Old literacies

Sociocultural studies of literacy (Barton 1994; Gee 1996; Street 1995) – sometimes called “The New Literacy Studies” – have argued that “literacy” is not one thing. Rather, there are as many different “literacies” as there are socioculturally distinctive practices into which written language is incorporated. For example, the sorts of writing and reading that people do on a fan fiction site – let’s say one devoted to Sailor Moon – constitute a distinctive “literacy.” However, one family of literacy practices has served for some time now as the most significant gate to economic success and sociopolitical power in our society. These are reading and writing practices that incorporate “academic language.”

Academic language does not exist just in schools; it exists, as well, out in the world of disciplinary, professional, bureaucratic, official, and public-sphere practices and institutions (Schleppegrel 2004; Schleppegrel and Cecilia Colombi 2002). As we saw earlier, in Chapters 2 and 3, academic language is itself not one thing, but is composed of a family of related varieties. Furthermore, each of these varieties has spoken forms as well as written ones.

However significant it is, academic language is but one family of specialist language varieties. We saw earlier that people, even quite young ones, learn specialist varieties of language when they learn the Pokémon universe or become video gamers. Academic language is acquired in school, though it is facilitated at home by families with a good deal of mainstream educational and cultural capital. It comes to form for some learners (provided they give it allegiance and identify with it) a specific type of “consciousness” or “worldview”: what the Scollons once called “modern consciousness” (Scollon and Scollon 1981; see Berger et al. 1973, as well). Modern consciousness is a viewpoint that holds (consciously or unconsciously) that “higher intelligence” is epitomized by explicitness (i.e. low reliance on context), analytic skills, logical (deductive) thought, abstract definitions and generalizations, and sustained attention to or communication on a single topic (see also Goody 1977; Goody and Watt 1963; Olson 1977; Ong 1982).

It is sometimes said, by people influenced by the Russian scholar Bakhtin (1981, 1986), that academic language, and its attendant form of consciousness, is
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"monologic" and not dialogic. This is not quite right. All language is dialogic in
the sense that it is designed to communicate with an "assumed other." Thus a
person writing on a fan fiction site is assuming a particular type of reader – a
fellow fan.

The "assumed other" for academic language, however, is a person who back-
grounds his or her distinctive individual, social, ethnic, economic, and cultural
properties, and in that sense fictionalizes him or herself (Scollon and Scollon
1981). This backgrounding is done in order that the person can take on the
persona of a rational, generalizing, deductive, "generic," "disinterested," asocial
and acultural pursuer of fact and truth. This is to say, such a person seeks to take
on the very persona that is also the "voice" or "author" of academic language (by
"voice" or "author" here I mean the "presumed author": that is, the persona one
must adopt when speaking or writing academic language). In this sense, academic
language both creates an "other" and then insists that the "other" be pretty much
like the "author."

It is important for anyone interested in education to see that when it comes to
the acquisition of any variety of academic language, there are both significant losses
and gains (Halliday and Martin 1993). To see this, consider the two sentences
below, which we also discussed in Chapter 2. The first (1) is in a vernacular
variety of language and the second (2) is in an academic variety of language:

1. Hornworms sure vary a lot in how well they grow.
2. Hornworm growth exhibits a significant amount of variation.

Subjects of sentences name what a sentence is about (its "topic") and (when
they are initial in the sentence) the perspective from which we are viewing the
claims we want to make (the sentence’s "theme"). The vernacular sentence above
(1) is about hornworms (cute little green worms) and launches off from the
perspective of the hornworm. The presence of "sure" helps to cause the subject
here ("hornworms") also to be taken as naming a thing with which we are empa-
thizing. The specialist sentence (2) is not about hornworms, but about a trait or
feature of hornworms (in particular one that can be quantified) and launches off
from this perspective. The cute little hornworm and our empathy for it disappears.

The vernacular sentence involves dynamic processes (changes) named by
verbs ("vary," "grow"). People tend to care a good deal about changes and
transformations, especially in things with which they emphasize. The specialist
sentence turns these dynamic processes into abstract things ("variation.
"growth") through a linguistic device known as "nominalization" (Halliday and
Martin 1993). The dynamic changes disappear. We can also mention that the
vernacular sentence has a contentful verb ("vary"), while the specialist one has a
verb of appearance ("exhibit"), a class of verbs that is similar to copulas (i.e. verbs
like "be") and are not as deeply or richly contentful as verbs like "vary." Such
copulative verbs are basically just ways to relate things to each other (in this case
abstract things, to boot).
The vernacular sentence has a quantity term ("how well") that is not just about amount or degree, but is also "telically evaluative," if I may be allowed to coin a term ("telos" means the ideal end-point or goal towards which something is striving). "How well" is both about a quantity and evaluates this amount in terms of an end-point or "telos" germane to hornworms: that is, in terms of a point of good or proper or full growth towards which hornworms are "meant" to move. Some hornworms reach the telos (end-point or goal) and others fall short. Humans, it turns out, care a lot about the end-points or goals of things. The specialist sentence replaces this "telically evaluative" term with a more precise measurement term that is "discipline evaluative" ("significant amount"). "Significant amount" is about an amount that is evaluated in terms of the goals and procedures of an academic discipline (here a type of biology), not a hornworm. It is a particular area of biology that determines what amounts to significant variation and what does not. All our hornworms could be stunted or atypical of well-grown hornworms ("well-grown" from a non-specialist everyday perspective) and still display a significant amount of variation in their sizes.

This last difference is related to another one: the vernacular sentence contains an appreciative marker ("sure"), while the specialist sentence leaves out such markers. The appreciative marker communicates the attitude, interest, and even values of the speaker/writer. Attitude, interest, and values, in this sense, are left out of the specialist sentence. One would not normally say or write "Hornworm growth sure exhibits a significant amount of variation" (if you don't know this, then you aren't at home with this sort of academic language).

So when one has to leave "everyday" (non-specialist) life to acquire and then use the specialist language above, these are some of the things that are lost: concrete things like hornworms and empathy for them; changes and transformations as dynamic ongoing processes; telos and appreciation. What is gained are: abstract things and relations among them; traits and quantification and categorization of traits; evaluation from within a specialized discipline. The crucial question then is this: "Why would anyone – most especially a child in school – accept this loss?"

My view is that people will accept this loss only if they see the gain as a gain. So a crucial question in science education, for example, ought to be: "What would make someone see acquiring a scientific variety of language as a gain?" Specialist languages are tied to socially situated identities and activities (i.e. people use them to do things while acting as certain kinds of people with characteristic viewpoints, values, and ways of acting, talking, and believing). People can only see a new specialist language as a gain if: (a) they recognize and understand the sorts of socially situated identities and activities that recruit the specialist language; (b) they value these identities and activities, or at least understand why they are valued; and (c) they believe they (will) have real access to these identities and activities, or at least (will) have access to meaningful (perhaps simulated) versions of them. Thus science in school is learned best and most deeply when it is, for the learner, about "being a scientist" (of some sort) "doing science." (of some sort). This is why video
games are so good at getting learning done (Gee 2003). They allow people to be and do new things in new worlds, sometimes far beyond what they could be or do in the "real" world.

Thus acquisition is heavily tied at the outset to identity issues. It is tied to the learner's willingness and trust to leave (for a time and place) the "everyday" world and participate in another identity - one that for everyone represents a certain loss. For some people it represents a more significant loss in terms of a disassociation from, and even opposition to, their home- and community-based cultures. These cultures are not rooted in the sort of middle-class home-based cultures that have historically built up some sense of shared interests and values with some academic specialist domains (Finn 1999; Gee 1996 - see Chapter 3 above as well). For such people the issue is not just a lack of familiarity with the new identity (which is initially an issue for all learners). The issue is, as well, a feeling of opposition or hostility between the new identity they are being asked to assume and other identities they are already comfortable with. And of course in some cases this sense of hostility is historically accurate, since some academic domains (e.g. psychology) have historically denigrated certain sorts of people (e.g. people of color, women, and poor people; see Fausto-Sterling 1985; Gould 1981).

Academic language, aligned with "modern consciousness," today represents a family of "old literacies" (the various school-based and disciplinary-based practices that recruit some variety of oral and written academic language - and it's fair to use the term "literacy" here, since oral forms of academic language are different from, but related to, their written forms). They have been around now for some time. We have, for some time now, used them as our litmus test of school success and intelligence. Such literacies have by no means disappeared, nor will they. However, I would argue that academic language, and its attendant modern consciousness, once thought to be central to what counted as a "schooled" and "intelligent" person, is now at best a necessary, but not sufficient condition for success in society.

My argument here is not that acquiring facility with academic language ever guaranteed success in society, or necessarily mitigated the effects of racism, for example, but only that people often equated facility with academic language with "intelligence," modernity, and "being educated" (Goody and Watt 1963; Ong 1977; Olson 1972, 1994). Failing to acquire academic language may still bar poor and minority children from power in society, but acquiring academic language (and showing affiliation with school and school-based practices and values) is now at least joined by other important centers of action.

To get at where some of these other centers of action are, we will need to turn to "new literacies." Just as we educators are beginning to get a handle on the issues connected to poor and minority children acquiring the languages and identities connected to schooling, our new capitalist, high-tech, global world is changing the nature of identities at play in the world and their connections to literacies and knowledge.
The old and the new capitalism

The sort of capitalism we associate with the great economic success of the United States after World War II we can call the “old capitalism.” It is the capitalism of large industries and assembly lines. The old capitalism (Drucker 1999; Kanigel 1997) is a social formation that has been transformed by our current high-tech, global world (see Castells 1996; Gee et al. 1996; Greider 1997; H. Smith 1995; Reich 1992). The old capitalism did not disappear; it still exists as a foregrounded formation in the “developing world” (where many of the developed world’s industrial jobs have “disappeared” to) and as a backgrounded formation in the “developed world” (Drucker 1999; Greider 1997).

Thanks to people like Fredrick Winslow Taylor (Kanigel 1997), work in the old capitalism came to be carried out at a pace and in terms of procedures determined by a “science” of efficiency, not by workers themselves. The craft knowledge of the workers (who had, before the Industrial Revolution, often worked at their own pace as craftspeople in their own shops and homes) was removed from the workers’ heads and bodies and placed into the science of work, the rules of the workplace, and the knowledge of managers and bosses. A top-down system was created in terms of which knowledge and control existed at the top (the bosses) and not at the bottom (the workers). Middle managers conveyed and mediated knowledge, information, and control between the top and the bottom. This became, too, pretty much how knowledge was viewed in schools: knowledge was a system of expertise, owned by specialists, and imposed top-down on students.

“Taylorism” was actually an improvement. Capitalism prior to the twentieth century was often based on bosses enforcing their will on workers by intimidation backed up by laws that supported those bosses and not the workers. Taylor replaced the rule of force by “scientific” principles of efficiency that determined how work could be done most efficiently and effectively. Such principles would replace both the thuggery of the bosses and the craft knowledge of workers. Henry Ford’s assembly line became the epitome of this process. Workers didn’t think; they simply carried out pieces of a job – the whole of which they didn’t understand – in the most routine and efficient way possible.

In a sense Taylorism “worked.” It eventually made workers “middle class” as it spread the gains of productivity to much of society. What allowed a relatively peaceful “stand off” between workers and managers in the old capitalism was its great success in producing commodities (Rifkin 2000; Thurow 1999). Commodities are standardized products that become inexpensive enough to be widely available. Eventually even workers possessed many of the commodities – cars, televisions, refrigerators – that characterized a middle-class lifestyle at the economic level.

However, by the 1970s advances in science and technology allowed modern conditions of work and the mass production of commodities to be carried out successfully in a great variety of countries, even in some so-called “developing
countries." The result was (and is) a global overproduction of commodities and hyper-competition for consumers and markets across the globe (Greider 1997; Thurow 1999). The production of commodities (which, of course, continues and will continue across the world) becomes a backgrounded part of the new economy: one that, in general, cannot reap great profits (unless one is first into a market with a new commodity).

In many cases jobs manufacturing commodities have moved to "developing" countries, where wages and constraints on things like pollution are low. In turn, developed countries have grown massive numbers of jobs requiring technical knowledge (so-called "knowledge work") and service jobs. Such jobs support the more profitable endeavors in the new capitalism, namely the creation of technical knowledge and the provision of personal services to well-off people.

In the new capitalism the biggest profits come not from commodities (which are cheap and can be produced anywhere - so there's lots of competition), but from designing new services, new products, and new knowledge for different niches, markets, and lifestyles. Often people buy such services, knowledge, or products not based on price, but on the status they are associated with. Think of the upper-middle-class parents driving down the road in their tank-like Hummer taking their middle-school child to his or her once-weekly meeting with a counselor who helps prepare the child to get into an elite private college. The family is not cost-conscious about the Hummer, the counselor, or the college. Furthermore, while low-priced cars are still a commodity (one produced throughout the world now), Hummers and other niche vehicles are not (they are well out of the reach of most people).

There is another result as well: many workers cease to be "middle class" (Beck 2000). The new industrial worker, and the many other sorts of non-middle-class workers to which the new capitalism gives rise, especially temporary and service workers, can no longer afford to live in the sorts of communities, or to live with the degree of stability and security, that made workers in the old capitalism feel securely middle class (Rifkin 1995). This is despite the fact that, in the new capitalism, workers are often asked to think and act more proactively in the business's interest: there is a movement to place the sorts of knowledge and control normally reserved for middle managers back into worker's heads and bodies (whence Taylor had taken them) (Drucker 1999). In turn this has imperiled many middle managers, whose knowledge and supervisory tasks can readily be taken over by front-line workers.

Putting knowledge back into the workers' heads allows the worker to do what the old worker and the middle manager used to do, thereby making the workforce "lean and mean" in a highly competitive age. In modern auto assembly plants the workers work in teams that carry out a whole process, rather than (as in the old capitalism) each individual doing a meaningless piece of the process, disconnected from each other. Workers meet in "quality circles" to discuss how to transform their work to make it better. The worker can stop the assembly line; there is no
need to wait for a boss to make the decision. On the other hand, many auto
workers are out of work, their jobs replaced by robots.

Much work in the new capitalism involves teams and collaboration, based on
the idea that in a fast-changing environment, where knowledge goes out of date
rapidly and technological innovation is common, a team can behave more smartly
than any individual in it by pooling and distributing knowledge. Furthermore, in
the new capitalism work is more and more project-based (Gee et al. 1996; H. Smith
1995). A team comes together to carry out a project, and when the project changes
or is over the team reassembles and many of its members move on to other
projects in the same business or other ones. Security in the new capitalism, such as
it is, is rooted not in jobs and wages, but in what I will call one’s “portfolio.” By
one’s portfolio I mean the skills, achievements, and previous experiences that a
person owns and that he or she can arrange and rearrange to sell him or herself
for new opportunities in changed times.

Identities

So if commodities are not central to the new capitalism, what is? The answer, I
believe, is design (Kress et al. 2001; Kress and Van Leeuwen 2001; New London
Group 1996). There are three types of design that reap large rewards in the new
capitalism: the ability to design new identities, affinity spaces, and networks. These
three types are all deeply interrelated (Gee 2000–1). In turn, people who are adept
at taking on new identities, adept at using and interacting within affinity spaces,
and are well connected in networks will flourish.

Let’s start with designed identities. One type of design typical in the new
capitalism (Rifkin 2000) is the ability to design products, services, or experiences
so that they create or take advantage of a specific identity connected to specific
sorts of consumers (and one and the same individual might constitute several
different types of consumer). In turn, businesses seek through the design of such
identities to contract an ongoing relationship with the consumer in terms of which
he or she can be sold ever newer variations on products and services or from
which information can be leveraged for sale to other businesses. The product or
service itself is not the important element here. After all, many products (as
commodities) are getting cheaper and cheaper to make (as the cost of materials –
and especially computer chips – gets lower and lower) and many services don’t
involve any material things at all (Thurow 1999). What is important is the
identity and relationship that are associated with the product or service.

Let me give just one example, typical of a myriad of others. Consider the
website palm.com, the site of the Palm™ company, which sells handheld computer
organizers. A series of rotating pictures at the top of the site clearly signals the sort
of identity the company wants the consumer to assume (e.g. “Find yourself on the
road to independence,” associated with a picture of the open road, or “Find
yourself on the road to freedom,” associated with a picture of downhill skiing, or
“Follow Wall Street from your street,” associated with a picture of the Wall Street sign. Furthermore, the site contains a link to the “The Palm Community,” where consumers can swap stories, chat with other Palm users, contribute to a discussion board, give advice to other users, get information on related products and links, download free software, and sign up for a free email newsletter. The Palm company is contracting an ongoing relationship with their consumers, placing them in relationship to (networking them with) each other, and creating an affinity group (see next section).

Affinity spaces

Let me now turn to designing affinity spaces. As I argued in Chapter 6, affinity spaces are increasingly important today, both in business and politics (Beck 1999; Beck et al. 1994; Rifkin 2000). Greens, Saturn owners, members of an elite guarded-gate community, users of Amazon.com, skate boarders, poetry rave fans, or Pokémon fanatics all have affinity spaces within which they share practices, patterns of consumption, and ongoing relationships to specific businesses and organizations. An affinity space is a place (physical, virtual, or a mixture of the two) wherein people interact with each other, often at a distance (that is, not necessarily face-to-face, though face to face interactions can also be involved), primarily through shared practices or a common endeavor (which entails shared practices), and only secondarily through shared culture, gender, ethnicity, or face-to-face relationships (see Rose 1997 for an important discussion of the relationships between affinity spaces as a contemporary form of organization and activism and social class). People are brought together through a shared affinity for a common goal, endeavor, or interest, not first and foremost because they are “bonded” to each other personally (which is why we wanted, in Chapter 6, to replace the term “community”).

In an affinity space knowledge is often both intensive (each person entering the space brings some special knowledge) and extensive (each person entering the space shares some knowledge and functions with others). In an affinity space knowledge is also often distributed across people, tools, and technologies, not held in any one person or thing, and dispersed: that is people in the space, using modern information and communication technologies, can draw on knowledge in sites outside the space itself. (Though, thanks to modern technology, in a sense nothing is really outside the space. It’s all a matter of links in a network.)

Finally, in an affinity space much knowledge is often tacit: that is, built up by daily practice and stored in the routines and procedures of the people who use the space. Such knowledge is not easily verbally explicated. New members acquire such tacit knowledge by guided participation in the practices of the space, not primarily through direct instruction outside the practice. The guidance they receive comes not only from more advanced users of the space, but also from various objects, tools, and technologies found in the space, many of which are designed to facilitate and supplement users’ knowledge and skills.
Networks

Finally, let me turn to designing networks. Another crucial aspect of design in the new capitalism is networking people and organizations (Kelly 1998). Networking involves designing communicational links between people and organizations. It also crucially involves creating links between people and various sorts of tools and technologies. These tools and technologies not only help create the communicational links that constitute networks; they are themselves nodes in the network in which knowledge is stored and across which it is distributed (together with people’s minds).

In fast-changing times and markets the more nodes to which one is connected the more information one receives and the faster one can adapt and change. Networks harness the power of unfamiliarity. If people or organizations are networked only with people or organizations like themselves, then everyone in the network pretty much knows what everyone else knows and there is nothing very new to be learned. In slow-changing times, this is fine – maybe even good – since a common core of knowledge can be ever refined. On the other hand, if people or organizations are networked with diverse others, then they are going to learn and keep learning new things – things not already in their own repertoire of knowledge and skills. In a fast-changing world, the power of network links to unfamiliar people and organizations is crucial.

Networks that leverage the power of unfamiliarity often have to be large and diffuse, and many of the links are relatively weak links, unlike the strong bonds that people tend to have with those with whom they are familiar and with whom they share a good deal. We come more and more to live in a world of many weak links, rather than a few strong ones. This is aided and abetted by the increased mobility of many people in the new capitalism: people who move, either physically or virtually, from place to place, creating multiple diffuse weak links to other people and organizations (Bauman 1998). In fact, in the new capitalist world, mobility is a form and source of power. The mobile classes often leave it to the locals (people who cannot get out or who have few links beyond their area) to clean up (or live with) the messes they have left behind.

Millennials

There is a generation of children today who have lived their entire lives in the new capitalism. These children are part of a new baby boom – a generation that has been called by many names: e.g. Generation Y, Generation XX, Echo Boom, Generation Next, the Bridger Generation, Generation 2K, Millennials, and so forth (Howe and Strauss 2000; O’Reilly 2000). At the earliest, these children were born in 1982 (and this only for the United States, where the trends that gave rise to Millennials happened earlier than elsewhere – in other places in the world they are not yet in their teens; see Howe and Strauss 2000: ch. 13).

One interesting way to begin to get at the different sensibilities of many (though
of course, not all) Millennials in comparison to Baby Boomers (people like myself who were initially socialized within the old capitalism and lived through the upheavals of the 1960s and the chaotic dawning of the new capitalism) is to look at the television programs that are helping to socialize the Millennials. Many Baby Boomers can’t stand shows like Barney & Friends and Blue’s Clues, but they rather like Sesame Street. Young Millennials like Sesame Street, especially the Muppets, but they also like Barney and Blue’s Clues, often more than Sesame Street.

Let me take a moment to contrast Sesame Street (first aired in 1969) with Barney & Friends (first aired in 1991) and Blue’s Clues (which within months of its first airing in 1996 was trouncing Sesame Street in the ratings, see Gladwell 2000: ch. 3). The themes that emerge from this analysis, by and large, replicate themes that emerge from a contrast between the Baby Boomer generation and the Millennial generation, a topic to which I will turn briefly in a moment. Below, I reprint material from the shows’ websites about their respective philosophies. I have italicized words that I believe are particularly important for the following discussion:

Sesame Street

http://www.sesameworkshop.org/faq/answers/0,6113,0,00.html

designed to use the medium of television to reach and teach preschoolers, and give them skills that would provide a successful transition from home to school. The show gave children a head start and provided them with enough confidence to begin learning the alphabet, numbers, and pro-social skills ... Everything about the series was a departure from previous children's television programming - from its format to its focus on disadvantaged inner city children, to the way it combined education and entertainment.

Barney & Friends

http://www.pbs.org/barney/html/Philosophy.html

The programs are designed to enhance the development of the whole child - the cognitive, social, emotional, and physical domains ... A strong emphasis is put on prosocial skills such as making friends, sharing, cooperating, and using good manners.

Blue’s Clues

http://www.nickjr.com/grownups/home/shows/blue/blues_play_to_learn.jhtml

Play-to-learn is the essence of Blue’s Clues. Blue’s Clues was created to celebrate the life of a preschooler - who they are, what they know, and how they experience and learn from everything that they do ... Every episode is developed to fulfill the mission of the show: to empower, challenge, and build the self-esteem of preschoolers all the while making them laugh.
Sesame Street is devoted to the transition from home to school, especially in respect to "disadvantaged inner city children." Note that "pro-social skills" for Sesame Street are part of a list of school-based things like literacy (the alphabet) and numeracy (numbers). "Pro-social" here appears to mean "knowing how to behave in school." Sesame Street is, in many respects, a quite overt form of early schooling, a kind of Head Start program all of its own.

Sesame Street combines real people and Muppets in an urban-looking three-dimensional space. It is replete with an often wryly humorous subtext directed at adults (e.g. Monsterpiece Theater) and uses a good deal of metaphorical language and language play that only adults can understand. Sesame Street displays, foregrounds, and celebrates social and cultural differences. In fact, the celebration of difference is one of its major themes.

Barney & Friends is not primarily about making the transition from home to school, though it embeds in its shows things like counting or learning shapes. It is primarily about the "whole child" and "prosocial skills" in the sense of cooperation and community, not in the sense of knowing how to behave in school per se. It contains a good deal of play, song, dance, and other sorts of movement of the body, and less school-type language than Sesame Street. Like Sesame Street it combines real people and fantasy figures, but in a suburban, or even rural, context, not an urban one.

Barney & Friends has little or no subtext directed at adults and engages in little or no metaphorical language of the sort only an adult could understand. While Barney & Friends displays children of different ethnic groups, it does not foreground social or cultural differences. Rather, one of its major themes is commonality and what makes children the same.

Blue's Clues (in which children solve a puzzle using three clues in each episode) takes Barney & Friends one step further. It is overtly about "playing to learn," much like Barney, which often seems to be about "singing and dancing around to learn," and thus in a sense overtly juxtaposes itself over against or contrasts itself with school (which is not to say it is anti-school). It celebrates the life of a preschooler and what preschoolers are and know as they are now, not as they will become in the future. It is about "empowerment," where "empowerment" means feeling smart and being willing to take on intellectual challenges.

Blue's Clues combines one real person (originally "Steve," now gone from the show) with fantasy. Like Barney, it is filmed in a setting that looks suburban or even rural, but the setting is two-dimensional. It looks like a child's magazine or book in bright primary colors, not like the real world (e.g. the dog "Blue" looks like a cut-out of a child's drawing of a blue dog).

Blue's Clues entirely eschews adult-directed subtext and metaphorical language. Characters are named quite literally (e.g. "Blue," a dog that is blue; "Shovel," a shovel; "Pail," a pail). The host often directly faces the camera and interacts with the show's child viewers, giving them ample time to answer his queries and comments. While Blue's Clues very occasionally shows culturally diverse children (it rarely shows any humans besides the host), it has next to nothing to do with
difference, diversity, or commonality. It is primarily focused on the socially situated cognitive growth of children in interaction with an adult and his cognitive "mediating devices" - characters like Blue, Shovel, Pail, and Soap, as well as tools like a notebook in which to keep a record of the clues, all of which help the child solve the problems (see the interview with Alice Wilder, director of research for Blue's Clues, who makes it clear that the show has been influenced by recent theories of situated cognition, at http://www.nickjr.com/grownups/home/shows/blue/inside/alice_wilder_interview.jhtml).

Sesame Street is designed to entice the parent to watch with the child, assuming the parent (perhaps a poor disadvantaged urban mother) might not. Sesame Street assumes (certain) kids need a head start for school - a head start they may not get in their homes (perhaps poor disadvantaged urban homes). Barney and Blue's Clues do nothing to entice the parent to watch, but their websites make it clear that they absolutely assume a parent is watching with the child, and in an interactive way. Unlike Sesame Street, Barney and Blue's Clues assume parents are so devoted to their children's interests and development (in the case of Blue's Clues especially their intellectual development) that they do not need a subtext to keep them attending with their child. Barney and Blue's Clues do not assume that children need a head start for school. Rather they assume children will develop through play and that they have homes that will enhance their smartness and add value to their play.

Sesame Street assumes that what children really need they will or ought to get in school or through schooling. It does not compete with school; rather it prepares children for school. Barney & Friends takes place alongside school and is a space that enhances school and schooling. When Barney shows a classroom, it always seems so inert; the displays and activities left over from the school day only really come alive when Barney and the children enact them into communal song and dance after school. Blue's Clues is in a space (Steve's two-dimensional home) completely away from school and, in a sense, it is in competition with school. In many respects, it is better than school. Steve's home, like many of the homes of the children watching Blue's Clues, seems to assume that it has a truer sense of who children are and what they know and need than does school.

Sesame Street, on the one hand, and Barney & Friends and Blue's Clues on the other, orient quite differently towards literacy. Sesame Street overtly stresses and showcases language, literacy, and school skills. Barney & Friends does not stress these things, but rather stresses the body, play, the whole child, sharing, and commonality. Blue's Clues also does not stress language, literacy, or schooling, but rather stresses thinking, problem-solving, and empowerment. In Barney & Friends and Blue's Clues children become literate and smart by being and celebrating themselves. In Sesame Street they become literate and smart by learning school-based skills.

Blue's Clues is, in my view, the ultimate Millennial show for small children. Its practices and values are fully aligned with rhetoric about new capitalist workplaces (Drucker 1999; Gee et al. 1996). New capitalist workplaces (according to this rhetoric) require empowered employees who can think for themselves and who think of themselves as smart and creative people. They require employees
who are good at problem-solving and who can use various tools and technologies to solve problems. In turn, *Barney & Friends* celebrates things like working together (think of work teams and quality circles) and commonality and community (think of corporate cultures and communities of practice) so commonly stressed in the literature on new capitalist workplaces.

*Barney & Friends* and *Blue’s Clues* are also well aligned with the current practices and views of homes attuned to the new capitalism. Such homes see school as only one site—and perhaps not the most important one—for enriching and accelerating their children (Gee and Crawford 1998; Gee 2000; Gee *et al.* 2001). Such homes offer their children a plethora of out-of-school tools, technologies, experiences, activities, and sites for the formation of intellectual and social skills that will equip them for elite higher education and success in the new capitalist world. In line with current neoliberal philosophy, homes that cannot leverage such advantages for their children in the free marketplace are entitled only to the basic skills that “accountable” public schools have to offer “off market” (this argument is made overtly in D’Souza 2001).

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**Boomers vs. Millennials**

Having talked about some of the shows shaping Millennial children, let me now turn to what popular sources have had to say about the contrasts between Baby Boomers (when they were younger) and Millennials (18 at the oldest, but with the heart of their generation younger). I cannot go into details here, but suffice it to say that the “big picture” is something like what I sketch below (Howe and Strauss 2000; O’Reilly 2000; http://millennialsrising.com/survey.shtml). Keep in mind that I am telling here a story that applies to well-off children better than to others, though it does apply to many others as well, thanks in part to the way the Internet and modern media allow trends to spread (and standardize) quickly across diverse groups. In fact the children who express the Millennial trends I discuss below serve as something of an “attractor” for others in their generation (which does not mean that one effect of this is not resistance).

So here’s the story: many Millennials regret the societal fragmentation and extreme individualism to which the Boomers’ earlier assault (in the 1960s and 1970s) on social and governmental institutions gave rise. However, Millennials live in a new capitalist world in which the gap between the poor and the rich has increased. This growing gap has been caused by the very logic of the new capitalism—a logic of increasing returns or a “winner take all” system (Frank and Cook 1995). By and large, many Millennials appear to find this logic acceptable, natural, and inevitable (Gee 2000; Gee *et al.* 2001; Rifkin 2000).

In the new capitalism, the increase of technological and scientific innovations, the rise of immigration, increases in global trade, and the ability of businesses to get workers at the lowest price across the globe have widened the market-determined difference between high and low wages (Greider 1997; Thurow 1999). Over the Millennial childhood, Millennials have seen workers with high
educational credentials gain more and more income, while they have seen poor people and immigrants fill unskilled labor positions and the massive supply of service jobs.

All this has created something of a paradox for the Millennials. They want to stress commonality, community, conformity, responsibility, and civic duties, while they also want to accept as natural large disparities between the rich and the poor, even to the point of accepting as natural the existence, power, and status of an overclass. Of course this paradox exists in large part because Millennials have seen Baby Boomers in their Yuppie guise (attained when many of them gave up their 1960s rebellion for success in the Reagan neoliberal frontier) come to accept and even celebrate this overclass themselves (Howe and Strauss 2000: p. 109).

The acceptance and importance of this overclass is, perhaps, one reason many parents today seek to control their children's time and attention so tightly (Millennials show a significant decline in the amount of time they spend in unstructured activity compared to Gen-Xers as children; see Howe and Strauss 2000: pp. 134, 170–2). Such parents feel they must heavily invest in and control their children if they are to end up successful in the hour-glass social structure that constitutes the new capitalism (lots of rich and poor at the top and bottom, and fewer and more vulnerable people in the middle).

It is interesting that polls show that even well-off Millennials like school less with each passing year, but accept it as necessary for their future. (Public Agenda 1997; Howe and Strauss 2000: pp. 162, 166, 182). Many Millennials see success in school as necessary for the future precisely because they (and their parents) are aware of the role that educational credentials, especially from elite institutions, play in the new capitalist world. At the same time they are well aware that many of the core credentials, skills, experiences, and identities necessary for success in that world are not gained in school, but rather outside school at home, in activities, camps, travel, and on the Net.

In terms of how Millennials answer surveys, diversity appears to function quite differently for them than it did for the Baby Boomers (Howe and Strauss 2000: ch. 10). The Baby Boomers lived in a world in which the great divide was between black and white and race was the key social issue. In the world in which Millennials live diversity doesn’t mean black or white; it means a great many shades of white, brown, and black: Chinese, Vietnamese, Koreans, Japanese, Malaysians, Asian-Americans, Mexicans, Mexican-Americans, Indians, Guatemalans, El Salvadorians, Colombians, Peruvians, etc. and etc. through a very long list indeed (and each of these groups comes in many types, income levels, and colors). This is not to claim that race is not objectively crucial in the world still, only that, at least according to surveys, Millennials answer in ways that seem to show that they pay less attention to race (in terms of black and white) than do (or did) Baby Boomers, and more attention to a wider array of types of diversity.

In the Millennials’ world, segregation is increasing, both in communities and schools (and on television, where blacks and whites now watch quite different shows). But for the Millennials segregation is defined more by income than race
SHAPE-SHIFTING PORTFOLIO PEOPLE

(Howe and Strauss 2000: p. 220). Boomer and Gen-X parents appear to have less and less interest in raising their children in multicultural settings, in part because, while they tend to accept cultural diversity as a value and still care about civil rights, they do not want their children mixing with poor children of any sort.

Gender works differently for Millennials as well (Howe and Strauss 2000; Ch. 10; Gilbert and Gilbert 1998). In schools girls, in nearly every area, are showing more progress than boys. In fact some colleges are beginning to see fewer and less good applications from boys, and more boys dropping out. Even in areas like math and science where boys are still ahead of girls, the girls are fast catching up. Girls appear to be the cultural leading edge of the Millennials, with many Millenial boys caught between following the lead of the girls or retaining the behaviors of Gen-Xers.

Shape-shifting portfolio people

The new capitalist literature calls for what I have elsewhere referred to as “shape-shifting portfolio people” (Gee 1999b, 2000). Shape-shifting portfolio people are people who see themselves in entrepreneurial terms. That is, they see themselves as free agents in charge of their own selves as if those selves were projects or businesses. They believe they must manage their own risky trajectories through building up a variety of skills, experiences, and achievements in terms of which they can define themselves as successful now and worthy of more success later. Their set of skills, experiences, and achievements, at any one time, constitutes their portfolio. However, they must also stand ready and able to rearrange these skills, experiences, and achievements creatively (that is, to shape-shift into different identities) in order to define themselves anew (as competent and worthy) for changed circumstances. If I am now an “X,” and the economy no longer needs “X”s, or “X”s are no longer the right thing to be in society, but now “Y”s are called for, then I have to be able to shape-shift quickly into a “Y.”

In earlier work I have argued that well-off teens today see home, community, school, and society in just such terms (Gee 1999b, 2000; Gee et al. 2001). They seek to pick up a variety of experiences (e.g. the “right” sort of summer camps, travel, and special activities), skills (not just school-based skills, but a wide variety of interactional, aesthetic, and technological skills), and achievements (honors, awards, projects) in terms of which they can define themselves as worthy of admission to elite educational institutions and worthy of professional success later in life. They think and act, from quite early in life, in terms of their “résumé.” Note that school (or at least the classroom at school) is not the only, perhaps not even the central, site for filling up one’s résumé.

Shape-shifting did not start with the Millennials. In fact, as the old capitalism gradually turned into the new, and neoliberalism became hegemonic in much of the Western world, there were calls for such people (e.g. Boyett and Conn 1992; Drucker 1989; Handy 1989; Peters 1987), many of them caused by the success of Japan in the 1980s. Of course at the time this often meant adults were being asked
to think of themselves in new ways. On the other hand, the Millennials are a
generation in which there are wide-scale expectations, at least among many
middle- and upper-middle-class families, that children will think of themselves
and build themselves in this way from the earliest ages. The old capitalism left a
good deal of space for someone to enter the middle class without being a shape-
shifting portfolio person (think of all the secure union jobs that paid middle-class
wages). The new capitalism leaves much less space in this regard.

Class means something different in the new capitalism than it did in the old.
In the old capitalism there was a broad and massive "middle class" defined by
one's ability to consume standardized commodities. In the new capitalism class is
defined by the nature of one's portfolio, the sorts of experiences, skills, and
achievements one has accrued (which one shares, by and large, with the "right"
sort of people) and one's ability to manage these in a shape-shifting way. One's
portfolio surely correlates with one's parents' income (though by no means
perfectly), but what matters is the portfolio and the way in which it is viewed and
managed. If you have no portfolio or don't view yourself in portfolio terms, then
you are at risk in the new capitalism.

Diverse Millennials

To many it may seem as if my talk of Millennials only applies to well-off young
people, perhaps even only well-off white young people. However, lots of young
people today who are not well-off or white display Millennial viewpoints and
aspirations. Let me briefly discuss but one example. Wan Shun Eva Lam in her
excellent article "L2 literacy and the design of the self" (2000: all page numbers
following are to this article) discusses a case that is not at all untypical in a
Millennial generation, 35 percent of whom are non-white or Latino (Howe and

Lam's focal student, whom she calls "Almon," emigrated at the age of 12 from
Hong Kong to the United States. After five years in the USA, Almon was
frustrated by his skills in English. School only offered him ESL (English as a
second language), bilingual, or remedial courses, which stigmatized him as a "low-
achieving student" (p. 466). Almon felt that it was going to be hard for him to
develop his "career" (his word, p. 467) in the United States because of his English
skills. However, eventually Almon got involved with the Internet, created his
own personal home page on a Japanese pop singer, "compiled a long list of names
of on-line chat mates in several countries around the world, and was starting to
write regularly to a few e-mail 'pen pals'" (p. 467). Almon's Internet writing
eventually improved his writing in school significantly.

After his experiences with and on the Net, here is how Almon talked about
himself and his future:

I'm not as fearful, or afraid of the future, that I won't have a future...
there's nothing to be afraid of. It really depends on how you go about it. It's not like the world always has power over you. It was [names of a few chat mates and email pen pals] who helped me to change and encouraged me. If I hadn't known them, perhaps I wouldn't have changed so much...

... Yeah, maybe the Internet has changed me.

(p. 468)

Almon had chosen to settle his home page in the "Tokyo" section of GeoCities (an international server) where a global group of Asians (of all different sorts) gathers around Japanese pop culture. Almon's online chat mates were located in a wide variety of places, such as Canada, Hong Kong, Japan, Malaysia, and the United States.

Almon's story is one variety of a typical Millennial story. He thinks in terms of his career and future and evaluates his current skills and experiences in that light. He gains his most important skills, experiences, and identities, including even school-based skills, outside of school (indeed school stigmatizes and deskills him). Though I have not discussed the matter above, Lam makes it clear that Almon's pen pal relationships are mainly with girls and that his remarks take on some of the values and perspectives that these girls enact on the Net (see pp. 473-4). Finally, he forms his new identities as part and parcel of an affinity group.

Lam argues that the genre of electronic dialogue, as a form of communication that relies heavily on writing, "constitutes a highly visible medium for the scripting of social roles" (p. 474). She points out that many of Almon's postings to his female interlocutors "sound both very personal and very much like role play". Almon not only gains new skills and develops new identities on the Net, he also learns to shape-shift: to enact different social roles by designing representations of meaning and self through language and other symbol systems, e.g. music, graphics, emoticons (New London Group 1996).

There is no doubt that Almon, regardless of his economically based social class, is building a portfolio and learning to think of himself in entrepreneurial terms (in the creation of his own website and in his sense of free agency and control over his own destiny) and in shape-shifting terms. Connected in an affinity-space way as he is to a young Asian diaspora, many of whom are, rich or poor, core Millennials, Almon is not at the margins (except in the eyes of the school), but at the center of the new capitalist world.

A note on learning in the new capitalist world

One important theme in the world in which Millennials are growing up is, I believe, this: thanks to modern technology, young people today are often exposed outside of school to processes of learning that are deeper and richer than the forms of learning to which they are exposed in schools. I do not have space here to develop this theme very fully. Let me give but one example of what I mean.

In recent work (Gee 2003), I have been investigating the principles of learning.
that are built into video and computer games. Video and computer games are today a major cultural practice of young people – the video and computer games industry now outsells the movie industry (Poole 2000). Video and computer games are prototypical high-tech products of the new capitalism, and the businesses that make them, in a highly competitive market, cannot have lots of people fail when they try to learn to play them (just as the makers of Blue’s Clues have to get their research about what children want and can do right or go out of business).

Taking modern first- and third-person shooter games as an example (e.g. Half-Life, Metal Gear Solid, Deus Ex, System Shock 2), here are just a few (there are many more) of the learning principles that the player is (however tacitly) exposed to in learning to play these games. Learning is based on situated practice; there are lowered consequences for failure and taking risks (you’ve saved the game and can start over); learning is a form of extended engagement of self as an extension of an identity to which the player is committed; the learner can customize the game to suit his or her style of learning; the learning domain (e.g. a training module connected to the game) is a simplified subdomain of the real game; problems are ordered so that the first ones to be solved in the game lead to fruitful generalizations about how to solve more complex problems later; explicit information/instruction is given “on demand” and “just in time” in the game world; learning is interactive (probing, assessing, and re-probing the world); there are multiple routes to solving a problem; there are intrinsic rewards (within the game) keyed to any player’s level of expertise; the game operates at the outer edge of one’s “regime of competence” (always doable with the resources you have at that point, never too easy); “basic skills” are not separated from higher-order skills – both are picked up bottom-up by playing the game or several different games of a given type or genre; the meaning of texts and symbols is situated in what one does, and is thus never purely verbal or textual; meaning/knowledge is built up through various modalities (images, texts, symbols, interactions, abstract design, sound, etc); meaning/knowledge is distributed between the player’s mind, the objects and environments in the game world, and other players (who help); knowledge is dispersed as players go online to get help and discuss strategy; players use affinity spaces dedicated to a particular game or type of game for learning; the game constitutes a complex designed system and the player orients his or her learning to issues of design and the understanding of complex systems.

I could go on, but the point I hope is clear: imagine young people who have been immersed in this sort of learning coming to school to acquire academic language top-down in a setting remote from practice or affinity groups. Such young people experience much better viewpoints on learning in their “trivial” (from a Baby Boomer’s perspective) cultural pursuits than they do in the schools. Baby Boomers largely control. I should mention, too, that while school-based Baby Boomers give lip service to multicultural diversity and understanding, they rarely extend this understanding to the generational, peer-based, and popular cultures of the young people in school.

At the same time, it is clear that some of the learning principles I have just
sketched are often integral to good science instruction (diSessa 2000), when such instruction seeks conceptual understanding and not just rote memory of facts. Such learning principles are also supported by a good deal of modern work in cognitive science concerned with how humans learn best (Kirshner and Whitson 1997). They are supported, as well, in much contemporary work on literacy learning that stresses critical and conceptual learning (Freedman et al. 1999; Rose 1999). On the other hand, they are just the sorts of principles that are driven out of schools by our current mania for testing and accountability.

Schools and schooling in the new capitalism

The notion of experience has become crucial in the new capitalist world. Shape-shifting portfolio people leverage distinctive experiences to form their portfolios and to underwrite their claims to distinction. New capitalist businesses often see themselves as primarily selling experiences (and relationships) customized to different consumer identities (Rifkin 2000). Current cognitive science of the sort based on situated cognition argues that people primarily reason, not by logical computations and on the basis of abstract generalizations, but by manipulating records of their actual experiences (Barsalou 1999a, b; Glenberg 1997; Gee 1992 – and remember, Blue’s Clues is explicitly based on such work in cognitive science). You are what you have experienced, and in the new capitalist world distinctive experiences are for sale.

In general, outside of certain narrow spheres (e.g., science), the new capitalism has no great use for the persona of a rational, generalizing, deductive, “generic,” “disinterested,” asocial and acultural pursuer of fact and truth – the persona so central to the old capitalism and modern consciousness (Bauman 1992). Rather it values distinctive identities and skills rooted in distinctive and various (but often class-bound) experiences. At the same time, the new capitalism has no great use for – perhaps even a fear of – diversity centered in ethnic, cultural, and gender differences when these are not defined in terms of market niches. The diversity the new capitalism revels in is the sort of diversity defined by affinity spaces and networks centered in practices that markets create, transform, and sustain. And, in the new capitalism, these are affinity spaces and networks defined by socially and economically distinctive types of knowledge, information, skills, experiences, and lifestyles.

The great barrier today for many poor and minority children (those who come to school without the home-based head start for formal schooling that more affluent children often have), as I see it, is that mastery of academic language and affiliation with school-based values is necessary for success in the new capitalist world, but now this is only a small part of the whole picture. At the same time, the recent standards, testing, and accountability regime has committed schools to supplying all children, especially poor children, with no more (and no less) than “the basics.” This of course fits perfectly with the neoliberal philosophy that underlies the new capitalism.
According to neoliberal philosophy, everything should be on a (free) market and people ought to get what (and only what) they can pay for (Hayek 1996; Sowell 1996; von Mises 1997). If, for humane reasons, there has to be, within a given area, something “off market” (i.e. free or subsidized), then it must be “basic,” otherwise it will encourage people away from the market and disrupt it.

This of course allows children to begin to fill up their portfolios only if they can draw on family, community, or Internet resources, resources from various sorts of private sites and institutions, and school resources now often at the margins of the neoliberal central curriculum (in privileged public schools or private schools – private schools experienced a major increase in enrollment in the 1990s – and in special activities and programs at school). In turn, it leaves children without such resources to fill the huge number of service jobs created by the new capitalism and its distinctive workings of class defined in terms of the consumption of status and lifestyle. In the end, we get the Tale of Two Millennial Cities (Howe and Strauss 2000: p. 109) – a tale not of race, nor of class in traditional terms, but of “kinds of people” – those with and without portfolios, those with small and big portfolios, shape-shifters and non-shape-shifters.

It has not been my intention here to make recommendations for the future. Nonetheless, it seems to me that, for those who care about disadvantaged children, there are two possible courses of action (not necessarily mutually exclusive). One is to give up on public schools, accept their neoliberal function of delivering “the basics” accountably, and work to provide portfolio-forming activities and experiences, as well as political-critical capacities, for disadvantaged children outside of school and at school at the margins of the neoliberal curriculum. The other is to fight the neoliberal agenda and make schools sites for creativity, deep thinking, and the formation of whole people: sites in which all children can gain portfolios suitable for success, but success defined in multiple ways, and gain the ability to critique and transform social formations in the service of creating better worlds for all.

Bakhtinian thoughts

The Russian scholar Mikhail Bakhtin (1981, 1986) captures powerfully how spoken and written words always have two “sources.” One source is the whole set of former utterances, texts, and institutions that have always already given those words meanings in culture and history. The other source is the individual person speaking or writing here and now, projecting onto the words his or her own “slant,” and thereby adding to the cultural and historical possibilities of those words. And the same is true not just of words but of any other signs or symbols, whether they be images, artifacts, graphs, or what have you.

I have nothing novel to add to Bakhtin scholarship. But, nonetheless, I am inspired here by Bakhtin to meditate for just a moment on how one contemporary activity – namely video and computer games – might illuminate some of the ways in which the dynamic between these two sources of meaning works out, especially
in our "new times." Video and computer games are now as influential in the popular culture of young people as are (or were) movies and books (Poole 2000). It is interesting to note that Bakhtin gained many of his insights about language at work in the world from a close study of narration and dialogue in novels. Perhaps we can gain some insights from video and computer games as well.

I will focus my discussion on a game named *Arcanum: Of Steamworks and Magick Obscura*. This is a game that takes place in a (virtual) world where once upon a time magic ("magick") ruled, but where technology has now arrived and magic and machines coexist in an uneasy balance. A variety of different groups – Humans, Elves, Gnomes, Dwarves, Orcs, and Ogres, as well as Half-Elves, Half-Orcs, and Half-Ogres (each of which have one Human parent) – cohabit this world, each orienting to the conflicts between magic and technology in different ways.

Before you start playing *Arcanum*, you must construct your character. Each group and gender has different natural characteristics. For example, each group and gender has its own unique degrees of strength, constitution, dexterity, beauty, intelligence, willpower, perception, and charisma (there are no real inequalities here, just differences – a character from any group you choose can fare well or poorly in the world of Arcanum). Each of these traits will affect how your character (i.e. you) carries out dialogue and action in the world of Arcanum and how other characters in the world respond.

When the game starts you also get five “points” that you can choose to distribute, in any way you wish, to your character, thereby changing his or her “natural” state (for example, a female Half-Elf has a natural strength of 7, but you could use one or more of your five points to make her stronger; the same goes for her other traits). As the game progresses and you gain more worldly experience through various actions in the game, you gain yet more points to distribute, thereby allowing your character to develop in certain ways and not others. These initial and subsequent points can be distributed to your character’s primary traits such as strength and dexterity, but they can also be used to build up a wide variety of other skills, such as ability with a bow and arrow, skill in picking locks, or persuasive skills. They can be used to build up ability to cast a wide variety of magic spells or, instead, ability to build a wide variety of technological apparatus. You can choose to have a character primarily oriented to magic or technology or some mixture of the two. By the time you finish *Arcanum*, moving through many quests and interactions, your character is very different from the characters other players will have built, and the game you have played is very different than what it would have been had you built your character differently, initially and throughout the game.

A game like *Arcanum* involves playing with identities in a very interesting way. Three different types of identity are at stake. First, there is a virtual identity: one’s identity as a virtual character in the virtual world of Arcanum. When I played the game, I constructed my character to be a female Half-Elf named "Bead." In the virtual world of Arcanum, given the sort of creature Bead is (a female Half-Elf) and how I have developed her in the game at any one point, there are things she
can do and things she cannot do. For example, at a certain point in the game, Bead wanted to persuade a town meeting to fund the building of a monument in order to please the mayor of the town. To do this, she needed to be both intelligent and persuasive. Half-Elves are, by nature, pretty intelligent and I had built up Bead to be persuasive during the game (i.e. by giving her points in this area as she gained more experience). So she was able to pull off the task at the town meeting. Thus these traits (her intelligence and persuasive skills) and her accomplishment at the town meeting – for which she received ample praise – are part of my virtual identity as Bead. In the virtual world of Arcanum I was the Half-Elf Bead.

A second identity that is at stake in playing a game like Arcanum is a real-world identity: namely, my own identity as “James Paul Gee,” a non-virtual person playing a computer game. Of course in the real world I have a good many different non-virtual identities. I am a professor, a linguist, an Anglo-American, a middle-aged Baby Boomer male, a parent, an avid reader, a middle-class person initially raised outside the middle class, a former devoted Catholic, a lover of movies, and so on and so forth through a great many other identities. Any one or more of my real-world identities can be engaged, at one point or another, as I am playing Arcanum. For example, which of my real-world identities were at play – positively or negatively – when I got such joy at having Bead pick rich people’s pockets? When I chose to be a female Half-Elf in the first place?

A third identity that is at stake in playing a game like Arcanum is what I will call a projective identity, playing on two senses of the word “project,” meaning both “to project one’s values and desires onto the virtual character” (Bead, in this case) and “seeing the virtual character as one’s own project in the making.” A creature whom I imbue with a certain trajectory through time based on my aspirations for what I want that character to be and become.” This is the hardest identity to describe, but the most important one for understanding the power of games like Arcanum.

A game like Arcanum allows me, the player, certain degrees of freedom (choices) in forming my virtual character and developing her throughout the game. In my projective identity, I worry about what sort of “person” I want her to be, and what type of history I want her to have had by the time I am done. I want this person and history to reflect my values – though I have to think reflectively and critically about these, since I have never had to project a Half-Elf onto the world before. At the same time, this person and history I am building also reflect what I have learned from playing the game and being Bead in the land of Arcanum. A good role-playing game makes me think new thoughts about what I value and what I don’t.

Let me give an example of what I mean. At one point I had Bead sell a ring a dying old man had given her. I regretted this: it was not, on reflection, the sort of thing I wanted the person I desired Bead to be and become to do (and note, too, that what I want her to be and become is not a clone of myself – in my “real” life I don’t pick pockets). It was not an event I wanted her to have in her history – in her trajectory through her virtual life – at the end of the day. So I started the game again. This projected person – the kind of person I want Bead to be, the kind of
history I want her to have, the kind of person and history I am trying to build in and through her – is what I mean by a projective identity. There is a certain Bakhtian tension here between what others have designed (the people who designed the game and the world of Arcanum) and what I myself make of that design through projecting my real-world values and aspirations onto its degrees of freedom. The design existed before I played, but it is inert until I vitalize it with new possibilities.

This three-part play of identities involving a virtual identity, real-world identities, and a projective identity is quite powerful. It transcends identification with characters in novels or movies, for instance, because it is both active (the player actively does things) and reflexive, in the sense that once the player has made some choices about the virtual character, the virtual character is now developed in a way that sets certain parameters about what the player can now do. The virtual character rebounds back on the player and affects his or her further actions.

As a player, I was proud of Bead at the end of the game in a way in which I have never been proud of a character in a novel or movie, however much I had identified with them. For a character in a novel or movie, I can identify with the pride they must or should feel, given what they have done or how far they have come. But my pride in Bead is tinged with pride in myself as well (or it could have been regret, had things turned out differently). But this pride is not (just) selfish. In a sense it is also selfless, since it is pride at things that have transcended – taken me outside of – my real-world self (selves), if I am playing the game reflectively.

Of course, from the standpoint of critical theory, one could readily criticize role-playing games like Arcanum for essentializing traits like “intelligence” and “strength,” or for distributing them differently to different sorts of creatures. It is, of course, not surprising that computer games indulge in the vices of the cultures they inhabit, though they also offer opportunities to reflect on these matters in a novel form. Be that as it may, I will leave cultural critique of computer games to others and to myself for another time.

What I want to concentrate on here is the way in which the three-part play of and with identities I discussed above can illuminate how identity works elsewhere in the contemporary world. In a good science classroom (good by my standards, at least), children are invited to take on the virtual identity of being a scientist of a certain type in words, deeds, and interactions (after all, they are not “really” scientists and are not going to become scientists any time soon – and indeed there are aspects of “real” science and “real” scientists we may not want children imitating). This identity is determined by the values, norms, and design work of the teacher as she or he sets out what constitutes in this classroom being a scientist and doing science.

This virtual identity impinges on and bridges to the real-world identities of different children in the classroom in different ways. Indeed, if children cannot or will not make bridges between some of their real-world identities and the virtual identity at stake in the classroom (here, a particular type of scientist) – or if teachers or others destroy or don’t help build such bridges – then, once again,
learning is imperiled. Children who, for instance, see themselves as members of families that are adept at technical learning may have an advantage, since they can build a powerful bridge between one of their real-world identities ("people like us learn technical stuff – it’s no big deal") and the virtual identity at stake in the science classroom ("scientists in the sort of semiotic domain being created in this classroom do not fear or put off technical learning").

However, active and critical learners can do more than simply carry out the role of playing a virtual scientist in a classroom. They can form a projective identity as well. If learners are to do this, they must come to project their own values and desires onto the virtual identity of "being a scientist of a certain sort" in this classroom. They must, as well, come to see this virtual identity as their own project in the making - an identity they take on that entails a certain trajectory through time defined by their own values, desires, choices, and goals, as these are rooted in the interface of their real-world identities and the virtual identity.

The learners, when they take on a projective identity, want the scientist they are "playing" to be a certain sort of person and to have had a certain sort of history in the learning trajectory of this classroom. They have aspirations for this scientist, just as I had aspirations for Bead when I played *Arcanus*. Perhaps they want their scientist to have had a history of having been persistent, resilient in the face of failure, collaborative, risk-taking, skeptical, and creative. They want their scientist to become this sort of person.

If learners in classrooms carry learning so far as to take on a projective identity, something magic happens – a magic that cannot, in fact, take place in playing a computer game. The learner comes to know that he or she has the capacity, at some level, to take on the virtual identity as a real-world identity. However much I might want to, I myself, in the real world, have no capacity to become the sort of female Half-Elf I wanted and built Bead to be. But a learner in a good science classroom comes to feel what it is like to have the capacity to be the sort of scientist (and person) they have wanted and built their "character" in the classroom to be. This becomes one of their real-world identities.

Learners do not, of course, have to realize this capacity in actuality and become a scientist. They don't even have to feel they could become particularly good scientists - after all, in the projective identity you also learn about your own limitations. It is often enough that they have sensed new powers in themselves. They will, possibly for a lifetime, be able to empathize with, affiliate with, learn more about, and even critique science as a valued, but vulnerable, human enterprise.

Thus what others have designed (a virtual world in a game or classroom) becomes part of myself, my real-world identity - my own uniqueness - when and if I engage in the virtual identity as a project of my own, and not just a role to be played by the rules of the game/classroom (for a win or a grade). My projective identity stands at the border of the social (the virtual world created by others) and myself (my real-world identities, which themselves are the products of my own past projective work). The social and the individual are inextricably linked.
Of course such projective identities are often worked out much more creatively in playing computer games than in studying in classrooms, especially classrooms that stress skill-and-drill, the passive storage of information, and standards that the learner has had no part in forming. In such classrooms there are no degrees of freedom for the projective identity to take wing. As young people face the contemporary demand to be shaping-shifting portfolio people, the sort of play with identity that is characteristic of contemporary forms like video and computer games will be practiced by some more than others, more in some schools than others, and sometimes more outside school than in it. Indeed, access to these technologies themselves will be greater for some than for others (and, thus far, they are recruited little or not at all by schools). What if projective identities turn out to be a central form of learning for our “new times”? What if they turn out to be a key site at which the Bakhtian tension between the social/cultural/historical and the individual works itself out in the modern world? I can offer the questions. I have no firm answers.