

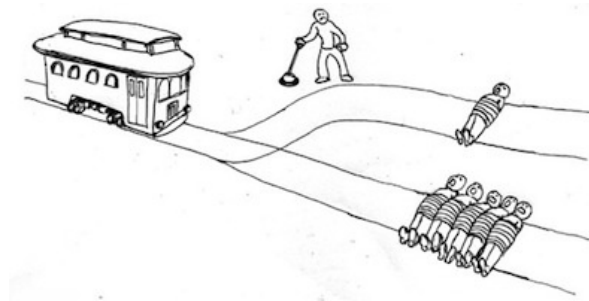
# THE GREAT IDEAS ONLINE

Jul '13

*Philosophy is Everybody's Business*

Nº 725

Interest in “**trolleyology**”—a way of studying moral quandaries—has taken off in recent years. Some philosophers say it sheds useful light on human behaviour, others see it as a pointless pursuit of the unknowable.



---

## MATTERS OF LIFE AND DEATH

David Edmonds

*The “trolley problem” thought experiment is designed to test our moral intuitions*

A shocking memo leaked to Prospect, drafted by civil servants from the treasury and the department of health, exposes the stark reality of future cutbacks. Harsh decisions are inevitable, says the memo; in one NHS trust people on life-support systems are to be “finished off” on 1st November—either by smothering, or by having the plugs pulled out. Their organs are then to be used to save the lives of others on transplant-waiting lists, who have themselves become a considerable burden to the taxpayer. The total saving to the trust is estimated at £2.3m a year.

Hogwash, of course. But the [UK] government will make some tough choices in its spending review on 20th October, and these will cost lives. Whether “efficiencies” are made in the department of transport, the military or the NHS, there will be victims, even if they are unidentifiable. Governments always have to prioritise—choosing, for example, between a cheap medicine which benefits few people a little, and an expensive one which benefits many people a lot. But in hard financial times, such predicaments become more acute.

Moral philosophers have long debated under what circumstances it is acceptable to kill and why, for example, we object to killing a patient for their organs, but not to a distribution of resources that funds some drugs rather than others. To understand the debate you need to understand the trolley problem. It was conceived decades ago by two grande dames of philosophy: Philippa Foot of Oxford University and Judith Jarvis Thomson of MIT. The core problem involves two thought experiments—call the first “Spur” and the second “Fat Man.”

In Spur, (see diagram one, below), an out-of-control trolley—or train—is hurtling towards five people on the track, who face certain death. You are nearby and, by turning a switch, could send the trolley onto a spur and save their lives. But one man is chained to the spur and would be killed if the trolley is diverted. Should you flick the switch?

In Fat Man (see diagram two), the same trolley is about to kill five people. This time, you are on a footbridge overlooking the track, next to a fat man. (The Fat Man is now sometimes described as a large gentleman. But fat or large, the fact of his corpulence is essential.) If you were to push him off the bridge onto the track his bulk would stop the trolley and save the lives of those five people—but kill him. Do you push him?

Study after study has shown that people will sacrifice the spur man but not the fat man. Yet in both cases, one person is killed to save five others. What, then, is the relevant ethical distinction between them? This question has spawned a thriving academic mini-industry, called trolleyology.

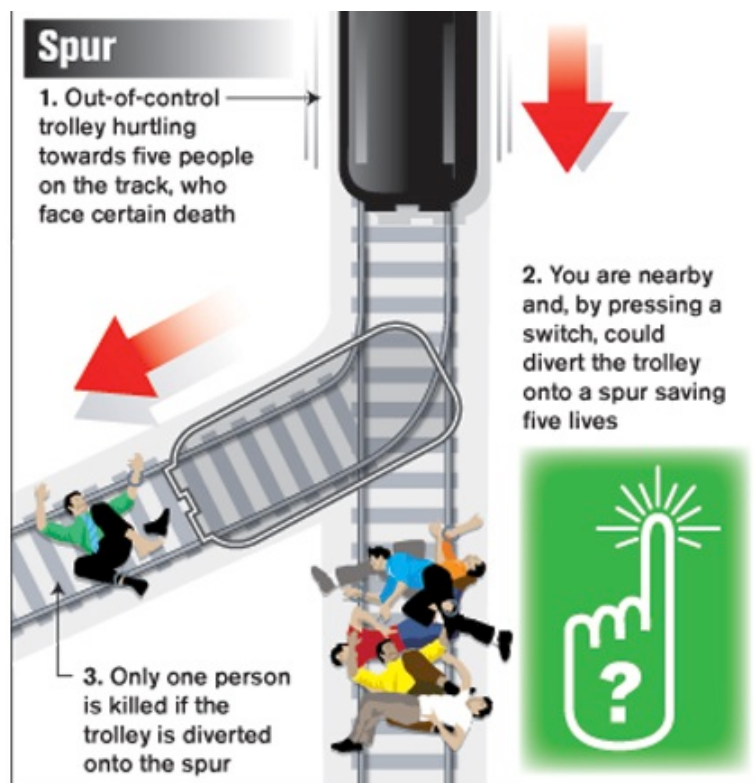
Trolleyology encapsulates the deepest tensions in our moral outlook. To tease out our moral intuitions, philosophers have come up with ever more ingenious scenarios. The trolley is usually racing towards five unfortunates and the reader is presented with various means to rescue them at the cost of another life, involving props such as obese gentlemen, footbridges, trapdoors and lazy Susans. Some of the examples are so complex that, in the words of one exasperated philosopher, this branch of ethics “makes the Talmud look like Cliffs Notes [a US brand of study guides].” But at its root the trolley problem is a philosophical detective story, attracting some of the smartest minds in moral philosophy.

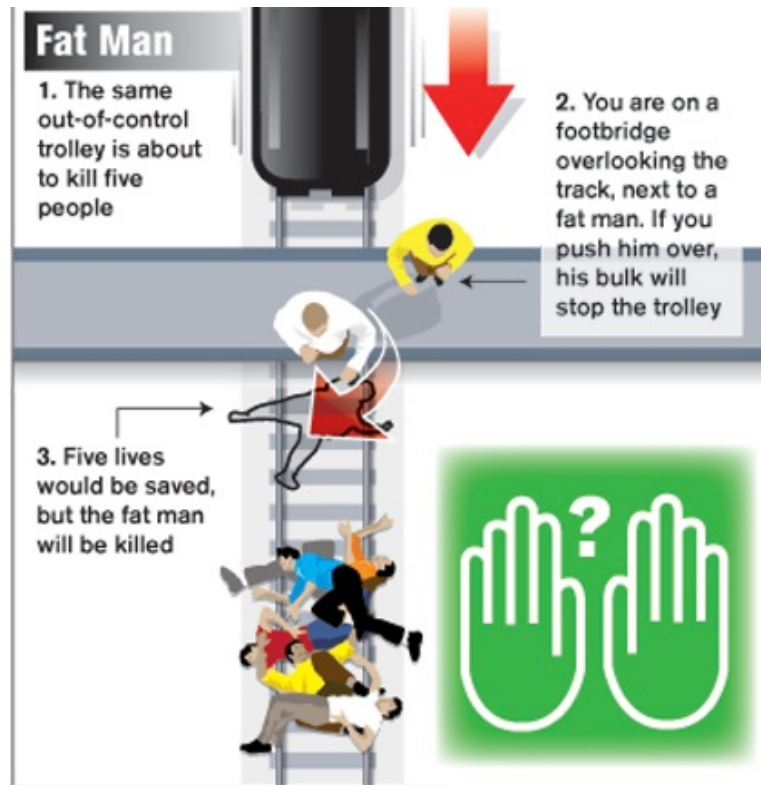
One of them is Jeff McMahan of Rutgers University. McMahan is a good liberal, open to debate on any topic—except tea. Green tea is sent to him every two months from the Indian estate where it is

grown. His cup of tea has to be brewed in a certain way: steeped for precisely six minutes in distilled water.

McMahan brings a similar attention to detail to moral philosophy. He believes that the trolley problem lends weight to a doctrine first established in the 13th century by Thomas Aquinas, the philosopher and theologian. Aquinas drew up the principles required for a war to be just and he was the first thinker to outline the doctrine of double effect, a cornerstone not just of Catholic ethics, but of common-sense morality too. Crudely put, the doctrine allows you to perform an act that has some bad consequences, if on balance the act is good, and if the bad effects are unintended.

Applying the doctrine to the trolley problem, it's been argued that in the first scenario, there is no intention to kill the man on the spur. If you diverted the train but spur man miraculously escaped, you would be delighted. But in the second scenario, you intend the death of the fat man. If he were to bounce off the track and flee out of the trolley's path, this would thwart your aim, because the five people would still be killed. You need the chubby projectile to be hit by the trolley.





Who would you save? In the classic version of the “trolley problem” the two scenarios above, Spur and Fat Man, test our moral intuitions

Every so often, McMahan visits an academy in New York state to lecture on the trolley problem and other aspects of applied ethics. The pupils here are not average college students—West Point is where US officer cadets are trained. These young men and women are the future leaders of the world’s most powerful military force. All West Point cadets take a compulsory course on philosophy and “just war” theory which includes the trolley problem. I spoke to several impressive cadets, all of whom were immersed in the trolley problem and none of whom would countenance killing the fat man. They explained that the two scenarios represent the distinction between targeting a military installation knowing that civilians will be killed, and deliberately killing civilians. It’s the difference, they say, between how the US and how al Qaeda wage war.

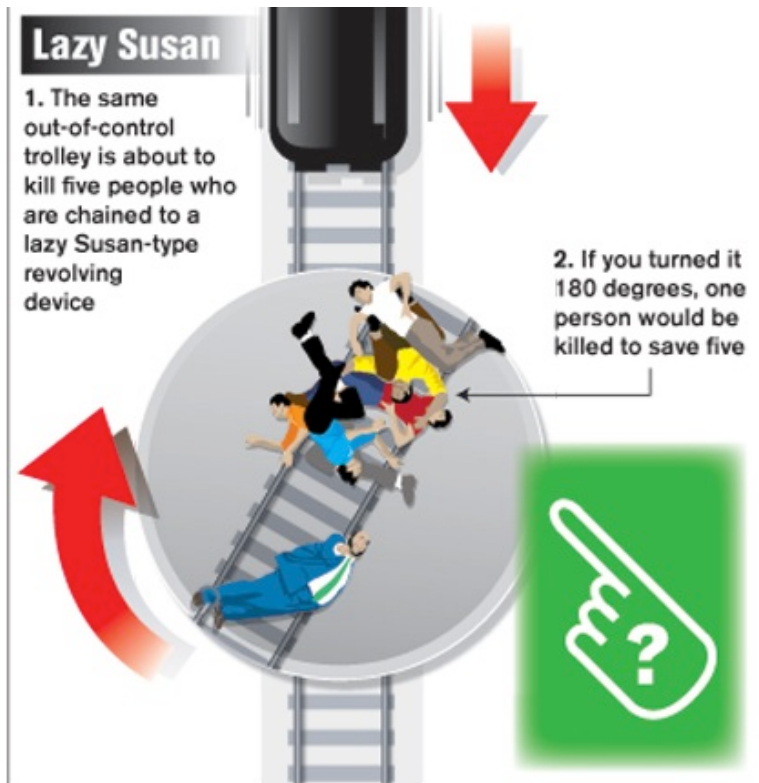
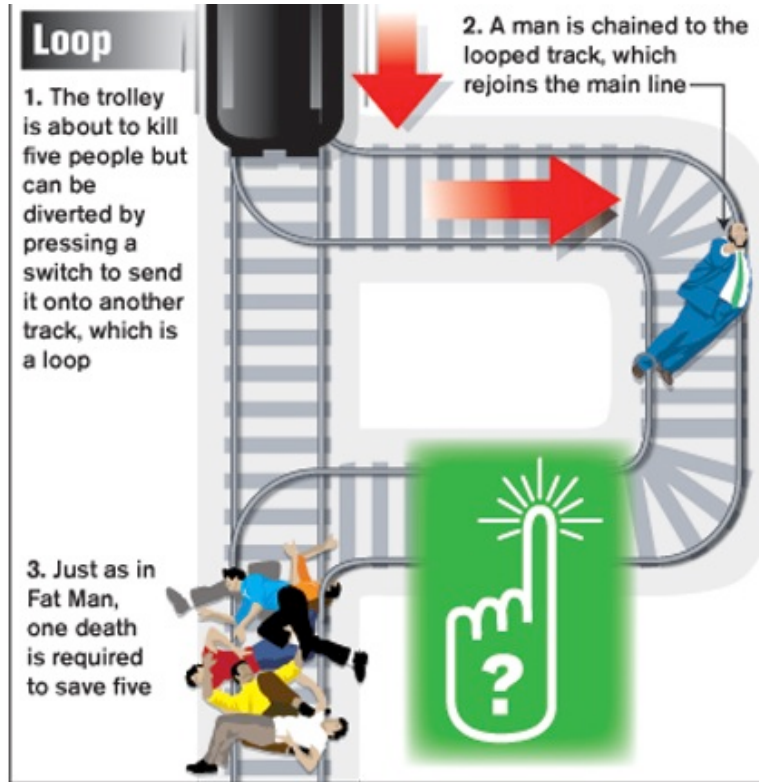
These cadets are being taught to make moral decisions for themselves, not to follow rules blindly. There are risks in creating a generation of philosopher—soldiers. One instructor I spoke to, Major Danny Cazier, acknowledged this but told me that “the pay-off is too high to pass on.” He says it is vital that when soldiers are in

a terrifying battlefield situation, they don't lose sight of "the fundamental principles that a person believes in, and which guide his actions. And those principles need to have been conditioned by considerations like the trolley problem." The cadets agree. They'll soon head off to perform their duty—the trolley problem is heading to Kandahar.

The doctrine of double effect is enshrined in the Geneva conventions. It is also crucial to other areas of morality, such as medical ethics. In western countries a sharp distinction is drawn, for example, between actively killing a sick patient, and giving them a drug to relieve pain, aware that this will hasten their death. Michael Rawlins, head of the National Institute of Health and Clinical Excellence (Nice), cites an old adage and a distinction linked to the doctrine of double effect, that between an act and an omission: "Thou shall not kill but need not strive officiously to keep alive."

The coalition claims that NHS funding will be ring-fenced, but resources are bound to be squeezed in the next few years. Nice, which draws up the guidelines for which treatments the NHS offers, will face intense scrutiny. So will its algorithm which determines whether a treatment is worth its price, factoring in cost, lives saved and quality of life. "When Nice said yes to [the drug] Herceptin, for early breast cancer, one NHS trust closed its diabetic clinic to pay for it," said Rawlins. "These are rotten decisions to have to make."

But despite the influence that the doctrine of double effect wields on policy, it may not explain all our intuitive responses to the trolley problem. Take the Loop scenario (see diagram three). As in Spur, a trolley is about to kill five people but can be diverted down another track, to which a large man is tied. This time the other track is a loop—beyond the man, the track bends to rejoin the main line, on which the five people are stuck. However, collision with the single man would stop the trolley. Should you flip the switch? Judith Thomson, who devised this variant, argued that if it's acceptable to divert the train in Spur, it must also be in Loop, which is identical except for a few extra metres of track. In studies, most people agree: the majority (though not as large a majority as in Spur) believe it would be right to divert the trolley. Yet if Loop man were to break free and remove himself from the trolley's path, the five people would still die. Just as in Fat Man, you require the death of one person to save five.



Variations on the trolley problem such as Loop (above top) and Lazy Susan (directly above) expose how our responses cannot be easily explained by logic

One obvious solution to the trolley problem is that in Spur, you are diverting a pre-existing threat to produce less harm, whereas pushing the fat man is a new threat. But this explanation is inadequate, says Frances Kamm of Harvard (intriguingly, many of trolleyology's exponents are women). Kamm, a tiny bundle of jovial energy, came up with the Lazy Susan scenario to explain why.

In this variant (see diagram four), the trolley is heading towards a lazy Susan-type revolving device with people chained on top. Five people are in the path of the trolley—but if it was turned by 180 degrees, only one man would be. Should you turn the lazy Susan? Our moral intuitions say yes, even though this does not involve diverting an existing threat.

Utilitarians, who believe in the greater good, are suspicious of these baroque thought experiments. We need to overcome our irrational queasiness and topple the fat man, they say. But Kamm takes seriously the separateness of persons, the idea that an individual's wellbeing shouldn't just be dissolved into some giant vat of wellbeing soup. She believes there are some things we can't do to people (torture, for instance) whether or not it would contribute to the total sum of happiness. And she defends herself against critics who accuse her of conjuring up risible scenarios which have no bearing on reality. "Real-life cases have a lot of factors going on, and it's hard to test whether it's this factor that's crucial or that factor. You have to artificially construct cases to focus on the factors that are important. It's like the scientist in the lab who has to figure out whether, say, the dust particle makes a difference to friction, and tries to hold everything else constant."

The trolley problem is no mere academic exercise for Kamm. She is visibly pained by the thought of individuals being instrumentalised, of their interests being weighed up impartially in some clinical utilitarian algorithm. Yet she also loves the peculiar world she inhabits, populated by hypothetical and surreal moral dilemmas. "I feel that I've been admitted to a whole world of distinctions that haven't been seen by others or at least not by me. And I'm taken by it as I would be by a beautiful picture."

Ask the man on the Clapham omnibus about the trolley problem and he will likely give you the same reaction as an Ivy League professor. Ninety per cent of people believe it is right to turn the train in Spur. Ninety per cent of people believe it is wrong to push the fat man. Which is odd—it's not as if any of us has actually faced this predicament in reality.

With philosophers still unable to reach consensus on the trolley problem, their more empirically minded colleagues from other disciplines have muscled in. There have now been dozens of studies on our intuitions and they seem not to vary widely between men and women, the rich and the poor, the old and the young, between those in the west and those in the east, between the religious and the secular, between those with PhDs and those without qualifications.

Harvard psychologist Marc Hauser has for some years been running an internet-based poll, called the Moral Sense Test. Anyone can take the test, which is available in multiple languages. It poses a series of moral quandaries. Noam Chomsky famously asserted that all languages had in common a deep structure, and that the language instinct was innate. Hauser makes a similar claim for morality. He says we have an innate sense of “very, very abstract rules. They have no specific content like, ‘don’t kill your mother,’ but there are nonetheless abstract rules about when killing or harming is permissible.” Hauser thinks that the doctrine of double effect, first expounded nearly a millennia ago, is hard-wired into us.

A native English speaker is more likely to say “The large, white train” than “the white, large train,” but will probably be unable to give you an instant explanation why. In the same way, Hauser argues, we follow a grammar of morality that we often can’t articulate, but which can be nuanced and multilayered. Thus suppose we made a few adjustments to the trolley scenarios. Imagine that the five people on the track were suffering from a dreadful disease and going to die soon anyway. Or imagine that we discovered the man on the spur had been tied onto the track by five bullies who had later become trapped on the main line. In these cases, our intuitions about whether we should flick the switch are unlikely to be so secure. Hauser says that his vast databank of global moral instincts is allowing him to develop a rich picture of our complex moral grammar “that feeds into our very fast, often automatic decisions about what is right and wrong.”

Hauser is a controversial figure who has just been found guilty of scientific misconduct by his university. He is now on unspecified leave. Two floors above his office is Josh Greene, a young, curly-haired professor trained in both psychology and philosophy. Like the other academics I meet whose job involves grappling with traumatic (if hypothetical) dilemmas, he’s irrepressibly cheerful. While I am there, a female student of his is agonising over the following question. It is during the second world war and you and



your baby are hiding with others from the Nazis. Your child begins to cry. If you don't smother and kill her, she will give away your hiding place and the Nazis will murder everyone. What should you do?

"I couldn't do it," says the student. "I couldn't kill my baby." But the noise will result in everyone being killed. "It doesn't matter. I won't kill my baby. I'd rather it was on their conscience." What difference does it make—the baby will still be dead in a few minutes? "Yes, yes, but not from his mother's hand." Nonetheless, she is torn. Her head is in her hands.

Greene has put subjects into MRI scanners as they reflect on moral dilemmas. He believes that what's going on is a sort of neural wrestling match between the calculating part of the brain which maximises costs and benefits (better to kill one person and save five others) and the emotional part ("I can't kill my own child") or, as he prefers to put it, between an efficiency and a flexibility part of the brain.

People with damage to the ventromedial prefrontal cortex, the part of the brain in which emotion feeds into decision-making, are far more blasé about the fat man. In one study the patients with this damage were about five times as likely as normal people to say it is acceptable to push the fat man.

For those without brain damage, Greene draws an analogy with a camera. A camera has automatic settings—one for landscapes, say—which are useful because they save time. But often you want to do something funky, perhaps with the main subject at one side and the rest of the picture blurred. Then you need manual mode. "Emotional responses are like the automatic responses on your camera. The flexible kind of action-planning, that's manual mode." Evolution has endowed us with a flexible system for problems we can't anticipate.

His claims are contentious, but he says that with Fat Man there are two factors behind the repugnance to kill. "They have no or little impact separately, but when you combine them they produce an effect that's much bigger than the sum of the separate effects. It's like a drug interaction, where if you take drug A you're fine, and if you take drug B you're fine, but take them both together and BAM!"

One of these two ingredients is the doctrine of double effect, and our caring more about intended than unforeseen effects. The other

is personal force. This is the difference between directly impacting somebody with one's muscles—pushing them, for example—compared to flicking a switch. Greene's research suggests that subjects are more willing to kill the fat man if they can do so by turning a knob and dropping him through a trapdoor. This nicely illuminates the contrasting approach of the philosopher and psychologist—the psychological reluctance to kill may vary depending on whether it is pushing or flicking, but the philosopher wants to reject any moral distinction between these two.

Greene argues that there are straightforward evolutionary explanations for our responses to the trolley problem. “We evolved in environments in which we did things with our own bodies in a rather direct way. Now we live in this world of technologically mediated action. The Fat Man triggers a kind of emotional alarm that says, ‘Hey, don't do that.’” If Greene is right about our instincts about violence, there are major implications for the future of warfare—which will be characterised increasingly by flicking not pushing.

One might have predicted long ago that the runaway-train scenarios would run out of steam, but it turns out there are numerous branches of investigation for those wanting to jump on the gravity-trolley. One study asked subjects whether they would push a fat monkey off the footbridge to save five other monkeys (answer, “yes”: we are less deontological when dealing with other species). Another gave a name to the fat man, probing whether our reactions could be influenced by race. Subjects were offered the choice between pushing “Tyrone Payton” (a stereotypically African-American name) off the footbridge to save 100 members of the New York Philharmonic and jettisoning “Chip Ellsworth III” (a name conjuring up old money) to save 100 members of the Harlem Jazz Orchestra. The researchers discovered conservatives were indifferent between these options, but at the hands of liberals, poor old Chip fared less well than Tyrone.

For many moral philosophers the metastasis of trolleyology is infuriating. Trolleyphiles believe in the value of such thought experiments and take satisfaction in the inventiveness of their examples and the use to which they can be put. But trolley-phobes feel far more strongly—they despise what they represent and would like to shunt the trolleys into a remote retirement depot. One excellent philosopher whom I approached on the topic said “Sorry, I just don't do trolleys.”

The most vehement of trolley-phobes believe this whole approach to ethics is profoundly wrong-headed and, in a most fundamental

way, mischaracterises the nature of morality. The world is too complex, judgements are too multifaceted, and the qualities of virtue and wisdom too subtle, for us to peel off intuitions from the trolley scenarios and usefully transplant them onto the real world. The riposte is that it's hard to know how to do applied moral philosophy any other way. If it is indeed right to kill the spur man but wrong to kill the fat man, we need to untangle the principles at stake. Judith Jarvis Thomson once referred to the trolley problem as a "lovely, nasty difficulty." Solving this lovely, nasty problem has repercussions for how we regard actions that weigh up lives. It is, literally, a matter of life and death.

### **Winston Churchill and death in south London**



**Trolleyology could help us understand ethical dilemmas of the kind Churchill faced during the second world war**

On 13th June 1944, the Nazis unleashed a new weapon: a flying bomb. It made a sound that Londoners came to dread: it buzzed like a deranged bee and then went eerily silent. The silence signalled that it had run out of fuel and was plummeting to earth. On contact with the ground it caused a devastating blast, instantly reducing buildings to rubble. Londoners tempered their fear by giving the bombs the childlike name "doodlebugs." The Nazis called them V1s.


The Nazis targeted the V1s at the centre of the capital, which was densely populated and held the institutions of power. But, unbeknownst to the German high command, the bombs were falling a few miles short of the centre.

An obvious plan presented itself to British military chiefs. If the Nazis could be persuaded their bombs were on target then they wouldn't alter their trajectory. Better still, if they could be con-

vinced that the bombs were falling north of the capital then they would readjust their aim so that they fell further south—and perhaps end up plopping harmlessly in the countryside. But this ploy meant that the bombs were more likely to land in south London.

The deception went ahead and the Nazis were fed false information. But in cabinet there was a fraught debate between Herbert Morrison, minister for home security, and Prime Minister Winston Churchill. It would be too crude to call this as class conflict, but Morrison, the son of a policeman, perhaps felt more keenly than did Churchill the risk that the people in the working-class areas of south London would be running. Churchill, as usual, prevailed.

Among historians, the success of the operation is contested. The Nazis never improved their aim—and nonetheless, the doodlebugs claimed 6,000 lives. How many more might have been lost had Churchill not pulled rank can only be guessed.

Churchill would have been wrong to use some citizens as a human shield even if his objective were to save the lives of others. He would have been equally wrong to inveigle people into the path of a Nazi threat to save lives. But, on balance, he was surely right to support the deception plot that redirected the doodlebugs towards south London. Why the difference? The curious incident of the fat man on the footbridge holds the key. 

**David Edmonds** studied at Oxford University, has a PhD in Philosophy from the Open University and has held fellowships at the universities of Chicago and Michigan. Edmonds is the author of *Caste Wars: A Philosophy of Discrimination* and co-author with John Eidinow of *Wittgenstein's Poker: The Story of a Ten-Minute Argument Between Two Great Philosophers* and *Bobby Fischer Goes to War: How the Soviets Lost the Most Extraordinary Chess Match of All Time*.

[We welcome your comments, questions, or suggestions.](#)

---

## THE GREAT IDEAS ONLINE

Is published weekly for its members by the

### CENTER FOR THE STUDY OF THE GREAT IDEAS

Founded in 1990 by Mortimer J. Adler & Max Weismann

Max Weismann, Publisher and Editor

Ken Dzugan, Senior Fellow and Archivist

A not-for-profit (501)(c)(3) educational organization.

Donations are tax deductible as the law allows.