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Beginnings

Years ago I had a visit from a former student who is now involved in law enforcement. He told me that his job required him to prosecute marijuana growers and that he felt somewhat hypocritical about it: as a student he had “experimented” with weed and yes did inhale. So he did some research about cannabis and its effect on neurological development, especially the teenage brain.

He pursued further reading about brain development, and as we chatted he sketched some of what he had found. At puberty there is a kind of growth spurt in the development of the frontal lobes—a slow-motion spurt, to be sure, since it doesn’t end until one’s twenties. Marijuana has a hugely harmful effect on that development in adolescents, as does alcohol.

In some ways that development of the frontal lobes is what makes us fully human. It allows us to project a future, envision consequences of choices and actions, and put ourselves imaginatively in the place of another.

Projecting a future: as we talked I thought of the heart-breaking fact of teenage suicide. A fifteen-year-old (say) is deeply depressed, and friends and family and teachers offer comforting words. “Hang in there: it won’t always be like this, you’ll see.” But though the kid knows the meaning of the words, they won’t get through. Physiologically, in terms of neurological development, that young person is literally incapable of really understanding them. That fifteen-year-old brain is not yet at the point where it can project a future in a meaningful way.

Another vaguely remembered snippet of conversation came back to me from many years before—perhaps it had to do with the

work of Jean Piaget. What I recalled was a story of three brothers, let's call them Tom (10), Dick (7), and Harry (4). The conversation goes like this. "Harry, do you have any brothers?" Yes, Harry says, Tommy and Dickie. "How old are they?" Harry tells you, ten and seven. "Harry, does Tommy have any brothers?" Furrowing of brow, shrugging of shoulders.

The conversation with my law-enforcement friend made sense of that story: it's the frontal lobes that make it possible for us to put ourselves in the place of another. Harry's four-year-old brain wasn't there yet. He couldn't imagine the world as his brother sees it. I remembered the game of hide and seek when I was "found" hiding behind a tree trunk, and the sense of unfairness I felt so deeply: if I couldn't see the kid who was "it," counting to a hundred with his eyes closed, how could he now see me? (When this happened I was considerably older than four.)

Those were not my only reactions to what my friend told me from his reading about brain development.

I thought of what we college teachers experience in our work with eighteen-to-twenty-two year olds. They come to us as let us say works in progress and four years later they are or seem to be fully formed, among our dearest friends and companions. So what exactly is it that *we* are doing, if that brain development takes place all on its own? Is it make-work, wasted effort?

No, my friend assured me. Without the stimulus of stories, songs, movies, poetry, history, the experience of work in the lab—without all that, the development of the prefrontal cortex would not take place. (Think of children put to work in the fields or the mines and the look they have as they age, the vacant stare, the lack of quick responsiveness and alertness.)

No, our work as teachers is crucial in our charges' neurological development.

That conversation thirty years ago started me on the study of the imagination and, from that study, the course on imagination that I have offered for over two decades now. Brain science has developed so rapidly, and continues to develop in what seems to be exponential progress, that while I have followed it as a layman it would be presumptuous to offer anything more than some of what seems already to be established.

At the beginning of the imagination course, a psychiatrist friend of mine comes in to class to lecture on the brain and brain development: Brain Science 101. 100 billion nerve cells, each of which contacts at least 10,000 other nerve cells; circuitry and distributed systems; the limbic system; the prefrontal cortex (the story of Phineas Gage); why puberty is so difficult. Students who have younger siblings especially like this quotation, from Thomas Gualtieri, M.D.:

The fully developed but prepubertal child, age 10 or 11 years, is one of the supreme creations of nature, and a walking example of the extraordinary capacities of the corpus striatum. He or she has developed a full range of adaptive behaviors and is fully capable of independent action, even in complicated, modern societies . . . has mastered the skills of reading and calculation—arts that [it] has taken the species a thousand centuries to develop—and can use those skills to master new, more complicated endeavors. . . . understands social relationships and builds his or her own social structures, which are sometimes extraordinarily subtle and complex, and does it all with good cheer, deference to his or her elders, and a moral sense that is sometimes painful to the adults they live with. Moralistic may be an appropriate word.²

Perhaps the students remember themselves at that stage of growth; their parents surely do, with fondness. What happens in puberty can be painful and confusing for all, but an understanding of how the brain works can help to understand what is causing it, and it has to do with that prefrontal development. More recent research has suggested that that development is not complete until one is pretty far into one's twenties, not early twenties as had been thought. And studies of brain plasticity suggest that brain development is not a matter of straight-ahead rigid programming.³

Then there is a radio piece by Kurt Andersen, relating how a University of California study tested four stroke victims.

The strokes had injured one particular small area on the left sides of the victims' brains—but otherwise left their minds in perfect operating condition.

And as a result, they were able to intelligently discuss and understand everything—except metaphors.

This metaphor study was low-tech. The researchers simply read 20 metaphorical statements and proverbs to the stroke victims. Like ‘The grass is always greener on the other side’ and ‘A rolling stone gathers no moss.’

And with almost every metaphor they were read, the patients could respond with only very, very literal interpretations. For instance, they thought that ‘All that glitters is not gold’ meant that we have to beware of unscrupulous jewelry salesmen. One of the researchers’ lines was ‘George Bush isn’t exactly a rocket scientist, is he?’ And the patients replied that the statement simply meant that President Bush is a politician, and isn’t involved in aeronautical design at all.

Which is sweet and sad—and amazing that this one particular bit of the brain, a bit of tissue just above and behind the left ear, is the part of our hard wiring that lets us understand Shakespeare, to fully comprehend poetry, literature, and art—that lets all of us intellectually reach for the stars.

And as a matter of fact, ‘reaching for the stars’ was one of the sayings that the patients in the study simply didn’t get.⁴

There is more to say about literal mindedness, but Andersen’s account is a compelling point of reference. Not all literalism is due to neurological damage.

What Do We Mean by “Imagination”?

Every man possesses in a greater or lesser degree a talent, which is called imagination, the power of which is the first condition determining what a man will turn out to be, for the second condition is the will, which in the final resort is decisive.⁵

—Søren Kierkegaard

As in the course so here, the first thing is to sort out the various ways we use the words “imagination,” “imagine,” “imaginary,” and “imaginative.” (Throw in “re-imagine” and you have a GE commercial.) Doing this in-class exercise most students responded to the verb “imagine” by citing the John Lennon song (which arguably indicates a kind of Pavlovian response).

Some sentences show the range of meanings of the notion:

I couldn't begin to imagine how people could do such a thing.
 When I was a child I had an imaginary friend.
 Whoever plans the menus isn't very imaginative.
 I think she imagines herself as Norma Desmond.
 You only imagined it.
 Why didn't U.S. Intelligence foresee 9/11? A failure of imagination.
 They imagine the other side as evil incarnate.
 Our Lady of Guadalupe Mass without Mariachi music? Unimaginable!
 He imagines two classes of people in America, “makers” and “takers.”

They let their imaginations run riot.
Churchill's "Iron Curtain" was an imaginary line—until 1961.

Reviewing the 1975-76 exhibition "The European Vision of America," J. H. Elliott combines these variants of the notion in one paragraph (emphasis added):

The exhibition tells us something about America, . . . But it tells us a great deal more about Europe and **the European imagination**. . . . Medieval **images** of the terrestrial paradise, . . . and of the golden age described by the authors of classical antiquity, intermingle with **images** of amazons and anthropophagi, drawn from the **imaginative** pages of the possibly **imaginary** Sir John Mandeville.⁶

To narrow the question, let's say the verb and the noun have to do with mentally depicting or representing:

He imagines life as a Frank Capra movie.
Often sex workers can't imagine leaving "the life" behind.
I've always imagined the Catholic Church as a finger-wagging nanny.
Cooking meth in his college dorm room? I guess he imagined it was a good idea.
Gandhi perhaps imagined the British would respond well to non-violence.
He imagines other people as "brutal and untrustworthy."
Lost in her texting she walked into traffic. Did she imagine she was alone in the world?
He imagined a rock in every snowball.
Their imaginative world is that of Quentin Tarantino.

But here a distinction is in order. It is useful to note two ways the imagination works, what I call instrumental and spontaneous. The first is captured in the phrase "use your imagination"; the second might be expressed as "free your imagination."

Here is an exercise in "using" your imagination.

Picture yourself sitting in a room. The room is dark. No sounds from outside break the surrounding silence. Then you hear footfall. Someone is ascending stairs. The sounds get nearer. You hear the door to your room open and you see someone standing there. In the light from outside the room you see a tall young man. He is wearing the uniform of a United States Marine—the dress uniform. He has red hair. He stands at attention in the doorway.

Did you manage that exercise all right? Step by step, as the details came out you pictured them, and yourself as experiencing them. You used your imagination. (This is what happens when we fantasize, except that we ourselves are writing the script and are in control.)

Now, to show the difference between that (instrumental imagination) and what I am calling spontaneous imagining, try the following exercise.

You are sitting in a room. The room is dark, and very quiet. As you sit there you hear someone coming up the stairs, getting closer and closer. The door opens, and framed in the light you see—

Who comes spontaneously to mind? That is up to you, but if it really is spontaneous imagining you have no say about it. You are not in control. In class we do not “go there,” since for each student the figure framed in the light might well be someone associated with deep fears or deep longing, and that is too personal to talk about—not in class anyway.

Where does that spontaneous image come from? Chances are it will carry with it strong affect, feelings one has perhaps been unaware of. That level of image and emotion is what this book is about.

Further, the imagination is the repository of all sorts of impressions and assumptions, a picture of the world and of others and of oneself, and it controls our thinking.

A trusty example of this is what by now is an old chestnut, one that has been around for decades—recently I saw it among a set of riddles for young children—but is still useful for purposes of the course. It consists of a brief story, and the listener's or reader's reaction to it.

A man and his son are out driving and get into a terrible accident. They are taken to the emergency room of the nearest hospital. The driver (the father) has suffered only minor injuries and is released, but the son is severely injured and requires immediate surgery. He is taken into the operating room (O.R.). The surgeon on duty walks into the O.R., and seeing the patient says, 'I cannot operate on that boy. He is my son.'

Many people react to the story with puzzlement: how can that be? We have already been told that the father was treated and released, so how could he . . . And so on. (I remember how a colleague shared in that same puzzlement, a colleague who teaches a course in feminist theology.)

There is nothing in the story, or the way it is told, to cause puzzlement. Not at all. The reaction comes from one's imagination, and one way to bring this out is to go to "thinking" and ask, "Are all surgeons male?" Of course not . . . oh. When one hears "surgeon," though, the image that comes through is of a man, and that image controls how one hears the story. Now, *that* is spontaneous imagining.⁷

As we begin the semester, then, we explore various aspects of the imagination, not so much by thinking about it but by in-class experience, spending some time on what we often see in others, if not in ourselves: Failure of Imagination.

If development of the frontal lobes is what enables one to put oneself imaginatively in the place of another, or to enter imaginatively into a different setting or a future, failure to do so can reasonably be called a failure of imagination. The students are asked to write up some incident where such a failure might be thought to occur, whether they merely observe it or are themselves involved.

Last year one student wrote about a volleyball match where the

opposing team stuck to its game plan even when they were losing badly. Instead of adjusting to what our team was doing, they kept on doing the same, losing thing. Apparently it never occurred to the visiting team to do anything other than what they had learned in practice. The class agreed that that was a good example of “failure of imagination.”

Another example elicited general agreement, though not from me. In the comic strip “For Better or For Worse,” Elizabeth, the teenage daughter of the family, is having lunch in the cafeteria with her classmate Duane at the beginning of the school year, discussing what they did during the summer. Duane has a Mohawk haircut and multiple piercings, and chews his food with his mouth open. He tells Elizabeth he spent the summer working for his dad: “For some reason, I couldn’t get a job.”

Was there a failure of imagination at work here? The class was virtually unanimous that there was—on the part of prospective employers! Interviewers couldn’t get beyond the Mohawk and the nose ring and the tongue stud, to see the person underneath with his (presumably) fine qualities.

But a few students allowed as how maybe Duane himself might be said to exhibit a failure of imagination: it didn’t occur to him to consider how he might appear to the interviewer. He never imagined that the way he presents himself to the world at large might be off-putting. And (I would say) perhaps the true failure of imagination consists in this, that “the world at large” has never become part of Duane’s imaginative world.

What in this exercise—as in many others throughout the course—interested me was that the students spontaneously identified with the teenage character. Perhaps they share the same imaginative world.

Writing this I have found a memory coming back, of a time when I was guilty of a failure of imagination. It was the summer between freshman and sophomore years of high school. I was visiting my sister, who lived in Washington D.C. She met up with a friend who had a son a few years younger than I was and the four of us set out, in the sweltering summer heat, to find relief in a local swimming pool. The attendant told us that my sister and I could use the pool but my sister’s friend and her son could not. They were

African-American (Negroes, in the usage of 1952). Well, fine, that didn't affect me. I went swimming.

Some failures of imagination are shameful.

Another exercise. Every teacher knows that the best teaching happens when you get the students talking among themselves. They do, mostly, listen to one another. So I would divide the class randomly into five or six groups of a few each and give each group one case presented in the syndicated "Carolyn Hax" column. After each group has come to a consensus on how to understand the problem presented it, and the advice to be given the letter writer, we move to a general discussion. I read aloud the letter Group One has been discussing, students in the other groups comment off the top of their heads, and finally one student from Group One reports on what they have agreed is the best way to respond. Then on to Group Two, and so on.

In effect they are playing Carolyn. In so doing, they have an experience of adult life. Though they understand they are not to take a judgmental or condemnatory approach, they still are put in the position of assessing the choices and attitudes of another person, in an objective and disinterested but, I hope, not self-distancing way.

Most often the groups come up with the same response as Carolyn Hax, though when I finally read hers to them they are taken aback at her candor. They could not imagine themselves saying, "Grow up!"—maybe because they have heard that counsel themselves throughout their teenage years—but that is the kind of thing Carolyn can unfurl.

At this point it helps to gather together what we have so far seen and try to sort things out. A friend of mine once suggested a way of schematizing various levels of the psyche, and that three-level "map" of the psyche—though vastly oversimplified—is what we use throughout the course.

At the *surface* of consciousness is the 'blooming, buzzing confusion' of everyday life. Some things and persons may swim into explicit awareness and the rest of what is around us becomes background noise. Then awareness changes, and something else engages our attention. And so on.

At a deeper level, something may engage our attention and in focusing on it we *think* about it. This is the level of reasoning, ratiocination, specific and explicit intellectual engagement. It may involve puzzlement but we want clarity, insight, so we ‘think it through.’ We might have a eureka moment, but that may be followed by the reflex question, ‘Is that really so? I wonder . . .’ If we embrace the insight we have arrived at, we can give reasons for doing so. All is explicit and, ideally, clear. This is the level of thinking, of reason.

A third level is the part of the psyche I call imagination, in the sense of ‘spontaneous’ imagining discussed above. Vivid images, powerful feelings swirl around, or lie dormant, in reserve as it were, and they escape intellectual scrutiny for the simple reason that we are unaware of them. Other people, however, experience them as they come out in what we say and do. The rest of this book will offer many examples of this dynamic.

“The sleep of reason produces monsters.” I have always wondered what kind of genitive that is, subjective or epexegetic. Does “the sleep of reason” mean dogmatic slumber that closes off access to that level of feeling and image we are dealing with here?

Two comments are in order. I have found that some students spontaneously begin to refer to this third level, the imagination, as “the subconscious,” and I have to caution them not to assume any kind of equivalence, for two reasons. The first is that Freud’s “map” of the psyche has its own integrity and theoretical foundation; and to make careful distinctions—avoiding facile equivalences—is a habit of mind to be esteemed and cultivated. The other reason is that students seem, nowadays, to resist accepting anything that to them is “new,” as in the reaction “Yeah, I know that.” “We had that in high school.” They do not seem to know that intellectual delight comes from ignorance—*not* knowing something—so that the joy of discovery can be theirs.

Now let us look at “assumptions”: how they are rooted in, and reveal, the workings of imagination, and the role they play in creating the reality we live in. Then, the phenomenon of literalism,

cognate as it is in many respects with the role assumptions play in shaping our reality.

And in subsequent chapters, how people imagine others and imagine themselves—and the ironies inherent in the tensions between levels two and three.