



**DISCOURSES IN AND OUT OF SCHOOL:
LOOKING BACK**

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Background: Religion and Theoretical Linguistics

In the mid 1960s, in my early teens, I spent a number of years in a Catholic seminary near my hometown of San Jose, California. The school was isolated, sitting up on a mountain surrounded by a forest. When I entered, it was already over a hundred years old. But today it is gone, destroyed to make way for a suburb. We seminarians were allowed few trips home, no radio, television, or newspapers. The library was small, due not to a lack of resources, but because any book that did not reflect proper orthodoxy, which was most, was banned.

In the seminary, I developed an interest in philosophy when a teacher told us about St. Anselm's "ontological argument" for the existence of God. He told us that down through history the argument had been considered ingenious, but wrong. As a teenager I saw poor Anselm as an underdog and thought how wonderful it would be to prove him right. I tried to learn more about ontology and metaphysics from our library, but to little avail since all books on these subjects were banned. I gleaned a bit from an old encyclopedia and more from books I had smuggled into the seminary with the help of priests on the outside.

I wrote my first "article", a version of Anselm's ontological argument for the existence of God, for a little newsletter the seminarians put out a couple of times before its demise. St. Anselm's argument for the existence of God is purely deductive. It goes like this, using for the most part Anselm's own words (translated by Jonathan Barnes in Barnes 1972):

Now we believe that [God is] something than which nothing greater can be imagined.

... it is one thing for a thing to be in the understanding and another to understand that a thing is [exists].

And certainly that than which a greater cannot be imagined cannot be in the understanding alone. For if it is at least in the understanding alone, it can be imagined to be in reality too, which is greater. Therefore if that than which a

greater cannot be imagined is in the understanding alone, that very thing than which a greater cannot be imagined is something than which a greater can be imagined. But certainly this cannot be. There exists, therefore, beyond doubt something than which a greater cannot be imagined, both in the understanding and in reality.

We can clearly form the concept of a “being than which a greater cannot be imagined”. If this being did not exist in reality, but existed only in our heads, it would not be a “being than which a greater cannot be imagined”, since, we could now imagine a greater being, namely one that existed both in reality and in our minds. Therefore, God (or, at least, a being “than which a greater cannot be imagined”) must exist.

I was thrilled with the pure deductive power of Anselm’s argument (and Descartes’ later version of such an argument). It seemed that by mere words and the rules of logic Anselm had conjured up a striking result, the very existence of God.

Many years later, when I had left the seminary and earned my PhD in linguistics at Stanford University (not far from the seminary), this is part of what attracted me to, and made me into, a Chomskian linguist. Chomsky’s linguistics, too, was based on deducing powerful conclusions from a small set of abstract basic principles, though in Chomsky’s case he added a bit more empirical data to the premises than had Anselm.

From the 1950’s on, Chomsky developed a strong deductive argument that human beings acquired their native languages based on a biological capacity for language (e.g., Chomsky 1957, 1965, 1968, 1975, 1986, 1988, 1995, 2000; see also Gee 1986, Pinker 1994). His argument was based on an empirical claim about the “poverty of the stimulus”, that is, a claim that the data available to the child in the course of language acquisition could never, in principle, by itself, specify the grammar of the language to which the child was exposed.

Since humans do, of course, acquire their native languages, this meant that language is “innate” in humans in the sense that humans are born with innate knowledge of what a human language can look like. Based on the initial language data to which they are exposed and barring unnatural strictures, language unfolds in humans according to a biological plan, much in the way human feet or hearts develop (of course, one can deform

feet by binding them or language by putting children in closets). This implies, of course, that at some suitable level of abstraction all human languages are similar, despite superficial appearances to the contrary.

Chomsky was arguing, therefore, that, at least in regard to language, there is such a thing as “human nature”. All humans share the same biological capacity for human language and this is part of what makes them human. Languages cannot differ in any old way, arbitrarily across the board, as the structuralist linguists before Chomsky had believed (e.g., Bloomfield 1933), but are, at root, basically the “same”.

Chomsky also argued (1971, 1975, 1976, 1986, 1987, 1988) that humans may well also have a biological capacity for—a shared inheritance in regard to—things other than language. They may well share, again at a suitable level of abstraction, a common capacity for common sense and ethics. Here, too, there may be more similarities than would appear from a superficial view. This common human capacity for common sense and ethics is what allows all human beings to lead their lives and think for themselves when left suitably free from the strictures and constraints of governments, churches, ideologies, and other institutional forces. These forces often seek to constrain people in the service of those with power and status in society. These forces often serve, much like foot binding, to deform people’s natural abilities and inclinations.

Chomsky has claimed that there cannot be a true science of the social and cultural (1971, 1975, 1976, see especially 1982). For Chomsky, it is just an evolutionary accident that we humans can do science in some areas like physics. Being adept at understanding physics could never have been selected for in evolution, since knowing about things like quarks could never have given anyone a selective advantage in the state of nature. Our ability to do physics must have taken a free ride on some other mental ability that was directly selected for (in the sense that the ability to do physics arose because the neural structures that subserve it were accidentally a by-product of this other directly selected for ability—(Pinker 1994 disagrees and argues that language was directly selected for). Such a “happy” accident did not occur, Chomsky argues, in the case of areas like seeking to understand art or social affairs in a rigorously scientific way. Perhaps, Martian evolution was different and they have a rigorous science of the social, but cannot comprehend physics in any deep way.

However, I have always believed that Chomsky would not have wished there to be a science of the social, even if one could have, in his mind, existed. He believed that if any such science did exist, it would just be used by those in power to manipulate others in the interest of the powerful. Indeed, this is what Chomsky thought of behaviorism, a movement he did not think was scientific (1959), but would not have wished to exist even if he had thought better of it as an intellectual enterprise.

Chomsky, then, can be seen as arguing for a notion of human nature in regard to language and other aspects of human existence. The two sides of the argument are different, of course, since Chomsky is arguing for a linguistic human nature as a professional linguist engaged in science (as he sees it), but more speculatively for a human nature in regard to common sense and ethics (a nature that allows humans to intelligently choose their own destinies in no need of institutional control) as a concerned citizen not then engaged in (what he sees as) rigorous science.

When I took my first job in linguistics, in the School of Language and Communication at Hampshire College in Amherst, Massachusetts, I quickly found out that the notion of human nature was out of favor among social scientists of the 1960s and 70s. Hampshire had a good many Marxists and Marxist feminists and they abhorred the idea of human nature. They saw it as the historical foundation of racist arguments that some groups of people (e.g., Africans) were “naturally” (that is, in biological terms) inferior to other groups (e.g., Europeans). Of course, Chomsky’s notion of human nature is about the important things that all people share as human beings, things sometimes obscured by the work and manipulations of institutions that seek to constrain that nature or transform it.

This is an area where I have, over the years, differed from my more anthropologically and sociologically inspired colleagues. They have sought to stress differences, while I have been more impressed by similarities. For me, people and cultures are more similar than they are different. Thus, what has most interested me is the massive amount of work that people and institutions put, and have put, into making relatively small differences function as large and important ones, usually in the interests of power and privilege for some and not for others.

As an example, consider so-called “Black Vernacular English” (“Ebonics”). In my view, this dialect is, by linguistic standards (certainly in comparison to dialect differences in places like Italy and Germany) trivially different from so-called “Standard English” (and this despite the fact that it does, indeed, show African influences in its phonology, syntax, and discourse features). What interests me is the massive amount of social and political work that has gone into (and still goes into) making this relatively small difference operate as a major barrier and significant social “problem” when it by no means ever needed to do so. This model seems to me to apply widely to other linguistic, social, and cultural differences.

So, I bought (and buy) Chomsky’s argument about human nature, though I now think Anselm’s argument (sadly) wrong. Besides making a connection between Anselm and Chomsky, in my youth, I came, many years later, to realize that I had felt, but not acknowledged, a connection between the Catholicism in which I grew up (a particular Orthodox variety) and Chomskian linguistics. In both cases, it was important and consequential that one got recognized, and recognized others, as a Catholic (of the “right” sort) or a Chomskian linguist (of the “right” sort).

Chomskian linguists—many of them then, of course, young, arrogant, and brash—often believed that scholars who pursued social, culture, or humanities oriented work, most especially linguists who did so, were inferior, engaged in a lesser (even silly) enterprise, one that lacked rigor. These issues eventually became even more personal to me. For years after leaving theoretical linguistics to work on the social and cultural aspects of language, I felt two identities inside myself, and one looked down on the other. The theoretical linguist inside me looked down his nose at the sociolinguistic inside me for many years. I knew exactly what attitudes, values, and words to adopt with which to castigate my sociolinguistic self. I was my own tension-filled linguistics department. I don’t say that this tension was all bad; in fact, in its own way, it was productive. Indeed, I later came to see it as a dramatic example of what is a typical phenomenon for many people in our society, for example, the middle-class person with working-class origins (a tension I knew as well). Later, when I worked on issues of language, race, and schooling, these sorts of tensions were an obvious part of the analyses.

All of this made me interested in “recognition”. I came to see that a great deal of the social work people do is devoted to trying to get recognized, and to recognize others (or refuse to), as having some specific socially-situated and consequential identity. Such recognition is open to negotiation, is tension-filled, subject to change and cancellation, in some cases more clear cut than in others. Whether it is a five-year-old seeking to get recognized as a “good student” in Ms. Smith’s kindergarten, a young Assistant Professor seeking to get recognized as a “respected Chomskian linguist”, a Los Angeles cop seeking to get recognized as a “tough cop”, or an Native-American seeking to get recognized as a “real Indian” (an emic phrase, see Wieder & Pratt 1990), the process is, at a theoretical level, the same. I later came to call all of these “Discourses” with a capital “D” (“big D Discourses), using the capital to distinguish Discourse in this sense from “discourse” (with a little “d”) which just meant instances of language-in-use (Gee 1990, 1992, 1999).

Big D Discourses are ways of using language, acting, interacting, valuing, dressing, thinking, believing, and feeling (or displaying these), as well as ways of interacting with various objects, tools, artifacts, technologies, spaces, and times so as to seek to get recognized as having a specific socially consequential identity. Of course, we can recognize people as bidding for and having social identities that we don’t ourselves want or know how to enact (e.g., a neo-Nazi or neo-conservative fundamentalist). And, remember, this is all about recognition, and recognition is a probabilistic, negotiated, changeable thing. Someone can get recognized one way one on one occasion and not on another (Wieder & Pratt 1990).

So think of all the “ways with words, deeds, things, thoughts, and feelings” you would have to “pull off” to get recognized in a particular first grade as a “good student” (the issue goes right down to how you hold a pencil!) or “a good initial reader” (it goes right down to what you do with your finger!). Of course, these matters vary with different schools, classrooms, and communities. A first-grade teacher is creating a Discourse in her classroom (a way of being/doing a first-grade student and the various sub-identities like being or not being an “emergent reader” or a “real reader” that this involves), similar to other ones elsewhere, but not identical.

In any Discourse—being a first grader or a cop in L.A.—there are a number of related identities and sub-identities at stake (e.g., “good student”, “gifted”, “special”, “poor reader”, etc.; “tough cop”, “good cop”, “veteran cop”, “rookie”, “good partner”, etc.). These identities form a family that cluster in the Discourse, mutually supporting and reinforcing each other, creating the warp and weave of the Discourse. Note, as well, that Discourses are not like boxes in which something is clearly in or out, but like waves in which it is clear where the middle is, but never really clear where the margins start and stop.

Sharing Time and Discourses

In 1982, I moved from my first academic position at Hampshire College in Amherst, Massachusetts, where I had taught syntactic theory, to a position in applied linguistics in the Applied Psycholinguistics Program at Boston University. This move was an accident twice over. First, it was occasioned by the fact that at Hampshire I had gotten interested in areas like stylistics (linguistics applied to literature) and discourse analysis, both of which were remote from the work in syntax I had been pursuing. I did this to entice students at Hampshire, a liberal college with no grades or course requirements, to take linguistics, hoping to move them from these “soft” areas to the “real” stuff (i.e., syntax). Things worked the other way round, I moved to the “soft” stuff.

Second, I had not realized that the Applied Psycholinguistics Program was in a School of Education (it later moved out). My colleagues told me this was an historical accident and I should just ignore the educators around me. That was hard to do. It quickly became clear to me that these educators were sitting on top of truly “hot” and important issues—issues, as Levi-Strauss might have put it, “good to think with” (in much the way that certain foods are good for your body to eat).

Early in my time at Boston University, my fellow faculty member David Dickinson introduced me to Sarah Michaels, then working at Harvard. Sarah showed me data she and others had collected on first-grade “sharing time” sessions in schools. Sarah and her colleagues had found that some African-American children gave sharing time turns that were quite different from those of the Anglo children in the classrooms

(Cazden 1985, Michaels 1981, 1985; Michaels & Cazden 1986; Michaels & Collins 1984; Michaels & Cook-Gumperz 1979). These African-American children told what Sarah came to call “topic-associating” stories, while the Anglo children (and some of the other African-American children) told “topic-centered” stories. Topic associating stories were ones that appeared to move from topic to topic while the unifying theme had to be supplied by the listener. Topic centered stories (which were usually not really stories, but reports, such as an “event cast” of a trip to a swimming pool, or procedures, such as the steps involved in making a candle) were ones that focused on and developed one unitary topic.

The African-American children’s sharing time turns were not well received by their teachers. The teachers thought the children were rambling on and not making sense. They often instituted a rule that each turn had to be about “one important thing” and felt the African-American children often violated this rule. On the other hand, teachers could interrupt and work with the Anglo children, though not the African-American ones, in a sort of dance in which they helped scaffold a piece of language that, while spoken, was explicit and topic-focused in the way in which we expect school-based writing to be. Indeed, Sarah and her colleagues argued that these sharing time sessions were early practice at literacy or literate language for children who could not yet read and write very well.

When I looked at the sharing time data, a number of the African-American stories stood out. They were long, robust, well-organized poetic stories. Unfortunately, the researchers had thrown these out of their data, concentrating on the shorter stories told by the African-American children so as to “control for length”, since the Anglo sharing time turns were relatively short (because they were so concise). It appeared to me that many of the shorter African-American turns were cases where children had been stopped by the teacher and told to sit down (for not talking about one important thing) or where the child had started a story, but for one reason or another did not choose to finish it (perhaps, in some cases, because of the teacher’s reactions to the story). The stories that were clearly finished did not seem to me to merit the term “topic associating”. While they were not literate in the sense of being like an early version of the explicit, concise language we

later expect in reports and essays, they were literate in the sense of being early versions of the literary language we expect in poetry and other forms of literary art.

Below I reprint one of these stories that I have used a number of times in my writings (Gee 1990, 1996, 1999). This is a story by a girl the researchers called “Leona”, a little girl about whom a good deal has come to be written by a number of different people over the years:

THE PUPPY STORY

I. SETTING

STANZA 1

1. Last yesterday in the morning
2. there was a hook on the top of the stairway
3. an' my father was pickin' me up
4. an I got stuck on the hook up there

STANZA 2

5. an' I hadn't had breakfast
6. he wouldn't take me down
7. until I finished all my breakfast
8. cause I didn't like oatmeal either

II. CATALYST

STANZA 3

9. an' then my puppy came
10. he was asleep
11. he tried to get up
12. an' he ripped my pants
13. an' he dropped the oatmeal all over him

STANZA 4

14. an' my father came
15. an he said "did you eat all the oatmeal?"
16. he said "where's the bowl?"
17. I said "I think the dog took it"
18. "Well I think I'll have t'make another bowl"

III. CRISIS

STANZA 5

19. an' so I didn't leave till seven

- 20. an' I took the bus
- 21. an' my puppy he always be following me
- 22. my father said "he -- you can't go"

STANZA 6

- 23. an' he followed me all the way to the bus stop
- 24. an' I hadda go all the way back
- 25. by that time it was seven thirty
- 26. an' then he kept followin' me back and forth
- 27. an' I hadda keep comin' back

IV. EVALUATION

STANZA 7

- 28. an' he always be followin' me
- 29. when I go anywhere
- 30. he wants to go to the store
- 31. an' only he could not go to places where we could go
- 32. like to the stores he could go
- 33. but he have to be chained up

V. RESOLUTION

STANZA 8

- 34. an' we took him to he emergency
- 35. an' see what was wrong with him
- 36. an' he got a shot
- 37. an' then he was crying

STANZA 9

- 38. an' last yesterday, an' now they put him asleep
- 39. an' he's still in the hospital
- 40. an' the doctor said he got a shot because
- 41. he was nervous about my home that I had

VI. CODA

STANZA 10

- 42. an' he could still stay but
- 43. he thought he wasn't gonna be able to let him go

To any linguist at the time familiar with the literature in sociolinguistics and anthropological linguistics (Bauman 1986; Bauman & Sherzer 1974; Finnegan 1977, 1988; Hymes 1981; Jackson 1974; Tedlock 1983), this story was a quite recognizable linguistic event. First, Leona used some aspects of the even then well-studied dialect of Black Vernacular English (Abrahams 1964, 1970, 1976; Baugh 1973; Dillard 1973;

Jackson 1974; Kochman 1972; Labov 1972; Smitherman 1977). For example, the naked “be” in “My puppy he always be following me” in line 23 (repeated in line 28). In Leona’s dialect this is a habitual/durative aspect marker and here means to say that the puppy habitually, as a matter of habit, as part of the puppy’s inherent way of acting, continually seeks to follow her (and thereby creates problems and eventually an opposition to the adult discipline of the home that must be resolved).

Second, Leona uses poetic devices that are the hallmark of so-called “oral literature” across the world (devices apparent in adult form in Homer and the Bible, which started as oral stories, see Finnegan 1977, 1988; Foley 1988; Havelock 1976; Hymes 1981; Ong 1982; Pattison 1982; Tedlock 1983). [Saying that someone is in an “oral culture” does not mean that they and other members of their culture are not literate; it means only that their culture retains a strong allegiance to thematically-based, culturally significant face-to-face story telling]. These devices include repetition, stylistic variation, and syntactic and semantic parallelism, all of which are readily apparent in Leona’s stories. For example, notice how in Stanzas 3 and 4 Leona introduces the puppy and the father in parallel ways, first by saying “my puppy/my father came” and then attaching four events to each of the entrances, four acts to the puppy and four pieces of dialogue to the father. This is one of many devices that create an opposition between the youthful puppy that wants to go free and the adult world that wants discipline.

Third, Leona uses a device characteristic of African-American storytelling (and the storytelling of some other cultures). She uses non-narrative material to key the listener into what is the “point” or basic theme of her story. In her case, in this and other of her stories, she does this by exiting the main story line just before her story is about to end and giving the listener some non-narrative information that is the sort of information linguists call “evaluation”, i.e., material that signals what makes the story tellable or what its point is (Labov 1972; Labov & Waletzky 1967).

Thus, in Stanza 7 we are not given story events (this happened, then this happened), but generalizations (e.g., note, too, the repetition of the habitual/durative “be” and the repetition of “go”). This stanza clearly tells us—which the habitual/durative marker has already signaled—that the theme of the story is the conflict between the puppy (and Leona as a child?) wanting to go free and having, by adult dictate, to be

chained up (unfree) [recall the hook earlier in the story]. It is this conflict that must be resolved for the story to be resolved and it is resolved in the last stanzas when an adult authority figure (the doctor) dictates that the puppy cannot “go” (free). [In more adult narratives, evaluation material is often spread out throughout the story, though Leona, when young, tended to concentrate it right before her conclusion].

The teacher worried about whether or not the puppy was dead (put to sleep), where exactly the puppy was now, and over exactly over how much time these events took place. But these concerns are beside the point in such oral literature stories. Such stories exist primarily to carry themes and develop themes, themes of importance to their tellers and their cultures. They are meant to be exaggerated in ways that bring home those themes (e.g., the hook in the beginning of the story). Leona’s theme here—that young things have to follow adult rules (here represented by parents, schools, and doctors) as part and parcel of growing up—is a primordial for children and adults in many cultures.

So Leona has given the teacher a quite recognizable linguistic performance (“oral literature”), one rooted in a long history of African-Americans going back to Africa, one prevalent in many other cultures (though done in somewhat different ways by each), one that in fact, via figures like Homer and Chaucer, is the foundation of Western written literature. Of course, Leona was a young child and, thus, early in her apprenticeship to this cultural verbal style—though quite obviously well on her way.

One thing that went on in classrooms like the one Leona was in was that children like her were misled by the ways in which teachers (and many academics) use the word “story” to cover both narrative verbal texts with plots and oral texts more akin to reports or the news (e.g., going swimming or making candles). Leona thinks the teacher really wants a story and gives her a culturally embedded version of one. But the teacher is actually after a news-like report through which she can scaffold early school-based literate language in the “expository” style (i.e., linear, sequenced, concise, explicit, non-poetic, non-literary, report-like language). Children need practice in many different styles, of course, but such a lack of clarity about goals, practice, and what language means creates a fundamental unfairness, common though it is in schools.

I was first confronted with the sharing time data at a time when I knew nothing about education and had never stepped foot in a public school. I assumed that public schools were all about leveling the playing field. My first thought was: Here is a deep *theoretical* problem. How could a child bring a language practice to school that was so sociohistorically and socioculturally recognizable and significant and yet be construed as a failure, indeed, a failure at language? This seemed to me to be the sort of question that should be central to applied linguistics, though, at that time, such questions were not seen as having anything to do with the field.

I came to view what was happening to Leona as having to do with socially situated identities and tried to capture this through the notion of Discourses (Gee 1987, 1989, 1990, 1992, 1999). The story is complicated, because it needs to be. Let's start with the idea of a "primary Discourse". Nearly every human being attains a "primary Discourse" early in life as part and parcel of being socialized into a family of a given type (where, of course, what counts as one's "family" varies across people and cultures). For each of us, there are ways with words, deeds, things, thoughts, and feelings that, as children, we associate with being a "person like us" (like our socializing group).

For most people, this primary Discourse eventually becomes the ways with words, deeds, things, thoughts, and feelings that they recruit when they are being (seeking to get recognized as) an "everyday" person, not a specialist of any sort. When we are being "everyday" people (and not acting in special roles like being students and teachers, doctors or scientists, gang members or bird watchers) we are acting within what Habermas (1984) has called our "lifeworld". Each person has a culturally distinctive "lifeworld", a way (really a related set of ways) of being an "everyday" person.

For each of us, our ways of being and acting in our lifeworld originate in and are tied to our primary Discourse, though each of us transforms our primary Discourse through life more or less depending upon how much we have come to disown parts of it under various social, cultural, and political pressures. And, of course, in a pluralistic world you will switch your lifeworld style in interactions with different people. Thus, an African-American may have a different lifeworld style for Black friends than for White ones. But the basic issues is: What are the ways of being, talking, acting, and interacting

with which you are most comfortable when you are being informal, seeking just to be an “everyday” person?

Another way to put this is this: humans always balance trying to achieve or show respect (status) and solidarity in their interactions with each other (Milroy 1987; Milroy & Milroy 1985). We switch our styles of language, action, and interaction along a continuum, sometimes stressing status (and therefore more “formal”) and sometimes stressing solidarity (and therefore more “informal”). For each of us, our primary Discourse (or what we might call later in life, after its various transformations, our lifeworld Discourse) is composed of the ways with words, deeds, things, thoughts, and feelings with which we feel most comfortable when we are seeking primarily to achieve and show solidarity, being “informal”, our “everyday” selves.

While Discourses involve not just language, but ways of acting, interacting, thinking, valuing, and coordinating ourselves with things, tools, and technologies, as well, primary/lifeworld Discourses are important from a linguistic perspective. When people are speaking within their primary/lifeworld Discourse, they are using a style of language that linguists refer to as the “vernacular” (Labov 1972).

Everyone, as they go through life, picks up a variety of different “secondary Discourses”, that is, ways with words, deeds, thoughts, feelings, and things that are connected to various “public” institutions beyond the family, institutions such as churches, workplaces, government institutions, and schools. When people act within these Discourses, they are not acting as “everyday” people, but as “specialists” in the sense that they play special roles (play out special identities) as part of the work of these institutions. In the case of secondary Discourses, people are acting and interacting more towards the status side of the status-solidarity divide, putting forward more “formal” styles. They have exited their lifeworlds.

A particular woman, for instance, might be recognized as a business woman, political activist, feminist, church member, National Organization of Women official, PTA member, and volunteer Planned Parenthood counselor, and many more, by carrying out performances that are recognizable within and by these secondary Discourses. Each of these is a way this woman can get recognized as taking on a distinctively “specialist”, non-“everyday” (non-lifeworld) identity. While, again, Discourses involve more than

language, most secondary Discourses involve styles of language that deviate more or less from anyone's vernacular style of language, even if this only involves distinctive vocabulary.

Schools are filled with secondary Discourses, ranging from being an (recognizable) first-grade student of a certain type, through being a special education student of a certain type, to being a student of mathematics of a certain type. In each case, and many more, the child must act, interact, think, feel, value, use language, and coordinate him or herself with things, tools, and technologies to get recognized as having a given identity (e.g., being "special" or "gifted"; being "good" or "poor" as a math student) or, at least, is institutionally positioned to be expected to do so.

Through the practices of parents and teachers, school-based secondary Discourses come to resonate with, and build on, some children's primary Discourses and not others. Some children come from homes where early versions of school-based practices and their concomitant identities are "filtered" into the child's early socialization into his or her primary Discourse. For example, some parents ask their children at dinner to report on what happened that day and scaffold the child to do so in the sort of concise, linear, and explicit language we associate with school-based literate talk and with many forms of expository school-based writing (Heath 1983; Ochs, Taylor, Rudolph, & Smith 1992). This is obviously a practice which resonates with the sorts of sharing time events that Sarah Michaels was studying.

This dinner time "report" is an odd hybrid that (purposely) stands mid-way between school secondary Discourses and the child's acquisition of his or her primary Discourse. That is why I say that a school-based practiced is being "filtered" into the home (selective bits of it are incorporated into key moments where the child's initial sense of self in life is being built at home). What is important here is not the practice *per se*, in my view. Rather, what is important is that such families incorporate a myriad of such early versions of school-based practices into the development of their children's primary Discourses. Such children come to see the ways with words, deeds, things, thoughts, and feelings associated with such practices as part of their core sense of who they are in the world. "People like us" do things like this even when we are just "being

ourselves”. Such children, early on in school, recognize school as a place and set of practices compatible with, even linked to or associated with, their primary Discourse.

Other children, like Leona, bring equally rich and complex practices from their primary Discourses to school. Their families also sometimes filter bits and pieces of secondary Discourse practices into the socialization of their children. For example, many African-American homes filter into the home-based socialization of their children selective bits of practices associated with church, as did my home when I was young. Even as a pre-school child, I engaged in talk and action at dinner that was connected to religious rituals and this (along with many other things) helped “marry” these practices and their associated attitudes and feelings to my emerging sense of what it meant to be “people like us” (i.e., my primary Discourse).

However, Leona’s primary Discourse (and whatever has been filtered into it to give her a head start on certain secondary Discourses) is not recognized by school and built on as a base for the acquisition of school-based secondary Discourses. In turn, Leona does not bring to school practices that get her recognized readily as an “acceptable” student. There is much less resonance, in both directions, between her primary Discourse and school-based secondary Discourses as these are instantiated at the outset of schooling.

Thus, we can say that some families make their children feel that school is for “people like us”. On the other hand, for other children, children like Leona, school makes them, from the outset, feel that school is not really for “people like them”. In my own case, this sort of conflict was partially resolved because I went to intensely Catholic schools that recognized and built on my non-middle-class, Catholic-focused primary Discourse.

Talk of Discourse is important because it keys us into two things. First, the real action here is at the level of identity formation and the connections (or lack of them) made across identities. The real issue is how people get recognized or fail to get recognized and in what ways. Second, the problem exists at both the micro level of the individual (i.e., Leona and her teachers) and the macro level of institutions. Individual people inhabit Discourses, they act them out. At the same time, most of our Discourses pre-dated our entry into them. They exist (and change) through history. And, in a sense,

talk to each other through time. What is happening is happening simultaneously at the individual and the institutional (and sociohistorical) levels and must be analyzed at both levels.

The Reading Wars and Learning as a Discourse Process

Largely because I took an endowed chair in reading at the University of Wisconsin-Madison in 1998, I got caught up in the “Reading Wars” (Coles 1998). The conflict here is usually seen as “phonics” against “Whole Language”, though that considerably oversimplifies the real issues in my opinion. The issues at stake in the “Reading Wars” have turned out to be good ground on which to extend the sort of work I have been discussing. Traditionalists in the reading wars see learning to read as simply gaining certain skills, much as if we saw sharing time as no more than a matter of acquiring skills in regard to delivering reports and event casts. Furthermore, traditionalists view learning to read as what I call an “instructed process”, that is, as something that needs to be acquired by being overtly taught (instructed).

Whole language advocates see learning to read as a “natural” process in the way in which people’s acquisition of their native language is a “natural” process (see Cazden 1972: pp. 139-142 for early and critical discussion of the issue). As such, Whole Language advocates argue that people should learn to read not via lots of overt instruction, but through rich immersion in literacy practices. However, as the traditionalists have pointed out, alerted to this fact by linguists, while human beings’ acquisition of their native language is biologically supported (and, thus, in that sense, “natural”), the acquisition of literacy is not. Literacy, unlike oral languages, is far too recent on the evolutionary scene to have been incorporated into our biological inheritance.

Does this mean that learning to read is largely a matter of attaining skills through overt instruction? No. Besides natural and instructed learning processes, there are also what we can call “Discourse learning processes”. There are some things that are so important to a social or cultural group that the group ensures that everyone who needs to learn them. Take cooking for example. Human cultures have always ensured that

people (or, perhaps, only certain people like, unfortunately, in some cultures, women) learn how to cook and cook well enough to keep themselves and others alive and well.

How, for the most part, have people learned to cook in human cultures? Usually not via cooking classes. The process involves “masters” (adults, more masterful peers) creating an environment rich in support for learners (Lave & Wenger 1991). Learners observe masters at work. Masters model behavior (e.g., cooking a particular type of meal) accompanied by talk that helps learners know what to pay attention to. Learners collaborate in their initial efforts with the masters, who do most of the work and scaffold the learner’s efforts. Texts or other artifacts (e.g., recipes, cook books) that carry useful information, though usually of the sort supplied “on demand” or “just in time” when needed, are often made available. The proper tools are made available, as well, many of which carry “knowledge” learners need not then store in their heads (e.g., pans made of certain materials “know” how to spread heat properly). Learners are given continual verbal and behavioral feedback for their efforts. And, finally, learners are aware that masters have a certain socially significant identity (here, “cook”) that they wish to acquire as part and parcel of membership in a larger cultural group. In my view, of course, this last point about identity is crucial.

Processes like learning to cook (or tell stories, give and get gifts, hunt, engage in warfare, set up a household) undoubtedly have their origin in the basic workings of human culture. However, long ago specific groups of human beings learned how to engage in this sort of learning process even when they were not really “cultures”. For example, this is how the vast majority of young people today learn to play computer and video games (and the vast majority of them do play such games). People who play video games don’t really constitute a “culture” in any classic anthropological sense, though they do constitute a Discourse, because they engage in recognition processes in terms of which they view others as “gamers” of various types.

Let us return for a moment to instructed processes. For most people learning something like physics is an instructed process they go through in school. However, physicists (masters of physics) long ago realized that if you want someone really to learn physics deeply in the sense of becoming a physicist then, sooner or later, you need to turn learning physics into a Discourse process and not an instructed process (or not just an

instructed process). Why? Because it is clear that deep learning works better as a Discourse process than it does as an instructed process. Most humans are not, in fact, very good at learning via overt instruction. For example, most young people would resist learning to play video games via such lots of overt instruction—and for a good reason: instruction is a much less efficient process (in all sorts of ways) than learning to play video games via a Discourse process (i.e., via becoming a member of a gamer Discourse).

What does it mean to learn physics as a Discourse process? Much the same as what it meant to learn cooking as a Discourse process. Masters (physicists) allow learners to collaborate with them on projects that the learners could not carry out on their own. Learners work in a “smart” environment filled with tools, technologies, and artifacts store knowledge and skills they can draw on when they do not personally have such knowledge and skills. Information is given “just in time” when it can be put to use (and, thus, better understood) and “on demand” when learners feel they need it and can follow it. Extended information given out of a context of application (thus not “just in time”) is offered after, not before, learners have had experiences relevant to what that information is about. Learners see learning physics as not just “getting a grade” or “doing school”, but as part and parcel of taking on the emerging identity of being a physicist.

Thus, to return to the reading wars, children can learn to read in two ways. They can learn via an instructed process concentrating on skills or they can learn via a Discourse practice concentrating on the child’s acquiring an identity as a reader of a certain type. A person’s identity as a reader is always tied to other identities that person can take on within all their Discourses that recruit literacy in some fashion. This is so because, in Discourse terms, people learn to read specific types of text in specific ways for specific purposes within the specific practices of specific Discourses.

For example, in my youth, my identity as a reader was partly formed by becoming a member of Discourses (including the church in which I grew up, my Catholic elementary school, and my seminary) that saw reading as a “deep” and “sacred” act that gave one access to religious knowledge and other forms of value-laden knowledge. I transferred this same attitude to philosophical texts later on, and, yet later, to texts in theoretical linguistics. In fact, I suppose it was, in part, because these linguistics texts

came to seem not value-laden enough that I turned to social, cultural, and educational work.

Does it matter at a practical level whether or not one learns to read through an instructed process or a Discourse process (that is, as part and parcel of acquiring an identity tied to Discourses)? Yes. There is a well known phenomenon called the “fourth-grade slump” (Chall, Jacobs, & Baldwin 1990). This is the situation where many children seem to be learning to read in the early grades, at least in terms of their test scores, but cannot read well enough later on in school to learn successfully in the content areas like math, science, and social studies. This phenomenon is called the “fourth-grade slump” because, traditionally, children were thought to be learning to read in the first three grades and reading to learn in fourth grade, when content used to “kick in”. However, today, school children are exposed to substantive content learning earlier and earlier in school.

Children who learn to read as a Discourse process take on an identity as a school-based reader (and connect that identity in fruitful ways to their out-of-school identities) that ensures that they will not be victims of the fourth-grade slump. I will tell you why I think this is so in a minute. Children who learn to read as a skills-based instructed process apart from such identity formation are often the victims of the fourth grade slump.

Vernacular and Specialist Varieties of Language

My contact with the reading issues—and meditation on things like the fourth-grade slump—lead me to see the importance of “specialist” languages associated with secondary Discourses, both in school and in society at large. People think of a language like English as one thing. Actually, it’s not one thing, it’s many things. There are many different varieties of English. Some of these are different dialects spoken in different regions of the country or by different sociocultural groups. Some of them are different varieties of language used by different occupations or for different specific purposes, for example, the language of lawyers, carpenters, or video game players.

Every human being, early in life, acquires a vernacular variety of his or her native language. This form is used for face-to-face conversation and for “everyday” purposes

when people are acting within their lifeworld Discourses. Different groups of people speak different dialects of the vernacular, connected to their families and communities. Thus, a person's vernacular dialect is closely connected to his or her initial sense of self and belonging in life, his or her primary Discourse.

After the acquisition of their vernacular variety has started, people often also go on to acquire various non-vernacular specialist varieties of language used for special purposes within specific secondary Discourses. For example, they may acquire a way of talking (and writing) about fundamentalist Christian theology, video games, or bird watching. Specialist varieties of language are different—sometimes in small ways, sometimes in large ways—from people's vernacular variety of language.

One category of specialist varieties of language is what we can call academic varieties of language, that is, the varieties of language connected to learning and using information from academic or school-based content areas (Gee 2002; Schleppegrell 2004; Schleppegrell & Colombi 2002). The varieties of language used in (different branches of) biology, physics, law, or literary criticism fall into this category. Many people can't stand these varieties of language.

Some texts are, of course, written in vernacular varieties of language, for example, some letters, email, and children's books. But the vast majority of texts in the modern world are not written in the vernacular, but in some specialist variety of language. People who learn to read the vernacular often have great trouble reading texts written in specialist varieties.

Specialist varieties of language, whether academic or not, often have both spoken forms and written ones, and these may themselves differ from each other. For example, a physicist or computer scientist can write in the language of physics or computer science and he or she can talk a version of it, as well.

It is obvious that once we talk about learning to read and talk specialist varieties of language, it is hard to separate learning to read and talk this way from learning the sorts of content or information that the specialist language is typically used to convey. That content is accessible through the specialist variety of language and, in turn, that content is what gives meaning to that form of language. The two—content and language—are married.

Of course, one key area where specialist varieties of language differ from vernacular ones is in vocabulary. But they also offer differ in syntax and discourse features, as well. For example, suppose someone is studying the development of hornworms (cute green caterpillars with yellow horns). Contrast the vernacular sentence in (1) below with the academic specialist sentence in (2):

- (1). Hornworms sure vary a lot in how well they grow (“everyday version”)
- (2). Hornworm growth exhibits a significant amount of variation (“academic version”)

The specialist version differs in vocabulary (e.g., “exhibits”). But it also differs in syntactic structure, as well. Verbs naming dynamic processes in the vernacular version (e.g., “vary”, “grow”) show up as nouns naming abstract things in the specialist version (“variation”, “growth”). The vernacular sentence makes the hornworms (cute little caterpillars) the subject/topic of the sentence, but the specialist sentence makes hornworm growth (a measurable trait for hornworms) the subject/topic. A verb-adverb pair in the vernacular version (“vary a lot”) turns into a verb plus a complex noun phrase in the specialist version (“exhibits a significant amount of variation”).

Though we do not have space to pursue the matter fully here, specialist varieties of language also differ from vernacular varieties at the discourse level. We can see this even with our two sentences. Note that the specialist version does not allow an emotional word like “sure” that occurs in the vernacular version. We would not usually write or say “Hornworm growth sure exhibits a significant amount of variation”. There is nothing wrong with this sentence syntactically. It’s just that we don’t normally speak or write this way in this variety of language. At the cross-sentential level, specialists languages use many devices to connect, contrast, and integrate sentences across stretches of text that are not used as frequently, nor exactly in the same way, in vernacular varieties of language (like my phrase “at the cross-sentential level” at the beginning of this sentence).

Specialist languages, of course, draw on many of the grammatical resources that exist also in vernacular varieties of language. For example, any vernacular variety of English can make a noun (like “growth”) out of a verb (like “grow”). But to know the

specialist language in (2) you have to know that this is done regularly in such a variety, you have to know why (what its function is in the specialist language), and you have to know how and why doing this goes together with doing a host of other related things (for example, using a subject like “Hornworm growth”, rather than “hornworms”, or avoiding emotive words like “sure”). Any variety of a language uses certain patterns of resources and to know the language you have to be able to recognize and use these patterns. This is much like recognizing that the pattern of clothing “sun hat, swim suit, and thongs” means someone is dressed for the beach.

So what’s all this got to do with the “fourth-grade slump”? Something has to motivate children to move from lifeworld language like that in (1) and the identities associated with this language to the sort of academic language in (2). This is not an inherently motivating move and many people—including many adults—resist it. There are losses sustained when we move from (1) to (2). We lose hornworms (which are cute) and get an abstract trait of hornworms, namely “hornworm growth (which isn’t cute). We lose dynamic processes like “grow” and “vary”, which people tend to be intrigued by, and gain abstract processes like “growth” and “variation”, which are much less intriguing. We lose emotion (“sure”) and gain a bloodless, dispassionate, rational, objective stance. Why would anyone, most especially a child, want to suffer these losses?

Children will only suffer these losses if they see acquiring forms of language like that in (2) as a gain in some sense. And they will see this as a gain if and only if they see the Discourses in which such language is used as valuable and compatible with their other Discourses (most especially their primary Discourses), as well as Discourses in which they will be allowed to function in ways they want to function or feel they need to.

The children who succeed best here are those whose homes filtered into their primary socialization aspects of school-based Discourses, including their language practices (remember the dinner time report). This ties the child’s home-based identity to early school Discourses. In turn, the child’s identification with these early school-based Discourses makes the child feel motivated when confronted with more mature and more threatening forms of academic language as school goes on. There is a seamless linking of

identities and Discourses from home through early schooling and into the content areas of schooling as these get complex in later elementary school, high school, and college.

Academic language is the monster in the closet that each child eventually confronts in school. Some children have seen this monster earlier in their closets at home. If they have had good early schooling, they have played with the monster when it was a baby and they were in the early grades. When they see the full-grown beast, it looks familiar, not too threatening, almost like a member of the family (though, perhaps, one partly gone bad). Children raised on “skills”, unprepared to see the monster as part of a family which they must now join or face failure in school, see it as a mountain of disconnected, decontextualized skills which will swamp them.

The bottom line here is this: teaching academic varieties of language outside Discourses people are acquiring through practice and participation is a sure fire way to get people to dislike and disidentify with such language and not learn it. Not teaching academic varieties at all is a way to ensure that children who do not have support outside of school for the acquisition of such varieties of language will fail in the content areas (just look at high school textbooks and the varieties of language in which they are written).

Is it Only Poor Children Who are Failing in School?

At the time the sharing time data propelled me into work in education, the “hot” question was “Why do so many minority children fail in school?” It seemed like everyone was working on this topic and had a favored answer to it. Some years later, however, based on work in educational cognitive science, it became apparent to me that this was, in part, the wrong question. The question assumes that (many) minority children are failing and that so-called “mainstream” children are succeeding. However, work in educational cognitive science began more and more to show that the so-called successful children often knew only verbal information, but could not apply this information to solve problems (Bruer 1993; Gardner 1991). In a real sense, these children didn’t really understand what they were learning, beyond being able to give back verbal information about it well enough to pass tests and get “As”.

For example, consider the study that showed that students taking a college physics course, students who could write down Newton's Laws of Motion, when asked so simple a question as: "How many forces are acting on a coin when it has been thrown up into the air?" (the answer to which one can actually deduce from Newton's Laws), got the answer wrong (Chi, Feltovich, & Glaser 1981; see also Gardner 1991). Leaving aside friction, they claimed that there were two forces operating on the coin, gravity and "impetus", the force the hand has transferred to the coin. Gravity exists as a force, and, according to Newton's Laws, is the sole force acting on the coin when it is in the air (aside from air friction). Impetus, in the sense above, however, does not exist, though Aristotle thought it did and people in their everyday lives tend to view force and motion in such terms quite naturally. These same students did not fare much better after they had completed the course and were in their second physics course. Many studies like this one began to appear, students that made one believe that, at some level, school wasn't succeeding for the poor or the better off. It was not a site for deep learning and understanding.

The problem here seems, to me, to be the fact that schools treat knowledge as something that is general (a matter of principles, rules, and large generalizations) and decontextualized from specific situations, the human body, emotion, human language, and human activity. For school, knowledge exists as ideas, rather general ones, in the head. For humans, however, knowledge, language, perception (including emotion) and action in the world are all tightly connected together.

It used to be, and still is in some quarters, a standard view in psychology that meaning of a word is some general concept in the head that can be spelled out in something like a definition. For example, the word "bachelor" might be represented by a complex concept in the head that the following definition would capture: "a male who is not married".

However, today there are accounts of language and thinking that are quite different. Consider, for instance, these two quotes from some recent work in cognitive psychology:

... comprehension is grounded in perceptual simulations that prepare agents for situated action (Barsalou, 1999a: p. 77)

... to a particular person, the meaning of an object, event, or sentence is what that person can do with the object, event, or sentence (Glenberg, 1997: p. 3)

These two quotes are from work that is part of a “family” of related viewpoints, which for want of a better name, we might call the family of “situated cognition studies” (e.g., Barsalou, 1992, 1999a, b; Brown, Collins, & Dugid, 1989; Clark, 1997; Engestrom, Miettinen, rajj Punamaki, 1999; Gee, 1992; Glenberg, 1997; Glenberg & Robertson, 1999; Hutchins, 1995; Lave, 1996; Lave & Wenger, 1991; Wertsch 1998 and many more). While there are differences among the different members of the family, they share the viewpoint that knowledge and meaning are tied to *people's experiences of situated action in the material and social world*. Furthermore, these experiences are stored in the mind/brain not in terms language, but in something like dynamic images tied to perception both of the world and of our own bodies, internal states, and feelings:

Increasing evidence suggests that perceptual simulation is indeed central to comprehension (Barsalou, 1999a, p. 74).

Let me use a metaphor to make clear what this viewpoint means. Video games like *Deus Ex*, *Half-Life*, *Age of Mythology*, *Rise of Nations*, or *Neverwinter Nights* create visual and auditory worlds in which the player manipulates a virtual character. Such games often come with editors or other sorts of software with which the player can make changes to the game world or even build a new world. The player can make a new landscape, a new set of buildings, or new characters. The player can set up the world so that certain sorts of actions are allowed or disallowed. The player is building a new world, but is doing so by using, but modifying, the original visual images (really the code for them) that came with the game. One simple example of this is the way in which players can build new skateboard parks in a game like *Tony Hawk Pro Skater*. They

must place ramps, trees, grass, poles, and other things in space in such a way that they and other players can skateboard the park in a fun and challenging way.

So imagine that the mind works in a similar way. We have experiences in the world, including things we have experienced only in the media. Let us use weddings as an example. These are our raw materials, like the game with which the gamer starts. Based on these experiences, we can build a simulated model of a wedding. We can move around as a character in the model, imaging our role in the wedding, or we can “play” other characters at the wedding (e.g., the minister), imaging what it is like to be that person. The model we build is not “neutral”. Rather, it is meant to take a perspective on weddings. It foregrounds certain aspects of weddings that we take as important or salient. It backgrounds other elements that we think are less important or less salient. It leaves some things out all together.

However, we do not build just one wedding simulation and store it away once-and-for-all in our minds. No, what we do, rather, is build different simulations on the spot for different specific contexts we are in. In a given situation or conversation involving weddings, we build a model simulation that fits that context and helps us to make sense of it. Our simulations are special-built to help us make sense of the specific situations we are in, conversations we are having, or texts we are reading. In one case, we might build a simulation that foregrounds weddings as fun, blissful, and full of potential for a long and happy future. In another case, we might build a simulation that foregrounds weddings as complex, stressful, and full of potential for problematic futures.

We also build our model simulations to help us prepare for action in the world. We can act in the simulation and test out what consequences follow, before we act in the real world. We can role-play another person in the simulation and try to see what motivates their actions or might follow from them before we have to respond to them in the real world.

We think and prepare for action with and through our model simulations. They are what we use to give meaning to our experiences in the world and to prepare us for action in the world. They are what we use to give meaning to words and sentences. But they are not language. Furthermore, since they are representations of experience (including feelings, attitudes, embodied positions, and various sorts of foregroundings and

backgroundings of attention), they are not just “information” or “facts”. Rather, they are value-laden, perspective-taking “games in the mind”.

Of course, talking about simulations in the mind is a metaphor that, like all metaphors, is incorrect if pushed too far (see Barsalou, 1999b for how a similar metaphor can be cashed out and corrected by a consideration of a more neurally realistic framework for “perception in the mind”). Nonetheless, this viewpoint leads us to see that meaning is not about general definitions in the head. It is about building specific game-like simulations (wherein we can act or role-play other people’s actions) for specific contexts.

This is true even for words that seem so clearly to have clear definitions, like the word “bachelor”. For example, what model simulation(s) would you bring to a situation where someone said of a woman, “She’s the bachelor of the group”? I would build a simulation in which the woman was attractive, at or a little over marriageable age, perhaps a bit drawn to the single life and afraid of marriage, but open to the possibilities. I would see myself as acting in various ways towards the woman and see her responding in various ways. The fact that the woman is not an “unmarried man” does not stop me from giving meaning to this utterance. You, having had different experiences than me, would form a different sort of simulation. Perhaps the differences between my simulation and yours are big, perhaps they are small. They are small if you and I have had similar experiences in life and larger if we have not.

Once we see the importance to comprehending oral and written language of being able to simulate experiences, we can see the importance of supplying all children in schools the range of necessary experiences with which they can build good and useful simulations for understanding things like science. But this is just what schools usually do not do. They seek to offer, for the most part, purely verbal (informational) understandings cut off from the wealth of embodied experiences that would give this verbal information real meaning and value. Privileged children can often gain many important school-enhancing experiences outside of school, using their families resources to make up for the experience deficit they face at school.

These three themes came, to me, to seem importantly interconnected in thinking about schools and learning more generally: the role of Discourses in enacting and recognizing identities, the challenges of specialist languages, especially academic

varieties of language in school, and the necessity of situated embodied experiences (and not just verbal information) as a foundation for learning..

New Capitalism and Popular Culture

Two larger contexts eventually came to me to seem crucial to these three themes (Discourses, academic languages, and situated cognition). One was the nature of our “new capitalist” high-tech global world as an economic system. The other was the changing nature of culture and technology, especially in regard to literacy and language practices.

My book with Glynda Hull and Colin Lankshear (*The New Work Order*) discusses the change in our economy from the old industrial economy to the new economy based on technology, service work, and knowledge work. The production of commodities (standardized products that nearly everyone could afford) was crucial to the old capitalism. Think of Henry Ford’s famous remark that you could get a Ford in any color you wanted as long as it was black. Even as cars became more variable, the vast majority of people bought one based on price and functionality.

But, thanks to the world-wide spread of knowledge and technology, nearly every country on the globe can and does produce commodities today (Thurow 1999). This has led to an over production of such commodities as cars, bicycles, and televisions, intense competition, lower levels of profit, and a shift of manufacturing jobs to “developing” countries. The new capitalism in “developed” countries is focused around the creation of new knowledge, technologies, designs, and services for consumers seen as occupying different “niches” or identities. What makes a company profitable is not selling something like a car as a commodity, but selling the car as a sign of one’s special identity, e.g., the sort of people who drive a Hummer as against the sort that drive a new VW bug. Services play the same role, speaking to people’s niche identities and lifestyles.

Over the last few years, in part in concert with the New London Group (1996), of which I was a member, I have argued that the notion of *design* (Kress, Jewitt, Ogborn, & Tsatsarelis 2001; Kress & Van Leeuwen 2001) is central to understanding and surviving in the new capitalism. There are three types of design that reap large rewards in the new

capitalism: the ability to design, understand, and act within new *identities*, *affinity groups*, and *networks*. These three types are all deeply inter-related (Gee 2000-2001).

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. 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 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 Web site "palm.com," the site of the Palmtm 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 e-mail newsletter. The Palmtm 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).

The Palmtm company is creating not just an identity, but is doing so through creating an "affinity group". Affinity groups are increasingly important today, both in business and politics (Beck 1999; Beck, Giddens, & Lash 1994; Rifkin 2000). Greens, Saturn owners, members of an elite guarded-gate community, users of Amazon.com, skate boarders, poetry rave fans, or Pokemon fanatics all are members of affinity groups within which they share practices, patterns of consumption, and ongoing relationships to

specific businesses and organizations. In an affinity group, people form affiliations 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 groups as a contemporary form of organization and activism and social class).

In an affinity group, knowledge is often both *intensive* (each person entering the group brings some special knowledge) and *extensive* (each person shares some knowledge and functions with others). In an affinity group 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 group, using modern information and communication technologies, can draw on knowledge in sites outside the group itself (though, thanks to modern technology, in a sense nothing is really outside the group. It's all a matter of links in a network).

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

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.

Meditation on the new capitalist world leads us to see, I believe, that schools as they are currently constituted are not preparing people, and most especially children who do not get such preparation at home, for our “new times”, to understand, critique, and engage with design, affinity groups, and networking with diverse others (Gee 2000, 2002; Gee, Allen, & Clinton 2001; Gee & Crawford 1998). Thus, in today’s schools, old inequities remain, but new ones are arising, as well.

And this brings me to my last topic, namely, the ways in which learning outside of school, in these “new times”, is outpacing learning inside schools. Some years after studying the new capitalism, I came to see—largely thanks to interacting with my now sixteen-year-old son, Sam—that the popular cultural practices in which children engage today are not only more complex than were those of my childhood, but often more

complex than what goes on in school, especially in our return to “the basics” and skill-and-drill. Thus, I have devoted some of my recent work to computer and video games, arguing that young people see in these often long, complex, and difficult games better approaches to learning than they see in school (Gee 2003). After all, if a computer or video game, which can take 50 or more hours to play, can’t get learned and learned well, the company that makes it will go broke.

But let me use another example here, not video games directly, but Pokemon (“Pocket Monsters”), odd looking little creatures that human trainers care for. Pokemon can fight each other, but losers don’t die, they just fall asleep. Typical of today’s popular culture, which tends to be multi-modal and multi-tasking, Pokemon appear on cards, as plastic figures, in video games, and in television shows and movies.

There are a great many Pokemon now. But let’s just consider the Pokemon world as of the time the Nintendo Game Boy games *Pokemon Red*, *Blue*, and *Yellow* were out, the late 1990s. At the time, there were 150 Pokemon. They all had polysyllabic names, ranging from Aerodactyle through Nidoran to Wartortle. Each Pokemon name stands not for just an individual Pokemon, but a type. A child can collect several Aerodactyles or Nidorans in a game.

Each Pokemon falls into one of 16 types (Bug, Dark, Dragon, Electric, Fighting, Fire, Ghost, Grass, Ground, Ice, Normal, Poison, Psychic, Rock, Steel, and Water) that determine how the Pokemon fights. There are actually more than sixteen types, since some Pokemon are mixed or hybrid types, but let’s leave that aside. Take Charmander, a Pokemon that looks something like an orange dinosaur with fire coming out of its long tail, as an example. Charmander is a Fire type and has such attack skills as Ember, Leer, Flamethrower, and Spin Fire.

Many, but not all, Pokemon, can evolve, as they gain experience, into one or two other Pokemon. Thus, Charmander can evolve into Charmeleon. Charmander and Charmeleon look alike except that Charmeleon has horns. In turn, Charmeleon can eventually evolve into Charizard, who looks like Charmeleon with wings.

Each Pokemon has a set of attack skills that determines how it fights against other Pokemon. For example, Charmander has the following attack skills (some of which are obtained only when the player’s Charmander advances to a certain skill level by winning

battles in the game): Scratch, Growl, Ember, Leer, Rage, Slash, Flamethrower, and Fire Spin. Some Pokemon have a somewhat shorter list of attack skills, many have a longer list. Let's for simplicity's sake say that each Pokemon has eight possible attack skills.

What does a child have to know to name and recognize Pokemon? The child has to learn a system, the Pokemon system. And that system is this: 150 Pokemon names; 16 types; 2 possible other Pokemon a given Pokemon can evolve into; 8 possible attack skills from a list of hundreds of possible skills. The system is $150 \times 16 \times 2 \times 8$, and, of course, we have simplified the real system greatly. I know of no evidence that mastering the Pokemon universe differs by the race, class, and gender of children. Poor children do it as well as rich, if they have access to the cards, games, or figures.

Now, consider the following paradox. School traditionalists claim that the big problem in our schools is that we need to teach "phonics skills" (the mapping between sounds and letters) more overtly and intensively. When children learn phonics, they are faced with a system of 44 phonemes (the basic speech sounds in English) coupled with 26 letters of the alphabet. That is, the child's needs to learn which (one or more) of 44 sounds each of 26 letters can be associated. This system is pitifully smaller than the Pokemon system. That system is 150 (Pokemon) coupled with 16 (types) coupled with 2 (evolutions) coupled with 8 (skills) Yet, in the case of learning to read at school, we need to spend billions of dollars on government-sponsored reading initiatives (like those in the No Child Left Behind legislation) to teach children to match these 44 phonemes and 26 letters. Furthermore, in the case of learning to read in school, but not in the case of learning Pokemon, race and class make a big difference, since poor children and children from some minority groups, on average, learn to read in school less well than more privileged children.

Many people confronted with the Pokemon argument say something like this: "But Pokemon is entertaining and motivating. School can't compete with that". So, are we to conclude that science, for instance, one of human beings' most spectacular achievements, is neither fun nor motivating? You won't get very far convincing any good scientist of this. But, be that as it may, the real problem is this: We all know that if we turned Pokemon into a school curriculum, as such curricula exist today, then certain children, many of the them poor children, would all of a sudden have trouble learning

Pokemon. Pokemon is organized around identity (e.g., one is a Pokemon trainer), affinity groups (e.g., kids interact with Pokemon web sites), and networking (e.g., trading).

So what is it about school that it manages to transform children who are good at learning (witness Pokemon, witness Leona's sharing time story), regardless of their economic and cultural differences, into children who are not good at learning, especially, but not only, if they are poor or members of certain minority groups? But this is where we started.

Implications for Research and Intervention

I have never kept track of work that uses my work and so cannot talk in specifics about research projects and educational interventions that have used my work. I have over the years purposely not paid attention to this, because I have argued in my work that frameworks like mine (or any others) about how language and literacy learning ought to work must be adapted and customized by others for their own uses up to the point where the framework becomes their own and not mine.

However, I have over the last few years moved to the study of digital media and learning precisely because I think digital media can allow us to design the sorts of learning I advocate, learning that I call situated/sociocultural learning (Gee 2004). "Situated" means the learning is based on (often collaborative) problem solving in specific contexts with clear goals for action. "Sociocultural" means that learning always involves networking people in ways that create new social identities and honor and use old ones. I do not believe digital media is necessary for such learning, but only that it can enhance such learning in some contexts. I have also argued that learning in popular culture today using digital media like video games is often a better representation of situated/sociocultural learning than we see in many of our schools. In Gee (2007) and Gee & Hayes (2010, 2011) I spell out as specifically as I can what applied research on situated/sociocultural learning and successful examples of it in practice look like.

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