

Multiple Subjectivity and Virtual Community at the End of the Freudian Century

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Online experiences challenge what many have traditionally called "identity"; on the Internet many people recast identity in terms of multiple windows and parallel lives. In this way, today's life on the screen dramatizes and concretizes larger cultural trends that encourage thinking about identity in terms of multiplicity and flexibility.

Long before there were computers, the Internet, or virtual communities, Walt Whitman wrote: "There was a child went forth every day. And the first object he looked upon, that object he became." These few lines speak directly to the theoretical commitment behind my research as I explore the role of technology in shaping individuals and communities: We construct our objects and our objects construct us.¹ In this spirit, it is appropriate to ask what we are becoming when some of the first objects we look upon exist only on computer screens. The objects may exist in the virtual spaces of simulation games or they may be online representations of ourselves in virtual communities on the Internet. In either case, Whitman was prescient about their effects when he further wrote: "Do I contradict myself? Very well then I contradict myself. I am large. I contain multitudes." Online experiences challenge what many people have traditionally called "identity"; a sense of self is recast in terms of multiple windows and parallel lives. Online life is, of course, not the only factor pushing in this direction. Today's life on the screen dramatizes and concretizes larger cultural trends that encourage people to think about identity in terms of multiplicity and flexibility.

Online Personae

Through networked software known as MUDs (short for Multi-User Dungeons or Multi-User Domains), people all over the world, each at his or her individual machine, join online virtual communities that exist only through the space created by the computer. The key element of "MUDding," from the perspective of "identity-effects" is the creation and projection of a "persona" into a virtual space. This element characterizes far more "banal" online communities as well, such as bulletin boards, newsgroups, and chat rooms on commercial services.

You join a MUD through a command that links your networked computer

to one on which the MUD software and database reside. When you start, you create a character or several characters; you specify their genders and other physical and psychological attributes. Other players in the MUD can see this description. It becomes your character's self-presentation. The created characters need not be human (you can write and deploy a program in MUD that presents itself as a person or, if you wish, as a robot), and there may be more than two genders.

Players create characters who have casual and romantic sex, hold jobs, attend rituals and celebrations, fall in love and get married. To say the least, such goings-on are gripping: "This is more real than my real life," says a character who turns out to be a man playing a woman who is pretending to be a man. As players participate in MUDs, they become authors not only of text but of themselves, constructing selves through social interaction.

In traditional role-playing games in which one's physical body is present, one steps in and out of a character. MUDs, in contrast, offer a parallel life. The boundaries of the game are fuzzy; the routine of playing them becomes part of their players' everyday lives. MUDs blur the boundaries between self and game, self and role, self and simulation. One player says: "You are what you pretend to be . . . you are what you play." Players sometimes talk about their real selves as a composite of their characters and sometimes talk about their MUD characters as means for working on their "real" lives. An avid participant in the online "talk channels" known as Internet Relay Chat describes a similar feeling: "I go from channel to channel depending. . . . I actually feel a part of several of the channels, several conversations. . . . I'm different in the different chats. They bring out different things in me."

Often the most avid participants in online communities are people who work with computers all day at their "regular" jobs. As they play on MUDs, for example, they will periodically put their characters "to sleep," remaining logged on to the game but pursuing other activities. From time to time they return to the online space. In this way they break up their work days and experience their lives as a "cycling-through" between the real world and a series of simulated ones. This same sort of cycling-through characterizes how people use newsgroups, Internet Relay Chat, bulletin boards, and chat rooms.

This kind of interaction with virtual environments is made possible by the existence on the computer of what have come to be called "windows." Windows are a way of working with a computer that makes it possible for the machine to place you in several contexts at the same time. As a user, you are attentive to only one of the windows on your screen at any given moment, but in a certain sense, you are a presence in all of them at all times. You might be writing a paper for a bacteriology journal and using your computer in several ways to help you: You are "present" to a word-processing program in which you are taking notes and collecting thoughts, you are present to communications software that is in touch

with a distant computer for collecting reference materials, and you are present to a program that is charting the growth of simulated bacterial colonies when a new organism enters their ecology. Each of these activities takes place in a window and your identity on the computer is the sum of your distributed presence.

This certainly is the case for Doug, a Dartmouth College junior who plays four characters distributed across three different MUDs. One is a seductive woman. One is a macho, cowboy type whose self-description stresses that he is a "Marlboros rolled in the tee shirt sleeve kind of guy." Then there is "Carrot," a rabbit of unspecified gender who wanders its MUD introducing people to each other. Doug says, "Carrot is so low-key that people let it be around while they are having private conversations. So I think of Carrot as my passive, voyeuristic character."

Doug's fourth character is one that he plays on a FurryMUD (MUDs on which all the characters are furry animals). "I'd rather not even talk about that character because its anonymity there is very important to me," Doug says. "Let's just say that on FurryMUDs I feel like a sexual tourist." Doug talks about playing his characters in windows that have enhanced his ability to "turn pieces of my mind on and off."

I split my mind. I'm getting better at it. I can see myself as being two or three or more. And I just turn on one part of my mind and then another when I go from window to window. I'm in some kind of argument in one window and trying to come on to a girl in a MUD in another, and another window might be running a spreadsheet program or some other technical thing for school. . . . And then I'll get a real-time message (that flashes on the screen as soon as it is sent from another system user), and I guess that's RL. It's just one more window.

The development of windows for computer interfaces was a technical innovation motivated by the desire to help people work more efficiently. Windows encourage users to cycle through different applications much as time-sharing computers cycle through the computing needs of different people. In practice, windows are a potent metaphor for thinking about the self as a multiple, distributed, "time-sharing" system. The self is no longer simply playing different roles in different settings, something that people experience when, for example, one wakes up as a lover, makes breakfast as a mother, and drives to work as a lawyer. The life practice of windows is of a distributed self that exists in many worlds and plays many roles at the same time. MUDs extend the metaphor. Now, in Doug's words, "RL" [real life] can be just "one more window."

This particular notion of a distributed self undermines many traditional notions of identity. Identity, after all, from the Latin *idem*, refers to the sameness between two qualities. In MUDs, however, one can be and usually is many.

Online experiences of playing multiple aspects of self are resonant with theories that imagine the self as multiple and fragmented, or as a society of selves.

In the late 1960s and early 1970s, I was first exposed to such ideas. I came into contact with the notion that the self is constituted by and through language, that sex is the exchange of signifiers, and that there is no such thing as "the ego." I was taught that each of us is a multiplicity of parts, fragments, and desiring connections. These lessons took place in the hothouse of Parisian intellectual culture whose gurus included Jacques Lacan, Michel Foucault, Gilles Deleuze, and Félix Guattari. But despite such ideal conditions for learning, my "French lessons" remained abstract exercises. These theorists of poststructuralism addressed the history of the body but quite frankly, from my point of view, had little to do with my own.

Today, twenty years later, I use the personal computer and modem on my desk to access MUDs. Anonymously, I travel their rooms and public spaces (a bar, a lounge, a hot tub). I create several characters (some not of my biological gender), who are able to have social and sexual encounters with other characters (some of my virtual gender, others not of my virtual gender). My textual actions are my actions—my words make things happen. In different MUDs I have different routines, different friends, different names.

In this context, the Gallic abstractions of poststructuralist theory seem uncannily concrete. In my computer-mediated worlds, the self is multiple, fluid, constituted by machinelike connectivity; the self is made and transformed by language; sexual congress is an exchange of signification; understanding follows from navigation and tinkering rather than analysis. Maps of MUD cyberspaces are rare and if they exist they are usually out of date. MUDs require active, trial-and-error exploration.

One day on a MUD, I come across a reference to a character named "Dr. Sherry," a cyber-psychotherapist who has an office in the rambling house that constitutes this MUD's virtual geography. There, I am informed, Dr. Sherry administers questionnaires and conducts interviews about the psychology of MUDding. I have every reason to believe that the name Dr. Sherry refers to my fifteen-year career as a student of the psychological impact of technology. But I didn't create this character. Dr. Sherry is a character name someone else created in order to quickly communicate an interest in a certain set of questions about technology and the self. I experience Dr. Sherry as a little piece of my history spinning out of control. I try to quiet my mind; I tell myself that surely one's books, one's public intellectual persona, are pieces of oneself in the world for others to use as they please. Surely this virtual appropriation is flattering. But my disquiet continues. Dr. Sherry, after all, is not an inanimate book, an object placed in the world. Dr. Sherry is a person, or at least a person behind a character who is meeting with others in the world. Well, in the MUD world at least.

I talk over my disquiet with a friend who poses the conversation-stopping question: "Well, would you prefer if Dr. Sherry were a bot (short for online,

virtual robot) trained to interview people about life on the MUD?" This had not occurred to me, but in a flash I realize that this, too, is possible. It is even likely to be the case. Many bots roam this MUD. Characters played by people are mistaken for these little artificial intelligences. I myself have made this mistake several times when a character's responses seemed too automatic. Sometimes bots are mistaken for people. I have made this mistake, too, and been fooled by a bot that offered me directions or flattered me by remembering our last interaction. Dr. Sherry could indeed be one of these. I am confronted with a double that could be a person or a program.

Life on the screen thus offers concrete experiences of the abstract theories that had intrigued yet confused me during my intellectual coming of age. Experiences on the Internet, and more generally with contemporary computing, can serve as objects-to-think-with that encourage the appropriation of poststructuralist ideas.

Objects-to-Think-With

Appropriable theories, ideas that capture the imagination of the culture at large, tend to be those with which people can become actively involved. They tend to be theories that can be "played" with. So one way to examine the social appropriability of a given theory is to ask whether it is accompanied by its own objects-to-think-with, objects that can help the theory move beyond intellectual circles.²

For instance, the popular appropriation of Freudian ideas had little to do with scientific demonstrations of their validity. Freudian ideas passed into the popular culture because they offered robust objects-to-think-with. The objects were almost-tangible ideas such as dreams and slips of the tongue. People were able to play with such Freudian "objects." They became used to looking for them and manipulating them, both seriously and not so seriously. As they did so, the idea that slips and dreams betray the unconscious started to feel natural.

In *Purity and Danger*, the British anthropologist Mary Douglas (1966) examined how the manipulation of food, a concrete material, could organize cultural understandings of the sacred and profane. Other scholars had tried to explain the Jewish dietary laws, the kosher rules, instrumentally in terms of hygiene (i.e., pork carries disease), or in terms of wanting to keep the Jewish people separate from other groups. Douglas argued that the separation of foods taught a fundamental tenet of Judaism: Holiness is order and each thing must have its place. For Douglas, every kosher meal embodies the ordered cosmology, a separation of heaven, earth, and seas. In the story of the Creation, each of these realms is allotted its proper kind of animal life. Two-legged fowls fly with wings, four-legged animals hop or walk, and scaly fish swim with fins. It is acceptable to eat these "pure" creatures, but those that cross categories (such as the lobster that lives in the sea but crawls upon its floor) are unacceptable. The foods themselves carry a theory of unbreachable order.³

For Freud's work, dreams and slips of the tongue carried ideas. For Douglas, food carries ideas. Today, computational experiences carry ideas. Take the case of the Internet:⁴ People decide that they want to interact with others online. They get an account on a commercial network service. They think that this will provide them with new access to people and information and of course it does. But it does more. They may find themselves in virtual communities taking on multiple roles; they may find themselves playing characters of different ages, attitudes, personalities, and genders. They may be swept up by experiences that enable them to explore previously unexamined aspects of their sexuality or that challenge their ideas about a unitary self.

When people adopt an online persona, they cross a boundary into highly charged territory. Some feel an uncomfortable sense of fragmentation, some a sense of relief. Some sense the possibilities for self-discovery, even self-transformation. A twenty-six-year-old graduate student in history says: "When I log on to a new MUD and I create a character and know I have to start typing my description, I always feel a sense of panic. Like I could find out something I don't want to know." A woman in her late thirties who just got an account with America Online used the fact that she could create five account "names" as a chance to "lay out all the moods I'm in—all the ways I want to be in different places on the system." Another individual named one of her accounts after her yet-to-be-born child. "I got the account right after the amnio, right after I knew it would be a girl. And all of a sudden, I wanted that little girl to have a presence on the net; I wrote her a letter and I realized I was writing a letter to a part of me." A twenty-year-old undergraduate says: "I am always very self-conscious when I create a new character. Usually, I end up creating someone I wouldn't want my parents to know about. It takes me, like, three hours." Online personae are objects-to-think-with when thinking about identity as multiple and decentered rather than unitary.

With this last comment, I am not implying that MUDs or computer bulletin boards or chat rooms are causally implicated in the dramatic increase of people who exhibit symptoms of multiple personality disorder (MPD), or that people on MUDs have MPD, or that participating in a MUD is like having MPD. What I am saying is that the many manifestations of multiplicity in our culture, including the adoption of online personae, are contributing to a general reconsideration of traditional, unitary notions of identity. Online experiences with "parallel lives" are part of the cultural context that supports new theorizations about multiple selves.

Trojan Horses: From Flexibility to Multiplicity

The history of a psychiatric symptom is inextricably tied up with the history of the culture that surrounds it. When I was a graduate student in psychology in

the 1970s, clinical psychology texts regarded the symptom of multiple personality as so rare as to be barely worthy of mention. I remember being told that perhaps one in a million people might manifest this symptom. In these rare cases, there was typically one alter personality in addition to the host personality. Today, cases of multiple personality are much more frequent and typically involve up to sixteen alters of different ages, races, genders, and sexual orientation (Hacking, 1995). Many current theories of the genesis of MPD suggest that traumatic events cause various aspects of the self to congeal into virtual personalities. These personalities represent "ones" often hiding from the "others" and hiding too from that privileged alter, the host personality. Sometimes, the alters are known to each other and to the host; some alters may see their roles as actively helping others. Such differences in the transparency of the self system led the philosopher Ian Hacking to write about a "continuum of dissociation." The differences also suggest a continuum of association among the many parts of the self.

If the disorder in MPD stems from a need for rigid walls to block secrets, then the notion of a continuum of association or accessibility helps us conceptualize healthy selves that are not unitary but that have flexible access to their many aspects. "Multiplicity" is a term that carries with it several centuries of negative associations; contemporary American theorists such as Kenneth Gergen (1991), Emily Martin (1994), and Robert Jay Lifton (1993) are having an easier time with descriptions of contemporary identity that stress the virtue of flexibility. In my view, the notion of a flexible self serves as a kind of Trojan Horse for ideas about identity as multiplicity.

Flexibility is a more acceptable concept; but it definitely introduces the notion of a healthy self as one that cycles-through its multiple states of being. From there, I would argue, the distance to multiplicity as a normal state of self is short—a matter of semantics. For the essence of the "acceptable," flexible self is not unitary; even its aspects are ever-changing. The philosopher Daniel Dennett (1991) speaks of the flexible self in his "multiple drafts" theory of consciousness. Dennett's notion of multiple drafts is analogous to the experience of several versions of a document open on a computer screen where the user is able to move among them at will. Knowledge of these drafts encourages a respect for the many different versions, while it imposes a certain distance from them. The historian and social theorist Donna Haraway (1991) equates a "split and contradictory self" with a "knowing self" and is optimistic about its possibilities: "The knowing self is partial in all its guises, never finished, whole, simply there and original; it is always constructed and stitched together imperfectly and is therefore able to join with another, to see together without claiming to be another." What most characterizes the Dennett and Haraway models of the self is that the lines of communication between its various aspects are always open. This open communication is presented as encouraging an attitude of respect for the many within us and the many within others.

Increasingly, psychoanalytic theorists are also using a notion of flexibility and transparency as a way of introducing nonpathological multiplicity. They are thinking about healthy selves whose resilience and capacity for joy come from having access to their many aspects. For example, the psychoanalyst Philip Bromberg insists that our ways of describing "good parenting" must now shift away from an emphasis on confirming a child in a "core self" and onto helping a child develop the capacity to negotiate fluid transitions between self states. Bromberg believes that dissociation is not fundamentally trauma driven. It is a part of normal psychological development, necessary to the "necessary illusion of being one self." The healthy individual knows how to be many, but smoothes out the moments of transition between states of self. Bromberg (1995) says: "Health is when you are multiple but feel a unity. Health is when different aspects of self can get to know each other and reflect upon each other. Health is being one while being many." Here, within the American psychoanalytic tradition, is a model of multiplicity without dissociation—that is, multiplicity as a conscious, highly articulated cycling-through.

Self States and Avatars

Case, a thirty-four-year-old industrial designer, reports that he likes participating in online virtual communities (MUDding) as a female because (some would think paradoxically) it makes it easier for him to be aggressive and confrontational. Case's several online female personae—strong, dynamic, "out there" women—remind him of his mother, whom he describes as a strong, "Katherine Hepburn type." His father was a mild-mannered man, a "Jimmy Stuart type." Case says that in "real life" he has always been more like his father, but he came to feel that he paid a price for his low-key ways. When he discovered MUDs, he saw the possibility to experiment:

For virtual reality to be interesting it has to emulate the real. But you have to be able to do something in the virtual that you couldn't in the real. For me, my female characters are interesting because I can say and do the sorts of things that I mentally want to do, but if I did them as a man, they would be obnoxious. I see a strong woman as admirable. I see a strong man as a problem. Potentially a bully.

For Case, if you are assertive as a man, it is coded as "being a bastard." If you are assertive as a woman, it is coded as "modern and together."

My wife and I both design logos for small businesses. But do this thought experiment. If I say "I will design this logo for \$3,000, take it or leave it," I'm just a typical pushy businessman. If she says it, I think it sounds like she's a "together" woman. There is too much male power-wielding in society, and so if you use power as a man, that turns you into a stereotypical man. Women can do it more easily.

Case's gender swapping has given him permission to be more assertive within the MUD and more assertive outside of it as well:

There are aspects of my personality—the more assertive, administrative, bureaucratic ones—that I am able to work on in the MUDs. I've never been good at bureaucratic things, but I'm much better from practicing on MUDs and playing a woman in charge. I am able to do things—in the real, that is—that I couldn't have before because I have played Katherine Hepburn characters.

Case says his Katherine Hepburn personae are “externalizations of a part of myself.” In one interview with him, I use the expression “aspects of the self,” and he picks it up eagerly, for MUDding reminds him of how Hindu gods could have different aspects or subpersonalities, all the while having a whole self.

You may, for example, have an aspect who is a ruthless business person who can negotiate contracts very, very well, and you may call upon that part of yourself while you are in tense negotiation, to do the negotiation, to actually go through and negotiate a really good contract. But you would have to trust this aspect to say something like, “Of course, I will need my lawyers to look over this,” when in fact among your “lawyers” is the integrated self who is going to do an ethics vet over the contract, because you don't want to violate your own ethical standards and this (ruthless) aspect of yourself might do something that you wouldn't feel comfortable with later.

Case's gender swapping has enabled the different aspects of his inner world to achieve self-expression without compromising the values he associates with his “whole person.” Role playing has given the negotiators practice; Case says he has come to trust them more. In response to my question “Do you feel that you call upon your personae in real life?” Case responds:

Yes, an aspect sort of clears its throat and says, “I can do this. You are being so amazingly conflicted over this and I know exactly what to do. Why don't you just let me do it?” MUDs give me balance. In real life, I tend to be extremely diplomatic, nonconfrontational. I don't like to ram my ideas down anyone's throat. On the MUD, I can be, “Take it or leave it.” All of my Hepburn characters are that way. That's probably why I play them. Because they are smart-mouthed, they will not sugarcoat their words.

In some ways, Case's description of his inner world of actors who address him and are capable of taking over negotiations is reminiscent of the language of people with MPD. But the contrast is significant: Case's inner actors are not split off from each other or his sense of “himself.” He experiences himself very much as a collective self, not feeling that he must goad or repress this or that aspect of himself into conformity. He is at ease, cycling through from Katherine Hepburn to Jimmy Stuart. To use Bromberg's language, online life has helped Case learn how to “stand in the spaces between selves and still feel one, to see the multiplicity and still feel a unity.” To use the computer scientist Marvin Minsky's (1987) phrase, Case feels at ease in his “society of mind.”

We are dwellers on the threshold between the real and the virtual; we are unsure of how to cycle-through between our online and offline lives. Our experience recalls what the anthropologist Victor Turner (1966) termed a “liminal

moment,” a moment of cultural passage when new formulations and new meanings are most likely to emerge. Liminal moments are times of tension, extreme reactions, and great opportunity. When Turner talked about liminality, he understood it as a transitional state, but living with flux may no longer be temporary. It is fitting that the story of a technology that is bringing postmodernism down to earth refuses any simple resolutions and requires an openness to multiple viewpoints.

Cycling-Through

Whether or not the term is used, the idea of cycling-through is increasingly important for thinking about identity in our culture of simulation. As recently as the 1980s, when first confronted with computers and computational objects, children's thoughts about whether these objects were alive did not center on their physical movement, as they had for the objects of Jean Piaget's (1960) day, but on their psychology. Children of that time took a new world of objects and imposed a new world order, constructing a coherent story about what is alive. More recently, computational objects that evoke evolution have strained that order to the breaking point. Faced, for example, with widely available computer programs such as *The Blind Watchmaker*, *Tierra*, and *SimLife*—objects that explicitly evoke the notion of artificial life—children still try to impose strategies and categories, but they do so in the manner of theoretical bricoleurs, making do with whatever materials are at hand, with whatever theory can fit the rapidly changing circumstances. When children confront these new objects and try to construct a theory of what is alive, we see a form of cycling-through, this time cycling-through theories of “aliveness.”

My current collection of children's comments about the aliveness of simulation games includes the following: “The ‘Tierrans’ are not alive because they are just in the computer, could be alive if they got out of the computer, are alive until you turn off the computer and then they're dead, are not alive because nothing in the computer is real.” I have also heard, “The ‘Sim’ creatures are not alive but almost-alive, would be alive if they spoke, would be alive if they traveled, are alive but not real, are not alive because they don't have bodies, are alive because they can have babies, and finally, they're not alive because the babies in the game don't have parents.”

These theories about what is alive are strikingly heterogeneous. Different children comfortably hold different theories, and individual children are able to hold different theories at the same time. In the short history of how the computer has changed the way we think, children have often led the way. Today, children are pointing the way toward multiple theories in the presence of the artifacts of artificial life.

One fifth-grade girl jumped back and forth from a psychological to a mechanistic language when she talked about a small robotic creature she had built out

of Lego blocks and programmed with the Logo computer language. Sometimes she called it a machine, sometimes a creature. She talked about it in ways that referenced it as a psychological being, as an intentional self, and as an instrument of its programmer's intentions. These perspectives are equally present for her; for different purposes, she finds one or another of them more useful. Adults find themselves in a similar situation. One forty-year-old woman, an interior designer, confronted with a computer program that simulates the evolution of simple creatures, cycled-through views of it as alive, as "alive in a way" but not alive like humans or animals, as information but not body, as body but not the right kind of body for life, as alive but not spiritually alive, or as our creature but not God's creature, thus not alive. A thirty-seven-year-old lawyer found the same software not alive because life "isn't just replicating bits of information"; alive "like a virus"; not alive, because "life in a parallel universe shouldn't count as life"; alive "but not real life."

In his history of artificial life, the author Steven Levy (1992) suggested that when we think about computer programs that can evolve we might envisage a continuum in which an evolving program would be more alive than a car, but less alive than a bacterium. My observations of how people are dealing with the lifelike properties of computational objects suggest that they are not constructing hierarchies but multiple definitions of life, which they "alternate" through rapid cycling. Multiple and alternating definitions, like thinking comfortably about one's identity in terms of multiple and alternating aspects of self, become a habit of mind.

In *Listening to Prozac*, the psychiatrist Peter Kramer (1993) wrote about an incident in which he prescribed an antidepressant medication for a college student. At the next therapy session, the patient appeared with symptoms of anxiety. Since it is not unusual for patients to respond with jitters to the early stages of treatment with antidepressants, Kramer was not concerned. Sometimes the jitters disappear by themselves; sometimes the prescribing physician changes the antidepressant, or adds a second, sedating medication at bedtime. Kramer says:

I considered these alternatives and began to discuss them with the young man when he interrupted to correct my misapprehension: He had not taken the antidepressant. He was anxious because he feared my response when I learned he had "disobeyed" me.

As my patient spoke, I was struck by the sudden change in my experience of his anxiety. One moment, the anxiety was a collection of meaningless physical symptoms, of interest only because they had to be suppressed, by other biological means, in order for the treatment to continue. At the next, the anxiety was rich in overtones . . . emotion a psychoanalyst might call Oedipal, anxiety over retribution by the exigent father. The two anxieties were utterly different: the one a simple outpouring of brain chemicals, calling for a scientific response, however diplomatically communicated; the other worthy of empathic exploration of the most delicate sort. (p. xii)

Kramer experienced this alternation of perspective because his patient did not take his medication. Other people experience such alternations when they do take medication. They commonly have moments when they equate their person-ality with their chemistry. But even as they do so, they do not abandon a sense of themselves as made up of *more than* chemistry. Rather, they cycle through "I am my chemicals" to "I am my history" to "I am my genes."

It may in fact be in the area of genetics that we have become most accustomed to cycling-through. In *Listening to Prozac*, Kramer tells a story about how genetics is causing us to cycle through different views of identity. About to express praise for his friends' two children with a comment such as "Don't the genes breed true?", Kramer stopped himself when he remembered that both children were adopted. "Since when had I—I, who make my living through the presumption that people are shaped by love and loss, and above all by their early family life—begun to assume that personality traits are genetically determined?" [p. xiii]. In fact, Kramer hadn't begun to assume this, he just sometimes did. Cycling-through different and often opposing theories has become how we think about our minds and about what it means to be alive, just as cycling-through different aspects of self have become a way of life as people move through different characters and genders when they move from window to window on their computer screens.

ENDNOTES

¹This essay is drawn from Turkle (1995).

²And, of course, the traffic does not flow in only one direction. In our current situation, science fiction informs social criticism; theme parks such as Disneyland become not simply objects of analysis, but exemplars of theory. The notion of ideas moving out may be heuristically useful, but it is too simple. Postmodern theory has underscored the traffic between diverse and seemingly separate realms. With it, high culture comes to contemplate advertising, science fiction fandom, and the romance novel.

³Douglas's analysis begins with Genesis and the story of the creation, in which a threefold classification unfolds. There is earth, water, and sky. Leviticus, where the kosher rules are set out, takes up this scheme, says Douglas, and "allots to each element its proper kind of animal life." She states: "Holiness is exemplified by completeness. . . . Holiness means keeping distinct the categories of creation" (p. 53). It follows that "any class of creatures which is not equipped for the right kind of locomotion in its element is contrary to holiness" (p. 55).

If the proposed interpretation of the forbidden animals is correct, the dietary laws would have been like signs which at every turn inspired meditation on the oneness, purity, and completeness of God. By rules of avoidance holiness was given a physical expression in every encounter with the animal kingdom and at every meal (p. 57).

⁴I could also have taken the case of people's relationships with the interfaces of contemporary personal computers. In that case, people decide that they want to buy an easy-to-use computer. They

are attracted by a consumer product—say, a computer with a Macintosh-style interface. They think they are getting an instrumentally useful product, and there is little question that they are. But now it is in their home and they interact with it every day. And it turns out they are also getting an object that teaches them a new way of thinking and encourages them to develop new expectations about the kinds of relationship they and their children will have with machines. I see the Macintosh as a concrete emissary for significant elements of postmodern thought, most dramatically for the willingness to accept opacity and dialogue with machines. And it would not be an exaggeration to say that, to date, the Macintosh style of simulated desktop has been our most widely disseminated cultural introduction to virtual reality. The sociologist of science Bruno Latour (1988) stresses the importance of such concrete emissaries or “foot soldiers.”

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