psychological constraints and political implications. In *Political Reasoning and Choice* (Lupia, S. et al., eds), pp. 239–263, University of California Press
- 26 Thompson, L. and Gonzalez, R. (1997) Environmental disputes: Competition for scarce resources and clashing of values. In *Environment, Ethics and Behavior* (Bazerman, M.H., ed.), pp. 75–104, New Lexington Press
- 27 Langer, E.J. (1989) *Mindfulness*, Addison-Wesley
- 28 Tetlock, P.E. and McGraw, P. (2003) People as intuitive theologians: defending sacred values against secular encroachments. In *Relational Theory* (Haslam, N., ed.), Cambridge University Press (in press)
- 29 Fiske, A. and Tetlock, P.E. (1997) Taboo trade-offs: reactions to transactions that transgress spheres of justice. *Polit. Psychol.* 18, 255–297
- 30 Chaiken, S. and Trope, Y. (1999) *Dual-Process Theories in Social Psychology*, Guilford Press
- 31 Gilovich, T. et al. (2000) *Inferences, Heuristics and Biases: New Directions in Judgment Under Uncertainty*, Cambridge University Press
- 32 Belk, R.W. et al. (1989) The sacred and the profane in consumer behavior: theodicy on the odyssey. *J. Consum. Res.* 16, 1–37
- 33 Green, J. and Haidt, J. (2002) How (and where) does moral judgment work? *Trends Cogn. Sci.* 6, 517–523
- 34 Haidt, J. (2001) The emotional dog and its rational tail: a social-intuitionist approach to moral judgment. *Psychol. Rev.* 108, 814–834
- 35 March, J. and Olson, J. (1989) *Rediscovering Institutions*, Free Press
- 36 Tversky, A. (1972) Elimination by aspects: a theory of choice. *Psychol. Rev.* 79, 28–29
- 37 Pinker, S. (2002) *The Blank Slate*, Viking Press