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The devil inside

Are some people innately duplicitous, self-serving and evil? Based on the latest developments in neuroscience — and the experience of her own unscrupulous sister — **Barbara Oakley** argues that they are

My sister stole my mother's boyfriend. It wasn't as if the boyfriend, Ted, was any great catch. At 85, he trundled about with a nose tube and oxygen tanks, hacking and snorting as he nursed his emphysema. Then there was the age gap — Ted was 40 years older than my sister. So what was the attraction? As it turned out, it was the gift Ted had planned for my mother — the Parisian vacation she had always dreamt of.

On hearing that my mother was planning a trip to Paris, my sister Carolyn suddenly realised that she, too, had always wanted to go to France. And what my sister wanted, she had a way of getting. When Carolyn clicked her spotlight on Mum's boyfriend, he was dazzled. Soon, my sister was tucked beside Ted and his breathing apparatus en route to Paris. *Après* Paris, of course, Carolyn dropped Ted like a hot rock.

My mother withdrew, shamed and saddened by this ultimate humiliation. Not long after, she passed away.

Manipulative, hurtful people such as my sister can't help but draw our wonder even as we agonise over the pain they cause. Perhaps we remember working for an arrogant, tyrannical supervisor — a charismatic man who wowed upper management with his flashy presentations and witty wordplay during golf. Or perhaps we never mention our pillar-of-the-community father — a kindly Santa Claus of a man who no one would believe had a sinister flip side. Or we learnt too late that a seemingly perfect wife is in reality a deceitful manipulator who has no qualms about using the children as tools to get her way.

Looking outside our circle of relatives, friends and acquaintances, we've all wondered about the larger-than-life characters. How could a man as unrelentingly evil as Hitler ever rise to the top? And what about the "Butcher of the Balkans", Serbian dictator Slobodan Milosevic? Or Uganda's despot Idi Amin, who kept a freezer full of human heads? Shouldn't people have noticed early on that these leaders were a little, well, strange? Were these dictators merely extensions of a normal range of human evil

(assuming human evil can ever be thought to be normal)? Or were they a different psychological species altogether?

It turns out that, over the past five years, an extraordinary revolution has taken place in our understanding of how malevolent minds function. I set out the remarkable breakthroughs scientists are making in my new book, *Evil Genes: Why Rome Fell, Hitler Rose, Enron Failed, and My Sister Stole My Mother's Boyfriend*. As I explain, science is finally beginning to home in on some of the sources of human evil.

For example, you may know someone who lies so often, and so unnecessarily, that you are convinced there is something pathological going on. And indeed there may be. One study has shown that pathological liars have volumes of "white matter" in the brain, a sort of scaffolding for neurons, roughly a quarter more than the rest of us. You may think that the person you know is consciously deciding to lie — and in a sense they are. But in another sense, if your or my brain were wired in a similar way, we would in all probability be doing the same thing.

Psychopaths — those amoral monsters who are responsible for some of humanity's worst actions — have been found to have significant differences in the layout and functioning of their brains. Their limbic system, for example — the seat of our emotions — responds only feebly to emotionally charged words such as "blood" or "rape". Other parts of the brain respond more actively than usual, as if the psychopath were attempting to cope with their dysfunction by using alternate neural pathways. And the corpus callosum — the superhighway that connects the two halves of our brain — is weirdly shaped and elongated.

Even for seemingly normal people, it turns out that our neurological underpinnings play a far stronger role in the flavour of our decision-making and interactions with others than we had previously realised. Have you ever shaken your head at the impossibility of reasoning with someone of a different political persuasion? In fact, it appears that political partisans of any party (yours included) often do not reason logically in relation to candidates and issues. Instead, emotional circuits are activated that provide a momentary dollop of limbic ecstasy when a way is found to prove the other side wrong.

Environment, as we know, is crucial in the formation of our personalities. For evidence, one need only point to the abandoned Romanian orphans, some of whom have suffered from lifelong problematic personalities because of their lack of early care. In this situation, the environmental influence was so strong that it overrode genetics.

But research is uncovering the fact that, in more normal circumstances, virtually every



Bad blood: were the selfish acts of Oakley's late sister, Carolyn, the result of her genetic make-up?

facet of our personality — including impulsiveness, ability to focus, narcissism, religiosity and degree of altruism — is also affected, sometimes quite significantly, by genetics. Dozens, perhaps even hundreds, of genes play a role in shaping any one trait, and these genes also interact with the environment to form a complex tango of causes. Sometimes, seemingly "evil" genes can help underpin conditions such as depression, bipolar disorder and schizophrenia. But, surprisingly, some of those same genes, when mixed with others, can help underpin some of our best traits — including intelligence, sense of self-worth and exuberance.

Just as environmental conditions can occasionally override any set of genetics, we find that genetics can sometimes override any given environment. Essi Viding of King's College London's Institute of Psychiatry and her colleagues have shown that if one identical twin has psychopathic-like traits, it is extremely likely that the other twin will have them. Fraternal twins do not share this propensity. This indicates that psychopathy, at least in some cases, is genetically based. In other words,

some people really are born with a genetic propensity to be bad, rather than being bent sinister by their environment. Sadly, at present, medicine has no way of fixing these unfortunates.

The implications of these and other recent findings are profound. They mean that some people — though, thankfully, just a tiny percentage — are innately duplicitous, self-serving and deceitful. These malevolents are not necessarily in prison and can sometimes rise quite high in social hierarchies. (After all, they cheat.) Just as important to under-

stand is that such people cannot be reasoned with — even though they may appear at times to be rational, reasonable actors. The quintessential example of this is Hitler. Before people finally realised what kind of person he really was, many took him at his word as a man of peace. After all, when diplomats met and were charmed by him, he gave his personal promise that the conditions he demanded would solve the problems that might have led to war. Yet as soon as each condition was met, of course, his demands just expanded.

Perhaps being aware of the latest results from neuroscience can help us to avoid the pitfalls of history. Those who believe it is best to reason, trusting discourse with Iran's President Mahmoud Ahmadinejad, for example, might do well to look past his charming, Hitlerian façade. After watching his bizarre recent announcement at Columbia University that Iran has no homosexuals, do we really believe that he might generally allow himself to be convinced otherwise? By heeding the hints of science, we can more easily accept that his call for Israel to be "wiped off the map" may not be some flight of fanciful rhetoric but a real, horrific intention, as with Hitler's explanation of his plans in *Mein Kampf*.

Perhaps the deepest significance of these new scientific findings is the personal empowerment they give us. Although it is disheartening to learn that a small percentage of people may be neurologically inclined to take advantage of or even hurt us, this awareness allows us more easily to recognise people who may not mean us well. This, in turn, helps us to establish boundaries to avoid being hurt or used. It also allows us, perhaps surprisingly, not to take terrible treatment quite so personally. After all, such treatment is a result of their pathology, related to how they are wired. If they weren't picking on us, they'd find someone else to treat the same way. Knowledge of these cutting-edge scientific results can also help us be a little less hard on ourselves — our own seemingly negative emotions of frustration and anger are often simply evolution's way of protecting us from people who do not mean us well.

Both my loving, caring parents were devastated by the emotional wreckage my sister Carolyn left at nearly every twist of her life. They wondered until their dying days how someone could make the kinds of hurtful choices she made. I think it would have helped my parents to know what science is telling us: that some of us, through the luck of the environmental and genetic draw, have our choices constrained by fate. And that, with a few tweaks of our genome and our lives, Carolyn lies within each of us.

Barbara Oakley is associate professor of engineering at Oakland University in Maryland. *Evil Genes: Why Rome Fell, Hitler Rose, Enron Failed, and My Sister Stole My Mother's Boyfriend* is published by Prometheus Books at £20.99.

Dr DAI LLEMMER

A reader writes: Data protection issues preclude self-nomination at this stage in the process, Dai, but your input would be appreciated regarding a personnel interaction issue.

I am facing a number of key challenges regarding a long-standing, pre-verbalised project to advance an off-timesheet relationship with a second party (again, best practice requires full anonymisation of individuals).

A rigorous SWAT analysis of the situation has identified a possible way forward, but this in turn raises a number of so far unresolved questions on which I would welcome specific external guidance.

A specialist literature survey indicates that an invitation to an off-site social situation would be an effective mechanism for interaction and, thanks to a recent adventitious salary increment capture, I have identified an assured finance stream sufficient for a fully funded tender to entertain; but would this approach be best practice in terms of the equal opportunity agenda?

Moreover, there is insufficient data currently available to assure me that I

have a sufficiently robust rejection process in place in the event of less than 100 per cent take-up. Would it be safer to trial the process, do you think, perhaps through a limited-liability third-party spin-off, before moving to full implementation?

You will appreciate that tasking out self-assessment functionality in this way is a suboptimal strategisation of my esteem modalities, but a frank assessment of the situation in the spirit of a 360 per cent SMART audit is desirable. We need to push the agenda forward on this one, so a response by Friday would be appreciated. (Action: DL)

Dr Dai Llemmer writes:

Dear Colin (you really should delete that "From the Director of Assurance Systems: Enhancing Quality 24/7" signature on your e-mails!). I appreciate your courage in writing to me. This is about Rowena in the Registry, isn't it? Have you still not asked her out? In the interests of full transparency, and minimising your tendency to hang around in the corridor outside her office, I think you should. You might

try suggesting an on-site coffee as an opening gambit.

Perhaps, with an eye both to the widening participation agenda and to maximising the opt-in potentialities, you could invite some other colleagues too (a strategy with its own adventitious on-gains for the university's catering income stream)? If that goes well... sorry, if that produces the desirable outcomes predicted in the project spec (and you will obviously have to put in place some robust formative and summative assessment metrics to provide quantitative feedback on success rates), you might mention lunch in the SCR (see above), with a view to a wider speculative-mode networking meeting on a whole-person to whole-person information exchange basis (you might begin by asking what sort of music she likes, or by showing her a picture of your dog — if Targets is still with us, of course) — and take it from there. But, if I might suggest a final, more general quality-enhancement issue: you really should get out more, Colin.

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ANDREW BIRCH

