Drama hinges on the characters we love, or love to hate. What's their secret? asks **David Robson** 

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arcy and Wickham. Harry Potter and Lord Voldemort. Sherlock and Moriarty. Whatever the genre – be it romance, fantasy or detective fiction – many of our favourite stories involve a sublime double act of a hero and villain, characters that inhabit our minds and linger in the imagination long after the tale is over.

Where would our stories be without these shades of light and dark? Why do we find this recipe so appealing? And what makes some heroes and villains particularly delicious to follow?

Literary Darwinism, which attempts to view fiction through the lens of evolutionary theory, may offer some answers. Stories, its proponents argue, are a kind of 'surrogate experience', a simulation that allows us to test the challenges that might threaten our

survival. Never mind that the action of our tales today may take place a million miles from the heat of the Savannah; whether they are fighting their battles in the 19th-century ballroom or the Black Land of Mordor, it seems that our heroes allow us to see different scenarios from multiple perspectives, so we can adapt and modify our future behaviour.

In this light, fictional heroes should represent the most effective survival strategies, while the villains should be clever manifestations of the real dangers we can face. This idea has received increasing support during the last few years, from both qualitative literary analyses and experimental studies.

## A literary animal

Literary Darwinism is not really such a radical idea, when you consider that stories are the products of human minds forged in the crucible of natural selection. It makes sense that they would reflect any psychological tendencies that allowed us survive and thrive. As the novelist Ian

McEwan wrote in the book *The Literary Animal*, many of the struggles we read about today existed long before the birth of our own species. 'If one reads accounts of troops of bonobo...one sees rehearsed all

the major themes of the English 19th century novel: alliances made and broken, individuals rising while others fall, plots hatched, revenge, gratitude, injured pride, successful and unsuccessful courtship, bereavement and mourning.' McEwan thinks that it is thanks to this shared framework that fiction can connect people across such vast distances. 'It would not be possible to enjoy literature from a time remote from our own, or from a culture that was profoundly different from our own, unless we shared some common

emotional ground, some deep reservoir of assumptions, with the writer,' he adds.

Nor is the idea that novels help us to simulate the world particularly hard to believe, with recent fMRI studies showing that reading has many of the hallmarks of the 'surrogate experience'. People reading scary passages from Harry Potter, for instance, showed heightened responses in the 'empathy network', including the motor regions of mid-cingulate cortex (Hsu et al., 2014). Were they becoming highly involved with Harry's behaviour and mentally playing out his physical movements? Reading imaginative stories about people's relationships also appears to exercise the dorsomedial prefrontal cortex – an area that is also known to be involved in more regular social decision making (Tamir et al., 2016).

A well-constructed hero should therefore allow us to travel the world in their shoes, and learn important life lessons as a result. Given that reproduction has been one of the biggest challenges facing almost any individual of virtually all species, it is little wonder that many heroes are teaching us how to find love, in particular. In 2003 Jonathan Gottschall and colleagues analysed around 1500 folk-tales from every corner of the globe and concluded that 'no theme in the sample was as pervasive as the marriage theme'; around 64 per cent of the characters started out unmarried only to find their true love by the end of the tale, with the explicit purpose of finding love the main motivation for about half the characters (Gottschall et al., 2003)

Needless to say, this theme dictates the age and appearance of our heroes: they must be in their prime reproductive years (more than 70 per cent of the protagonists surveyed had just reached sexual maturity), physically attractive (to show off good genes) and, for the men at least, they should generally have a high status that could confer advantages to the child. Hence why 'Prince Charming' is the hero in so many fairytales.

A more nuanced view of our romantic

Allison, S. & Goethalls, G. (2012). Making heroes: The construction of courage, competence and virtue. Advances in Experimental Social Psychology, 46, 183–235.

Gottschall, J., Berkey, R., Cawson, M. et al. (2003). Patterns of characterization in folktales across geographic regions and levels of cultural complexity. *Human Nature*, 14(4), 365–382.

Hsu, C.T., Conrad, M. & Jacobs, A.M. (2014). Fiction feelings in Harry Potter: Haemodynamic response in the mid-cingulate cortex correlates with immersive reading experience. *Neuroreport*, 25(17), 1356–1361.

Johnson, J.A., Carroll, C., Gottschall, J. & Kruger, D. (2011). Portrayal of personality in Victorian novels reflects modern research findings but amplifies the significance of agreeableness. Journal of Research in Personality, 45(1), 50–58.

Kaufman, G.F. & Libby, L.K. (2012). Changing beliefs and behavior through experience-taking. Journal of Personality and Social Psychology, 103(1), 1–19.

Keen, R., McCoy, M.L. & Powell, E. [2012]. Rooting for the bad guy: Psychological perspectives. Studies in Popular Culture, 34[2], 129–148. Kidd, D.C. & Castano, E. (2013). Reading literary fiction improves theory of mind. Science, 342(6156), 377–380.

Kinsella, E.L., Ritchie, T.D. & Igou, E.R. (2015). Zeroing in on heroes: A prototype analysis of hero features. Personality Processes and Individual Differences, 108(1), 114–127.

Kjeldgaard-Christiansen, J. (2015). Evil origins: A Darwinian genealogy of the popcultural villain. Evolutionary heroes may come from considering the mating strategies of our past. The first strategy could be considered 'playing the long game'. Human babies are generally demanding and expensive to maintain, so according to some evolutionary psychologists, women should tend to prefer more reliable men who will help them with the upbringing – even if they lack other desirable qualities. Think of Mr Darcy in Jane Austen's *Pride and Prejudice* – a character who proves his honesty and altruism throughout the course of the novel, even if he lacks obvious charm.

The second strategy may be exemplified by the cad Mr Wickham in the same novel – a womaniser who is somewhat mad, bad and dangerous to know. He may be less likely to stick with you in the long run, but according to the 'sexy son hypothesis', there are other benefits to his charms: his cunning, dominance and sexual success mean that he is likely to pass his genes on to another generation, and if his son inherits those traits, they may also spread their wild oats. It is for this reason, they say, that some women prefer the 'dark hero' - they are willing to take the short-term gamble in return for these prize genes (Kruger et al., 2003). Lydia, Elizabeth Bennett's sister in Pride and Prejudice, seems to have been willing to make that sacrifice when she fell for the dark hero Wickham.

In a bid to add some empirical data to this literary analysis, the University of Michigan's Daniel Kruger and colleagues invited students to study descriptions lifted from 19th-century romantic novels and then answer questions on their perceptions of the characters and their behaviour, to confirm that they evoke the kinds of reactions you would expect of the two strategies. Sure enough, they found that readers intuitively understand the characters' mating strategies – who were the better dads, and who were the cads.

Then again, Bridget Jones, Helen Fielding's drunk, 30-something diarist,

Behavioral Sciences. doi:10.1037/ebs0000057 Kruger, D., Fisher, M. & Jobling, I. (2003). Proper and dark heroes as dads and cads. Human Nature, 14, 305–317

Schnall, S., Haidt, J., Clore, G.L. & Jordan, A.H. (2008).
Disgust as embodied moral judgement. *Personality*and Social Psychology Bulletin, 34[8], 1096–1109.

Tamir, D.I., Bricker, A.B., Dodell-Feder, D. & Mitchell, J.P. (2016). Reading fiction and reading minds: The role of simulation in the default network. Social Cognitive and Affective Neuroscience, 11(2), 215–224.



could have told us much the same when describing the appeal of Colin Firth and Jennifer Ehle in the BBC's adaptation of *Pride and Prejudice*. 'The basis for my addiction,' she writes, 'is the simple human need for Darcy to get off with Elizabeth.' She compares it to a game of football; the testosterone-fuelled fans see the match as a kind of proxy for a tribal battle. 'That is precisely my feeling about Darcy and Elizabeth. They are my chosen representatives in the field of shagging, or, rather, courtship.'

The irony, of course, is that we ourselves are rooting for Bridget in exactly the same way, and it's not difficult to see how the same applies for many modern romances, even when the protagonists are not human, such as *Twilight*.

Not all heroes in literature and film are just looking for love, of course. More generally, Kruger thinks that our favourite characters may help teach us the value of altruism. In the past, tight-knit groups would have had greater success when competing for resources, so cooperation could have been crucial for survival. Asking an expert panel of literary scholars

to judge the personalities more than 2000 characters from 19th-century fiction, Kruger, Gottschall and colleagues have found that the heroes tended to be fairly mild and unassuming – not the kind of strong personalities you might expect us to admire. Instead, it was the antagonists who were more ambitious, greedy and hungry for dominance.

You might argue that's just a product of the writers' culture, but in light of the psychology of altruism, it would make sense that many stories portray characters who are rewarded for quietly striving for a better society – rather than setting out to enhance their own fortunes (Johnson et al., 2011). Although they are from a different era, the enchantingly modest Frodo Baggins in *Lord of the Rings*, and Harry Potter, may personify this type of hero.

A hero who makes the ultimate sacrifice and dies for others sees a double benefit. Not only have they showed extraordinary altruism; they can also benefit from the 'death positivity bias', argue Scott Allison and George Goethals. They have shown that when given exactly

the same account of someone, we tend to ignore their failings and consider them in a better light if we find out they are dead, rather than alive. 'People associate death

with greatness,' they write – and it could help explain why the 'heroic sacrifice' is a particularly popular trope in all kinds of fiction, from Jack Dawson in *Titanic*, who drowns in freezing water so his love can escape, to Obi-Wan Kenobi in *Star Wars*, who dies at the hands of Darth Vader to

the hands of Darth Vader to save Luke, Han and Leia (Allison & Goethalls., 2012).

## **Supervillains**

Ironically, the psychology of altruism may also shed light into those darker souls at the other end of the spectrum – the supervillains, such as Lord Voldemort, Darth Vader or Hannibal Lecter, who are, quite simply, 'pure evil'.

The idea formed the basis of a recent paper by Jens Kjeldgaard-Christiansen at Aarhus University in Denmark, who points out that the brain may instantly calculate a 'welfare trade-off ratio' for each person we meet. Someone who gives little (or nothing) but takes a lot, has a low welfare trade-off ratio, and we have an instant gut reaction not to trust them. The lower they score, the more we dislike them, and depending on just how poisonous they are, we may even decide to kick them out of our group - or kill them. The characters that provoke the strongest of these reactions should be considered evil, he says - and hearing those chilling tales should underline the values of altruism, encouraging us to pull together and be more cooperative as a result (Kjeldgaard-Christiansen, 2015).

This framework has allowed Kjeldgaard-Christiansen to create something of a checklist that should characterise the most blood-curdling villains. He points out, for instance, that without a strong justice system, past societies would have been fragile, so a single unpunished act may quickly sow the seeds of wider discontent. For this reason, he thinks we are especially chilled by characters who could spread their evil like a disease. Think of the way Voldemort sows discontent and builds a following of 'death-eaters'. Or consider this passage from Father Merrin in The Exorcist: 'I think the demon's target is not the possessed; it is us... the observers... every person in this house. And I think -I think the point is to make us despair; to reject our own humanity.'

Given that most threats may have come from outsiders, many villains will also carry signs that mark them as a member of an outgroup; Kjeldgaard-

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Christiansen
muses that this
may be why many
Hollywood
villains, such as
Hannibal Lecter,
speak with an
English accent.
They may also be
physically repugnant —

such as Voldemort's fetal appearance with no hair or lips and snake-like slits for pupils. As Simone Schnall and Jonathan Haidt, among others, have found, feelings of physical disgust can often prime the brain to make harsher moral decisions – so a grotesque, diseased appearance should heighten those instant gut instincts that might lead us to despise someone (Schnall et al., 2008).

Needless to say, there is an infinite variety in the villains that populate our stories, and authors can decide just how much they want us to identify with their creations. Kjeldgaard-Christiansen points out that if we can peek too far inside their minds, we might get sucked in and begin to identify with them. This could be considered in light of 'attribution errors' the less we know about someone, the more likely we are to assume that they are guilty and the more harshly we judge that guilt. If the author hits a sweet spot, however, we may find ourselves simultaneously appalled and enthralled, a delicious combination that causes us to root for evil-doers like Mafia boss Don

Vito Corleone in *The Godfather* (Keen et al., 2012).

As with any form of criticism, the danger is that viewing literature through this lens could lead to myopia, or tunnel vision; you begin to see all characters purely in terms of the evolutionary psychology, while missing out on the extraordinary kaleidoscope that has emerged from the human imagination. Kruger, for one, readily admits that there are many exceptions to the more general trends he has found. Consider Oscar Wilde's Dorian Gray, or Emily Bronte's Cathy and Heathcliff in Wuthering Heights. These are deeply flawed, selfish, dangerous human beings - people that we should not wish to emulate. Nor are they typical villains. But just because they don't fit the general pattern, it doesn't mean that further study might not reveal ways that they could be interpreted in light of our evolutionary psychology.

After all, fiction, like other forms of culture, such as music, could be considered a 'transformative technology of the mind', defined by neuroscientist Anriruddh Patel as something that 'builds on existing brain systems, but transforms our experience of the world'. As an exercise in counter-factual thinking, more complex characters may help us to understand people we would have never appreciated before.

While many stories may cast an outsider as a villain, for instance, authors can also deliberately subvert these suspicions to make us more openminded. In a 2012 paper in the *Journal of Personality and Social Psychology* a team of researchers asked participants to read



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narratives with various kinds of protagonists. Through the course of the action, some of the stories revealed that the heroes happened to be members of minority groups – one was gay, another was African American. Afterwards, they were quizzed on their values and prejudices. Those reading the stories with the minority characters turned out to have more positive views about the characters' group, and were less likely to believe in the usual stereotypes (Kaufman & Libby, 2012).

Understanding complex characters certainly seems to help train empathy: we already know that people who reported reading more fiction tend to have better developed social cognition (Tamir et al., 2016), while reading prize-winning short stories for even a short period of time appears to improve participants' theory of mind, further strengthening the idea that storytelling can train the mind to see the world through different viewpoints (Kidd, & Castano, 2013).

It would be interesting to see how these findings could be put into practice as a more effective way to change behaviours. Does reading about the battle between good and evil really boost our cooperative instincts and make us more altruistic? Might educational psychologists, for instance, be able to set up schemes that harness our love of heroes and villains to curb bullying and reduce prejudice? One possibility is that priming someone to identify more strongly with certain heroic qualities may cause them to be braver and more honest (Kinsella et al., 2015).

There are, of course, already many real-world examples where stories have already helped us to see the world through the eyes of underdog and perhaps changed perceptions for the better. From classics such as Oliver Twist, Cry the Beloved Country and To Kill a Mockingbird to modern films like Brokeback Mountain, Suffragette and The Danish Girl, well-told stories have caused us to question our assumptions and prejudices and look for the real heroes and villains within our society.

At the very least, it's worth remembering the power of storytelling at any stage of our lives. Our evolution may guide the kinds of stories we love, but it has also given us the ability to use those bare bones and build fictional worlds that end up expanding and enriching our own. It allows us to create heroes from villains and villains from heroes – to turn hatred into love.

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## Do we have a heroic instinct?

If the recent murder of MP Jo Cox has cast a dark shadow over British society, the bravery of Bernard Kenny offers us all a ray of optimism. The 77-year-old pensioner was apparently just waiting for his wife in the library when he saw the attack, and leaped to her defence, at considerable risk to his own safety.

It was not the first time he had put his life on the line to save others; according to media reports, the former miner had also rushed to the scene of the Lofthouse Colliery disaster in 1973.

What makes real-life heroes like Kenny? And could we all learn from their example?

Although the study of heroism is still in its infancy, David Rand at Yale University has now started to explore this question with an inspiring study on 'extreme altruism'. Previous research on cooperation and altruism had largely relied on small acts of generosity in economic games like the Public Goods Game and the Dictator Game.

Such experiments had suggested that altruism is often an automatic, intuitive act - if we are not given time to think, we will automatically act to help others. For instance, in one experiment the researchers asked participants to perform a tricky memory task as they decided how to share some money with other participants; they were more generous than similar trials when they had more opportunity to think consciously about what they were doing (Schulz et al., 2014). This tendency varies between individuals, of course, but in general, we don't have to rationalise being good, weighing up the pros and cons; we just do it.

Rand suspected that this instinct may also lie behind the extreme altruism of those everyday heroes. So he turned to the Carnegie Hero Fund, a charity that rewards civilians who have risked their life to save another person – and amassed 50 accounts of extreme altruism, cross-referenced with contemporary news sources. A team of independent participants then rated these reports to decide whether they each reflected a deliberative or intuitive act. Sure enough, psychologists judged that more than 90 per cent of the acts were intuitive – a fact confirmed by later linguistic analyses of their accounts (Rand et al., 2014).

Notwithstanding the limitations of retrospectively analysing these accounts, this study at least hints that we should start looking at intuitive social heuristics (rather than rational decision making) if we are to understand heroism. Pointing to evidence that altruism can be cultivated as a habit, Rand speculates that these heroic events may be the culmination of a lifetime of generous acts. Eventually, the caring outlook has become its default, so that the heroes like Kenny didn't even have to think twice before risking the ultimate sacrifice. In other words, regular random acts of kindness may one day blossom into something far more profound.

## References

Rand, D.G. & Epstein, Z.G. (2014). Risking your life without a second thought: Intuitive decision-making and extreme altruism. *PLoS One*, *9*(10), e109687.
Schulz, J.F., Fischbacker, U., Thoni, C. & Utikal V. (2014). Affect and fairness: Dictator games under cognitive load. *Journal of Economic Psychology*, *41*, 77-87.