The Unconscious Origins of the Will

We are conscious of only a tiny fraction of the information that our brains process in each moment. Although we continually notice changes in our experience—in thought, mood, perception, behavior, etc.—we are utterly unaware of the neurophysiological events that produce them. In fact, we can be very poor witnesses to experience itself. By merely glancing at your face or listening to your tone of voice, others are often more aware of your state of mind and motivations than you are.

I generally start each day with a cup of coffee or tea—sometimes two. This morning, it was coffee (two). Why not tea? I am in no position to know. I wanted coffee more than I wanted tea today, and I was free to have what I wanted. Did I consciously choose coffee over tea? No. The choice was made for me by events in my brain that I, as the conscious witness of my thoughts and actions, could not inspect or influ-
ence. Could I have “changed my mind” and switched to tea before the coffee drinker in me could get his bearings? Yes, but this impulse would also have been the product of unconscious causes. Why didn’t it arise this morning? Why might it arise in the future? I cannot know. The intention to do one thing and not another does not originate in consciousness—rather, it appears in consciousness, as does any thought or impulse that might oppose it.

The physiologist Benjamin Libet famously used EEG to show that activity in the brain’s motor cortex can be detected some 300 milliseconds before a person feels that he has decided to move.2 Another lab extended this work using functional magnetic resonance imaging (fMRI): Subjects were asked to press one of two buttons while watching a “clock” composed of a random sequence of letters appearing on a screen. They reported which letter was visible at the moment they decided to press one button or the other. The experimenters found two brain regions that contained information about which button subjects would press a full 7 to 10 seconds before the decision was consciously made.3 More recently, direct recordings from the cortex showed that the activity of merely 256 neurons was sufficient to predict with 80 percent accuracy a person’s decision to move 700 milliseconds before he became aware of it.4

These findings are difficult to reconcile with the sense that we are the conscious authors of our actions. One fact now seems indisputable: Some moments before you are aware of what you will do next—a time in which you subjectively appear to have complete freedom to behave however you please—your brain has already determined what you will do. You then become conscious of this “decision” and believe that you are in the process of making it.

The distinction between “higher” and “lower” systems in the brain offers no relief: I, as the conscious witness of my experience, no more initiate events in my prefrontal cortex than I cause my heart to beat. There will always be some delay between the first neurophysiological events that kindle my next conscious thought and the thought itself. And even if there weren’t—even if all mental states were truly coincident with their underlying brain states—I cannot decide what I will next think or intend until a thought or intention arises. What will my next mental state be? I do not know—it just happens. Where is the freedom in that?
Imagine a perfect neuroimaging device that would allow us to detect and interpret the subtlest changes in brain function. You might spend an hour thinking and acting freely in the lab, only to discover that the scientists scanning your brain had been able to produce a complete record of what you would think and do some moments in advance of each event. For instance, exactly 10 minutes and 10 seconds into the experiment, you decided to pick up a magazine from a nearby table and begin reading, but the scanner log shows this mental state arising at 10 minutes and 6 seconds—and the experimenters even knew which magazine you would choose. You read for a while and then got bored and stopped; the experimenters knew you would stop a second before you did and could tell which sentence would be the last you read.

And so it would go with everything else: You tried to recall the name of the lead experimenter, but you forgot it; a minute later you remembered it as “Brent” when it was actually “Brett.” Next, you decided to go shopping for new shoes after you left the lab—but on second thought, you realized that your son would be getting out of school early that day, so you wouldn’t have enough time to go shopping after all. Imagine what it would be like to see the time log of these mental events, alongside video of your associated behavior, demonstrating that the experimenters knew what you would think and do just before you did. You would, of course, continue to feel free in every present moment, but the fact that someone else could report what you were about to think and do would expose this feeling for what it is: an illusion. If the laws of nature do not strike most of us as incompatible with free will, that is because we have not imagined how human behavior would appear if all cause-and-effect relationships were understood.

It is important to recognize that the case I am building against free will does not depend upon philosophical materialism (the assumption that reality is, at bottom, purely physical). There is no question that (most, if not all) mental events are the product of physical events. The brain is a physical system, entirely beholden to the laws of nature—and there is every reason to believe that changes in its functional state and material structure
entirely dictate our thoughts and actions. But even if the
human mind were made of soul-stuff, nothing about
my argument would change. The unconscious oper-
ations of a soul would grant you no more freedom than
the unconscious physiology of your brain does.

If you don’t know what your soul is going to do
next, you are not in control. This is obviously true in
all cases where a person wishes he could feel or behave
differently than he does: Think of the millions of com-
mitted Christians whose souls happen to be gay, prone
to obesity, or bored by prayer. However, free will is no
more evident when a person does exactly what, in retro-
spect, he wishes he had done. The soul that allows you
to stay on your diet is just as mysterious as the one that
tempts you to eat cherry pie for breakfast.

There is a distinction between voluntary and in-
voltuntary actions, of course, but it does nothing to support
the common idea of free will (nor does it depend upon
it). A voluntary action is accompanied by the felt inten-
tion to carry it out, whereas an involuntary action isn’t.
Needless to say, this difference is reflected at the level
of the brain. And what a person consciously intends to
do says a lot about him. It makes sense to treat a man
who enjoys murdering children differently from one

who accidentally hit and killed a child with his car—
because the conscious intentions of the former give us
a lot of information about how he is likely to behave in
the future. But where intentions themselves come from,
and what determines their character in every instance,
remains perfectly mysterious in subjective terms. Our
sense of free will results from a failure to appreciate this:
We do not know what we intend to do until the inten-
tion itself arises. To understand this is to realize that we
are not the authors of our thoughts and actions in the
way that people generally suppose.

Of course, this insight does not make social and
political freedom any less important. The freedom to
do what one intends, and not to do otherwise, is no less
valuable than it ever was. Having a gun to your head
is still a problem worth rectifying, wherever intentions
come from. But the idea that we, as conscious beings,
are deeply responsible for the character of our mental
lives and subsequent behavior is simply impossible to
map onto reality.

Consider what it would take to actually have free
will. You would need to be aware of all the factors that
determine your thoughts and actions, and you would
need to have complete control over those factors. But
there is a paradox here that vitiates the very notion of freedom—for what would influence the influences? More influences? None of these adventitious mental states are the real you. You are not controlling the storm, and you are not lost in it. You are the storm.