# Dr. Daedalus

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### *Points of Access*

1. Does changing how you look change who you are? Provide several examples to support your answer.
2. What does the word average mean to you? Does it seem positive or negative, for example?
3. What does it mean to "play god"? Do you consider this a positive expression or a negative expression? Explain your answer.

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## Part 1: Beautiful People

Joe Rosen, plastic surgeon at the renowned Dartmouth-Hitchcock Medical Center, and by any account an odd man, has a cold. But then again, he isn't sure it's a cold. "It could be anthrax," he says as he hurries to the car, beeper beeping, sleet sleeting, for it's a freezing New England midwinter day when all the world is white. Joe Rosen's nose is running, his throat is raw, and he's being called into the ER because some guy made meat out of his forefinger and a beautiful teenager split her fine forehead open on the windshield of her SUV. It seems unfair, he says, all these calls coming in on a Sunday, especially because he's sick and he isn't sure whether it's the flu or the first subtle signs of a biological attack. "Are you serious?" I say to him. Joe Rosen is smart. He graduated cum laude from Cornell and got a medical degree from Stanford in 1978. And we're in his car now, speeding toward the hospital where he reconstructs faces, appends limbs, puffs and preens the female form. "You really wonder," I say, "if your cold is a sign of a terrorist attack?"

Joe Rosen, a respected and controversial plastic surgeon, wonders a lot of things, some of them directly related to his field, others not. Joe Rosen wonders, for instance, whether Osama bin Laden introduced the West Nile virus to this country. Joe Rosen wonders how much bandwidth it would take to make virtual-reality contact lenses available for all. Joe Rosen wonders why both his ex-wife and his current wife are artists, and what that says about his deeper interests. Joe Rosen also wonders why we

insist on the kinds of conservative medical restraints that prevent him from deploying some of his most creative visions: wings for human beings; cochlear implants to enhance hearing, beefing up our boring ears and giving us the range of an owl; super-duper delicate rods to jazz up our vision—binocular, beautiful—so that we could see for many miles and into depths as well. Joe Rosen has ideas: implants for this, implants for that, gadgets, gears, discs, buttons, sculpting soft cartilage that would enable us, as humans, to cross the frontiers of our own flesh and emerge as something altogether . . . what? Something other.

And we're in the car now, speeding on slick roads toward the hospital, beeper beeping, sleet sleeting, passing cute country houses with gingerbread trim, dollops of smoke hanging above bright brick chimneys; his New Hampshire town looks so sweet. We pull into the medical center. Even this has a slight country flair to it, with gingham curtains hanging in the rows of windows. We skid. Rosen says, "One time I was in my Ford Explorer with my daughter, Sam. We rolled, and the next thing I knew we were on the side of the highway, hanging upside down like bats." He laughs.

We go in. I am excited, nervous, running by his bulky side with my tape recorder to his mouth. A resident in paper boots comes up to us. He eyes the tape recorder, and Rosen beams. Rosen is a man who enjoys attention, credentials. A few days ago he boasted to me, "You shouldn't have any trouble with the PR people in this hospital. I've had three documentaries made of me here already."

"Can I see them?" I asked.

"I don't know," Rosen answered, suddenly scratching his nose very fast. "I guess I'm not sure where I put them," and something about his voice, or his nose, made me wonder whether the documentaries were just a tall tale.

Now the resident rushes up to us, peers at the tape recorder, peers at me. "They're doing a story on me," Rosen says. "For *Harper's*."

"Joe is a crazy man, a nutcase," the resident announces, but there's affection in his voice.

"Why the beeps?" Rosen asks.

"This guy, he was working in his shop, got his finger caught in an electric planer . . . The finger's hamburger," the resident says. "It's just hamburger."

We go to the carpenter's cubicle. He's a man with a burly beard and sawdust-caked boots. He lies too big for the ER bed, his dripping finger held high in the air and splinted. It does look like hamburger.

I watch Rosen approach the bed, the wound. Rosen is a largish man, with a curly head of hair, wearing a Nordstrom wool coat and a cashmere scarf. As a plastic sur-

geon, he thinks grand thoughts but traffics mostly in the mundane. He has had over thirty papers published, most of them with titles like "Reconstructive Flap Surgery" or "Rhinoplasty for the Adolescent." He is known among his colleagues only secondarily for his epic ideas; his respect in the field is rooted largely in his impeccable surgical skill with all the toughest cases: shotgunned faces, smashed hands.

"How ya doin'?" Rosen says now to the carpenter. The carpenter doesn't answer. He just stares at his mashed finger, held high in the splint.

Rosen speaks softy, gently. He puts his hand on the woodworker's dusty shoulder. "Looks bad," he says, and he says this with a kind of simplicity—or is it empathy?—that makes me listen. The patient nods. "I need my finger," he says, and his voice sounds tight with tears. "I need it for the work I do."

Rosen nods. His tipsiness, his grandiosity, seem to just go away. He stands close to the man. "Look," he says, "I'm not going to do anything fancy right now, okay? I'll just have my guys sew it up, and we'll try to let nature take its course. I think that's the best thing, right now. To let nature take its course."

The carpenter nods. Rosen has said nothing really reassuring but his tone is soothing, his voice rhythmic, a series of stitches that promises to knit the broken together.

We leave the carpenter. Down the hall, the teenage beauty lies in still more serious condition, the rent in her forehead so deep we can see, it seems, the barest haze of her brain.

"God," whispers Rosen as we enter the room. "I dislike foreheads. They get infected so easily."

He touches the girl. "You'll be fine," he says. "We're not going to do anything fancy here. Just sew you up and let nature take its course."

I think these are odd, certainly unexpected words coming from a man who seems so relentlessly anti-nature, so visionary and futuristic in his interests. But then again, Rosen himself is odd, a series of swerves, a topsy-turvy, upside-down, smoke-and-mirrors sort of surgeon, hanging in his curious cave, a black bat.

"I like this hospital," Rosen announces to me as we leave the girl's room. "I like its MRI machines." He pauses.

"I should show you a real marvel," he suddenly says. He looks around him. A nurse rushes by, little dots of blood on her snowy smock. "Come," Rosen says.

We ride the elevator up. The doors whisper open. Outside, the sleet has turned to snow, falling fast and furious. The floor we're on is ominously quiet, as though there are no patients here, or as though we're in a morgue. Rosen is ghoulish and I am suddenly scared. I don't know him really. I met him at a medical-ethics convention at which he

discussed teaching *Frankenstein* to his residents and elaborated, with a little light in his eye, on the inherent beauty in hybrids and chimeras, if only we could learn to see them that way. "Why do we only value the average?" he'd asked the audience. "Why are plastic surgeons dedicated only to restoring our current notions of the conventional, as opposed to letting people explore, if they want, what the possibilities are?"

Rosen went on to explain other things at that conference. It was hard for me to follow his train of thought. He vacillates between speaking clearly, almost epically, to mumbling and zigzagging and scratching his nose. At this conference he kangaroo-leapt from subject to subject: the army, biowarfare, chefs with motorized fingers that could whip eggs, noses that doubled as flashlights, soldiers with sonar, the ocean, the monsters, the marvels. He is a man of breadth but not necessarily depth. "According to medieval man," Rosen said to the convention, finally coming clear, "a monster is someone born with congenital deformities. A marvel," he explained, "is a person with animal parts—say, a tail or wings." He went on to show us pictures, a turn-of the-century newborn hand with syphilitic sores all over it, the fingers webbed in a way that might have been beautiful but not to me, the pearly skin stretched to nylon netting in the crotch of each crooked digit.

And the floor we're on now is ominously quiet, except for a hiss somewhere, maybe some snake somewhere, with a human head. We walk for what seems a long time. My tape recorder sucks up the silence.

Rosen turns, suddenly, and with a flourish parts the curtains of a cubicle. Before me, standing as though he were waiting for our arrival, is a man, a real man, with a face beyond description. "Sweeny,"* Rosen says, gesturing toward the man, "has cancer of the face. It ate through his sinus cavities, so I scraped off his face, took off his tummy fat, and made a kind of, well, a new face for him out of the stomach. Sweeny, you look good!" Rosen says.

Sweeny, his new face, or his old stomach, oozing and swollen from this recent, radical surgery, nods. He looks miserable. The belly-face sags, the lips wizened and puckered like an anus, the eyes in their hills of fat darting fast and frightened.

"What about my nose?" Sweeny says, and then I notice: Sweeny has no nose. The cancer ate that along with the cheeks, etc. This is just awful. "That comes next. We'll use what's left of your forehead." A minute later, Rosen turns to me and observes that pretty soon women will be able to use their buttocks for breast implants. "Where there's fat," Rosen says, "there are possibilities."

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* Not his real name.

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The coffee is hot and good. We drink it in the hospital cafeteria while we wait for the weather to clear. "You know," Rosen says, "I'm really proud of that face. I didn't follow any protocol. There's no textbook to tell you how to fashion a face eaten away by cancer. Plastic surgery is the intersection of art and science. It's the intersection of the surgeon's imagination with human flesh. And human flesh," Rosen says, "is infinitely malleable. People say cosmetic surgery is frivolous—boobs and noses. But it's so much more than that! The body is a conduit for the soul, at least historically speaking. When you change what you look like, you change who you are."

I nod. The coffee, actually, is too damn hot. The delicate lining of skin inside my mouth starts to shred. The burn-pain distracts me. I have temporarily altered my body, and thus my mind. For just one moment, I am a burned-girl, not a writer-girl. Rosen may be correct. With my tongue I flick the loose skin, picture it, pink and silky, on fire.

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No, plastic surgery is not just boobs and noses. Its textbooks are tomes—thick, dusty, or slick, no matter—that all open up to images of striated muscle excised from its moorings, bones—white, calcium-rich—elongated by the doctor's finest tools. Plastic surgery, as a medical specialty, is very confusing. It aims, on the one hand, to restore deformities and, on the other hand, to alter the normal. Therefore, the patients are a motley crew. There is the gorgeous blonde with the high sprayed helmet of hair who wants a little tummy tuck, even though she's thin, and then there is the Apert Syndrome child, the jaw so foreshortened the teeth cannot root in their sockets. Plastic surgery—like Rosen, its premier practitioner—is flexible, high-minded, and wide-ranging, managing to be at once utterly necessary and ridiculously frivolous, all in the same breath, all in the same scalpel.

According to the American Society of Plastic Surgeons, last year more than 1.3 million people had cosmetic surgery performed by board-certified plastic surgeons, an increase of 227 percent since 1992. (These numbers do not include medically necessary or reconstructive surgeries.) The five most popular procedures were liposuction (229,588), breast augmentation (187,755), eyelid surgery (172,244), the just available Botox injections (118,452), and face lifts (70,882). Most cosmetic surgeries are performed on women, but men are catching up: the number of men receiving nose jobs—their most popular procedure—has increased 141 percent since 1997. The vast majority of patients are white, but not necessarily wealthy. A 1994 study found that 65 percent of cosmetic-surgery patients had a family income of less than $50,000, even

though neither state nor private health insurance covers the cost of cosmetic surgeries. These figures alone point to the tremendous popularity and increasing acceptance of body alteration, and suggest that the slippery slope from something as bizarre as eyelid tucks to something still more bizarre, like wings, may be shorter than we think.

This medical specialty is ancient, dating back to 800 B.C., when hieroglyphics describe crude skin grafts. Rosen once explained to me that plastic surgery started as a means to blur racial differences. "A long time ago," he'd said, "Jewish slaves had clefts in their ears. And some of the first plastic surgery operations were to remove those signs of stigma."

One history book mentions the story of a doctor named Joseph Dieffenbach and a man with grave facial problems. This man had the sunken nose of syphilis, a disease widely associated with immorality. Dieffenbach, one of the fathers of plastic surgery, so the story goes, devised a gold rhinoplasty bridge for this marginal man, thus giving him, literally, a Midas nose and proving, indeed, that medicine can make criminals kings.

As a field, plastic surgery is troubled, insecure. It is a lot like psychiatry, or dentistry, in its inferior status as a subspecialty of medicine. In fact, the first plastic-surgery association, started in 1921, was an offshoot of oral practitioners. Read: teeth people. Not to digress, but the other day I woke up with a terrible toothache and rushed in to see a dentist. I said to him, just to be friendly, "What sort of training do you need for your profession?" He said, "You need A LOT of training, believe me. I trained with the same guys who cure your cancer, but I don't get the same respect."

I wonder if Rosen ever feels like my dentist, and if that's why he's so grandiose, like the little boy who is a bully. Sander Gilman, a cultural critic of plastic surgery, writes that, in this group of doctors, there are a lot of big words thrown around in an effort to cover up the sneaking suspicion that their interventions are not important. One is not ever supposed to say "nose job"; it's called rhinoplasty. Gilman writes, "The lower the perceived status of a field . . . the more complex and 'scientific' the discourse of the field becomes."

Of course, I rarely meet a doctor who doesn't like jargon and doesn't like power. Rosen may be different only in intensity. "I'm not a cosmetic surgeon," Rosen keeps repeating to me.

He says, "Really, there's no such thing as just cosmetic surgery. The skin and the soul are one." On paper, maybe, this comment seems a little overblown, but delivered orally, in a New England town when all the world is white, it has its lyrical appeal.

When Rosen cries out that he's not "just a cosmetic surgeon," he's put his finger on a real conflict in his field. Where does necessary reconstruction end and frivolous inter-

ventions begin? Are those interventions really frivolous, or are they emblematic of the huge and sometimes majestic human desire to alter, to transcend? If medicine is predicated upon the notion of making the sick well, and a plastic surgeon operates on someone who is not sick, then can the patient truly be called a patient, and the doctor a doctor? Who pays for this stuff, when, where, and how? These are the swirling questions. Over a hundred years ago Jacques Joseph, another of plastic surgery's founding fathers, wrote that beauty was a medical necessity because a person's looks can create social and economic barriers. Repairing the deformity, therefore, allows the man to function in a fully healthy way in society. Voilà. Function and form, utilitarianism and aestheticism, joined at the hip, grafted together: skin tight.

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Perhaps we can accept Joseph's formulation. Okay, we say. Calm down. We say this to all the hopping, hooting cosmetic surgeons who want to stake out their significance. Okay, we respect you. I'd like to say this to Rosen, but I can't. Rosen's ideas and aspirations, not to mention his anthrax concerns, go beyond what I am comfortable with, though I can't quite unearth the architecture of my concerns. After all, he doesn't want to hurt anyone. Maybe it's because Rosen isn't just talking about everyday beauty and its utilitarian aspects. He is talking EXTREMES. When Rosen thinks of beauty, he thinks of the human form stretched on the red-hot rack of his imagination, which is mired in medieval texts and books on trumpeter swans. At its outermost limits, beauty becomes fantastical, perhaps absurd. Here is where Rosen rests. He dreams of making wings for human beings. He has shown me blue-prints, sketches of the scalpel scissoring into skin, stretching flaps of torso fat to fashion gliders piped with rib bone. When the arm stretches, the gliders unfold, and human floats on currents of air. Is he serious? At least partially. He gives lectures to medical students on the meaning of wings from an engineering perspective, a surgeon's perspective, and a patient's perspective. He has also thought of cochlear implants to enhance normal hearing, fins to make us fishlike, and echolocation devices so that we can better navigate the night. He does not understand the limits we place on hands. He once met a Vietnamese man with two thumbs on one hand. This man was a waiter, and his two thumbs made him highly skilled at his job. "Now," says Rosen, "if that man came to me and said, 'I want you to take off my extra thumb,' I'd be allowed, but I wouldn't be allowed to put an extra thumb on a person, and that's not fair."

We can call Rosen ridiculous, a madman, a monster, a marvel. We could dismiss him as a techno geek or a fool or just plain immature. But then there are the facts. First of all,

Rosen is an influential man, an associate professor of surgery at Dartmouth Medical School and the director of the Plastic Surgery Residency Program at the medical center. He was senior fellow at the C. Everett Koop Institute from 1997 to 1998, and he has also served on advisory panels for the navy and for NASA's Medical Care for the Mission to Mars, 2018. Rosen consults for the American Academy of Sciences committee on the role of virtual-reality technology, and he is the former director of the Department of Defense's Emerging Technology Threats workforce. In other words, this is a man taken seriously by some serious higher-ups. "Echolocation devices," Rosen explains, "implanted in a soldier's head, could do a lot to enhance our military capacity." And this isn't just about the army's fantasies of the perfect soldier. Rosen travels worldwide (he gave over a dozen presentations last year) and has had substantial impact not only scalpeling skin but influencing his colleagues' ethics in a myriad of ways. "He has been essential in helping me to conceptualize medicine outside of the box," says Charles Lucey, MD, a former colleague of Rosen's at the Dartmouth Medical School. John Harris, a medical-ethics specialist in Manchester, England, writes in *Wonderwoman and Superman* that "in the absence of an argument or the ability to point to some specific harm that might be involved in crossing species boundaries, we should regard the objections *per se* to such practices . . . as mere and gratuitous prejudice." Rosen himself says, "Believe me. Wings are not way off. It is not a bad idea. Who would have thought we'd ever agree to hold expensive, potentially dangerous radioactive devices up to our ears for hours on end, day after day, just so we could gossip. That's cell phones for you," he says. And smiles.

Rosen has a nice smile. It's, to be sure, a little boyish, but it's charming. Sometimes Rosen is shy. "I mumble a lot," he acknowledges. "I don't really like people. I don't really like the present. I am a man who lives in the past and in the future only."

Now we leave the emergency room. The snow has stopped. The roads are membraned with ice. The sun is setting in the New Hampshire sky, causing the hills to sparkle as though they're full of little lights and other electric things. We drive back to his house, slowly. The emergencies are over, the patients soothed or suffering, he has done what can be done in a day, and still his nose runs. He coughs into his fist. "Truth be told," he says to me, "I didn't start out wanting to be a surgeon, even though I always, ALWAYS, had big ideas. In kindergarten, when the other kids were making these little ditsy arts-and-crafts projects, I was building a room-size Seventh Fleet ship." He goes on. As a child he wanted to be an artist. In high school he became obsessed with Picasso's *Guarnica* and spent months trying to replicate it in the style of Van Gogh. As a freshman at Cornell, he made a robotic hand that could crack his lobster for him, and from then on it was hands, fingers, knees, and toes. His interests in the

technical aspects of the body drew him away from the arts and eventually into medical school, which was, in his mind, somewhere between selling out and moving on.

We pull into his driveway. Rosen lives in a sprawling ranch-style house. He has a pet hen, who waits for us in the evergreen tree. His second wife, Stina Kohnke, is young and, yes, attractive. I'm afraid to ask how old she is; he looks to be at least fifty-three and she looks twenty-three, though maybe that's beside the point. Nevertheless, it all gets thrown into my mental stew: grandiose man, military man, medicine man, wants to make wings, young thing for a mate. Rooster and hen. Maybe there is no story here. Maybe there's just parody. All breadth, no depth. Except for this. Everyone I tell about Rosen and his wings, his *fin de siècle* mind, widens his or her eyes, leans forward, and says, "You're kidding." People want to hear more. *I* want to hear more. His ideas of altering the human form are repugnant and delicious, and that's a potent combination to unravel. And who among us has not had flying dreams, lifted high, dramatically free, a throat-catching fluidity in our otherwise aching form, above the ocean, all green, like moving marble?

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Rosen and his wife have invited me for dinner. I accept. Stina is an artist. Her work is excellent. "Joe is an inspiration for me," she says. "He brings home pictures of his patients, and I sculpt their limbs from bronze." In her studio, she has a riot of red-bronze deformed hands clutching, reaching, in an agony of stiffness. She has fashioned drawer pulls from gold-plated ears. You go to open the breadbox, the medicine cabinet, the desk drawer, and you have to touch these things. It's at once creepy and very beautiful.

We sit at their stone dining-room table. Behind us is a seventy-gallon aquarium full of fish. Cacti, pink and penile, thrust their way into the odd air. Stina, homesick for her native California, has adorned the living room with paper palm trees and tiny live parakeets. We talk. Stina says, "Joe and I got married because we found in each other the same aesthetic and many moral equivalents. We found two people who could see and sculpt the potential in what others found just ugly."

"How did you two meet?" I ask.

"Oh, I knew Stina's sister, who was an art professor . . . That sort of thing," mumbles Rosen.

"I kissed him first," says Stina. She reaches across the table, picks up Rosen's hand, and wreathes her fingers through his. She holds on tightly, as if she's scared. I study Stina. She is conventionally pretty. She has a perfect Protestant nose and a lithe form, and a single black bra strap slips provocatively from beneath her blouse. Rosen, a man who claims to love the unusual, has picked a very usual beauty.

"Look!" Stina suddenly shouts. I jump, startled. "Look at her ears!" she says to Rosen.

Before I know it they are both leaning forward, peering at my ears. "Oh, my God," says Stina, "you have the most unusual ears."

Now, this is not news to me. I have bat ears, plain and simple. They stick out stupidly. In the fifth grade, I used to fasten them to the sides of my skull with pink styling tape in the hope of altering their shape. I have always disliked my ears.

Rosen uncurls his index finger and touches my left ear. He runs his finger along the bumpy, malformed rim. "You're missing the *scapha*," he says. "It's a birth defect."

"I have a birth defect?" I say. I practically shout this, being someone who desires deeply not to be defective. That's why I take Prozac every day.

"Joe," says Stina, "are those not the most amazing ears. They would be so perfect to sculpt."

"They're just a perfect example," Rosen echoes, "of the incredible, delectable proliferation of life-forms. We claim most life-forms gravitate toward the mean, but that's not true. Lots of valid life exists at the margins of the bell curve. You have beautiful ears," he says to me.

"I have nice ears?" I say. "Really?"

This is just one reason why I won't dismiss Rosen out of hand. Suddenly, I see my ears a little differently. They have a marvelous undulating ridge and an intricately whorled entrance, and they do not stick out so much as jauntily jut; they are ears with an attitude. Rosen has shifted my vision without even touching my eyes. He is, at the very least, a challenger of paradigms; he calls on your conservatism, pushes hard.

That night, I do not dream of wings. I dream of Sweeny and his oozing face. I dream he comes so close to me that I smell him. Then I wake up. Sweeny is very sick. He is going to die soon. Earlier in the day, I asked Rosen when, and Rosen said, "Oh, soon," but he said it as if he didn't really care. Death does not seem to interest Rosen. Beauty, I think, can be cold.

## Part II: Monster and Marvels

Today, Rosen and I are attending a conference together in Montreal. Here, everyone speaks French and eats baguettes. The conference room is old-fashioned, wainscoted with rich mahogany, ornate carvings of creatures and angels studding the ceiling, where a single light hangs in a cream-colored orb. Around the table sit doctors, philoso-

phers, graduate students: this is a medical-ethics meeting, and Rosen is presenting his ideas. On the white board, in bold black lines, he sketches out his wings, and then the discussion turns to a patient whose single deepest desire was to look like a lizard. He wanted a doctor to split his tongue and scale his skin, and then put horns on his head. "You wouldn't do that, would you?" a bespectacled doctor asks. "Once," says Rosen, dodging in a fashion typical of him, "there was a lady in need of breast reconstruction who wanted blue areolas. What's wrong with blue areolas? Furthermore, rhinoplasty has not reached its real potential. Why just change the nose? Why not change the gene for the nose, so that subsequent generations will benefit from the surgery? Plastic surgery, in the future, can be about more than the literal body. It can be about sculpting the genotype as well."

The bespectacled doctor raises his hand. "Would you make that man into a lizard?" the doctor asks again. "What I want to know is, if a patient came to you and said, 'I want you to give me wings,' or 'Split my tongue,' would you actually do it?"

"Look," says Rosen, "we genetically engineer food. That's an issue."

"You're not answering my question," the doctor says, growing angry. Other people are growing angry, too. "Do you see any ethical dilemmas in making people into pigs, or birds?" another attendee yells out. This attendee is eating a Yodel, peeling off the chocolate bark and biting into a swirl of cream.

Rosen darts and dodges. "There is such a thing as liberty," he says.

"Yes," someone says, "but there's such a thing as the Hippocratic oath, too."

This goes on and on. At last a professor of anthropology says, "Just tell us, clearly, please. Would you give a human being wings, if the medical-ethics board allowed it?"

Rosen puts down his black marker. He rubs his eyes. "Yes," he says, "I would. I can certainly see why we don't devote research money to it. I can see why the NIH would fund work on breast cancer over this, but I don't have any problem with altering the human form. We do it all the time. It is only our Judeo-Christian conservatism that makes us think this is wrong. Who here," he says, "doesn't try to send their children to the best schools, in the hopes of altering them? Who here objects to a Palm Pilot, a thing we clasp to our bodies, with which we receive rapid electronic signals? Who here doesn't surround themselves with a metal shell and travel at death-defying speeds? We have always altered ourselves, for beauty or for power, and so long as we are not causing harm what makes us think we should stop?"

For a group of intelligent people everyone looks baffled. What Rosen has said is very right and very wrong, but no one can quite articulate the core conflicts. After all, we seem to think it's okay to use education as a way of neuronally altering the brain,

but not surgery. We take Prozac, even Ritalin, to help transform ourselves, but recoil when it comes to wings. Maybe we're not recoiling. Maybe wings are just a dumb idea. No one in his right mind would subject himself to such a superfluous and strenuous operation. Yet socialite Jocelyne Wildenstein has dedicated much of her life to turning herself into a cat, via plastic surgery. She has had her lips enlarged and her face pulled back at the eyes to simulate a feline appearance. An even more well-known case is Michael Jackson, who has whitened himself, slimmed his nose, and undergone multiple other aesthetic procedures. The essential question here is whether these people are, and forever will be, outliers, or whether they represent the cutting edge of an ever more popular trend. Carl Elliott, a bioethicist and associate professor at the University of Minnesota, recently wrote in *The Atlantic* about a strange new "trend" of perfectly healthy folks who desire nothing more than to have a limb amputated, and about the British doctor who has undertaken this surgery, believing that if he doesn't amputate the patients will do it themselves, which could lead to gangrene. Elliott wonders whether amputation obsession will morph into another psychiatric diagnosis, whether, like hysteria, it will "catch on." The metaphor of contagion is an interesting one. Multiple-personality disorder "caught on"; hysteria caught on. Why then might not an unquenchable desire for wings or fins catch on, too? In any case, we use medical/viral metaphors to explain trends, and, in the case of plastic surgery, we then use medical means to achieve the trend's demands.

Rosen himself now repeats to the conferees, "We have always altered ourselves for beauty or for power. The chieftains in a certain African tribe remove their left ears, without Novocain. Other tribes put their bodies through intense scarification processes for the sake of style. In our own culture, we risk our bodies daily to achieve status, whether it's because we're bulimic or because we let some surgeon suck fat from us, with liposuction. Wings will be here," Rosen says. "Mark my words."

He suddenly seems so confident, so clear. We should do this; beauty is marvelous and monstrous. Beauty is difference, and yet, to his patients in the ER just two weeks back, he kept saying, "Let nature take its course." Perhaps he is more ambivalent than he lets on.

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Later that evening, over dinner, conferees gossip about Rosen. "He's a creep," someone says. "A megalomaniac," someone else adds. For a creep or a megalomaniac, though, he's certainly commanding a lot of attention. Clearly, his notions are provocative. "The problem with wings," says someone, "is that only rich people would have

them, would be able to afford them. Our society might begin to see rich people as more godly than ever."

I order a glass of wine. The waitress sets it on the table, where it blazes in its goblet, bright as a tulip. With this wine, I will tweak not only my mind but all its neuronal projections as well. My reflexes will slow down and my inhibitions will lift, making it possible for me to sound either very stupid or very smart. Is this wine an ethical problem? I ask the group that.

"Wine is reversible," someone says. "Wings aren't."

"Well, suppose they *were* reversible," someone says. "Supposing a surgeon could make wings that were removable. Then would we be reacting this way?"

"It's a question of degree," a philosopher pipes up. He is bald and skinny, with bulging eyes. "Rosen is going to the nth degree. It's not fair to lump that in with necessary alterations, or even questionably necessary alterations. Without doubt, it is very clear, diagnostically, that wings are not necessary."

I think about this. I think about what Rosen might say to this. I can imagine that his answer might have something to do with the fluidity of the concept of necessary. Four years ago, cell phones weren't necessary. Now they seem to be. Furthermore, he might say, if a person wants wings, if wings won't hurt a person, if they will help a person enjoy life and feel more beautiful, and if, in turn, the winged woman or man helps us to see beauty in what was before unacceptable, as we adjust and then come to love the sight of her spreading and soaring, then isn't this excellent? Later on, in my hotel room, I stand in front of the mirror, naked. My body contains eons. Once, we were single cells, then fish, then birds, then mammals, and the genes for all these forms lie dormant on their cones of chromosomes. We are pastiches at the cellular, genetic level. This may be why I fear open spaces, blank pages, why I often dream my house opens up into endless rooms I never knew were there, and I float through them with a kind of terror. It is so easy to seep, to be boundless. We clutch our cloaks of skin.

Back in Boston, I try to ascertain clearly, logically, what so bothers people about Rosen's ideas. At first glance, it might seem fairly obvious. I mean, wings. That's playing God. We should not play God. We should not reach for the stars. Myth after myth has shown us the dangers of doing so—Icarus, the Tower of Babel; absolute power corrupts absolutely. Bill Joy, chief scientist at Sun Microsystems, says, as our technological capabilities expand, "a sequence of small, individually sensible advances leads to an accumulation of great power and, concomitantly, great danger." Rosen's response to this: "So are we supposed to stop advancing? And who says it's bad to play God? We already alter the course of God's 'will' in hundreds of ways. When we use antibiotics to

combat the flu, when we figure out a way to wipe smallpox off the very face of the earth, surely we're altering the natural course of things. Who says the natural course of things is even right? Maybe God isn't good."

The second objection might have to do with our notions of categorical imperatives. Mary Douglas wrote in her influential anthropological study *Purity and Danger* that human beings have a natural aversion to crossing categories, and that when we do transgress we see it as deeply dirty. In other words, shoes in themselves are not dirty, but when you place them on the dining-room table they are. When you talk about crossing species, either at the genetic or the anatomical level, you are mucking about in long-cherished categories that reflect our fundamental sense of cleanliness and aesthetics. Rosen's response to this, when I lob it at him in our next meeting: "Who says taboos are anything but prejudice at rock bottom? Just because it feels wrong doesn't mean it is. To a lot of people, racial intermingling and miscegenation feel wrong, but to me they're fine. I'm not a racist, and I'm not a conservative."

The third objection I can come up with has to do with the idea of proteanism. Proteus, a minor mythological figure, could shape-shift at will, being alternately a tiger, a lizard, a fire, a flood. Robert Lifton, one of, I think, the truly deep thinkers of the last century, has explored in his volumes how Proteus has become a symbol for human beings in our time. Lacking traditions, supportive institutions, a set of historically rooted symbols, we have lost any sense of coherence and connection. Today it is not uncommon for a human being to shift belief systems several times in a lifetime, and with relatively little psychological discomfort. We are Catholics, Buddhists, reborn, unborn, artists, and dot-commers until the dot drops out of the com and it all comes crashing down. We move on. We remarry. Our protean abilities clearly have their upside. We are flexible and creative. But the downside is, there is no psychic stability, no substantive self, nothing really meaty and authentic. We sense this about ourselves. We know we are superficial, all breadth and no depth. Rosen's work embodies this tendency, literally. He desires to make incarnate the identity diffusion so common to our culture. Rosen is in our face making us face up to the fact that the inner and outer connections have crumbled. In our ability to be everything, are we also nothing?

For me, this hits the nail on the head. I do not object to Rosen on the basis of concerns about power, or of Mary Douglas's cross-category pollution theory. After all, who, really, would wings reasonably benefit but the window washers among us? And as for the pollution issue, protean person that I am, I could probably adjust to a little chimerical color. Rosen's ideas and aspirations are frightening to me because they are such vivid, visceral examples of a certain postmodern or perhaps, more precisely

put, post-authentic sensibility we embrace and fear as we pop our Prozacs and Ritalins and decide to be Jewish and then Episcopalian and then chant with the monks on some high Himalayan mountain via a cheap plane ticket we purchased in between jobs and just before we sold our condo in a market rising so fast that when it falls it will sound like all of the precious china plates crashing down from the cabinet—a mess. What a mess!

Over and over again, from the Middle Ages on, when the theologian Pico wrote, in a direct and influential challenge to the Platonic idea of essential forms—"We have given you, Adam, no visage proper to yourself, nor endowment properly your own . . . trace for yourself the lineaments of your own nature . . . in order that you, as the free and proud shaper of your own being, fashion yourself in the form you may prefer . . . [W]ho then will not look with awe upon this our chameleon . . ." —over and over, since those words at least, we as human beings have fretted about the question of whether there is anything fixed at our core, any set of unalterable traits that make us who we were and are and always will be. Postmodernism, by which I mean the idea of multiplicity, the celebration of the pastiche, and the rejection of logical positivism and absolutism as viable stances, will never die out, despite its waning popularity in academia. Its roots are too deep and ancient. And there has been, perhaps, no field like modern medicine, with all its possibilities and technological wizardry, to bring questions of authenticity to the burning forefront of our culture. At what point, in altering ourselves, would we lose our essential humanity? Are there any traits that make us essentially human? When might we become monsters or marvels, or are we already there? I vividly remember reading a book by a woman named Martha Beck. She had given birth to a Down's syndrome child and she wrote in a few chilling sentences that because of one tiny chromosome, her child, Adam, is "as dissimilar from me as a mule is from a donkey. He is, in ways both obvious and subtle, a different beast." Is it really that simple, that small? One tiny chromosome severs us from the human species? One little wing and we're gone?

As for me, I am an obsessive. I like my categories. I check to make sure the stove is off three times before I go to bed. I have all sorts of other little rituals. At the same time, I know I am deeply disrooted. I left my family at the age of fourteen, never to return. I do not know my family tree. Like so many of us, I have no real religion, which is of course partly a good thing but partly a bad thing. In any case, last year, in some sort of desperate mood, I decided to convert from Judaism to Episcopalianism, but when it came time to put that blood and body in my mouth I couldn't go through with it. Was this because at bottom I just AM a Jew and this amness has profundity? Or was this because I don't like French bread, which is what they were using at the conversion ceremony? In any case, at

the crucial moment of incorporation, I fled the church like the proverbial bride who cannot make the commitment.

I want to believe there is something essential and authentic about me, even if it's just my ears. And although my feelings of diffusion may be extreme, I am certainly not the only one who's felt she's flying too fast. Lifton writes, "Until relatively recently, no more than a single major ideological shift was likely to occur in a lifetime, and that one would be long remembered for its conflict and soul searching. But today it is not unusual for several such shifts to take place within a year or even a month, whether in the realm of politics, religion, aesthetic values, personal relationships. . . . Quite rare is the man or woman who has gone through life holding firmly to a single ideological vision. More usual is a tendency toward ideological fragments, bits and pieces of belief systems that allow for shifts, revisions, and recombinations."

What Lifton has observed in the psyche Rosen wants to make manifest in the body. I ask Rosen, "So, do you believe we are just in essence protean, that there is nothing fundamental, or core, to being human?"

He says, "Lauren, I am a scientist. My original interests were in nerves. I helped develop, in the 1980s, one of the first computer-grown nerve chips. The answer to your question may lie in how our nervous systems operate."

## Part III: The Protean Brain

First, a lesson. In the 1930s, researchers, working on the brains of apes, found that the gray matter contained neural representations of all the afferent body parts. Ape ears, feet, skin, hands, were all richly represented in the ape brain in a series of neural etchings, like a map. Researchers also realized that when a person loses a limb—say, the right arm—this portion of the neural map fades away. Sometimes even stranger things happen. Sometimes amputees claimed they could feel their missing arm when, for instance, someone touched their cheek. This was because the arm map had not faded so much as morphed, joined up its circuitry with the cheek map, so it was all confused.

It was then discovered, not surprisingly, that human beings also have limb maps in their brains. Neurologists conceptualized this limb map as "a homunculus," or little man. Despite my feminist leanings, I am enchanted by the idea of a little man hunched in my head, troll-like, banging a drum, grinning from ear to ear. Of course the homunculus is not actually shaped like a human; it is, rather, a kind of human

blueprint, like the drawing of the house in all its minute specificity. Touch the side of your skull. Press in. Buried, somewhere near there, is a beautiful etching of your complex human hand, rich in neural web-work and delicate, axonal tendrils designed to accommodate all the sensory possibilities of this prehensile object. Move your hand upward, press the now sealed soft spot, and you will be touching your toe map. Your eye map is somewhere in your forehead and your navel map is somewhere in your cerebellum, a creased, enfolded series of cells that recall, I imagine, ancient blue connections, a primitive love.

Today, Rosen is giving a lecture. I have come up to New Hampshire to hear him, and, unlike on the last visit, the day is beautiful and bright. Rosen explains how brains are partly plastic, which comes from the Greek root meaning to mold, to shape. When we lose a limb, the brain absorbs its map or rewires it to some other center. Similarly, Rosen explains, when we gain a limb, the brain almost immediately senses it and goes about hooking it up via neural representation. "If I were to attach a sonographically powered arm to your body," Rosen explains, "your brain would map it. If I were to attach a third thumb, your brain would map it, absolutely. Our bodies change our brains, and our brains are infinitely moldable. If I were to give you wings, you would develop, literally, a winged brain. If I were to give you an echolocation device, you would develop in part a bat-brain."

Although the idea of a brain able to incorporate changes so completely may sound strange, many neurological experiments have borne out the fact that our gray matter does reorganize according to the form and function of our appendages. Because no one has yet appended animal forms to the human body, however, no studies have been done that explore what the brain's response to what might be termed an "evolutionary insult" would be. Assuming, probably wrongly but assuming nevertheless, that human beings represent some higher form of species adaptation, at least in terms of frontal-lobe intelligence, the brain might find it odd to be rewiring itself to presumably more primitive structures, structures we shed a long time ago when we waded out of the swamps and shed our scales. Rosen's desire to meld human and animal forms, and the incarnation of this desire in people like the cat-woman and the lizard-man, raise some interesting questions about the intersection of technology and primitivism. Although we usually assume technology is somehow deepening the rift between nature and culture, it also can do the opposite. In other words, technology can be, and often is, extremely primitive, not only because it allows people a sort of id-like, limbic-driven power (i.e., nuclear weaponry) but also because it can provide the means to toggle us down the evolutionary ladder, to alter our brains, stuck in their rigid humanness, so that we are at last no longer landlocked.

All this is fascinating and, of course, unsettling to me. Our brains are essentially indiscriminate, able to morph—like the sea god Proteus himself—into fire, a flood, a dragon, a swan. I touch my brain and feel it flap. Now I understand more deeply what Rosen meant when he said, "Plastic surgery changes the soul." To the extent that we believe our souls are a part of our brains, Rosen is right. And, all social conflict about its place in the medical hierarchy aside, plastic surgery is really neurosurgery, because it clearly happens, at its most essential level, north of the neck. When a surgeon modifies your body, he modifies your oh-so-willing, bendable brain.

I get a little depressed, hearing this lecture. It seems to me proof at the neuronal level that we have the capacity to be, in fact, everything, and thus in some sense nothing. It confirms my fear that I, along with the rest of the human species, could slip-slide through life without any specificity, or "speciesficity." Last year, I had my first child. I wonder what I will teach her, what beliefs about the body and the brain and the soul I really hold. I think, "I will show her pictures of her ancestors," but the truth is, I don't have any pictures. I think, "I will teach her my morals," but I don't know exactly what my morals are, or where they came from. I know I am not alone. Like Rosen, perhaps, I am just extreme. Now I feel a kind of kinship with him. We are both self-invented, winging our way through.

Rosen comes up to me. He is finished with his talk. "So do you understand what I mean," he asks, "about the limitlessness of the brain?"

"Does it ever make you sad?" I say. "Does it ever just plain and simple make you scared?"

Rosen and I look at each other for a long time. He does seem sad. I recall him telling me once that when he envisions the future fifty years out, he hopes he is gone, because, he said, "While I like it here, I don't like it that much." I have the sense, now, that he struggles with things he won't tell me. His eyes appear tired, his face drained. I wonder if he wakes in the middle of the night, frightened by his own perceptions. Strange or not, there is something constant in Rosen, and that's his intelligence, his uncanny ability to defend seemingly untenable positions with power and occasional grace. In just three weeks he will travel to a remote part of Asia to participate in a group called Interplast, made up of doctors and nurses who donate their time to help children with cleft lips and palates. I think it's important to mention this—not only Bin Laden, bandwidth, anthrax, and wings but his competing desire to minister. The way, at the dinner table, he tousles his children's hair. His avid dislike of George W. Bush. His love of plants and greenery. Call him multifaceted or simply slippery, I don't know. All I do know is that right now, when I look at

his face, I think I can see the boy he once was, the Seventh Fleet ship, the wonder, all that wonder.

"Do you and Stina want to go out for dinner? We could go somewhere really fancy, to thank you," I say, "for all your time."

"Sure," says Rosen. "Give me a minute. I'll meet you in the hospital lobby," and then he zips off to who knows where, and I am alone with my singular stretched self on the third floor of the Dartmouth-Hitchcock Medical Center. I wander down the long hallways. Behind the curtained cubicles there is unspeakable suffering. Surely that cannot be changed, not ever. Behind one of these cubicles sits Sweeny, and even if we learn to see him as beautiful, the bottom-line truth is that he still suffers. Now I want to touch Sweeny's dying face. I want to put my hand right on the center of pain. I want to touch Rosen's difficult face, and my baby daughter's face as well, but she is far from me, in some home we will, migrants that our family is, move on from sometime soon. I once read that a fetus does not scar. Fetal skin repairs itself seamlessly, evidence of damage sinking back into blackness. Plastic surgery, for all its incredible advances, has not yet been able to figure out how to replicate this mysterious fetal ability in the full-born human. Plastic surgery can give us wings and maybe even let us sing like loons, but it cannot stop scarring. This is oddly comforting to me. I pause to sit on a padded bench. A very ill woman pushing an IV pole walks by. I lift up my pant leg and study the scar I got a long time ago, when I fell off a childhood bike. The scar is pink and raised and shaped like an *o*, like a hole maybe, but also like a letter, like a language, like a little piece of land that, for now, we cannot cross over.

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## *Reading Comprehension—Points of Engagement*

1. Consider Lauren Slater's main question: "Where does necessary reconstruction end and frivolous interventions begin? Are those interventions really frivolous or are they emblematic of the huge and sometimes majestic human desire to transcend?" (318–319). What's necessary and what is frivolous? What does Slater think? What do you think? What about the human desire to transcend? Look closely in that paragraph for your answer.
2. Joe Rosen tells a questioner that he would give a person wings. Explain his rationale as you understand it. Then respond. Do you agree or disagree?
3. Slater introduces the idea of proteanism on page 326. What does she mean, and what are her concerns about people adopting a protean self?

## *Assignment Questions—Points of Departure*

1. According to Slater, Joe Rosen's advice to his patients, "let nature take its course," seems odd coming from "a man who seems so relentlessly anti-nature" (315). What's the conflict, in Slater's mind? Why might he say both things? Then keeping Rosen's dual view in mind, consider another author who also explores complicated ideas about the natural order of things, such as Michael Pollan, David Brooks, or Barbara Kingsolver. What do you learn about nature and anti-nature?
2. Consider the following passage: "At what point, in altering ourselves, would we lose our essential humanity? Are there any traits that make us essentially human? When might we become monsters or marvels, or are we already there?" (327). How does Slater answer these questions? Rosen? You? What about other authors in this collection? Lisa Belkin? Andrew Sullivan? Write a paper in which you address these questions and engage with the ideas in Slater's essay and either Belkin or Sullivan.
3. Consider the following question that Lauren Slater poses to Dr. Rosen: " 'So, do you believe we are just in essence protean, that there is nothing fundamental, or core, to being human?' " (328). What is Rosen's answer? What is Slater's answer? Yours? In your answer make sure you refer to the answers by Rosen or Slater, and keep their positions distinct. Then use those answers you've generated from Slater's text to further explore the issues of personal identity raised in another essay, such as Malcolm Gladwell's "The Theory of Thin Slices," Lenore Look's "Facing the Village," Francine Prose's "Voting Democracy Off the Island," Andrew Sullivan's "The He Hormone," or Katha Pollitt's "Marooned on Gilligan's Island."
4. Slater struggles to understand the limits of science and nature in her essay, whereas Jane Goodall feels the two are entirely attuned. Given this tension, how would either Slater or Rosen answer the following questions from Goodall, "What is our human responsibility? And what, ultimately, is our human destiny? Were we going to go on destroying God's creation, fighting each other, hurting the other creatures of His planet? Or were we going to find ways to live in greater harmony with each other and with the natural world?" (114). Use examples from Rosen's work to help answer these questions, or consider exploring Slater's own personal reflections. How does Goodall bridge the divide between science and nature and could this perspective be employed by Slater?