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Book TV: *A World Appears - A Journey Into Consciousness*

<https://www.c-span.org/program/book-tv/a-world-appears-a-journey-into-consciousness/676604>

Author Michael Pollan ("A World Appears") discussed the science of consciousness and the human experience with bestselling author Michael Lewis. This event took place at the New Orleans Book Festival at Tulane University.

Beginning 35:42, they spend ten minutes discussing Pollan's participation in descriptive experience sampling (DES). Much of that discussion mischaracterizes DES, and the reasons behind that mischaracterization are common and important, so I take this opportunity to zero in. The video is on the [C-SPAN](#) site; here's a transcript with my comments.

Pollan = Michael Pollan

Lewis = Michael Lewis

35:42 Lewis: *Thought* was my, maybe my favorite section.

35:44 Pollan: It was the most fun to write.

35:46 Lewis: I bet it was the most fun to write. There are two things I want to pause on in the section on thought, and the first is, I was at the point of your book where I was saying, *When is Michael going to put something in his body?* Because Michael is always going to put something to his body! [they laugh] You, that you have a thing, uh, like you have a thing for plants. (But a guy named Michael *Pollan* would have a thing for plants!)

36:07 Pollan: Right! Right, right. [they laugh]

36:07 Lewis: So I thought, and then all of a sudden, I think, I think this couldn't happen in this!

36:10 Pollan: What did I put in my body besides the tea?

36:13 Lewis: You stuck a thing in your ear!

36:15 Pollan: Oh, okay. Yeah.

36:15 Lewis: And so this is the, explain this, this was wild! [they laugh][So you tried to distill consciousness—or this scientist is trying to distill the essence of consciousness.

36:15 Russ comments: The discussion starts on the wrong foot. I am not trying, and never have tried, to distill the essence of consciousness. I have tried to describe, with fidelity, phenomena that some would call conscious. There's no distillation and no essence involved.

- 36:24 Pollan: This guy, he's a wonderful character. His name is Russell Hurlburt. [Lewis: Hurlburt!] He's a professor of, uh, psychology at the University of Las Vegas. And he has been doing *one* experiment for his entire career and—50 years—and this experiment involves sampling inner experience. He's trying to get at what are we thinking? Um, so he, he actually designed and built a beeper because they *didn't exist* in 1973. He had to create. There were no personal electronic devices then. And he made this little box that you put in your pocket and you have this little earpiece. And, uh, at arbitrary times of the day, it sends a very sharp beep into your ear.
- 37:05 Lewis: How sharp?
- 37:06 Pollan: Eeeeh! [imitates the beep]
- 37:07 Lewis: Is that, y'know, did you, were you wearing it the other night when you were, we were having dinner? Because I thought you had a hearing aid on. Is that what that, does it look like, kind of like a hear aid?
- 37:14 Pollan: No. No. It, it looks like a transistor-radio earpiece. [Lewis: Okay.] No. I haven't been wearing it for a while. [Lewis: All right.] It was hard. It was. Anyway, so arbitrary, uh, y'know, and, and, and you write down what you were thinking. [Lewis: Yeah.] And this sounds, y'know, pretty easy. You can imagine, though, there, y'know, the observer effect. I mean, right? I mean, you're like, *What if it goes off now*? [they and the audience laugh] There, there, there are a lot of moments like that in the course of the day! So I would do five beeps and then take it off for the day. I found it very distracting to wear. So my beeps were not profound.
- 37:52 Lewis: Uh, will you find the passage?
- 37:54 Pollan: Yeah. Okay. Um -
- 37:54 Lewis: But the first time you do, you're in the Cheese Board [bakery] in Berkeley.
- 37:56 Pollan: That's right. Yeah. And I'm, uh, deciding whether to buy a roll or not at this bakery. And the thing goes off. And, uh, a lot of my beeps were about food, actually. [audience laughs] And, um, and he asked, he said, "Okay, *roll*. Did you see the roll? Or did you think you, or did you verbalize the roll?" I mean, because you have this, uh, session where he, he kind of goes through your beeps with you and helps you try to clarify what you were thinking. And it turns out it's a lot more complex than you think.
- When there was one beep where I, uh, the beep, I was, uh, seasoning a, a filet of salmon and taking it to the fridge. And I was halfway to the fridge when I go, "Oh, shit! Pepper! I forgot the pepper." And right that moment, the beep goes off.
- And I say, *Oh, this is good. This is an easy one. Pepper*. But then, y'know, Russell, you do a Zoom with him and he says, Well, did you *hear* the word "pepper" or did you *speak* the word "pepper"? I had no fuckin' idea. [laughter]

- 38:57 Lewis: So, so this one, he, he basically walks you through the inadequacy of your consciousness!
- 38:57 Russ comments: No, he doesn't. He walks you through the inadequacy of your skill at apprehending your inner experience, and he tries to help you develop that skill. It has nothing at all to do with inadequacy of your consciousness (or of inner experience).
- 39:03 Pollan: Yeah. Pretty much! Yes.
- 39:03 Lewis: And, but, and I'm trying to understand what is... I still didn't completely get, because maybe it's my problem, too. What it was he was expecting you, your Cheese Board or the salmon or whatever. Your, what is.... And you, you sit and you dutifully write down [Pollan: Yeah, I did several days.] what do you think is going on in your head at that very moment that the beep goes off. You do it, you're a writer, you're a professional writer! You do it probably better than any of his clients and his patients or whatever! [Pollan: He didn't think so.] He didn't think so! [Pollan: No.] He was hugely disappointed in you!
- 39:03 Russ comments: No, he wasn't. He did think that Pollan found it difficult to apprehend and describe his inner experience, difficulties that are very common. So we had to work at developing those apprehensional and descriptive skills, as we almost always do in DES interviews. It has nothing at all to do with disappointment.
- 39:35 Pollan: Well, I'll get to that. [laughter] Let me just get that, get, get the flavor. Um, one paragraph. [Reads from p. 141]
- Herewith I present a sampling of my collected beeps chosen more or less at random. Spoiler alert: this paragraph is seriously dull, but feel free to skim past it. [looks up at audience: But you. I'm sorry, you can't!] [Lewis and audience laugh] A beagle off leash is walking toward me on the sidewalk. BEEP: *Wonder if he'll come close enough to let me pet him; hope so.* I'm at the car mechanic picking up my car after it's been serviced to the tune of \$2,400. Eddie, the mechanic, wants to show me how the finish is beginning to oxidize. He recommends I reach out to this specialist he knows who can buff and wax it. He makes house calls. BEEP: *Oh, great. How much more is this gonna set me back?* I'm in the middle of writing one of the lines that appears earlier in this chapter. Quote "Each conscious mind selects what data it will admit and what data it will suppress." Lingering over the word *suppress*. BEEP: *I kinda like the sound of suppress, but it does nothing for the sculpting metaphor. Maybe eliminate would be better.* My wife, Judith, and I are seated on the couch reading. She stops to read aloud a passage from *The Man Without Qualities*. Quote "Knowledge is a mode of conduct, a passion." BEEP: Huh? *What does that even mean? And why does she think I need to hear it?* [audience laughs]
- 41 Lewis: Uh, so you were cracking yourself up at the same time. [Pollan laughs]
- 41:05 Pollan: [continues reading]

Um, uh, I'm sitting at the kitchen table having just closed my laptop. I look up through the window pane at a live oak tree in the garden in the rain, and I think, *What am I thinking? Anything?* [laughter] *What would I say if the beeper went off now?* [laughter] A second or two later, it does. BEEP: *Pretty scene.*

41:25 Lewis: So, so, so what, what disturb, or what was the response of this guy when you go to the Zooms and you tell him what your conscious jur -

41:35 Pollan: We had, we had a lot of arguments.

41:37 Lewis: Right. Um, you had arguments with everybody!

41:39 Pollan: I did! Uh, you have to push back a little. [Lewis: Yes.] So I had been reading William James about thought, who is so much more brilliant than any of these scientists. Um, I know he was a scientist, but he's been kind of ejected [Lewis: Yeah.] by science and now is treated as a philosopher, because he didn't do experiments and he, he believed introspection was legit. And, um, he describes thought with such kind of nuance and, and points out that no two thoughts are the same, even in the same mind, that they're constantly being reshaped by our experience. That there's psychic overtones and auras and what he calls the "fringe of unarticulated affinities." And that, that, um, it's a dyna - the stream of consciousness is a very dynamic process.

42:25 Lewis: And not verbal, necessarily.

42:26 Pollan: And not necessarily verbal. And, um, so I couldn't disaggregate a thought from, y'know, what I was smelling at the Cheese Board. [Lewis: Right.] What, and the, the, the plaid on the, this woman was wearing this really unflattering plaid skirt. And I'm like, *that was part of my consciousness, too!* And he kept saying, "Well, was that be - was that before the footlights of consciousness?" And I said, "Yeah, it's all happening simultaneously."

42:50 Lewis: What does he mean by that, *the footlights of con- consciousness?*

42:53 Pollan: He's, he thinks that there's always context, but you should be able to isolate a thought. And I, I just didn't buy it.

42:53 Russ comments: RE "there's always context, but you should be able to isolate a thought"

That's not what I what I think. I agree that there is always context—smells, plaid skirts and the like, innumerable things that doubtless impact us—"psychic overtones and auras and what [James] calls the fringe of unarticulated affinities" as Pollan says [41:39]. That is, I entirely agree with James; I usually call it the "context" or the "welter."

Out of that fringe (or context or welter or whatever), *sometimes, for some people*, arises a directly apprehended experience: Maybe, at the beep, Michael was directly apprehending himself as innerly saying the complete sentences "Oh, shit!

Pepper! I forgot the pepper.” Or maybe he was directly apprehending himself as innerly saying “Oh shit!” and somehow (unarticulated affinity-ish) understanding that that refers to pepper. Or maybe he was directly apprehending himself as innerly saying “Pepper!” and somehow (unarticulated affinity-ish) understanding himself to be exasperated (a state that might be conveyed by saying “Oh shit!”). Or maybe he directly apprehended himself as seeing a visual image of his pepper grinder in the pantry and somehow (unarticulated affinity-ish) understanding that that seeing conveys *Oh shit! I forgot the pepper!* Or maybe he directly apprehended as thinking *Oh shit! I forgot the pepper!* without any directly present words or visual images (the phenomenon I call unsymbolized thinking). Those are very different directly apprehended inner experiences (seven words, two words, one word, a visual image, neither words nor images), very different before-the-footlights-of-consciousness experiences that convey (when flavored with their unarticulated affinities) the same frustrated realization that he had forgotten to pepper the salmon. Our DES interviews were attempts to help Pollan differentiate among such directly apprehended experiences.

My work *in no way denies* the existence of or the importance of the unarticulated affinities (context, welter). It *does* recognize the essential distinction between unarticulated affinities and directly apprehended inner experiences; I therefore *do* relentlessly work at distinguishing between them. Innerly saying “Pepper!” (if that’s what he did) is a very different directly apprehended experience from the welter of contexts and histories and affinities that led him to experience something about pepper at the moment of this beep.

According to James’s definition of *thought*, it doesn’t matter whether you say seven words, two words, have images, whatever; for James, the *thought* is *I forgot the pepper* and it doesn’t matter how you got there or how you apprehend it. James is, of course, free to define *thought* any way he likes and to draw whatever conclusions he can from his definitions. But *my work* is *not* about *thoughts* as James defines them. My work is about inner experiences that directly present themselves; my work is about exactly the kind of things James says don’t matter.

I summarized that in the opening pages of a recent chapter:

William James famously used this sketch (Figure 1) to illustrate “that it makes little or no difference in what sort of mind-stuff, in what quality of imagery, our thinking goes on. The only images *intrinsically* important are the halting-places, the substantive conclusions, provisional or final, of the thought” (James 1890/1950, 269). The *substantive* portions are the *A* and *Z* in James’s sketch; the *transitive* portions are the several connecting curves. One thinker can get from substantive experience *A* to substantive experience *Z* by the slightly curved transitive path; another thinker can get from *A* to *Z* by a curly transitive path, and so on. The transitive paths don’t matter, according to James: about all those thinkers “we say, and rightly say, that all the thinkers have had substantially the same thought” (James 1890/1950, 269) regardless of which transitive path they had taken.

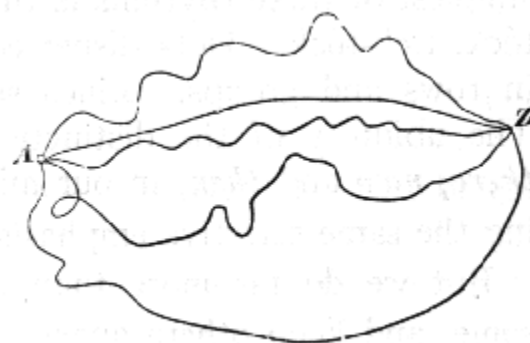


Figure 1: James's sketch of the stream of consciousness

When I read James (in about 1970, 80 years after it was written) it was James's next sentence that caught my attention: "It would probably astound each of them beyond measure to be let into his neighbor's mind and to find how different the scenery there was from that in his own" (James 1890/1950, 269). It seemed to me that psychology and consciousness science should know something about such "probably astounding" phenomena, even if they were transitive.

James's analytical method presumed that these astoundingly different sceneries could not be grasped: "The attempt at introspective analysis in these cases is in fact like seizing a spinning top to catch its motion, or trying to turn up the gas quickly enough to see how the darkness looks" (James 1892/1984, 147).

In 1970ish, I optimistically thought that technology had advanced in a way that had not been available to James. It seemed that it should be possible to create random beeps that could be inserted into James's transitive regions (see Figure 2), and that those beeps could trigger an inspection of even transitive phenomena. Of course, that wouldn't allow turning up the gas quickly enough to see the darkness, but such a technology *would* (perhaps) allow us to turn on a light quickly enough to see the nocturnal creatures before they could scurry away. See the darkness, no; see what lives in the darkness, yes.

(Hurlburt, R. T. (2026). 100 things to know about pristine inner experience. In A. Giustina (Ed.), *The Routledge Handbook of Introspection* (pp. 297-315). Abingdon-on-Thames, UK: Routledge.)

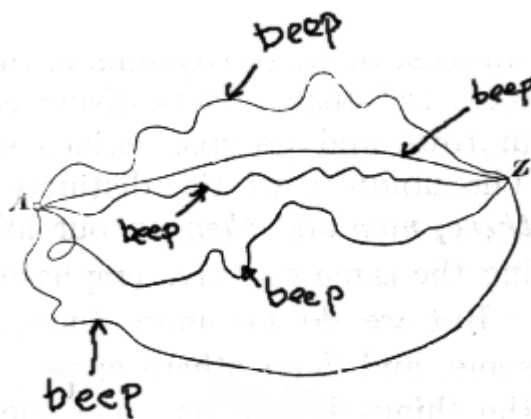


Figure 2: James's sketch with beeps inserted into the transitive areas

The *substantive portions* are what James called "thought"; the *transitive portions* are what I call "directly apprehended inner experience." James focused on the substantive portions (thought) and ignored the transitive portions (directly apprehended inner experience), even though he acknowledged that those transitive portions "would probably astound." By diametric contrast, I focus on directly apprehended experience and ignore thought. In short, James and I are in entire agreement that one should carefully distinguish between the transitive and the substantive portions (my way of saying that is that we should carefully distinguish between directly apprehended inner experience and all else); we differ on which half of that distinction to examine. If and when we have a mature experiential science (which we certainly do not have now and did not have in 1890), I suspect that my interest in directly apprehended inner experiences will prove to be more valuable than James's interest in thoughts. I may well be wrong—no one today is in a position to be confident about such things.

So: I did *not* say to Pollan that "you should be able to isolate a thought." I said only that *some* people, *some* of the time, *do* directly apprehend particular experiences at particular times, and (unlike James) *when that happens*, I want to know the details of that directly apprehended experience. If Pollan directly apprehended something about pepper, I wanted to know how that presented itself: Was he *innerly saying* something about pepper? If so, what was he saying? One word? Two words? Seven words? Or was he *innerly seeing* something about pepper? If so, what did he see? Just the grinder? The grinder on the shelf? In color or black and white? None of that presumes or implies that there is no unarticulated affinity (context, welter); it does require that we be careful not to confuse ourselves

(wittingly or not) by talking about *non*-directly-apprehended stuff using the same terminology as we use when we describe direct apprehension.

The two Michaels and their audience are having a laugh that, I think, arises from their joint failure to distinguish adequately between directly apprehended experience and all else (including unarticulated affinity and thought as James defines them). The heartiness of the laughter is evidence of the depth and power of the failure. If one thinks (as I do) that directly apprehended experience might be important, then that failure (which is widespread in lay, literary, and scientific circles) is problematic for science.

42:53 Pollan: [continues] And so anyway, in his defense, he has learned something interesting after 50 years. He's, he, he won't draw any big conclusions, even after 50 years. It, he's, because he's so allergic to theory. It's almost, it's kinda sweet. And, um, when I told him what I was doing, I was writing a book on consciousness, he said, "Good luck with that!" [everyone laughs] I got a lot of those, though. [laughter] Um, anyway, but he's found that, I think, most of us think that we think in words. But actually, it's only a, a minority of people who think in words. A lot of us think in images, um, comparable amount. And then a lot of us think in, uh, what he calls "unsymbolized thought."

42:53 Russ comments: RE "he's so allergic to theory"
I am not allergic to theory. I am allergic to *premature* theory, which unfortunately, I think, includes modern theories of consciousness.

43:44 Lewis: Neither words nor images!

43:45 Pollan: Neither. And I, I have trouble imagining that, except I feel like *my* thoughts are not, are on the *edge* of becoming verbal. That I have, that, it takes another step.

43:55 Lewis: It takes effort! [Pollan: Effort.] Which is why you don't do it naturally! *One* doesn't do it naturally, right?

44:01 Pollan: Yeah. That's right. It's sort of like writing.

44:02 Lewis: Most things... It's sort of, it's that, that, that it, that you might. There may be words to be mined from the thing that is going on in your brain...

44:09 Pollan: But it's a process.

44:02 Lewis: ...but it is not a verbal thing that you're mining.

44:12 Pollan: But a lot of people, and especially, uh, academics, assume that consciousness is made of words. And I think he's made a pretty good case they're not, uh, it, it isn't necessarily. It is for some people.

44:25 [continues] So at our last briefing, um, he's going over the, y'know, what we've learned from these five days of experimentation. And by the way, he's posted all our Zooms on his website [laughter] if you are having trouble sleeping. [laughter] Um, he, uh, he, he said, "Well, y'know, they're the three categories I described, the

verbal thinkers, the visual thinkers, and da, da, da. And then there's another category. And these are people who have very little inner life. And I think you have very little inner life. [laughter] I was so offended! [laughter]

44:58 Lewis: What does he...?!? So this is so *patently* false! [laughter] No, no, no. Seriously! Like, please!!! Um, so what is he talking...? I, I, I saw, I read that and I thought, what does he, what does he think he's thinking?

44:58 Russ comments: RE "This is so *patently* false!...What does he think he's thinking?"

I'm a fan of Lewis, having read probably half his books, always with respect and pleasure. That is, he strikes me as a generally reasonable guy with useful perspectives. I use him here as an example because his views about inner experience are *very* common (the audience is laughing along with him) and (I think) misguided.

Lewis appears to be absolutely certain of the nature of consciousness—that's what allows him to be so confident that my view is "patently" false. As a rhetorical device, I'm going to write here as if Lewis *actually is* that certain, but I emphasize that I am no mind reader (perhaps his apparent certainty in this interview is entirely an act designed to give the audience a laugh, or whatever), and if I miss the mark with respect to Lewis as an individual, I apologize to him. However, the general principle is important: many people (including Lewis and, perhaps, you, dear reader) are very confident (albeit substantially mistaken) about the characteristics of their own inner experience.

Why might Lewis be so confident? Because he has a mountain of data—he has encountered hundreds of thousands of inner experiences across his adult lifetime. Out of that data it seems reasonable to draw very confident conclusions—he has encountered more inner experiences than any other kind of thing, so if he can be confident about anything in the world, he should be confident about the nature of his own experiences.

But that seeming confidence rests on two huge mistakes of logic. First, the mountain of data is all *Lewis's own* experiences, and unless Lewis's experiences are the same as everyone else's, then he has no right to generalize beyond himself. Lewis himself suggests that he is *not* the same as the rest of us (see his comment about professional writers at 39:03), and my own research suggests that there are huge individual differences in inner experience. So even if he accurately observes his own mountain of experiences, he is in no position to presume that the characteristics of that mountain apply to anyone (much less everyone) else.

Second, Lewis has no right to presume that he characterizes his own mountain of inner experiences with fidelity. For example, while writing *The Big Short*, Lewis was doubtless more concerned with explaining the greed, complacency, and incentives that control the housing market than he was with faithfully observing his own experiences that happened to occur while he was engaged in that explaining. That is, most people, most of the time, are (figuratively) almost always looking *away* from the characteristics of their own inner experience. As a result, most people's (likely including Lewis's) opinions about their own inner experiences are much more likely to be seemingly reasonable characterizations than high-fidelity observations.

My own work shows repeatedly that those seemingly reasonable characterizations are often quite mistaken. Pollan himself accepted that, as when

he said (at 1:08:57 in his debrief interview) that he had “definitely less inner speech than I would’ve thought. Um, I, that was a big takeaway for me.” Prior to is DES sampling, it was *entirely reasonable* for him to have characterized his inner experience as being in words—he is, after all, a highly successful word originator. And it was not at all surprising that he was mistaken.

45:14 Pollan: He thought my inability to separate thoughts and bringing in all this, uh, ancillary material was...

45:21 Lewis: Journalistic color.

45:22 Pollan: ...yeah, it was just kind of backfilling a, a yawning emptiness! [loud laughter]

45:28 Lewis: But that’s life! [loud laughter] That’s what we’re all doing all the time, is backfilling a yawning emptiness! [laughter] Right?!? [Pollan: Pretty much!] Yes! You just do it better! You just do it way better than he does it!! [loud laughter] [Pollan: Anyway, I was...] This yawning emptiness is just horrifying!! [loud laughter]

45:48 Pollan: ...I was so offended.

45:50 Lewis: Yeah.

45:50 Pollan: And, and I kept saying, Well, I -

45:52 Lewis: He really believed this! He really believed this, didn’t he?

45:54 Pollan: I think he did. I think he did.

45:55 Lewis: It wasn’t just a joke!?!]

45:55 Russ comments: This last 2+ minutes of dialog reflects, I think, a substantial and important misrepresentation of what I said to Pollan in our debrief interview. (You can see for yourself what I said: the video is at <https://www.youtube.com/watch?v=rdGVJZPLj2M> and the associated transcript is at https://hurlburt.faculty.unlv.edu/ieo/michael/michael_interview_debrief_transcript_with_commentary.pdf. The portion of interest here is from about 48:41 to 1:11:30.)

I think “backfilling a yawning emptiness” substantially mischaracterizes what I said there, which was:

(1) We have to distinguish clearly between directly apprehended experience and all else. DES is interested in directly apprehended experience, period. The *all else* includes what James would call *thought* and what I might call processing or intelligent responding.

(2) One can (and does) engage in much processing and intelligent responding (James’s *thought*) without directly apprehending it. An example that I gave Pollan in the debrief interview (58:16ff) is that a skilled tennis player doesn’t consciously think “*should I hit this to the backhand or should I hit this to the forehand?*” and

then execute the shot. As in tennis but broadly everywhere, much substantial and skillful cognitive and bodily processing takes place without direct apprehension of the process.

(3) Engaging in processing without direct apprehension is often a sign of *high* skill.

(4) Pollan had frequent samples where there was little or no directly apprehended inner experience.

And (5) I think the Pollan videos/transcripts demonstrate all that.

45:57 Pollan: No, it wasn't. No. Russell cracked no jokes! [laughter] Anyway, that was an interesting experiment.

45:57 Russ comments: The bottom line: I have tried over many years to describe directly apprehended experience with fidelity. That work deserves to be questioned, criticized, subjected to the scrutiny that is characteristic of good science. However, it is often dismissed, as by Lewis and by many others who should know better, as being obviously ("patently") wrong, and that is unfortunate, because the distinction between directly apprehended and all else is (I think) fundamentally important.

Nearly everyone, scientists and philosophers included, agree that directly apprehended phenomena are fundamental human features, and *of course* they know the characteristics of those phenomena—they have a mountain of evidence. This of-course-ness is, apparently, so taken for granted that almost no one thinks it necessary to explore or investigate such phenomena. That taken-for-granted-ness, in my view, is entirely unjustified, because (as Pollan eloquently says), when pressed he has "no fuckin' idea" (37:56) about such differences *in his own experience* as between innerly speaking and innerly hearing "Pepper!" Speaking and hearing are entirely different phenomena: most people are never confused about whether they are speaking or hearing themselves played back on a recorder.

Pollan is *not* uniquely ignorant in this regard; his ignorance is shared by Lewis and nearly all of the scientific, literary, and lay community.

So: Nearly everyone accepts that directly apprehended experiences (pains, inner speeches, images, inner hearings) are bits of human consciousness; nearly everyone believes that consciousness is of fundamental interest and importance (as in the justification for writing or reading a book about it); nearly everyone finds it reasonable to speculate seriously about the fundamental nature of consciousness, including whether bats, bacteria, and trees are conscious; but hardly anyone knows what the fuck they are talking about when it comes to the directly apprehended bits of their own or anyone else's human consciousness.

I wish to emphasize that I am *not* faulting Pollan or Lewis for personally failing to grasp adequately why distinguishing between directly apprehended experience and all else might be important—the fault is at least partially mine for not making that importance adequately clear, and probably more important than that is the taken-for-granted-ness-es are powerful and rampant in this arena.