"The most basic experience we all have of the difference between being conscious and not being conscious is falling asleep... It is almost as though the conscious self ceases to exist, like a fire quenched."

<mark>#1</mark>

My research focuses on the interface

between neuroscience and philosophy.

"Neurophilosophy ... is about the impact of neuroscience and psychology and evolutionary biology on how we think about ourselves."

#2

"Some hypotheses about the brain are marketed by self-promotional writers who exaggerate what we actually know,... "free choice is an illusion," "the self is an illusion," "love is just a chemical reaction." ...In my judgment, such startling claims are more sensational than they are good science... But if they want to address how the mind works, they need to know about the brain."

#3

"The human brain has been shaped by hundreds of millions of years of evolution… A brain maps what is relevant to how that animal makes its living."

"Brain circuitry also supports a neural model of the inner world... a basic job for a brain is to distinguish the me world from the not-me world... Nothing in the ancient environment of brain evolution would select for brains that could reveal themselves."

<u>#3</u>

"How does the activity of neurons— possibly many, many neurons— produce pain or sounds or sights? The answer is not yet known."

#4

"Is some self-deception good for us? Possibly, but self-deception can run amok."

#4

"Philosophers Tim Lane and Owen Flanagan have suggested that for a very small segment of our lives... false optimism may actually be beneficial... Lane and Flanagan wisely point out, however, that false optimism is generally less a belief than a kind of belief-desire amalgam, more akin to hope than to a firmly held, evidence-based belief."

#5

"The values of self-survival and self-maintenance are…are in the brain of every animal." **#5**

"Two central characters in the explanation of mammalian other-care are the simple peptides oxytocin and vasopressin...

#6

"Only about 3 percent of mammals... show mate attachment... Is oxytocin the love molecule or the cuddle molecule, as has sometimes been suggested? No. The serious research on oxytocin reveals how very complicated its action is and how complicated is the circuitry underlying social attachment... Caution is in order... The Goldilocks effect is seen in many areas of biology: Too little of something is not good, too much is not good."

#7

"...moral behavior and moral norms do not require religions. Nonetheless, a religion may add to existing norms or create completely new ones... These norms are often prized for highlighting the differences between groups , with special focus on those demarcations that are highly visible. Us versus them."

Chapter 5: Aggression and Sex



THE JOY OF HATING

"By and large, the perpetrators are men...

#8

"...aggressive behavior can often benefit an animal.

Overpowering the prey means success, and success means food. And that, of course, means pleasure."

#8

"THEN THERE is sex. In most mammalian and bird species, there is competition between males for access to females."

<mark>#8</mark>

"It is well known that human males more commonly engage in physical fights than females…Testosterone is an essential element in the story…"

"Testosterone now comes to affect the anatomy of the male brain...

#9

"Variability is always a part of biology."

#9

"UNLIKE VOLUNTARY cooperation in social birds and mammals, the roots of aggression reach deep, deep into our biological past...

#9

"A MAJOR target of exploration of this chapter has been the association of aggression and hate with pleasure. Oddly, there is very little research on the neurobiology of this association and not much psychological research either. At several points in thinking about the link, I have wondered whether I am just plain wrong in perceiving that the link exists. I suspect that I am not wrong."

Chapter 6: Such a Lovely War

IS GENOCIDE IN OUR GENES

" ...genes do not directly control behavior... aggression involves many different elements... all depend on gene expression, and that expression in turn is regulated by other genes that may be regulated by yet other genes sensitive to features of the environment."

<mark>#10</mark>

"There are 50 known genes associated with height...The idea that any aspect of human cognitive behavior, such as genocide, is tightly caused by a single gene or two is unlikely... it is better to acknowledge our ignorance than to make up a fetching story about what is in our genes..."

HOW INSTITUTIONAL NORMS SHAPE BEHAVIOR #10

"FROM THE PERSPECTIVE of the brain, one major advantage of cultural norms is that they reduce uncertainty... Brains love predictability and are organized to learn so they can get it."

"Do we have any self-control, really, if so much about our behavior is organized by nonconscious events in our brains? If we are pulled hither and thither by hormones and enzymes and neurochemicals galore, isn't self-control just an illusion?"

Chapter 7: Free Will, Habits, and Self-Control

My comments:

What a great question - is self-control an illusion?

"How do brains with weak self-control differ from those with strong self-control? And if self-control is not real, as the phrase "free will is an illusion" suggests, then what is the point of trying to make reasonable choices— of trying to be responsible , courageous, decent, and honest?"

#11

"... you can expect individual variability in the capacity for self-control as you can for just about every other mental capacity... self-control is not one single capacity, but perhaps interwoven capacities that share a widely distributed neural substrate."

FREE WILL

"DO ANY of us have free will? From time to time, we hear a claim that free will is an illusion. This is rather disturbing, to say the least."

my experience with ordinary people is that free will has a different meaning from the philosophical sense of "contracausal choice."

#11

"Here is the second, and I believe ordinary, meaning of "free will." If you are intending your action, knowing what you are doing, and are of sound mind, and if the decision is not coerced (no gun is pointed at your head), then you are exhibiting free will...

"... we should resist the assumption that either his actions are free or they are not free, either voluntary or involuntary, with no space in between."

#11

"If free will is illusory means that there is no difference between a brain with self-control and one lacking self-control or one with diminished self-control, that claim is flatly at odds with the facts."

"With some disappointment, I am bound to say that I suspect that the claim that free will is an illusion is often made in haste, in ignorance, and with an eye for the headline and the bottom line. What is not illusory is self-control... evolution... saw to it that, by and large, normal brains have normal self-control."

Chapter 8: Hidden Cognition

"The words unconscious, nonconscious, and subconscious might have subtle differences of meaning as used in various subfields of science." "In the conscious/ unconscious case, brain science has not developed far enough to say exactly what is going on when we are aware of something and when we are not."

ME AND MY UNCONSCIOUS BRAIN

#12

"I WONDER: Does the me that I am include all that unconscious stuff? Or only the conscious stuff?... The brain's conscious and unconscious activities are massively interdependent, enmeshed, and integrated. You would not be who you are but for the well-tuned unconscious business and its tight fit with your conscious life. But for that unconscious business, you would not have a conscious life... Your conscious brain needs your unconscious brain, and vice versa."

<mark>#12</mark>

"MANY FORMS of self-deception can be found in the world of human behavior, and those we do not share make us scratch our heads."

#12

"THE MORE I learned about nonconscious processes in the brain and how they seamlessly interweave with conscious processes, the more I began to realize that to understand consciousness, we need to understand more about those nonconscious processes.

Chapter 9: The Conscious Life Examined

#13

"...lack of self-awareness is consistent with being asleep, not with being awake."

that raises questions about what the brain is doing when we are fully conscious and what it is doing when we are not... The neuroscientific research addressing these questions is still in its early phase, but inching along on a range of fronts, scientists have made much more progress than many nay-saying philosophers thought possible."

<mark>#13</mark>

"... it is useful to distinguish between the structures that support being conscious of anything at all and structures that contribute to being conscious of this or that— the so-called contents of consciousness."