

КОНТЕКСТЫ ЛИТЕРАТУРЫ

УДК 821.111(73)-2

ББК 84(7)-6

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«ЕСЛИ БЫ У МЕНЯ БЫЛИ МОЗГИ...»:
СИНДРОМ КАПГРА, СИМУЛЯКР
И ХУДОЖЕСТВЕННЫЙ ВЫМЫСЕЛ
В РОМАНЕ Р. ПАУЭРСА
«СОЗДАТЕЛЬ ЭХА» И ФИЛЬМЕ «ЧУДАКИ 3D»

Аннотация: В статье исследуется формирование (чувства) реальности в романе Ричарда Пауэрс «Создатель эха» (2006) и теория симулякра Ж. Бодрийяра, которая используется Кевином Каспером при анализе фильма «Чудаки 3D». Помимо литературоведения и киноведения, в фокусе внимания оказывается нейрология, точнее, нейрофилософия. Анализ различных культурных текстов нацелен на выявление содержащихся в них (эксплицитно или имплицитно) нейрологических теорий, объясняющих, как мы реализуем самих себя и окружающий мир. Если у Пауэрс ключом к пониманию этого процесса является художественная литература (так как она возникает из всегда присущей человеку склонности к фантазированию в попытке придать связность и единство собственной личности и окружающему миру), то у Бодрийяра – симулякр; оба они становятся основными каналами социального конструирования. Синдром Капгра, положенный Пауэрсом в основу романа, служит в первую очередь для того, чтобы проанализировать воздействие, которое оказывает повреждение нервных путей, проводящих эмоции, на формирование чувства реальности. Пауэрс стремится придать универсальный смысл синдрому Капгра, делая его метафорой неспособности человечества ощутить сродство со всем живым, отсутствия у нас «глубинно-экологической самореализации» (Арне Нэсс). Этот всеобщий дефицит чувства реальности согласуется с бодрийяровским (псевдо?-)апокалиптическим пониманием симулякра как подмены в постмодернистскую эпоху реальности виртуальностью и делает роман Пауэрс полигоном для тестирования бодрийяровских идей. В заключение речь идет об икозисе – интериоризации нормативных представлений, понимаемых как истинные благодаря влиянию соматических групп.

Ключевые слова: Ричард Пауэрс, «Создатель эха», «Чудаки 3D», синдром Капгра, икозис, симулякр, Ж. Бодрийяр, экология литературы.

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CONTEXTUAL STUDIES

UDC 821.111(73)-2

БК 83.3 (70)

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IF I ONLY HAD A BRAIN:
THE CAPGRAS DELUSION, SIMULACRA,
AND FICTION IN *THE ECHO MAKER*
AND *JACKASS 3D*

Abstract: This paper explores the creation of (a sense of) reality in Richard Powers' 2006 novel *The Echo Maker* and Jean Baudrillard's theory of simulacra, especially as that latter is applied by Kevin Casper to the 2010 movie *Jackass 3D*. The focus is on neurology, or perhaps neurophilosophy, rather than literary criticism or film studies, or even Baudrillard's cultural theory: the various cultural texts are interrogated for what their explicit and implicit neurological theories can tell us about how we "realize" (organize, make real) our selves and/ in the world. Key in this process, the paper shows, are "fiction" for Powers (as it arises out of ubiquitous human "confabulation" as an attempt to impose coherence on the self and the world) and "simulacra" for Baudrillard; both become primary channels of social construction. The Capgras Delusion, which Powers places at the center of his novel, is especially useful in its tracking of the effects damage to our emotional circuits has on the creation of a sense of reality; Powers even seeks to universalize Capgras as a general human failure to accept the kinship of all living things, or what Arne Naess calls "the Self-realization of the ecological self." This universalized deficit is close enough to Baudrillard's (faux?-)apocalyptic conception of simulacra subsuming reality into virtuality in postmodernity to make it a useful test for Baudrillard's jeremiads. Ultimately the paper moves in the direction of icosis as the somatic group plausibilization of normative opinion.

Keywords: Richard Powers, *The Echo Maker*, *Jackass 3D*, Capgras delusion, icosis, simulacrum, Jean Baudrillard, ecology of literature.

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In both L. Frank Baum's 1900 novel *The Wonderful Wizard of Oz* and its most beloved screen adaptation, MGM's 1939 *The Wizard of Oz*, the Scarecrow asks to tag along with Dorothy to the Emerald City so he can ask the Wizard for a brain, the Tin Man for a heart, and the Cowardly Lion for some courage. This much everybody knows. What a somewhat smaller group knows further is that basically all three are asking for a fully functional ("normal") nervous system: a cerebral cortex (to put it somewhat narrowly) for the Scarecrow, a limbic system (to put it broadly) for the Tin Man, and (to put it very narrowly indeed) enhanced deactivation of the amygdala by the subgenual anterior cingulate cortex for the Cowardly Lion.

Of course that neurophysiological paraphrase seems unlikely to make a hit musical number like the one written for the MGM movie by Harold Arlen (music) and E. Y. Harburg (lyrics):

If I only had a brain ... (Ray Bolger as the Scarecrow)

A heart ... (Jack Haley as the Tin Man)

Da noive ... (Bert Lahr as the Cowardly Lion)

What is interesting about this premise for the three peripheral characters' decision to accompany Dorothy to the Emerald City is that all three of them explicitly tie their neurological deficiencies to an *identity deficiency*. As the Arlen and Harburg song goes:

The Scarecrow:

I would not be just a nothin', my head all full of stuffin',

My heart all full of pain.

I would dance and be merry, life would be a ding-a-derry,

If I only had a brain.

The Tin Man:

When a man's an empty kettle he should be on his mettle,

And yet I'm torn apart.

Just because I'm presumin' that I could be kind-a-human,

If I only had a heart.

The Cowardly Lion:

I'm afraid there's no denyin' I'm just a dandelion,

A fate I don't deserve.

But I could show my prowess, be a lion not a mowess

If I only had the nerve.

With their neural deficiencies, the Scarecrow is "just a nothin'," the Tin Man "an empty kettle," and the Cowardly Lion a "dandelion" and a "mow-ess." The Scarecrow is in fact a kind of thoughtful stoner-type (though we never see him smoking weed); the Tin Man a depressive repeatedly immobilized

by rust and feelings of emptiness; the Cowardly Lion an insecure but needy bully. One of the film's messages, in fact, is arguably that all three are all right just as they are, and don't really need the Wizard's humbug "magic." But they thematize their own identities as lacking, woefully so; and their perceived deficiencies combine with Dorothy's need to get back to Kansas to drive the rising action in this quest or "road movie."

And while the three neural deficiencies are to all appearances evenly distributed across the classical tripartite distinction among psychological realms—cognition (the Scarecrow's missing brain), affect (the Tin Man's missing heart), and conation (the Cowardly Lion's missing courage)—one could also argue that all three deficiencies are actually glitches in the limbic system, the mammalian brain, seat of emotion:

- Once Dorothy has lubricated the Tin Man, she tells him that he's "perfect," and he complains: "Perfect? Oh—bang on my chest if you think I'm perfect. Go ahead—bang on it!" She does, and the Scarecrow praises the beauty of the sound ("What an echo!"), but the Tin Man sighs that "the tinsmith forgot to give me a heart": he is, he says, "all hollow." The Tin Man is actually quite empathetic and caring, but he thinks of himself as feeling nothing, as affectively disengaged from the people and things around him—this is what I describe as his tendency to depression—and the disconnect between how he interacts with others and how he feels about his interactions with others signals the problem.
- While the Scarecrow (roughly speaking) identifies his deficiency as cortical, and upon receiving from the Wizard a "Diploma of Thinkology" spouts some high-school geometry—"the sum of the square roots of any two sides of an isosceles triangle is equal to the square root of the remaining side"—he also imagines that with a brain he would "dance and be merry," and, surprisingly perhaps, describes his current brainless state as involving a "heart all full of pain." Despite the fact that his whole body is "full of stuffin'," including his chest, he clearly has an autonomic nervous system that keeps sending him dire-warning somatic responses localized in the middle of his chest. Such chest-localized somatic responses are what humans have long troped as "the heart"—feelings of pleasurable warmth provoking sympathy and intimacy and a desire to hug, feelings of painful constriction channeling anxiety and reluctance and a desire to shrink back, increased heart rate signalling excitement and trepidation, etc.—so clearly the Scarecrow is not lacking the feeling-based orientation to the world that the Tin Man seeks under the rubric of "a heart"; but something is wrong.

- The Cowardly Lion's cowardliness, which initially manifests as bullying behavior—scaring Dorothy and her friends and Toto—and then turns to abject sniveling when she slaps and shames him, is clearly a breakdown in the conversion of feeling into action, affect into conation. He feels the admirable affect of the lion-hearted hero—but when he tries to channel that affect into action, he quails, becomes a “mowess.”

The overarching question I want to ask about all this is: where does the “reality” of the world come from? What makes other people and our own selves seem real? To support that overarching question throughout the paper I will be asking a series of sub-questions, marked Q1, Q2, Q3, etc.; for now, though, let us note only that these initial readings of *The Wizard of Oz* would seem to suggest that “reality” is a production of the limbic system, especially of the emotions—our feeling of reality. That is in fact the direction in which I plan to move over the course of the paper. My trigger observation for the series of explorations that follow is that some thinkers have been arguing over the last few decades that our feeling or sense of reality, our ability to “realize” the world and our selves, has just recently been depleted (over the last century or so); Jean Baudrillard [1981/1994] in particular, in his controversial notion of simulacra, has even argued that it has been lost entirely, that “reality” has been completely subsumed into virtuality. David Shields [2010] argues somewhat more moderately that we have developed a “reality hunger”—a craving for “authenticity,” things and personalities that feel (more) real because they represent a nostalgic past sense of reality; but of course the Baudrillardians would insist that the “reality” of a vinyl record, a treadle sewing machine, a plank floor, or an exposed-brick wall is just a simulacrum of a different vintage, not qualitatively different from a streaming video or an ePub whose pages rustle when you turn them. The runaway popularity of Baudrillard's “topos of simulacra” [Smith 2001, p. 2] among the culturati speaks to a pervasive sense that “reality” is nowadays somehow at risk, under assault, or perhaps just crumbling away into nothing. Something like this concern about the hegemony of “fiction”—pretense, fakery, fraudulence, imposture—over “reality,” authenticity, and so on, is also a key theme and structural organizer in Richard Powers' 2006/2007 novel *The Echo Maker*. How should we understand this?

What I argue in this paper is, first, that the famous Capgras Delusion, which provides the major plot point in *The Echo Maker*, can both help us construct an emotion-based model of simulation or fiction that will explain where selves and other realities come from, and how they are maintained, and also shed some light on the question of the depletion or disappearance of

“reality.” I show that Kevin Casper’s 2015 application of the most obvious, literal, popular interpretation of Baudrillard to the 2010 *Jackass 3D* movie reveals that interpretation as completely inadequate, and a confederation of the Capgras Delusion and other neurological “misidentification” disorders in the Powers novel and subtler interpreters of Baudrillard begins to compensate for that inadequacy en route to that broader theory of human social interaction that I call “icosis”.

Richard Powers: *The Echo Maker*

Let us begin, then, with *The Echo Maker* [Powers 2006/2007]. The basic plot of the novel is that Mark Schluter, a fairly ordinary 27-year-old working-class man from Kearney, Nebraska, skids off an icy country road and flips his truck, and then hangs there unconscious for an untold period of time, slowly freezing, until someone spots the wreck and makes an anonymous call to the police. Once Mark has been found and cut out of his truck with an acetylene torch and rushed to Good Samaritan Hospital in Kearney, someone (else?), whom he comes to think of as his mysterious “guardian,” leaves a mysterious note on his table:

I am No One
but Tonight on North Line Road
GOD led me to you
so You could Live
and bring back someone else. [p. 12]

Those five lines also become the titles of the novel’s five parts:

The first part, “I AM NO ONE,” tells the story of Mark’s initial recovery (and diagnosis as suffering from the Capgras Delusion) through the eyes mostly of his older sister Karin, who Mark thinks is a double (possibly a government spy), until Karin’s boyfriend Daniel finds two books by Dr. Gerald Weber, a famous neurologist, and Karin contacts him, in the hope that he might come and cure Mark.

The second part, “BUT TONIGHT ON NORTH LINE ROAD”, tells of Dr. Weber’s first visit to Kearney, his interactions with Mark and Karin, Mark’s two wild guy friends Duane Cain and Tom Rupp, Mark’s sometime girlfriend Bonnie Travis, Mark’s empathetic attendant Barbara Gillespie, and the attending neurologist at Good Samaritan, Dr. Hayes.

The third part, “GOD LED ME TO YOU,” tells the story of Mark’s move back home, where he is initially convinced that his dog and his house are doubles, and then, gradually, that the entire neighborhood is a *Truman*

Show-like production, where everyone and everything is a phony stand-in for some person or thing or place he remembers. His paranoia grows, and he begins obsessively documenting the imposture that he finds all around him. Meanwhile, Dr. Weber's reputation is unraveling, as he is accused of professional ethics violations and even, hintingly, outright fraud.

Part four, "SO YOU MIGHT LIVE," continues the plot developments in part three—Mark's paranoia, Dr. Weber's professional meltdown, Karin's panicky attempts to remain cognitively solvent in the turbulence of Mark's paranoia—but also brings the mysteries of Mark's accident and Barbara's sinister vibe to closure. And the very brief concluding part five, "AND BRING BACK SOMEONE ELSE"—only a dozen pages long, out of nearly six hundred—ties together the loose ends, drug and mild shock therapy curing Mark of his Capgras, so that he recognizes Karin as his sister again, and comes out of the paranoid concoction of wild conspiracy theories.

The Wizard of Oz as Powers' "Floor Plan" for *The Echo Maker*

The suggestion that *The Wizard of Oz* was the "floor plan" on which Powers built the character ensemble in *The Echo Maker* (along with the phrase "floor plan") comes from a wonderfully insightful early review of the novel by Margaret Atwood [2006]: "There are in fact some clues to Powers's intentions sprinkled lightly onto the text: at one point, Weber's wife Sylvie says, 'Yo, Man—I'm home!... No place like it!' [Powers 2006/2007, p. 130]. And five pages later, Weber reflects: 'The utter estrangement of it: *I've a feeling we're not in New York anymore*' [p. 136]." In another passage that Atwood doesn't mention, Robert Karsh illustrates the impermanence of a neighbourhood near Kearney by "hum[m]ing] a high-pitched rendition of the tornado music from *The Wizard of Oz*" [Powers 2006/2007, p. 373]. Atwood suggests that Karin is Dorothy in a twisted way: while Dorothy loves her Kansas home and keeps trying to get back to it, Karin has been trying to leave Kearney for years, has been slowly working her way, one job at a time, out and away, and has reached Sioux City, but returns reluctantly to take care of her brother, and emphatically does not feel at home there. As Atwood puts it, "'There's no place like home' has taken on a modern, ominous meaning: there is, literally, no trustworthy home." Mark is obviously the Scarecrow: he has a brain, but his brain is sparking out in disturbing ways. Karin's two boyfriends are the Cowardly Lion (the idealistic Daniel Riegel, who is too ruled by abstract principle to react with human emotional courage to complex relationship situations) and the heartless Tin Man (the ruthless real estate developer Robert

Karsh). “Dr. Weber,” Atwood adds, “is of course the wizard as fraud; he too comes and goes through the air, though he uses an airplane, not a balloon. Like the Wizard, he too finds an unsuspected strength hidden beneath his own fakery. Barbara—who seems to have magic powers of some kind—might be a blend of Glinda the Good and the Wicked Witch of the West” [Atwood 2006].

And I think that as a “floor plan” this works, sort of. Certainly the equations of Karin with Dorothy, Weber with the Wizard, and Barbara with a composite Glinda/Wicked Witch of the West all work perfectly. But as Powers develops the other characters, their connections with Wizard of Oz figures begin to criss-cross and overlap:

- Daniel is described as “a scarecrow vegan” [Powers 2006/2007, p. 73], and he is really much more like the Scarecrow than he is like the Cowardly Lion: as the Karin-focalized narrator says early in part four, “he had no idea what was best for him or what he needed. He had only that maddening mask of selflessness”¹ [p. 362-63]. Karin remembers the old Mark, before his accident, making another association: “Daniel was a tree. A decades-long trunk, tilting toward the sun. No victory or defeat, only constant bending. Every time she hurt him, he grew a little. That night, he seemed almost fully grown” [p. 376]. Significantly for the *Wizard of Oz* parallels, it is only when he thinks he has exposed Barbara as evil—as the novel’s Wicked Witch of the West—that he finally loses his temper, tells Karin that she makes him sick, and she describes him as “human at last” [p. 522]—as in the scene early in MGM’s *Wizard of Oz* when the Wicked Witch puts a spell on the apple trees and they turn human(oid), get angry at Dorothy for picking apples, and start pelting her with them. For most of the novel there is no joy in Daniel’s life, which might indeed be a “ding-a-derry” if he only had a brain—the kind of affective brain that the depressed Tin Man needs.

1. Not that the Scarecrow’s mask is “maddening,” of course: it is endearing, simpatico, perhaps with a touch of wistfulness. Powers’ characterizations are darker and more complex than those in the MGM movie. But there is nevertheless something almost cartoonish about Karin’s two boyfriends: Daniel the idealist, Robert the opportunist. Perhaps “cartoonish” is too strong an epithet: perhaps the term I’m looking for is “allegorical.” In many ways *The Echo Maker* is a neurological morality play, each character organized around a different neural orientation: Mark’s Capgras, obviously, but also Karin’s chameleonic nature, Barbara’s role-driven flight from her flameout, Daniel’s principled/scared rigidity, Robert’s testosterone-driven selfishness, Sylvie’s panicked individualism, Weber’s meltdown in response to bad press. Mark’s friends Rupp and Cain are pretty stereotypical good ol’ boys, and Bonnie is the perfect airheaded girlfriend. In classical literature from Theophrastus and Plautus to *The Taming of The Shrew* (and beyond) these would have been “humors”; in medieval and early Tudor morality plays, they would have been personifications of moral attributes (Good-Deeds, Knowledge, Beauty, Discretion, Strength, etc.); in psychological realism they would have been “personality types” (extravert vs. introvert, oral vs. anal vs. genital, animus vs. anima) or “personality disorders” (narcissistic, passive-aggressive, histrionic, anxious, paranoid, etc.). Harris [2008, p. 234–52] dubs the novel “neurological realism” and distinguishes it from psychological realism (see also note 6); it seems to me, however, that the novel’s focus on neurological case studies strongly outweighs its realism, making “neurological allegory” or “neurological morality play” more apt.

- Speaking of the Tin Man, the narrator says of Mark that “his limbs flailed like the blades of a tin windmill” [p. 185]; two pages later Weber tells his wife over the phone that Mark has “one thin scrap of sheet tin propped up between himself and dissolving” [p. 187].
- Mark’s neural disorder at first makes him a scared, insecure bully, much more like the Cowardly Lion than Daniel is; and his problematic relationship with his dog Blackie and desperate desire to go home would seem to identify him with Dorothy as well. (He keeps wanting to go home all through part two, but when he gets there in part three, he thinks it is bad simulacrum, part of the false world some shadowy governmental agency has cooked up to monitor and manipulate him with. “There’s no place like home.”)
- Robert Karsh is really not at all like the Tin Man. Atwood associates him with the Tin Man because he is “heartless,” but another word for that would be “cold-hearted,” or “hard-hearted.” He has “a heart” as affective awareness and competence; he just doesn’t use it for sweet, supportive connectedness, which is our main synecdochic connotation for “heart.” He is exploitative, callous, manipulative—exactly the opposite of the kindly sadsack Tin Man. Indeed one might argue that it is precisely his “heart”—his affective empathy—that makes him such a successful manipulator. He knows intuitively how to pull people’s strings, how to get them to do what he wants. We think empathy makes us love and understand other people, and so to forgive them their faults and wish them the best in their endeavors; empathy circulates positive social feelings. Karsh uses empathy to undo those feelings: “bad” empathy, if you like, as a capitalist antidote to “good” empathy. His “affective” goal is not the warmth of love and understanding but the accumulation of cold cash. He is much closer to the Wicked Witch of the West than he is to the Tin Man.

Ultimately, in fact, all of the characters in the novel are brainless confabulators, like the Scarecrow, affectively disconnected, like the Tin Man, insecure cowards like the Lion², and fakes and frauds, like the Wizard. More on this below.

Capgras and Simulacra

So let us now turn to the neurological disorder that Powers places at the center of his novel, the Capgras Delusion (also called Capgras Syndrome).

2. Late in Weber’s deterioration, the narrator — focalized on Weber, meaning that this is in large part his own self-assessment—says of him that “he was too cowardly to experiment with a mind already so altered” [p. 450].

Diagnosed and named by Joseph Capgras in the second decade of the twentieth century, the disorder typically presents as the patient's conviction that loved ones have been killed or kidnapped and replaced by doubles [Hirstein and Ramachandran 1997; Ramachandran 1998, ch. 8; Breen et al. 2000; Ellis and Lewis 2001]. Capgras sufferers are certain that their spouses, their children, their close friends, even their pets are not the "real" people or other creatures they pretend to be: Mark first believes that his sister Karin is not really his sister but an impostor—a government spy, or possibly a cleverly programmed robot—then that his house and his dog are doubles, and eventually that everything, his entire town of Farview, perhaps his entire universe, is a fake, a sham, a charade, as imposture. As they get used to the "impostors," too, Capgras sufferers typically begin to "realize" that the first-order doubles have been killed or kidnapped and replaced by doubles-of-doubles, who in turn are eventually replaced by doubles-of-doubles-of-doubles. Worse: some look in the mirror and become convinced that they themselves have been replaced by doubles. This seems to happen to Mark as well: late in the novel, he begins to suspect that he ran over himself on the highway that night, and it occurs to Dr. Weber that "he'd begun to double himself" [p. 384].

This all sounds strikingly like (one common interpretation of) Jean Baudrillard's theory of simulacra: the loss of a sense of reality; the increasing impossibility of establishing the reality of another person, a pet, or even the self. In Baudrillard's terms, the "doubles" are simulacra who look exactly like the "real" people, but are manifestly not them. And doubles-as-simulacra proliferate, until it seems to the Capgras sufferer as if reality has been subsumed into diabolical simulation, is drowning in simulation.

Of course there is also a significant difference, in that Baudrillard never ventures a guess as to how this happens. His theory of simulacra is not a neurological model—and everything in *The Echo Maker*, including the powerful ecological subplot, is about neurological explanations. Baudrillard's theory of simulacra is what Charles Levin [1996] calls a "cultural metaphysics"—either a trendy apocalyptic metaphysics of the postmodern End Times or a theory of culture disguised as a trendy apocalyptic metaphysics of the End Times, but in either case utterly lacking in etiological detail. How exactly do simulacra come to colonize our sense of reality? What intellectual, experiential, behavioral, neural processes enable that colonization? Baudrillard and his many followers have no idea, and don't really care. The theory is cool. That's the main thing.

What Capgras can offer us, if we're interested—and Powers is a persuasive and knowledgeable guide, if we set off on that journey—is an exploration of one possible neural etiology of the depletion of "reality," based on the

interaction of two neural pathways for the recognition of faces: the analysis of visual features and emotional response. Normals use both: their brain's fusiform face area (FFA) analyzes appearances based on lines, contours, and so on, and their emotions sort the results into greater and lesser degrees of familiarity, based on the presence or absence and relative intensity of an emotional "glow" signaling the face of someone they care about. Damage to the FFA causes "face-blindness": the subject (like "Joseph N.", as reported by Dr. Weber in *The Echo Maker* [p. 188-90]) claims not to recognize the faces of friends and loved ones, but skin-conductance tests indicate a somatic response to them. S/he recognizes them emotionally, but because s/he doesn't recognize them analytically, consciously, s/he isn't aware of recognizing them, and claims not to.

As Powers' narrator points out [p. 190], the Capgras Delusion is the opposite of face-blindness: it is caused by damage to the emotional circuits contributing to face-recognition. Capgras sufferers have fully functional FFA capabilities. They can analyze visual features perfectly, and recognize that that man sitting across from them at the dinner table "is" their husband, or that that face in the mirror "is" the self, but they feel no emotional "glow" signaling familiarity, and so confabulate otherness—or what Baudrillard calls simulation. To them it is uncanny that that person can look exactly like a loved one but not be the loved one—which is to say, not be the real loved one. The somatic response, measurable by a skin-conductance test (basically a polygraph machine), generates the feeling of reality; damage to that neural circuit creates a sense that reality has been sucked out of the "recognized" face. As a result, the face is recognized but not real. The "simulation" theory—that the loved one (or the self) has been kidnapped and replaced with a double—is the mind's desperate confabulatory attempt to explain the discrepancy.

Now one might want to protest that according to Baudrillard the subsumption of reality into virtuality is ubiquitous, at least in the postmodern West, while the Capgras Delusion is a neurological disorder that is quite rare. The simulacra that plague Capgras sufferers are also considerably more localized than Baudrillard's: they tend to be limited to the sufferer's nearest and dearest, including pets and the self. They do not include whole cities, like Los Angeles [Baudrillard 1981/1994, p. 12-14], or, ultimately, everything. Mark is one Capgras sufferer who gradually comes to believe that everything is simulated; if applied to Baudrillard's explicit theory, this model would say that everyone is a Capgras sufferer for whom everything is simulated—though in Baudrillard most people aren't aware of that.

But Powers seems determined to build something like Baudrillard's universalizing claim into the very fabric of his novel. For one thing, the Baudrillardian tendentious imagery of simulation runs like a scarlet thread through the novel: Karin thinking of the streets of Kearney that they were "a simulation more predictable than one of Mark's online games" [p. 37]; Karin saying to Daniel, "Don't you see, yet? I'm not her. I'm just a simulation. Something you invented in your head" [p. 368]; the Weber-focalized narrator describing the mirror-neuron system as "simulations simulating simulations" [p. 485]. I haven't seen Powers admitting in print that he was influenced by (or was even thinking of) Baudrillard on simulacra here, or elsewhere in his writing; but the circumstantial evidence for such influence seems quite compelling. Even more compellingly, late in the novel Karin muses that "the whole race suffered from Capgras. Those birds [the cranes that migrate every March through the Platte River area just south of Kearney, Nebraska] danced like our next of kin, looked like our next of kin, called and willed and parented and taught and navigated all just like our blood relations. Half their parts were still ours. Yet humans waved them off: impostors" [p. 439].³

Of course the problem with that equation is that the cranes weren't yesterday our loved ones, our nearest and dearest, and do not therefore, as a result of our brain-related illness or accident, come to be experienced only today as impostors or doubles. If they ever were our nearest and dearest, they were that tens of thousands of years ago, and what our collective Capgras has "destroyed" is an emotional glow of familiarity that—if it exists at all—is buried deep in our race memory. The "collective Capgras Delusion" that Powers puts in Karin's late revelation is either a metaphor, an analogue—our denial of kinship with the rest of nature is *like Capgras*—or, if it is "real" (whatever that means), it has plagued "us" for all of human history, and indeed may be identical to human history. The "reality" of our "collective Capgras Delusion," to put that more cynically, is a tendentious interpretation, an activist construct that Arne Naess and other deep ecologists, and perhaps Powers as well⁴, are trying to inculcate in a transformed human consciousness—trying

3. As Powers [2007] reports, something like this equation lay at the beginning of his thinking about the novel: having spotted the cranes in Nebraska while driving by, he began to read about them, „until they became eerily human to me, and at the same time, totally alien. I wasn't surprised to discover stories in different folk literatures about cranes and people turning back and forth into each other. Later, when I first heard about Capgras syndrome, and how its sufferers fail to recognize only those people closest to them (while having no trouble at all recognizing everyone else), something clicked, some story about familiarity and strangeness, and the book started to take shape in me“.

4. Powers [2007] does seem to suggest that Karin speaks here for him: "So here we are, sharing the planet with these creatures who are weirdly intelligent, smart in an alien way that we're not quite smart enough to see. And yet, the core parts of their brains are still contained in ours. Our estrangement from them, then, struck me as somehow analogous to our estrangement from our own subcortical selves. Setting the story in this little town in the middle of nowhere, whose central claim to fame was this annual massing of birds, gave me a way to open up the story to all kinds of neurological and ecological traces“.

to make real. Trying to infuse with the feeling of reality, through powerful story-telling. That cynical reading makes the whole thing sound like a fantasy, if we proceed from the platonizing/objectivizing assumption that a thing is either “real” or “fake,” simulated; but Powers emphatically rejects that platonism/objectivism, and I want to expand on his post-Kantian model as we go along, moving in the direction of a socioecological model of reality-construction that I call “icosis.”

Another way of putting that, to which I want to return in the final section: if we accept a post-Kantian/social-constructivist model of reality-creation, the difference between one person creating a reality (say, Mark believing that he is not related to the woman calling herself Karin) and an entire population creating a reality (say, humans believing that they are not related to cranes) is that group-plausibilization makes the latter sense of reality “sane” and the former sense of reality “crazy.” There is no question but that Mark’s Capgras, as the novel sees it—and we participate in that group seeing as well—is crazy. As things stand today, it is equally crazy to see humans as related to cranes; the deep-ecological hope, in which the novel participates, is that that will change, in the sense that people everywhere will come to experience cranes and other living and natural things as related to them, and the group-plausibilization of species interrelatedness will make what now seems crazy seem sane. (What’s interesting there is that Mark’s denial of his sibling relationship with the woman he calls Kopy Karin or Karbon Karin begins to drive Karin crazy too. As her only surviving family member, Mark is for her the most powerful group-plausibilizer of her status as his sister, and thus of a hugely important part of her identity. As a result, his denials begin to wear away at that group-plausibilized identity—begin to deplausibilize one part of it, and thus to drive a wedge into the very core of her identity, destabilizing the whole thing.)

One might be tempted to argue, given Baudrillard’s utter disregard for the neurological *how* of his topos of simulacra, and the wild hyperbolic “poetry” of the *what* in quips like “the real is no longer possible” [Baudrillard 1981/1994, p. 19], that there is no connection at all between simulacra and the Capgras Delusion—indeed that his entire model is trendy speculation with no basis at all in (umm ...) “reality.” I propose, however, to take a different tack—or actually three:

1. to track through the Capgras Delusion an intelligent application of the literal reading of Baudrillard’s topos to an entertainment text, in order to explore the consequences of translating the topos down from High Theory to representational practice, the better to determine what must

- be rethought in Baudrillard's model in order for it to work properly;
2. to track through simulacra Powers' intelligent application of ecological complexity/chaos theory to Capgras and other misidentification syndromes in *The Echo Maker*, culminating in Karin's claim that the human race suffers from an ecological form of Capgras, the better to determine what must be rethought in Powers' model in order for it to work properly; and, synthesizing (1) and (2),
 3. to build a working theory of culture around the collectivization and normativization of emotional reality-construction.

Jackass 3D as "Simulacra Slapstick"

The intelligent application of Baudrillard to an entertainment text that I've selected is an article by Kevin Casper (2015) titled "'I'm so glad you're fake!': Simulacra Slapstick and the Limits of the Real"; the entertainment text in question is *Jackass 3D* (2010), the third installment of that franchise. "Simulacra slapstick" is Casper's own coinage for "a form of slapstick comedy that upsets the stable distinction between the real and the fake that Western philosophy (and its subsidiary disciplines) is founded upon" [Casper 2015, p. 581-82]: a kind of postmodern/Baudrillardian slapstick-plus that transgresses slapstick's traditional reliance "on a stable boundary that separates the real from the fake" [p. 584]. As Casper explains, slapstick is visual humor based on fake pain—pain only apparently suffered by actors and cartoon characters, which is funny because we know it's "not real." The unreality of the pain simulated in slapstick gives us license to laugh, to find the actor's/toon's distress funny. "Simulacra slapstick," by contrast, "resists confinement within the stable categories of real and fake and ultimately reveals that 'the real is no longer possible' in the era of the hyperreal [Baudrillard, 1981/1994, p. 19]" [Casper 2015, p. 582].

Let us look closely at three passages.

First Passage: Desiring/Requiring/Creating a Sense of the Real

As Casper glosses Baudrillard's *Simulacra and Simulation*, "A sense of the real is something that we still desire: 'We require a visible past, a visible continuum, a visible myth of origin, which reassures us about our end' [Baudrillard 1981/1994, p. 10]. But this sense is now only possible when we create it ourselves" [Casper 2015, p. 582].

We desire it; we require it; we create it. The plight of Capgras sufferers would seem to confirm overwhelmingly that we “require” it (life without it is well-nigh unlivable); and in an interview Baudrillard himself confirms that requirement in fairly strong terms designed to correct the literal reading of his theorization of simulation that Casper perpetuates:

If you start from the idea that the world is a total illusion, then life, thought, become absolutely unbearable. So you have to make every effort to materialize the world, realize it, in order to escape from this total illusion. And the “realizing” of the world, through science and technology, is precisely what simulation is—the exorcism of the terror of illusion by the most sophisticated means of the “realization of the world.” [Gane 1993, p. 184; quoted in Butler 1999, p. 24]

Simulation is not the derealization of matter, in other words, but the materialization of the real. The fact that Baudrillard does also claim that “the real is no longer possible” renders his interview explanation somewhat problematic: not only is “the real” (whatever that might mean) “not possible” (whatever that means), but it is “no longer possible.” It was possible once; now, in the age of simulation, it is no longer. This is the sort of claim that seems to justify the literal reading that Casper embraces (and Baudrillard himself tries to reject, in interviews); in his radical reinterpretation of Baudrillard Charles Levin [1996, p. 196] recommends that we jettison the “no longer” entirely, for “simulation has, in essence, always been like this, at least so far as social life is concerned; for society has never been anything else but a map, or more truthfully, a collection of maps, that we gradually learn to read.” All culture is simulation.

The interesting questions for my purposes here, though, are:

- Q1. What does it mean to “desire” a “sense of the real”? Is “desiring” that sense like desiring sex, or desiring chocolate?
- Q2. The “still” in “still desire” is obviously tied to Baudrillard’s “no longer”: “the real” or “a sense of the real” would appear to be something that we used to possess but that has now become a scarce commodity that we mostly lack and so endemically crave. Is that really the case? If so, when and how did this happen?
- Q3. Are the “we” who “still desire” that “sense of the real” (a) individuals (who, say, possessed a sense of the real until we were ten, or twenty, or whatever, and then lost it, so that we retain a nostalgic sense of what it was like to have that sense in our own individual lives), or (b) Western postmoderns (so that Western moderns still possessed it back say in the

early twentieth century, and the rest of the world still possesses it, but “we” collectively have lost it, though most of us alive today have no memory of possessing it personally), or, say, (c) the whole human race? Q4. Above all, how do we create “a sense of the real”? Surely not by wanting to create it: the Capgras Delusion is all about the inability to create it on demand, and we all know that it doesn’t matter how much we want to create the sense that, say, we can really grow wings and fly to the moon, it’s never going to happen. It also seems to me quite problematic to suggest that our ability to “create it ourselves” only became essential recently.

I suggest the answer to Q1 is that we “desire” that sense not because we have lost it, but because we still have it but keep getting disturbing intimations of its precarity. We desire more of it: the “reality hunger” of which David Shields [2010] writes is precisely that desire for more. But Shields’ “reality hunger” is not the hunger of a starving person in a world without food; it is the hunger of a well-fed devourer of Big Macs who begins to crave “real” food, “authentic” food. We “still” desire that food (Q2) in the sense not only that we “still” remember eating homemade hamburgers, but that the highly processed food that we mostly eat itself still retains and perpetuates the simulated image of “real” food (mass-produced hamburger patties piled high in the supermarket freezer with “Homemade!” emblazoned on the box). The nostalgia we feel for “real(er)” food is a simulacrum. “We” (Q3) are postmoderns; but an indispensable correction to Baudrillard is, again, that all culture is simulation. All culture is artifice simulating “the real.” “The real” is always a cultural simulacrum. To the extent that “we” believe that “‘the real is no longer possible’ in the era of the hyperreal,” the “fall” or the “loss” implied by that “no longer” is itself a simulacrum. The sneaking suspicion we have that “reality” is somehow being “depleted,” that there is less of it to go around today than there was in our childhood, or our parents’ or grandparents’ childhood, is a simulacrum.

My answer to Q4 points us to the radical reinterpretation of Baudrillard developed by Levin [1996] and Butler [1999]: culture creates a sense of the real. Indeed Baudrillard’s own insistence that “the ‘realizing’ of the world, through science and technology, is precisely what simulation is” confirms this. His suggestion that “you have to make every effort to materialize the world, realize it, in order to escape from this total illusion”—as if this simulation-of-the-real were something that (Q3a) individuals did to smother their painful emotional response (existential dread) to the image of “this total

illusion”—seems to feed Casper’s “this sense is now only possible when we create it ourselves”; but that is silly. Reality is a collective construct.

Second Passage: Attacking the Reality Principle

Casper seems to offer us a different kind of implicit definition of “the real” or “reality” by glossing another brief passage from *Simulacra and Simulation* [Baudrillard 1981/1994, p. 20]: “What proves most dangerous—yet also potentially productive—about the simulacra slapstick contained in Jackass 3D, is not that cuts and scabs and bumps and bruises befall the actors. It is that simulacra slapstick functions as simulation that ‘attacks the reality principle itself’” [Casper 2015, p. 582].

Q5: What is “the reality principle,” and what does it mean to attack it?

Casper does not elaborate on Baudrillard’s phrase there; “the reality principle” seems to function in his argument as yet another vague synonym of “the real” or “reality,” and “attacking” that principle another vague synonym of subsuming our sense of the real into virtuality. My answer to Q5, however, would begin with the hunch that Baudrillard is specifically alluding to Freud’s *Realitätsprinzip* from “Formulation of Two Principles in Mental Functioning” [Freud 1911/1957], namely the mind’s ability to experience and live in accordance with the reality of the world outside it as defined by society. The reality principle for Freud is not “the real” or “reality” as a vague Platonic ontology; it is the individual’s acquiescence to the normativization of a socio-cultural construct. The reality principle is specifically tied up with the ego’s gradual learning to defer the gratification of the id-driven pleasure principle: it is something to which the individual is incrementally socialized. To “attack the reality principle,” therefore, is presumably to undermine not “reality” but society’s power to socialize its members to its own normativized reality. That in turn would suggest that what Baudrillard calls simulation creates a state in which what is “no longer possible” is not “the real” as a stable ontology but that social normativization of reality that Freud calls “civilization”—and that “no longer possible” is a problematic oversimplification. What that attack on the reality principle probably means is actually a disruption of the social normativization of reality, so that we come collectively to experience (construct) reality differently. That is something slightly but significantly different from “But this sense is now only possible when we create it ourselves.” Yes, we probably do “create it ourselves,” but not “ourselves” in the sense of (Q3a)

„individuals as opposed to society,“ as Casper seems to use it: „ourselves“ rather in the sense of „individuals as organized by society.“ But, to repeat:

(Q4) how do we do that?

Third Passage: Why We Laugh at (Simulacra) Slapstick

Casper makes much of the 3D format of *Jackass 3D*, and I think rightly so: his point is a good one, that 3D supposedly enhances and heightens the „realism“ of the „real“ pain being experienced by the actors, but through the very artificiality of that heightened „realism“ actually undermines the audience’s sense of reality. But this talk of enhancing or undermining the audience’s sense of reality rests implicitly on a model of how that sense of reality is created—and (Q6) how does that happen? I suspect that, like Baudrillard, Casper is content to shrug off Q6 as „not my field“— to assume that it is quite reasonable to pronounce on the heightening and diminishing of an audience’s sense of reality (a cultural-studies question) without needing to know anything about where that sense of reality came from in the first place (a cognitive-neuroscience question).

The problematic of the begging of Q6 is accentuated in the central contrast Casper attempts to build between “traditional slapstick” and “simulacra slapstick.” He notes that the makers of *Jackass 3D* begin the film by having Mike Judge’s Beavis and Butt-head tell the audience to put on their 3D glasses, and pauses to remind us that Beavis and Butt-head represent traditional slapstick: „Butt-head can beat Beavis all day and night, and, even though we might take some pleasure in watching this (partially because Beavis is a character that quickly gets under the skin), we ultimately know that no harm is ever coming to either of them“ [Casper 2015, p. 588]. A few pages later he tells us that „As [actor Dave] England flees [a battered beehive] in pain, the promise of simulacra slapstick in the skit becomes successfully realized: everyone involved is repeatedly stung. Rather than being sidestepped here, pain is celebrated, and, as a result, laughter is produced in the audience“ [p. 592]. The idea seems to be that Beavis and Butt-head represent traditional slapstick because our laughter is provoked by their inability to feel pain, and *Jackass 3D* represents simulacra slapstick because our laughter is provoked by a celebration of the real pain they feel. But is this really how it works?

My answer to Q6 begins experientially: whenever I’ve tried to watch any of the Jackass movies, whatever laughter they’ve provoked has been painful laughter—laughter that makes my body twist in empathetic response to the

pain the actors are experiencing. I was also a huge fan of *Beavis and Butt-head* in the nineties, and, pace Casper, often responded to them in exactly the same way as I do to the Jackass slapstick. For example, episode 97 is called „Choke“; in it Butt-head gets a chicken nugget lodged in his throat, and is slowly choking to death, while Beavis walks about the house oblivious. That sequence for me was about 90% vicarious empathetic agony and 10% uneasy laughter. „You idiot!“ I kept wanting to scream at Beavis: „your friend is choking to death!“ Finally Beavis accidentally steps on Butt-head’s solar plexus and dislodges the nugget, and Butt-head is saved; but then Beavis pops the nugget in his own mouth and begins to choke and turn red and purple himself, and Butt-head is now oblivious to his friend’s distress. The repetition of the gag made it funnier—as the episode ended, I was laughing appreciatively—but it was still painful laughter. What exactly is the difference between the effects on the audience’s sense of reality in „traditional“ and „simulacra“ slapstick?

The explanatory model borrowed from Capgras-Delusion neuroscience would suggest that those effects are in both cases empathetic projections. It doesn’t matter whether we „identify“ with a loved one, a stranger whose pain we witness first-hand, a human actor in a live-action Jackass film, an animated cartoon like *Beavis and Butt-head*, or even a blinking blip on a computer screen: we (normals) project emotion onto them. Not only that: the social neuroscience of empathy has shown fairly conclusively that our bodies both project emotion onto other bodies (including soughing pines and burbling brooks, and abstract images) and simulate that projected emotion, through the mirror-neuron system. (Richard Powers reviews that research in some depth in *The Echo Maker*, and I return to it below; see also [Robinson 2013b, p. 150–54], for a review of neurophysiological studies of empathy based on the mirror neurons). If we imagine that a slowly blinking cursor is sad, we may begin to feel a bit melancholy ourselves. It turns out that what John Ruskin [1856/1891] called the “pathetic fallacy” is normal brain function. Our ability to share simulated affect is at the core of our “creation” of a (shared) “sense of the real.” And, conversely, the inability to experience that “fallacy” is precisely what plagues Capgras sufferers—what makes them suspect that their loved ones are not their “real” loved ones.

For confirmation of this reading from a perhaps unexpected source, see *Understanding Comics*, by Scott McCloud (1993), who argues that “WE HUMANS ARE A SELF-CENTERED RACE” (32), and goes on in Fig. 1 to suggest that we “ASSIGN IDENTITIES AND EMOTIONS WHERE NONE EXIST” [McCloud 1993, p. 33] not only when reading comics (or watching cartoons like *Beavis and Butt-head*) but when looking at a car’s

grill or a container of Kraft Parmesan cheese. He elaborates on this premise more fully in Fig. 2, arguing that “THE CARTOON IS A VACUUM INTO WHICH OUR IDENTITY AND AWARENESS ARE PULLED ... AN EMPTY SHELL THAT WE INHABIT WHICH ENABLES US TO TRAVEL IN ANOTHER REALM. WE DON’T JUST OBSERVE THE CARTOON, WE BECOME IT!” [McCloud 1993, p. 36].

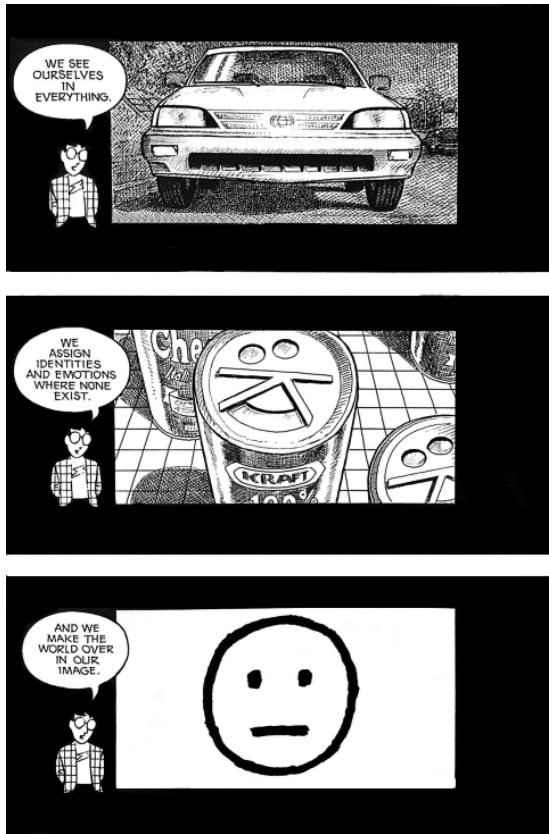


Figure 1. Scott McCloud. *Understanding Comics*, p. 33

The implication, of course, is that (Q6) our response to slapstick (or any other representation of action) does not vary significantly depending on whether we are responding to real actors who visibly suffer pain in their undeniably physical human bodies (in a live-action film like *Jackass 3D*) or cartoon characters that are only two-dimensional drawings of bodies and therefore can be presumed in some “objective” sense not to suffer pain at all (in a cartoon like *Beavis and Butt-head*). If Scott McCloud is right, we may even empathize more strongly with cartoon characters than with live actors;

be that as it may, it seems undeniable that the traditional definition of slapstick as funny because we know it's not “real”—we know that no one is feeling



Figure 2. Scott McCloud. *Understanding Comics*, p. 36

real physiological pain—is wrong. It may be that we use that reassurance as a secondary response to quell our empathetic participation in the pain, along the same lines as telling ourselves that the monsters in a horror film are just CGI, or that the hero in a thriller has to survive till the end (and triumph over the bad guys), or that a nightmare is just a dream and we can wake up any time we want. But those secondary self-reassurances are responses to our primary empathetic identification with the suffering hero—which is primary because that identification, that simulated oneness or sameness (identity) with other people and drawings and trees and so on, is our only channel for experiencing the reality of the world. This is the Kantian Copernican hypothesis: we do it. The reality of the world outside our minds is a construct that we

build out of sense-data and organize in coherent ways—that coherence coming from God’s Creation in Kant, in more recent post-Kantian thought from culture. The traditional definition of slapstick on which Casper draws is naïve pre-Kantian objectivism, which survives as common sense, of course, but is utterly discredited by modern neuroscience. More on that as we proceed.

Fiction in *The Echo Maker*

And now back to *The Echo Maker*, which as I’ve been hinting is strongly — even obsessively — grounded in the neurological research on Capgras and other misidentification syndromes, the mirror neurons, and empathy. But let us begin to unpack that massive novel slowly, beginning with confabulation as the “natural” reaction of sufferers from the Capgras Delusion and other misidentification syndromes to the obvious gaps in their picture of the world. In an online roundtable on *The Echo Maker* shortly after the novel was released, Powers [2006] explicitly identified his central theme in the novel as fiction, or rather, perhaps, since this is the theme of a fiction, metafiction: “to put forward, at the same time, a glimpse of the solid, continuous, stable, perfect story we try to fashion about the world and about ourselves, while at the same time to lift the rug and glimpse the amorphous, improvised, messy, crack-strewn, gaping thing underneath all that narration.”

In other words, his aim was simultaneously to tell and to undermine a traditional realistic narrative. We love traditional realistic story-telling, even when it is about monsters and witches and gods and demons and Jedis and so on, because it seems to confirm what we all work so hard (though unconsciously) to achieve: a coherent self in a coherent world. Existential coherence. Meaning. The novel’s cognitive neurologist, Dr. Gerald Weber, early on denies that he is writing “fiction” [Powers 2006/2007, p. 235–36] and resists being called a “writer” [p. 286] — he is a “scientist,” committed to truth — but as his fragile professional persona crumbles, he is increasingly forced to come to terms with the continuity between the neurological deficits he studies and his own state of mind/being, until by the end we find him reflecting on “his neurological novelistic books” [p. 455]. In his self-congratulatory persona as a celebrity author of popular books on neurology, which he and his wife Sylvie have humorously dubbed Famous Gerald, he attributes that impulse to confabulate a coherent world to the poor souls about whose brain deficits he writes; but Powers’ narrator, when focalized on Weber, digs out of his deepest self-(pre-)awareness a deeper truth:

Personal confabulation, the neurologist [Todd E.] Feinberg [b. 1952] called it. A story to link the shifting self back to the senseless facts. Reason was not impaired here; logic still worked on any other topic but this. Only the map of the body, the feel of it, had been fractured. And logic was not above redistributing its own indisputable parts in order to make a stubborn sense of wholeness true again. Lying in his rented room at 2:00 a.m., Weber could almost feel the fact in the limbs he lay numbering: a single, solid fiction always beat the truth of our scattering. [p. 208].

All along here, on his first visit to Kearney, he keeps getting intimations of the disintegration that lies in store for him: “Now, as he lay miles from sleep, he tried to decide whether he’d lied about not knowing it, or had just forgotten” [p. 187]; “For every story he gave Sylvie, she told him one back. But by the next morning, he felt as if he’d invented all of hers” [p. 206]. “We were not one, continuous, indivisible whole”—this is the refrain of his popular books on neurology—“but instead, hundreds of separate subsystems, with changes in any one sufficient to disperse the provisional confederation into unrecognizable new countries” [p. 216]. Or, as he rather glibly tells his editor on the next page, “we all play ourselves” [p. 217]; the only problem is that even as he says it he is already beginning to forget his lines, to forget what character he’s supposed to be playing, indeed to forget what play he’s in, and to be booed off the stage by an increasingly hostile audience. Having read—and obsessively reread—a bad review of his new book, he heads off on vacation to Italy with his wife, leaving the review at home, but “by the time they got to LaGuardia, he’d rewritten it in his head. He could no longer tell what he actually remembered from the evaluation and what he was fabricating” [p. 285]. The fact that he knows that we do this, and indeed that he has made his reputation as both a scientist and as a popular science writer on that knowledge, does not prepare him for the “derealization and depersonalization” that result when his own confabulatory continuity begins to fail, leaving him too susceptible to “misidentification—the whole continuum of Capgras-like phenomena, phenomena that Weber had witnessed his whole life without quite noticing” [p. 483]. “It struck him that he’d invented Nebraska,” the narrator reports. “The whole story: some foray into a mixed, experimental genre, a morality play masquerading as journalism. He had no reliable memory of anything that had happened there” [p. 465]. “Lying, denying, repressing, confabulating: these weren’t pathologies. They were the signature of awareness, trying to stay intact. What was truth, compared to survival?” [p. 483].

What is interesting about Weber’s disintegration is not the irony of the neurologist experiencing what he has so famously and lucratively described in

others, but the very ordinariness of his collapse. Loss of reputation is almost always devastating to us. Like his wife Sylvie, we too like to think that we are (ideally) strong, autonomous beings, gods and goddesses, individuals and individualists who care nothing for public opinion; but that is just wishful thinking. We all have recurring moments of panic when “reality” doesn’t line up as neatly as we would like it to; we are all susceptible to self-doubt, self-recrimination, anxiety, depression, and other forms of collapse when our personality card castles blow over, or even when they ruffle slightly in a light breeze. The intensity with which this disintegration affects most of the characters in Powers’ novel makes the narrative seem bleak; but he is really only intensifying our normal state of being just enough for us to notice it. Normally we are quite adept at hiding the precarity of our meaning-fortresses from ourselves and others.

Barbara Gillespie, with whom Weber has a brief sexual encounter at the end, tries to jolly him out of his funk:

She leaned in and lifted his chin. “Listen to me. They’re no one. They have no power over you.”

It took him a moment to identify them: the court of public opinion. “Clearly they do,” he said. More power over him than he had over himself. The human cortex had first evolved by way of navigating intricate social rank. Half of cognition, the chief selection pressure now in play: the herd in the head.

And shaped for it by the power of them, her brain read his. “What do you care about that monkey-troop stuff? Grooming and jockeying. Nothing matters but your own sense of work [p. 409].

Ironically, this is a replay of a previous conversation in which they play the opposite roles, Weber denying that he cares about what others think of him, Barbara gently pointing out that he obviously does:

She looked up, the pupils of her hazel eyes as large as the spots on a masquerading moth. They knew him. “It’s all still about pecking order with humans, isn’t it? Even when the ranking is imaginary.”

“Not a contest I have much interest in.”

She reared back, that same look of amused skepticism she’d just given Mark. “Of course you have interest. This book is you. The hunters are circling. Nothing imaginary there. What are you going to do, roll over and die?” [p. 402].

We teeter constantly on the fulcrum between those two attitudes: between admitting and denying the power of the crowd over our self-esteem, our self-image, our identity. Dr. Weber is no less like the rest of us for being a neurologist. He knows far more about all of us than all of us do, but just as little about himself—and his knowledge cannot protect himself from the churning incoherence to which we all are prone.

The other characters provide multiple examples of this ordinary disruption of meaning-making as well. Karin desperately needs to be affirmed, and in search of that affirmation will become whomever she's with; as a result, her commitment to saving her brother leaves her violently susceptible to breakdown when for one entire year he keeps relentlessly insisting that she is not herself, that she is an impostor, trained by the government to spy on him. As she tells Robert Karsh, "he's decided I'm never going to be me again. And after half a year? He's right" [p. 371]. What Daniel wants from meditation is "Nothing!" Which does not mean that he doesn't want anything—that he's fine the way he is. He means "I want it to help me want nothing. ... It makes me more ... an object to myself. Disidentified" [p. 92]. His fictional universe is Nirvana—or the vegetative state of a tree. As Weber articulates a similar self-protective strategy, late in the novel: "The self is a burning house; get out while you can" [p. 514]. Weber's daughter Jess is diabetic, and has bought an insulin pump, but it doesn't always work: "Zuul still inhabits me from time to time. Capricious little fiend. Came and took me over in the middle of the night last week. First time in a long time. Scared the crap out of both of us" [p. 277]. Nor is it only the human population that faces this potential collapse: at one point Weber hears a bird crash into the window, "a large male cardinal who, for the last two weeks, had been attacking his reflection in the nook window, thinking himself an intruder on his own territory" [p. 452]. Attack as a fictional strategy.

The Human Brain as Ecosystem

As in (Q3a) Baudrillard's interview remarks on our desperate reactions to the "terror of illusion," however, there would appear to be an individualizing impetus to many of these stories. Each of us, the novel repeatedly seems to suggest, struggles as an individual against the forces of disorder arrayed in the worlds both outside and inside our brains. The sense-data fed us by the world are complex and conflicting; and our brain's ability to sift through them is shaky, unreliable. It's each individual against the world, and that individual's only ally in the unremitting skirmish, it seems, is his or her kludgy nervous system. That nervous system, and the self it mobilizes, is multiple, to be sure—"The self was a mob, a drifting, improvised posse" [Powers 2006/2007, p. 453]—but to the outside world, that self is still only one. And even from the inside, this mob metaphor makes it seem as if the self has no allies on the outside. "We think we access our own states," Weber tells his undergraduate students; "everything in neurology tells us we do not. We think of ourselves as a unified,

sovereign nation. Neurology suggests that we are a blind head of state, barricaded in the presidential suite, listening only to handpicked advisors as the country reels through ad hoc mobilizations ...” [p. 460]. There is nothing in that passage to suggest that the “advisors” are other people. They too are part of the mob that is the self, that “drifting, improvised posse”—an image that Powers admits to Stephen J. Burn he borrowed from Daniel Dennett’s [1991] pandemonium model of consciousness⁵. In a trenchant ecological reading of the novel, Nicola Brindley [2012, p. 8] places particular stress on the parallels Powers draws between the brain and any ecosystem out in the world:

Mark is seen to reconstruct his sense of selfhood in a way which supports comparisons between the structure of the brain and that of an ecosystem: rather than a single, indivisible ‘self’ he is seen as multiple and in process, described as “piecing himself back together” [Powers 2006/2007, p. 21]. While lying in his hospital bed he claims that “his parts came back to him [...] his body, countless microscopic creatures banded together in need.” Continuing the biological analogy, Mark’s pre-conscious brain is compared to “a whale in the street [... a] beached creature blocks long”, while his interacting neurons appear as “tiny land-born lives” which drift back, gradually “reclaiming their crushed homes” [Powers 2006/2007, p. 52-53]. Dr. Weber, the book’s cognitive neurologist, makes clear the proposed link between human brain-function and the kinds of biological organization found elsewhere in the natural world by suggesting that in regard to brain function, humans are “like coral reefs [...] complex yet fragile ecosystems” [Powers 2006/2007, p. 235].

She also cites Charles B. Harris [2008, 232] on Powers’ representation of the human brain as “a networked ecology that mirrors the networked ecology of all life, including birds, the core parts of whose brains are still contained in our own” [quoted in Brindley 2012, p. 10]⁶. This is obviously a far more

5. Here is the passage from Burn’s interview [Burn 2008, p. 174]:

Q. Do you see affinities between your understanding of narrative and Daniel Dennett’s multiple-drafts theory of consciousness?

A. I see more than affinities: I see strong equivalences! *The Echo Maker* is in many ways a narrative working-out of those ideas.

Dennett develops that theory in *Consciousness Explained* [Dennett 1991]; for discussion, see Robinson [2001, ch. 5; 2013b, p. 118]. See also Dennett’s [2008] fan letter to Powers.

6. Brindley [2012, 19n41] cites this passage as “Harris, ‘The Story of the Self,’ 436”—a page number that does not even exist in Burn and Dempsey [2008]. Harris’s article is the most comprehensive introduction to date to *The Echo Maker*’s “neurological realism”: he covers the origins of the novel in Powers’ drive through Nebraska en route from Illinois to Arizona and serendipitous discovery of the migrating cranes, and subsequent delving into the neurological research on misidentification, especially in Ramachandran [1998] [Powers 2006/2007, p. 232]; his determination to undermine dualistic thinking [p. 233]; what he discovered about the simultaneous multiplicity and singularity of the self [p. 234–37]; his use of the mirror-neuron research [p. 238]; the motivational ubiquity of self-protection [p. 239–41]; the role played by “self-narration” or the fictional impulse in the maintenance of an ostensibly coherent and continuous self [p. 241–42]; and the important differences between traditional psychological realism and Powers’ new neurological realism [p. 243–52]: “Whereas traditional psychological realism records the effect on the ‘inner self’ of external forces or deep-seated neuroses, neurological realism foregrounds the effects of largely unconscious neurological activities,” and in so doing deconstructs the “dualisms—inner and outer, mind and body, reason and emotion, self and other” [p. 243]—maintained by psychological realism. But see also my suggestion in note 1 that a better term might be “neurological morality play.”

ecological metaphor than the mob and the blind head of state and his or her advisors—but it is structurally isomorphic with those political metaphors, in the sense of imagining the individual as internally multiple but unconnected to others. The brain-as-ecosystem and self-as-mob tropes are certainly more complex than what we might call, invoking Judith Butler, Sylvie’s “panicked individualism”⁷: in trying to get her husband to ignore the critics who are attacking his latest book, she repeatedly tells him that “consensus was the delusion” [p. 341], and that “public judgment is nothing but shared schizophrenia” [p. 451]. Sylvie’s implicit model is Lockean rationalism, or the Victorian triumphalism of William Ernest Henley’s “Invictus”: “I am the master of my fate: / I am the captain of my soul.” But the self-as-mob or brain-as-ecosystem trope is only inwardly more complex than Henley’s self-as-captain: less well protected against collapse, because less unified, less perfectly subordinated to a chain of command. Outwardly, in its engagement with the world outside the skull, it is basically the same.

For the most part, the novel’s conception of the world outside the skull is equally multiple:

Somehow, when he wasn’t looking, private thought gave way to perpetual group ratings. The age of personal reflection was over. From now on, everything would be haggled over in public feedback brawls. Call-in radio, focus groups every time anyone moved. (Leo Tolstoy: 4.1. Charles Darwin: 3.0).

And yet, every time he logged off, nauseated by the relentless assessments, he found himself immediately wanting to check again, to see if the next response might erase the last mindless dismissal. He compared his numbers to those of other writers he was lumped with. Was he alone in this backlash? Who was the moment’s darling? Which of his colleagues had also fallen? How did the public manage to bank and wheel in such perfect synchrony, as if on signal? [Powers 2006/2007, p. 342–43]

The analogy fleshed forth in “bank and wheel in such perfect synchrony,” obviously, is between “the public” and a flock of birds. “The brain” is an ecosystem; “the public” is another. The two interact, but are also structurally similar. If the public is a mob, the brain is another. If the brain is a mob, the public is another.

7. Butler’s [1991] phrase is “panicked heterosexuality”; her ingenious argument is that straight people like to believe that heterosexuality is not just “normal” (grounded in social norms) but “natural” (grounded in biological nature), and therefore calmly immutable, but the lie is given to that belief by the panic many straight people feel around gays, as if gayness might be contagious. So far from being “natural,” this suggests, heterosexuality is only naturalized as normal/normative, and further a beleaguered naturalization, under constant threat of dissolution, and therefore a stance that requires constant ideological and behavioral vigilance. By extension, therefore, Sylvie’s edgy insistence that her husband is a strong, confident individual who doesn’t need to worry about what the public says about him, and her constant railing against the encroachments of public opinion on her own individualistic peace of mind, would be “panicked individualism,” suggesting that she wants to naturalize the normativity of individualism but in order to do that must constantly be shoring it up against the power of the collective to tear it down.

The two questions I want to pose to this model are: (Q7) is there any sense in which these two analogical mobs are the same mob, and, if so, (Q8) how do they rule as that same mob? Clearly, if the brain and the public are both ecosystems that operate under similar homeostatic conditions, or, to put that less politely, mobs that rule with the same kind of kludgy pandemonium tendencies toward order, that's cute, and clever, and all, but not particularly useful in imagining a sociology of all this—and particularly a sociological or socioecological way forward. If the two mobs/ecosystems don't communicate, if indeed they are not part of the same communication system, then things really are bleak.

As it happens, Powers does provide an answer to Q7, though it comes very late in the novel, which perhaps makes it easy to miss. The answer lies in the mirror-neuron system:

A part of the brain that did physical things was being cannibalized for making imaginary representations. Science had at last laid bare the neurological basis of empathy: brain maps, mapping other mapping brains. One human wit quickly labeled the find monkey-see monkey-do neurons, and all others followed suit. Imaging and EEG soon revealed that humans, too, were crawling with mirror neurons. Images of moving muscles made symbolic muscles move, and muscles in symbol moved muscle tissue. [p. 449]

It's not just "the herd in the head" [p. 409], in other words; it's the herd that merges heads. Or again:

What-if mimicking what-is; simulations simulating simulations. When his Jess was not yet a month old, he could get her to stick out her tongue just by sticking out his tongue at her. No counting the miracles involved. She had to locate his tongue relative to his body, then somehow map his parts onto the feel of hers, find and order a tongue she could not even see, could not even know about. And she did all this at the mere sight of him, this infant who had been taught nothing. Where was the end of his self, the start of hers? The self bled out, the work of mirror neurons, empathy circuits, selected for and preserved through many species for their obscure survival value. [p. 485]

It's not just that the self is a mob and the public is a mob; because of the communicative action of those "empathy circuits," the boundaries between the self and the public are porous:

To be awake and know: already awful. To be awake, know, and remember: unbearable. Against the triple curse, Weber could make out only one consolation. Some part of us could model some other modeler. And out of that simple loop came all love and culture, the ridiculous overflow of gifts, each one a frantic proof that I was not it ... We had no home, no whole to come back to. The self spread thin on everything it looked at, changed by every ray of the

changing light. But if nothing inside was ever fully us, at least some part of us was loose, in the run of others, trading in all else. Someone else's circuits circled through us. [p. 486]

All love and all culture are a matter of “someone else's circuitscircl[ing] through us.” The bleak message that Margaret Atwood extracts from the hitches in Karin's Dorothy-like return home to Kearney—that “‘There's no place like home' has taken on a modern, ominous meaning: there is, literally, no trustworthy home”—here becomes a transition to a larger, more hopeful view in which the earth is our home, all nature is our home, the circling of other people's circuits and other animals' circuits and trees' and grasses' circuits and rivers' and mountains' circuits through us is our home. The “no home, no whole” that we have to come back to is a no-self as an all-self. Powers' Weber-focalized narrator makes the implications of this observation very clear in noting on that same page that “emotions moved the muscles, but merely moving the muscles made emotions. Those with damage to the insula could no longer do the imitative, integrated mapping of body-states necessary to read or adopt someone else's muscles. Then the community of self collapsed into one” [p. 486]. The default state of “the community of self” is societal, communal, collectivized, part of “the public”; it is only when the insula is damaged that we are unable to map and simulate other people's body states empathetically, so that the self-mob is isolated from the public-mob. That isolation seems to be the model Powers is working from throughout most of the novel; indeed he seems to adumbrate it again in the midst of this late exploration of the mirror neurons' “empathy circuits,” when his Weber-focalized narrator notes, humbly, that “neurology would never grasp from without a thing that existed only deep in the impenetrable inside” [p. 462]. By “neurology” there he clearly does not mean “the brain” or “the nervous system”; he cannot even mean the science that discovered and theorized the mirror neurons and their “empathy circuits.” He must mean neurology as an objectivist/empiricist science, neurology as bounded by five centuries of “scientific method”—neurology as a principled retreat from connection. The adjective “impenetrable” still poses an obstacle to a mirror-neuron reading of the passage, though; to get to the neural connectivity that Powers begins to explore at the end of part four, we would have to revise his wording along the lines of “neurology would never grasp from without a thing that existed only deep in an inside taken to be impenetrable; it could only grasp it from within”.

But love and culture are not just neural connectivity—“the extended mind”⁸—between what Andy Clark [2004, p. 4] calls “skinbags.” They are organized

8. The “Extended Mind Thesis” was first proposed by Clark and Chalmers [1998]; for discussion, see [Robinson 2013b].

channels and trajectories of neural connectivity. Cranes remember their ancestral flight paths and patterns through some sort of neural connectivity — but the mirror neurons that effect that connectivity are not enough to explain their shared memory. They need regulatory connectivity. Love is regulatory. Culture is regulatory. Mob rule is regulatory. Mob rule is the nightmarish kind of collectivity typically invoked by panicked individualists like Sylvie Weber—this is what happens if we don’t stand firmly for our inner-directedness, for the isolated self!—but it is not random violence: it is organized violence. What makes mob rule so frightening is that it is not organized rationally, through calm discussion and negotiation: the regulatory forces that organize it operate mostly unconsciously, driven by animal fears that are intensified in the cauldron of mirror-neuron resonance. But it too is a kind of culture. In fact it is quite reasonable to describe what we often derogate as a “love fest” in mob-rule terms: when a new couple, or even a whole group, is possessed by a shared unconscious regulatory impetus to express “mindless” (affect-driven) love and support for each other, the result is a kind of benign mob.

The fact that Powers does not essay an answer to Q8, how the larger mob or ecosystem that includes the brain/self rules or regulates its environment, is unfortunate for the rather pat ending of his novel⁹—but fortunate for my purposes here, because I have devoted the last ten years of my work to developing an answer.

Icosis

Let us now return to Karin Schluter’s narrator-reported musing that “the whole race suffered from Capgras. Those birds danced like our next of kin, looked like our next of kin, called and willed and parented and taught and navigated all just like our blood relations. Half their parts were still ours. Yet humans waved them off: impostors” [Powers 2006/2007, p. 439]. As I began

9. Admitting that the novel’s ending is “tidily architectonic,” that the novel comes to a close with a “comforting telos,” Harris [2008, p. 249] insists that “the novel’s orderly denouement, like the false coherence forged by the human brain, is a skillful sleight-of-hand, an attempt to pull the rug over the fractured realities we have just seen dramatized” [p. 250]. Yes, okay; but if that is true of all fiction, including the fictions we all create to maintain the illusion of an orderly self in an orderly world, it’s not clear to me how just creating another “false coherence” at the end of his novel makes Powers’ “skillful sleight-of-hand” any different from every other fiction we’ve ever experienced. Harris supports his against-the-grain reading of the ending by looking back at the narrative as a whole, arguing that “we get a hint of this instability long before the faux denouement endeavors to smooth over the plot’s complications” [p. 250]. And yes, that’s true, but “instability” is a feature of every plot leading up to the climax and denouement, and just calling the denouement of *The Echo Maker* “faux” does not “falsify” it—does not magically transform it into something other than a conventional denouement. I don’t see any evidence in the text that Powers is undermining the patness of his ending, or even drawing metafictional attention to it. Mark is cured; Karin decides to stay on in Kearney and keep working to save the cranes; Weber, flying home from infidelity with Barbara, worries about how his wife will receive him. Harris—to my mind astonishingly—insists that “such open endings are staples of much Modernist and virtually all Postmodern fiction” [p. 251]; I read it as a traditional denouement from the decidedly premodern, even pre-Jamesian, tradition of psychological realism.

to suggest earlier, the problem with this equation is that, as Powers demonstrates over and over in the novel, there is no reliable “realistic” or “empirical” touchstone against which the “reality” of someone’s relatedness can be measured. It would be easy enough to simulate the cranes’ human-relatedness, say in an animatronic show at Disneyland, where cranes “danced like our next of kin, looked like our next of kin, called and willed and parented and taught and navigated all just like our blood relations.” In fact I would predict that hundreds of thousands of visitors to the park every year would experience a strong sense of relatedness to those cranes, because they’re so cute, so adorable, so human, and so on. The fact that the cranes would not be “real,” alive, that they would be robots programmed to look and act like real cranes, would not only not prevent audiences at the shows from relating emotionally to them—it might even enhance their family identification. By simplifying and intensifying our identificatory processes, art tends to feel more real than reality: that was the modernist impetus behind estrangement, or defamiliarization (*ostranenie*, *Verfremdung*), Viktor Shklovsky’s claim that art “makes the stone stony”¹⁰.

The difference between the “craziness” of Mark insisting that Karin is not related to him and the “craziness” of us insisting that cranes are not related to us is that the group of people who know both Mark and Karin know in the aggregate that Karin is Mark’s sister, and the group of people who know both humans and cranes know in the aggregate that we are not related. Pragmatically speaking, that means that Mark is crazy to exclude Karin from his family and we are not crazy to exclude cranes from our family. That sounds flippant, perhaps; surely the seriousness of the ecological tsunami human practices are bringing down upon half of the world’s species and more than half of the world’s habitats warrants a more responsible answer to the question Karin poses about our relatedness to cranes and other wildlife?

The fact is, however, that the only approach that could “save” us from such apparent flippancy would be a naïve pre-Kantian objectivism: there is real relatedness and there is simulated relatedness; there is real pain and suffering and there is simulated pain and suffering. And so on. Humans and cranes are either really related or our relatedness is only an activist simulacrum, useful for bringing political pressure to bear on polluters and consumers and development councils and chambers of commerce, etc. A strong political case can be made for that objectivism, of course—it is politically expedient

10. Interestingly, Powers puts the most explicit statement of modernist estrangement in the mouth of the novel’s “simplest” character, Daniel: “We need something to wake sleepwalkers. To make the world strange and real again” [Powers 2006/2007, p. 429]. Harris [2008, p. 251–52] comments on this moment and provides a useful quotation from Powers [2007] supporting it; for a discussion of modernist theories of estrangement (*ostranenie*, *Verfremdung*) see [Robinson 2008, esp. chs. 3 and 5].

to be able to claim that humans and cranes are really and truly related—but as Richard Powers knows all too well, the traditional Western philosophical loyalty to that ancient platonizing/christianizing/scientizing objectivism, increasingly beleaguered in the two-plus centuries since Kant, has suffered what would appear to be a fatal blow from brain science. Everything we know about the brain makes it clear that nothing we believe about our access to “objective” “reality” is true:

None of the bizarre neurological insights acquired over the course of his professional life unsettled him more than this simplest one: baseline experience was simply wrong. Our sense of physical embodiment did not come from the body itself. Several layers of brain stood in between, cobbling up from raw signals the reassuring illusion of solidity. ...

Even the intact body was itself a phantom, rigged up by neurons as a ready scaffold. The body was the only home we had, and even it was more a postcard than a place. We did not live in muscles and joints and sinews; we lived in the thought and image and memory of them. No direct sensation, only rumors and unreliable reports. [p. 327, 329]

It may be politically expedient to ignore this brain science; it may even be philosophically expedient, if we wish to rest easy in the comforting arms of two and a half millennia of mainstream Western thought; certainly it still seems wildly counterintuitive to claim that we have no direct access to empirical reality. Kevin Casper’s take on slapstick, namely that there is a significant difference between Beavis and Butt-head feeling pain and the Jackass actors feeling pain, seems to make perfect (common) sense. The only problem, as Richard Powers dramatizes so relentlessly in *The Echo Maker* and other novels, is that according to neurologists our commonsensical notions of the real and the fake are demonstrably wrong.

That claim obviously sets up a disturbing cognitive dissonance, one that I think lies at the molten core of brain science, and especially of cognitive brain science: we can prove scientifically that it is impossible to prove anything scientifically. We know both that the only conceivable jury on the nature of reality is the community—culture, society, public opinion, group plausibilization, all of which may be summed up as “common sense”—and that common sense is wrong about the nature of reality. What do we do about that?¹¹

11. One obvious solution to that recursive loop: if enough neurologists accept the “scientific proof” that our nervous systems make “scientific proof” an epistemological quagmire, then it becomes true. If enough narrative neurologists—people like A.R. Luria, Oliver Sacks, Antonio Damasio, and Gerald Weber—convert what neurologists believe into popular narrative accounts of brain science, the intelligentsia reading those books (including Richard Powers, and Charles B. Harris, and me) can form a community creating a “higher” commonsensical account of how the brain works, or Common Sense². Common Sense² can then freely snipe at the errors of the objectivist Common Sense¹ without miring the whole enterprise in hopeless self-contradiction.

I mentioned earlier that in his radical reinterpretation of Baudrillard Charles Levin [1996, p. 196] insists that all culture is simulation: “simulation has, in essence, always been like this, at least so far as social life is concerned; for society has never been anything else but a map, or more truthfully, a collection of maps, that we gradually learn to read.” Now let us read on:

There is always plenty, in everything we say and do, that doesn't get included in the map, that doesn't get converted into its terms—particularly our subjective experiences, which may include observations that cannot be located. These are real and vital. But from the point of view of simulation, these are totally irrelevant, because, as Richard Shweder points out, “if social actors conveyed everything they actually felt ... the performance called society, or at least the spectacle called civilization, would be very difficult to mount”. [Levin 1996, p. 196]

I assume there that what Shweder means by “conveying what we feel” is some kind of propositional communication: explaining, analyzing, justifying, and so on. But how do we convey what we feel when we recognize a face, or a place, as familiar? How do we convey what we feel when we recognize a behavior as acceptable, approved, admirable, or as unacceptable, offensive, shocking? How does a crane convey what it feels when it recognizes a stretch of river as the usual resting place? These feelings are “subjective experiences,” obviously, and “may include observations that cannot be located”; certainly they are “real and vital”; but are they not also simulacra relevant to “the performance called society”? Are they not in fact the building blocks of “the spectacle called civilization”? It would seem undeniable that the “subjectivity” of such social feelings is a social intersubjectivity that is not only constantly being “converted into [the] terms” of sociocultural simulation but constitutive of sociocultural simulation—that that feeling-based social intersubjectivity is situationally and ethnomethodologically foundational for normative social constructions of “reality.”

The model I have developed to account for this collective creation and normativization begins with somatic response¹²—that bioelectric surge that generates the “glow” that Capgras sufferers do not experience when they see a familiar face—and draws on the work of the Damasio team to show that somatic response is:

1. stored in the autonomic nervous system as experiential learning, so that it can be remobilized in specific decision-making situations—which

12. For the development of my somatic theory, see [Robinson 1991, 1996, 2003, 2008, 2011, 2012, 2013a, 2013b, and 2015]. Ictotic theory began to emerge as an extension of somatic theory in early drafts (from about 2009) of what eventually became Robinson (2016a); see also [Robinson 2013c, 2016b, 2016c, 2017].

- are pretty much constant—to guide our cognition (what Damasio calls somatic marking);
2. displayed in body language, where it is registered visually, aurally, tactilely, and verbally by others, whose own autonomic nervous systems simulate it in their own through the mirror-neuron system, which is incapable of distinguishing an “external” experience from an “internal” one (yours from mine, projections and introjections from idiosyncratic feelings) or a “past” experience from a “present” one (remembered feelings from new ones) (I call this the somatic transfer, or somatic mimesis); and
 3. cycled through all the bodies in a group almost simultaneously, with no more than a 300 millisecond lag (I call this the somatic exchange).

You will note that this model is very close to the neurological model on which Powers draws in *The Echo Maker*. Certainly the focus on (2) the mirror-neuron system should be familiar. What I add to what we might call the Powers model is first of all (1) Damasio’s somatic markers—though Powers is on record as a fan of Damasio’s work [Powers 2007; Burn 2008, p. 176]. For me the importance of somatic markers is that they channel guidance, which is to say, behavioral (self-)regulation. They guide the behavior of (1) individuals, obviously — this is the basis of Powers’ tropes of the self as mob and the brain as ecosystem — but then as those somatic markers are (2) simulated in other bodies, and then (3) circulated through entire populations, guidance becomes collective. Powers gives us (1) and (2>3) separately: his “empathy circuits” and “Someone else’s circuits circled through us” are precisely the movement from (2) to (3). But he does not build (1>2>3) into a collectivizing trajectory that explains how mobs rule and how ecosystems select for desirable group (and individual) action.

The basis of this model, in other words, is group neural simulation. The somatic responses that are thus mimetically transferred and exchanged are in that sense Baudrillardian simulacra. This is not exactly what Baudrillard means by simulacra, of course, but it’s pretty close, and it offers a plausible grounding of his theory in the functioning of the human nervous system. The final step in that grounding, the step that explains how the somatomimetic exchange can organize simulacra into “society” or “culture” or “civilization”—a whole unconscious socioaffective ecology of regulatory norms and values — is what I call (4) icosis. I coin that processual term from Greek *eikos* “plausible,” *ta eikota* “the plausibilities,” and Aristotle’s claim in the *Rhetoric* that, given a choice between a plausible story that is untrue and a true story that is

implausible, we will tend to choose the former, because it has been vetted as true (real, etc.) by the group. Icosis is thus group plausibilization, and forms the fourth level of somatic theory. The idea is that reality, truth, identity, the self, and so on—all those simulacra that Baudrillard claims in his theoretical works have been rendered “impossible” by simulation, but that he then insists in his interviews are simulation—are “plausibilized,” normativized as real, by the axiomatization of the somatic exchange, which is to say the circulation through the somatic exchange not just of shared affect but of shared evaluative affect, approval and disapproval, honor and dishonor, praise and blame, encouragement and shame.

It is thanks to various kinds of brain dysfunction like the Capgras Delusion that neurologists have been able to explore how normal nervous systems organize our lives. In *Descartes' Error* [Damasio 1994, chs. 1–2] Antonio Damasio reports the work his neurological team did studying Phineas Gage—the mid-nineteenth-century railroad foreman who had an iron tamping rod propelled through his mouth and left frontal lobe by exploding gunpowder, and survived, but lost all ability to organize his life according to social norms—and (chs. 3–4) a group of more recent (and still living) sufferers from similar dysfunctions to determine that damage to the prefrontal ventromedial area disrupts the autonomic nervous system's ability to channel lessons learned from previous experience into guidance for decision-making. This was the origin of the team's “somatic-marker hypothesis,” since repeatedly tested by them and other neurologists. A case Damasio reports in *Looking for Spinoza* [Damasio 2003, p. 153] involved an incorrigible young woman of twenty, who had been run over by a car and sustained head injury at the age of fifteen months: “She was academically capable yet routinely failed to complete her assignments. Her adolescence was marked by failure to comply with rules of any sort and frequent confrontations with peers and adults. She was verbally and physically abusive to others. She lied chronically. She was arrested several times for shoplifting and stole from other children and from her own family. She engaged in early and risky sexual behavior and became pregnant at eighteen,” and so on. With the breakdown of social emotion-management in the prefrontal ventromedial region, Damasio explains, “the experience of pain, which is part of punishment, becomes disconnected from the action that caused the punishment, and thus *there will not be a memory of their conjunction for future use*; likewise for the pleasurable aspects of reward” [Damasio 2003, p. 155; emphasis in original]. This observation leads Damasio to imagine a world without the conformative somatic marking of social emotions, and thus to reenvision ethics as channeled somatically:

In a society deprived of such emotions and feelings, there would have been no spontaneous exhibition of the innate social responses that foreshadow a simple ethical system—no budding altruism, no kindness when kindness is due, no censure when censure is appropriate, no automatic sense of one’s own failings. In the absence of the feelings of such emotions, humans would not have engaged in a negotiation aimed at finding solutions for problems faced by the group, e.g., identification and sharing of food resources, defense against threats or disputes among its members. There would not have been a gradual build-up of wisdom regarding the relationships among social situations, natural responses, and a host of contingencies such as the punishment or reward incurred by permitting or inhibiting natural responses. The codification of rules eventually expressed in systems of justice and sociopolitical organizations is hardly conceivable in those circumstances, even assuming that the apparatus of learning, imagination, and reasoning could be otherwise intact in the face of emotional ravages, a most unlikely possibility. With the natural system of emotional navigation more or less disabled, there would not have been a ready possibility of fine-tuning the individual to the real world. Moreover, the possibility of constructing a fact-based social navigation system, independently of the missing natural system, appears unlikely. [Damasio 2003, p. 157]

The slight correction to add to that, of course, is that the “facts” in a “fact-based social navigation system” would all be icotic simulacra—images plausibilized and normativized and made available as facts for socially reliable “navigation,” which is to say, socially guided decision-making as a process of “fine-tuning the individual to the real world.” That “real world,” of course, insofar as it is an icotic world—not just social interaction but the contexts and situations (like “home” and “work” and “school”) normativized through social interaction—is made up of more simulacra. The process of “fine-tuning the individual” to that world is also a mobilization and normatively regulated deployment of similar simulacra. The individual’s sense of self, and of the temporal continuity of that self—who I was as a small child, an adolescent, yesterday, who I am now, who I will be tomorrow—is an infinitely fractalized series of simulacra, organized socially (who I was in relation to my mother, my father, my siblings, my teachers, who I am in relation to my significant other, my ex, my children, my friends, my boss, my coworkers, etc.). Because all those things are simulations, of course, and because the social organization and guidance of those simulations are works-in-progress, and a bit kludgy, we often feel uneasy about their coherence, their efficacy, their range, the extent to which they are accepted by others, and so on—and that uneasiness leaves us vulnerable to apocalyptic theories of the loss of all reality, the latter-day impossibility of “the real,” and so on. That vulnerability makes us Baudrillard fans who are inclined to read him literally as nostalgic for a simpler and more

stable time (our childhoods?), back when reality hadn't yet completely disappeared [Baudrillard 2007/2011].

But our susceptibility to such naïve readings of an extremely subtle and complex thinker does not make Baudrillard wrong. It just means that Baudrillard's thought must itself be thoughtfully fine-tuned to an icotic world. And in fact the convergence Richard Powers dramatizes between neurology and Baudrillard in *The Echo Maker* might be read as pushing that fine-tuning forward in significant ways:

Once, he'd studied an otherwise healthy man who thought that stories turned real. People spoke the world into being. Even a single sentence launched events as solid as experience. Journey, complication, crisis, and redemption: just say the words and they took shape.

For decades, that case haunted everything Weber wrote about. That one delusion—stories came true—seemed like the germ of healing. We told ourselves backward into diagnosis and forward into treatment. Story was the storm at the cortex's core. And there was no better way to get at that fictional truth than through the haunted neurological parables of Broca or Luria—stories of how even shattered brains might narrate disaster back into livable sense.

Then the story changed. Somewhere, real clinical tools rendered case histories merely colorful. Medicine grew up. Instruments, images, tests, metrics, surgery, pharmaceuticals: no room left for Weber's anecdotes. And all his literary cures turned to circus acts and Gothic freak shows.

Once, he knew a man who thought that telling other people's stories might make them real again. Then others' stories remade him. Illusion, loss, humiliation, disgrace: just say the words and they happened. The man himself had arisen from doctored accounts; Weber had invented him out of whole cloth. The complete history and physical: fabricated. Now the text unravels. Even the case's name—Gerald W.—sounds like the feeblest of pseudonyms. [Powers 2006/2007, p. 524]

Right — but that account only goes halfway, and sounds quite bleak because it does not know where to go next. As long as it is just Gerald Weber telling other people's (and his own) stories and building his reality out of all that, the resulting verbal house of cards is quite easy to topple. Then the negativity of "others' stories" about him can quite easily unmake/remake him. Rethinking his disintegration icotically, we would want to say that, yes, Famous Gerald is first made, then unmade, by icosis—the group plausibilization of first FG's brilliance, then his callous disregard for the human suffering of his "cases"—but also the "self" that is a good-enough (not perfect) husband to Sylvie and a good-enough (not perfect) father to Jess and good-enough (not perfect) teacher and so on is made by icosis as well. The solution to the

negative impact of the attack on Famous Gerald has on “Gerald W.” is not, as Sylvie argues, to ignore public opinion: it is to incorporate more of it into an expansive self, to recognize the extent to which all reality, all truth, all identity is made not by words but by shared icotic belief in the words, collective plausibilization of the words. To the extent that Gerald Weber shares with the key people in his personal and professional life the icotic belief that he is a good man, his goodness is real. His “mid-life crisis,” if that’s even a reasonable term for what hits him in the novel, is precipitated by his own blindness to the collective sources of his identity—something that he has believed professionally for his entire career, but has never given much thought to in his own personal life, his own self-image. Because he thinks he just is who he is, and is not group-plausibilized as who he is, the group-deplausibilization of his positive self-image is devastating to him.

Let me close by returning one more time to Karin Schluter’s narrator-reported musing that “the whole race suffered from Capgras. Those birds danced like our next of kin, looked like our next of kin, called and willed and parented and taught and navigated all just like our blood relations. Half their parts were still ours. Yet humans waved them off: impostors” [Powers 2006/2007, p. 439]. The first time I cited this passage I mentioned Arne Naess, the Norwegian proponent of “deep ecology,” which he defines as “Self-realization by all living beings” [Naess 1995, p. 33]:

N1: Self-realization!

H1: The higher the Self-realization attained by anyone, the broader and deeper the identification with others.

H2: The higher the level of Self-realization attained by anyone, the more its further increase depends on the Self-realization of others.

H3: Complete Self-realization of anyone depends on that of all.

N2: Self-realization by all living beings!

(N=norm; H=hypothesis)

The notion that humans should identify with cranes, and other birds, and all living beings, but also with mountains and rivers¹³, stars and stones, is an icosis that Naess hopes to instill in the human race for the future—to group-plausibilize that identification with other living beings as true, as part of our identity—but that he also believes is already in us, and can be dredged up from the distant past through our present feelings. Something like that hope also seems to fuel Powers’ imagination in *The Echo Maker*. But I submit that

13. Cf. Harris [2008, p. 237] on *The Echo Maker*: “Within the novel, the Platte River, a ‘mile wide and an inch deep’ (55), functions much like a character in the novel, as much Karin’s kin as the birds are. ‘Water wants something from her’ [Powers 2006/2007, p. 408], she realizes. ‘Water is up to something’ [p. 418].”

for that hope to have any chance at all of being (Self-)realized, we need more than the bleak vision of our neural fragility, our susceptibility to breakdown in the face of public opinion and the tyranny of “common sense.” We need a strongly activist sociopolitical vision and rhetoric of how public opinion and common sense can be guided, shaped, channeled along new pathways. And for that we need icosis.

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