

Freedom and Mental Illness

1. Welcome. In this last video on evolutionary psychology we shall be exploring clinical implication for both understandings of human freedom and mental illness.
2. At the beginning of the semester we explored the extensive role imitation plays in human behavior, feeling, desire and aggression. Humanity is a social species. We are both ourselves unusually attentive to the behavior of others and we are able to hold and direct the attention of others to what we are doing. Mirror neurons evoke within ourselves what we perceive others to be feeling and desiring. Such mimetic communication both inspires and entangles us in the behavior, feelings, desires and aggression of others.
3. Freud on the other hand looked less at mimetic communication and more at human instincts of sex and aggression which he took to be psychic forces driving emotions and behavior. Living in the industrial age, he modelled the human self on the dominant steam technology of his day, the steam engine. Instinctual sex and aggressive energy must be continuously released. To the extent that we can do so safely either directly or by rechanneling the energy into productive outlets our ego remains in control of the train. Mental health is like a steam engine in good running order, able to travel efficiently down the tracks. However repressing such energy threatens to raise pressure in our unconscious psychic boiler to dangerous levels threatening rupture. Mental illness is the product of such a rupture causing an uncontrollable release of energy. Anxiety is our last resort in combatting this pressure, but this desperate strategy to distract our consciousness is often worse than the original trauma that evoked such frightening emotions in the first place. . Another cause of mental illness can result from our psychic engine breaking down due to overwork and lack of maintenance.
4. For evolutionary psychology the model is the computer. Our genetic DNA constitutes our root programming. Culture creates apps and writes software programs to apply our genetically evolved programming to our particular current environment. Thoughts and emotions are electrical and neurochemical processes that serve to execute our programming.
5. Our instinctual root programming evolved in our original ancestral environment. However behavior programs adaptive to hunter gatherers on the African Savannah may become dysfunctional as (1) ongoing technological and social evolution accelerates and

vastly outstrips the millennial pace of biological change. Mental illness is a function of such dysfunctional programs continuing to run. Mental illness can also be due to buggy programming due to ongoing copying errors and (2) malware installed by viral hacking.

6. Consciousness on this last computer model of the self is analogous to (1) a monitor or screen. What appears on our screen at any given moment we might think is caused by what was on the screen a moment earlier, but of course what really explains what is on our screen at any given moment is the program running on the computer or the data streaming across the internet. Our conscious thoughts, feelings and desires may appear to cause our behavior as well as further thoughts, feelings and desires in subsequent moments of consciousness, but they no more do so that images cause subsequent images on a computer screen. We may experience our behavior as often free, in that what we do correlates with what we feel and desire, but such conscious agency is merely based on what appears, or in Greek, “epiphenomenal.” (2) The scientific explanation for any behavior lies in the execution of our programming.
7. Let us look at an array of psychiatric disorders and how evolutionary psychology seeks to explain them in terms of their model of the self as an organic computer designed by evolution.
 - a. (1) Overwhelming rage is a program that primes us for battle. We fight better when we “go bezerk”. That can be valuable in a hunter-gatherer context where the only weapons at hand are sharpened rocks, and bare fists. But it can be dysfunctional today when our rage is triggered by someone who contradicts us or a boss we feel is trying to intimidate or humiliate us.
 - b. (2) mania is similarly an adaptive response in an emergency when we need to take extreme risks. Evolutionary psychology explains mania as an evolved confidence building program whose triggers have become too sensitive and extensive, and which once initiated loops endlessly.
 - c. (3) anxiety as programmed hyper-vigilance, designed to be triggered by a threatening environment. Our flight response is on a hair trigger but cannot be fully executed. It is like a virus drawing upon more and more of our computer’s power leading to other programs stalling out or failing to run altogether. Or as programmed helplessness to triggering others to come to our aid and comfort.

8. Depression, or the crash of self confidence programming , is explained as a submissive program run amok. Submission is adaptive when under threat from a stronger adversary. But it is self-destructive when our intimidation sub-routine is being triggered by anything and everything. Submission thereby shifts from a behavior to an omnipresent mood dampening all agency, ie slowing if not blocking the running of our other programs.
 - a. (1) Guilt, as we have already seen, can be a program to avoid punishment by appearing to punish ourselves. Its is a program that has evolved to protect our reputation when caught cheating or free riding by convincing people that this behavior does not express our true self and so should not count against our reputation for reciprocation.
 - b. (2) What about cutting or other forms of self-mutilation? Paradoxically, cutting oneself can be soothing, for it releases endorphins to shut our body down so that it can recover from a wound. Bloodletting performed a similar function in ancient medicine. By appearing hurt, we can also trigger helping programs from friends and neighbors. Thus such behavior can also be a (self-destructive) cry for help.
 - c. (3) How about anorexia? Anorexia is often understood as an intense effort to control what lies beyond our full control, our bodily appearance. Girls in particular are vulnerable to anorexia. And we have seen that males select for bodily appearance in seeking a mate. To add insult to injury anorexics not only are not happy with how they appear but they suffer from a distorted image of their appearance. They often think they are fatter than they are. This is just more evidence of a buggy program that is running on an endless loop, soaking up more and more computer power.
9. Finally, there is schizophrenia, which is often paired with paranoia. Scientific research has proven paranoid schizophrenia to have a strong genetic component. It's a "genetic defect" that is not triggered until late adolescence or early adulthood. What possible advantage could there be to carrying a genetic pre-disposition to schizophrenia? Is it simply a random mututation that evolution has not weeded out? One hypothesis from evolutionary psychology is that schizophrenia catalyzes group splitting. Schizophrenics suffer from voices and visions unheard and unseen by ordinary people. Those suffering from paranoia find compelling conspiracy theories falling far outside the mainstream for

which most people find little evidence. Such voices, visions and conspiracy theories are highly disruptive. They can make it impossible to function in normal society. Why hasn't evolution weeded such a defect out of our gene pool?

10. Evolutionary psychologists argue that under extreme conditions extreme personalities can suddenly become adaptive. And just because you are paranoid does not mean your conspiracy is wrong. Under dire circumstances an out of the box theory explaining why things are so desperate can attract a following. For beliefs, like feelings and desires spread mimetically more than through logic and evidence. In extreme circumstances a paranoid schizophrenic can become a charismatic prophet who leads his followers out of the old group to found a new one.
11. In times of draught food can become scarce. (1) Groups may need to split to for members to survive. And in times of plague healthy members distancing themselves from the outbreak could also keep them healthy. Again none of this is conscious. But humans are programmed to think out of the box, or be attracted to others thinking out of the box when the box itself is perceived to be deadly.
12. Some have argued that the rise of Hitler fits this theory. Before the first world war, he was a frustrated artist who could not get into (1) art school nor ever hold down a job. He was too lost in his own inner world to fit into the outer world of Viennese society. A friend of his from this period talks of him getting obsessed with "crazy projects." (2) One was to redesign Vienna's sewer system. He knew nothing about sanitation, but he had a compelling idea an "idee fixe" and would work day and night mapping out a new design. He was a troubled, lost soul, like those you might encounter at a homeless shelter or a food pantry.
13. But when war broke out, Hitler found a purpose worthy of his grandiosity. He enlisted in the effort to not only save his fatherland but to extend German Kultur across the globe. (1) Enlisting in the army also served to give his chaotic emotional life a structure. He did not rise far through the ranks, but he did win the Iron Cross for heroism.
14. After the war however fell into a depression. How could Germany have surrendered. He was convinced they were winning the war. His country had been betrayed by traitors who had "stabbed her in the back". A former officer who had been impressed by Hitler found him a part time job as an informant to infiltrate extreme alt-right militarist groups in

Munich. One group of similarly outraged war veterans who would meet regularly in a beerhall to vent their frustrations and spread conspiracy theories about the surrender, transfixed him. They had a vision that spoke to him. He ended up becoming a member of the very group he had been sent to spy on, soon giving speeches to the group himself. (1) He discovered that he had a gift for oratory even stronger than for painting and architecture. He had the mimetic charisma to hold peoples attention and whip his audience up into a frenzy of both outrage and feelings of omnipotence. He quickly rose to become leader of this group and built it into a movement. They called themselves national socialists, Germans in solidarity to build a new Empire or Reich from the rubble of the old. They even tried to overthrow the city government in a putsch. But they were out of touch with reality. The uprising they were confident they could incite never happened. They were delusional. It was easily put down and Hitler arrested.

15. Hitler got off with a slap of the wrist. After all many were sympathetic even if he had taken things too far. But throughout the twenties the Nazis remained a fringe political party. They tapped the resentment and aggression below the surface of Weimar society, but so long as all was well, these dangerous instincts remained in check. They could start brawls in the streets, especially with similarly aggressive communists on the other extreme of the political spectrum, but, like Hitler himself before the war, they were going nowhere. As late as 1928 they polled only 5% of the vote. But then the depression happened, and, as all over the industrial world, unemployment, poverty and misery exploded across Germany. Hitler's vision now had great appeal. For he had a scapegoat for everyone's misery—the Jews. Not only were Jewish capitalists responsible for throwing everyone out of work, Jewish politicians were also to blame for Germany's humiliating defeat. They were the traitors who had stabbed Germany in the back. Hitler's paranoid schizophrenia and manic narcissism became functional. From starving artist he became the leader of a new Germany and almost, a new Europe.
16. New technologies, powered not by steam but by the newly tamed force of electricity also played a crucial role in Hitler's rise to power. (1) Hitler's rants made for boring off-putting books but it made for spellbinding speeches. It would not be the printing press but electronics-- the microphone, the radio and the movies that brought Hitler to the masses, up close and personal. With invention of the microphone he could address tens of

thousands at a time in vast sports stadiums, catalyzing a mass mimetic contagion of manic energy. (2) He was also the first to use the airplane to “barnstorm” Germany making speeches in every city of any size. (3) But with the radio his speeches could be broadcast to every German in their own home. One of the Nazi’s first acts was to commission the design for a cheap “people’s radio” and to mandate that every German home should have one. (4) Hitler’s speeches and rallies were also filmed so that they could be distributed to movie theaters across the country. A new ministry to centralize and optimize the exploitation of these new media, a ministry of propaganda was created, and its head, Joseph Goebels would be among the first in the world to master its powers of mimetic contagion to the masses. Hitler and Goebels effectively hacked the German soul.

17. Now if we are organic computers, running on programming written by evolution and executed by emotions, the conscious result of hormones and neurotransmitters in our brains, what does therapy look like? There are two basic strategies at the disposal of evolutionary psychologists: (1) debugging and rewriting our programming through cognitive therapy and (2) artificially adjusting our neurochemistry through drugs.
18. So first, how correct a buggy program or reprogram a dysfunctional one?
 - a. (1) One can systematically identify illogical reasoning. (2) For example, catastrophic all or nothing thinking that raises stakes sky high. If I do not get an A on this test I will flunk the class I will not get into med school. If I am dumped my life is over. Once identified I can counter it by programming my thinking to more flexible nuanced assessments. (3) I can also reality test my negative assumptions that inform my fears and anxieties.
 - b. (4) I can also monitor and track negative thinking that undermines my self-confidence and self-worth, and then again, counteract with positive affirmative thoughts. When I catch myself thinking I am a loser, (5) I can immediately counter that I am really a winner, reciting a memorized list of my accomplishments. (6) I can also track and identify what triggers such thinking. I can drill the new programming into me (7) by reciting them daily before the mirror when I wake up.

- c. (8) In fact I can draw up a daily schedule of small achievable goals that I can add to my list. (9) I can carry around a piece of paper with them written down and check them off as I accomplish them to build self-confidence.
 - d. (10) I can also undermine compulsive behavior by cultivating other habits that obstruct it. For example take someone suffering from OCD who compulsively picks her skin raw. She cannot stop it. But teach her how to knit. She cannot pick her skin while she is knitting. Now maybe she will become a compulsive knitter, but this is a program that is much less dysfunctional and as deliberately uploaded, may later be able to be easier to control, or even delete.
19. What makes cognitive therapy hard is the tedious, boring and seeming stupidity of the reprogramming. (1) Its like what makes physical therapy hard. How keep it going month in and month out? Like with physical therapy, one way is (2) to gamify it. I can download an app onto my smartphone to track my mood or behavior and reward me for my successes. I can even the tedious reprogramming into a competition where I try to beat my personal best at resisting compulsive triggers or repeating affirmations that strengthen my new counter-programming.
20. The other major strategy evolutionary psychology's model of the self as an organic computer suggests is to disrupt the mechanisms that trigger and execute our dysfunctional programs. That is, to alter our brain chemistry. Depression for example appears to be correlated with a deficiency of the neurotransmitter serotonin. (2) Its like the brain has become a dried out sponge. SSRI's, selective serotonin re-uptake inhibitors, like Prozac, keeps the serotonin sloshing around between the neurons enabling connections to be less rigid, more supple. So too there are drugs that relieve anxiety both immediately such as Xanax but also more subtly over time, such that you can still function effectively such as Buspar. There are also new drugs to combat mania, even schizophrenia.
21. There is still a lot of social stigma around mental illness. Unlike physical illness there is a tendency to blame the victim, or perhaps more often for the victims to blame themselves. Afterall, our thoughts and feelings, being subjective, are at the core of our identity. How can they be out of my control? I find this especially true for young people who don't yet have the experience to know how (1) common psychological

suffering is and who feel they should be able to overcome emotional problems all by themselves, as if seeking help makes them weaker rather than stronger.

22. In the next couple of weeks we will turn from an objective, scientific approach to human nature to a subjective, existentialist approach. Where science has no room for free will, and subjective thoughts, feelings and desires are epiphenomena that do no explanatory work, existentialists will take human freedom as fundamental and explain all external behavior as expressions of internal motivations. Together the two perspectives could be said to provide a binocular 3D perspective on our human nature