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This book contains a chapter each from six of my Routledge books. While it is meant to be a sampler, it also constitutes a coherent book in its own right. Over the last 25 years I have revised my books a number of times, partly to keep them in print, but mainly to keep them current. Thus, this book does not really represent a strict historical chronology, since material in any one book was written at different times.

The books are superficially about different things. My first book, *Social Linguistics and Literacies* (First Edition 1990; Fifth Edition 2015) was a theory of language at work in the world with a focus on issues in education. It was also a theory about what the discipline of a socially and culturally conscious applied linguistics might look like.

*Situating Language and Learning* (2004) was meant to add a socially and culturally conscious view of learning—as it works in the world and not just the mind—to my theory of language. This book, building on work I had begun in *The Social Mind* (1992, reprinted 2014), also argued that the human mind is through and through social and embodied in the physical world and in social interactions. *Situating Language and Learning* also continued work I had done on video games and learning in *What Video Games Have to Teach Us About Learning and Literacy* (First Edition 2003; Second Edition 2007).

*An Introduction to Discourse Analysis* (First Edition, 1999; Fourth Edition 2014) developed a method of analyzing the nature of understanding and communication in talk and texts, a method compatible with my theories of language and learning. This book gained a companion in 2010 called *How to Do Discourse Analysis* (Second Edition 2014) which was meant to be a more “hands on” experience for readers.

*Language and Learning in the Digital Age* (2011, written with my wife Elisabeth Hayes) explores “digital literacies” and the workings of language and learning in our Digital Age. Much of the work in this book reflects our work as part of the long-running MacArthur Foundation Digital Media and Learning project.

*Unified Discourse Analysis* (2014) is an attempt to develop a theory of discourse analysis that applies equally to human meaning making in language, the real world, and virtual worlds. It is also my attempt to forge a view of how to think about multimodality, a very hot topic these days.

This book of selections starts with my newest book *Literacy and Education* (2015). This book is a retrospective take on the progress of work on literacy and learning from the beginnings of the so-called “New Literacy Studies” movement in the 1980s to today’s world of the Internet and other digital media and fast-paced change in our high-risk global world.
All these books are, at heart, about the same thing from different perspectives: How do humans use tools (oral language, literacy, and digital media are all tools) to make and take meaning from symbols? How does the mind get formed by the world and move out into it? And, finally, how can the answers to these questions guide us in attempts to make a better, more just, world for every living being in our imperiled world?

James Paul Gee, January 2015

Editor’s note: Throughout this FreeBook, you’ll find references to “this book” (i.e. “in chapter 4 of this book”)—to be clear, these are references to the original texts and not the FreeBook in which these excerpts appear.
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CHAPTER 1

LITERACY AND EDUCATION
A STORY

Let me start with a story. I began my academic career forty years ago as a linguist studying the structure of language (“grammar”). At that time, thanks to the seminal work of Noam Chomsky, the fashionable thing to study was the basic design properties of language, the core grammatical properties that all human languages shared (Chomsky 1957, 1986). There was much less interest in meaning and in language in use. The study of language was then a pretty abstract affair.

Thanks to the “accidents” of life—mistakes made, lessons learned—years later I found myself employed in an applied linguistics program. The program happened to be in a School of Education. I knew absolutely nothing about education then. Early in my time there the Dean of the School of Education came up to me and asked me to attend a meeting about applying for a grant to research adult literacy.

As a generative (Chomskian) linguist I believed that only oral language was real language. Literacy was only a derivative and relatively trivial “code.” After all, oral language arose in humans long ago (Pinker 1994). It is a good part of what separated humans from their primate relatives. On the other hand, literacy is a relatively recent cultural invention (Olson 1996). Writing has been invented independently only a few times in history. All human groups have had oral language, but not all cultures have had literacy and not all have it today. In the not too distant past, in fact, literacy was rare within societies and across the world.

When I attended the meeting, I was surprised to find out there were any adults in the United States who were “illiterate,” let alone the supposed millions I was told were so or close to it. Since everyone in the U.S. went to school, how could this have happened? I assumed schools gave everyone an equal chance and at least ensured that everyone learned to read and write.

When I attended the meeting, I was as naïve as I could be. I thought that surely literacy would be a simple, straightforward topic of little depth (I should have known better, since many languages in the world do not even have a word for “literacy”). Surely, literacy was just a practical matter of no theoretical interest. It was not something real academics would study.

As I studied literacy the whole topic seemed stranger and stranger. Simplicity turned to complexity. Paradoxes abounded.
THE STORY CONTINUES

Because I had been “coerced” to work on literacy and was trying to get any help I could, I ended up meeting Sarah Michaels, then working at Harvard and now at Clark University. My colleague David Dickinson (now at Vanderbilt) introduced me to Sarah.

Sarah showed me data she and others had collected on first-grade “sharing-time” sessions in schools. Sharing time is something teachers of very young children tend to do to start off the school day. It is sometimes called “rug time” or “show and tell.” At the time I could not have imagined anything seemingly less important.

Sarah and her colleagues had found that some African-American children gave sharing-time turns that were different from those of the white children in the classrooms (Cazden 2001; Michaels 1981; Michaels & Cazden 1986; Michaels & Cook-Gumperz 1979; Michaels & Collins 1984). These African-American children told what Sarah called “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 with no overt theme. The unifying theme had to be supplied by the listener. Topic-centered stories were ones that focused on and developed one unitary explicit topic. These were usually, in fact, 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.

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. The teachers in these classrooms had instituted a rule that each turn had to be about “one important thing” and felt the African-American children often violated this rule.

The teachers, it turns out, could seamlessly interrupt and interact with the white children and the African-American children who told topic-focused stories, though not with the topic-associating African-American children. In a sort of interactive dance the teachers helped the topic-focused children produce a piece of language that, while spoken, was explicit and topic-focused in the way we later expect school-based writing to be.

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. This was not necessarily the teachers’ conscious plan, but it seemed to be the underlying goal in their practice. 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 stories out of their data,
concentrating on the shorter ones told by the African-American children. They did this in order to “control for length,” since the white children’s sharing-time turns, in particular, were relatively short (because they were so concise).

It appeared to me that some 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 they were cases where the child had started a story, but for one reason or another did not choose to finish it. The stories that were clearly finished seemed thematically based, but not loosely structured. While they were not like early versions of the sort of 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.

Let me give you an example. Below I reprint one of these stories that I have used a number of times in my writings [e.g., Gee 1985]. 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 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 the 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.

Thanks to those vagaries of life I mentioned earlier, I had done some work on “oral literature.” To anyone at the time familiar with the literature on oral literature (Bauman & Sherzer 1974; Finnegans 1967, 1977; Hymes 1981; Tedlock 1983), Leona’s story was a quite recognizable linguistic event.

Leona used aspects of the even then well-studied dialect of African-American Vernacular English (Baugh 1983, 1999; Labov 1972; Smitherman 1977). For example, the “naked be” in “My puppy he always be followin’ me” in line 21 (repeated in line 28): In Leona’s dialect this is a habitual/durative aspect marker. Here it means 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].

Leona uses poetic devices that are the hallmark of oral literature across the world (devices apparent in adult form in Homer and the Bible, which started as oral stories, see Finnegan 1977; Foley 1988; Havelock 1976; Hymes 1981; Ong 1982; Pattison 1982; Tedlock 1983). These devices include repetition, stylistic variation, and syntactic and semantic parallelism, all of which are readily apparent in Leona’s stories. By the way, 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 storytelling.

For example, notice how in Stanzas 3 and 4 Leona introduces the puppy and the father in parallel ways, first opening Stanza 3 with “my puppy came” and then opening Stanza 4 with “my father came”. Leona then attaches four events to each of these entrances; she assigns 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.
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 the “point” or basic theme of her story is. In her case (in this and others 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. This non-narrative information is the sort of information Labov called “evaluation,” namely, material that signals what makes the story tellable or what its point is (Labov 1972; Labov & Waletsky 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?) continually 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, as other young children, 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 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 theme for children and adults in many cultures.

So Leona has given the teacher a quite recognizable linguistic performance (“oral literature”). Her performance was rooted in a long history of African-Americans going back to Africa. It is a type of performance once prevalent in many other cultures, though done in somewhat different ways in each. It is also a type of performance that, 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 obviously well on her way.
One thing that went on in classrooms like the one Leona was in is 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). In fact, following the original sharing-time terminology, I have continued this unfortunate tradition here. 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, expository language). All 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. Leona and what she is doing are being misrecognized. She is being seen as deficient when she is enacting a culturally known, important, and impressive way of being, making meaning, and using language. She is not being seen as an African-American storyteller. Furthermore, she is not being helped to recognize the ways with words the teacher expects. The teacher assumes she already knows what is wanted—what the “rules of the game” are—and does not tell her. Many of the “mainstream” children (white and black) in the classrooms had engaged in sharing-time-like reports to their parents at dinner time, another now well-studied phenomenon. A deep problem here is that Leona is a very young girl. She is being told by an authority figure, as part of her early socialization into schooling, that she does not make sense. This is not because the teacher is a bad person. It is because she does not know that Leona is using ways with words that have come from her early socialization into her own home culture, a culture tied to the historical legacy of oral literature. This “cultural misunderstanding” (misrecognition, missed opportunities for recognition) can and often does alienate children like Leona from school and school-based language and literacy. It can force such young children to choose between family and school in terms of who makes sense.

LITERACY

I was confronted with the sharing-time data at the same time my Dean was pushing me to work on literacy. It was a time, as I mentioned before, when I knew nothing about education and had never stepped foot in a public school. I had been a product of Catholic schools. Though I had not been in one, I assumed that public schools were all about leveling the playing field. Confronted with the sharing-time data, my
first thought was: Here is a deep theoretical problem, not just a deep practical and ethical problem (Gee 2011).

How could a child bring a language practice to school that was so socio-historically and culturally recognizable and significant and yet, nonetheless, could 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 the time such questions were not seen as having anything to do with the field.

At another level this sharing-time data showed me a deep connection between oral language and literacy. Children at sharing time are being supported to talk, in some ways, the way they will later write in the case of things like essays. They are being supported by the teacher to say everything explicitly, to leave nothing to be inferred by their listeners on the basis of shared knowledge or context, and to organize everything around one clear and explicitly stated topic. Sharing time, as Michaels argued, was early training for a certain type of literacy, what Ron Scollon has called “essayist literacy” (Scollon & Scollon 1981; see Chapter 2 of this book).

It was clear that the type of talk teachers wanted at sharing time was not just any old talk. It was a special type of talk connected in integral ways with school and the sorts of reading and writing (literacy) schools most value. It became clear to me that it was important to study not just talk in general, but different types of talk connected to different purposes, goals, groups, practices, and institutions. It was important to study, as well, not just texts, but different types of writing connected to different purposes, goals, groups, practices, and institutions. All of a sudden literacy opened up as a very broad topic that crossed several different fields and encompassed individuals, society, institutions, and culture.

Leona had unwittingly been induced to bring the “wrong” type of talk to a school-based practice where it would get judged unfairly. In other contexts this type of talk would have been “right” and even “gifted.” Indeed, it could have been “right” and “gifted” in an early creative storytelling session in school preparing children for creative literature. But sharing time was not that in these classrooms.

At a larger level, what Leona taught me is that we all need to know how to talk (and write) “right”—when and where to use certain ways with words—in order to count socially and culturally as “belonging.” We all also need to know how others talk and write in contexts we too often misconstrue and, in the act, misrecognize what is “right” as “wrong.”
Finally, we should not hide the social geography of talk and text, but make this geography overt. We must make it over not just for fairness and justice, but for new forms of collective intelligence that pool diversity in the name of human progress. Indeed, the study of literacy is about how talk and text are socially distributed as founding elements of our social lives and institutions.

LANGUAGE

Linguists spend their time studying what language is and what it does. Different linguists study language in different ways. Some study the design features that the grammars of all the world’s languages share. Some study the differences among languages. Some linguists focus on structure, others on meaning. Some linguists study language in the head, some study language in society.

At a general level, the study of language represents the dynamics between one and many. This dynamic characterizes a good many other things we academics study. What is English (or any other language)? In one sense, English is a set of common grammatical resources that the speakers of the language share. It is one.

For example, all speakers of English can change verbs into nouns: “Hornworms grow” → “Hornworm growth.” Here the verb “grow,” which names a process, is turned into the noun “growth” (which names a thing, in this case an abstract thing). English speakers can do this in many different ways: “walk home” → “take a walk home,” “refuse” → “refusal,” “die” → “death,” and so forth.

The grammar of English is a set of common tools (ways of using words) that all speakers of English can put to use to make meaning. They are like the common color spectrum that painters use or the common set of tools carpenters build with. In that sense, English is one thing.

But different speakers use the grammar of English—the tools for sentence construction that it offers—in different ways in different contexts for different purposes. And, thus, English is many. For example, consider the two sentences below:

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

Both these sentences use grammatical tools that all speakers of English can use (e.g., “grow” → “growth,” “vary” → “variation”) with words they know in the language. However, sentences (1) and (2) use English grammatical resources (put them
together) in different ways. They are different styles of language used in different contexts and for different purposes.

Sentence (2) is in an academic style of language and is used in disciplines like biology. Sentence (1) is the sort of style some people would use in informal talk in so-called “vernacular” language. Of course, there are a great many other styles of language such as how lawyers speak when they are being lawyers, how gang members speak when they are being gang members, how people speak when they pray, and how (video) gamers talk when they are being gamers.

So English is also many things, many different styles of speaking or writing. The different styles mean and portend different things. It is much like wearing clothes. If I put on a bathing suit, flip-flops, a tank-top, and a sun hat, the combination of my clothes says something like “beach time.” If I wear a suit and tie and formal shoes, the combination says something like “professional” or “work time.”

Not anything can go with anything. There are “rules” (conventions) about what can go with what. You don’t usually wear a tie to the beach and, if you do, you are taken as trying to make a “statement” by flaunting the “rules.” So, too, with language. Note that while sentence (1) can have the adverb “sure” in it (an “emotive” word showing excitement, for example that the speaker is impressed), this word cannot occur in sentence (2) without sounding odd:

3. Hornworm growth sure exhibits a significant amount of variation.

Sentence (3) is somewhat like wearing flip-flops as shoes with a formal suit. They just don’t “go” with a suit and tie (if one wants to stick to the conventions of how “we” do things). At a deeper level, “sure” adds an element of informal language and emotion to a combination of words and grammatical units that is meant to betoken science as technical and rational.

Different dialects of English add, change, or subtract some tools in the grammatical tool-kit of English. A dialect is a style of language that reflects the common grammatical resources that a social or geographical sub-group of English speakers use [resources some of which not all English speakers have]. So Leona’s “my puppy be followin’ me” uses a form “be followin’” that her dialect has and some other dialects of English do not have [including so-called “Standard English”].

Leona’s so-called “naked be” form (“be following”) is what linguists call a habitual or durative aspect marker [Comrie 1976]. “Aspect” means any grammatical device that
indicates how events pattern in time. The “naked be” form is an aspect marker for happenings that are habitual or endure or repeat over time. Another aspect marker in English is “-ing,” which means a happening is ongoing in time, as in “John is travelling to England” (so in Leona’s dialect, “John be travelling to England” would mean he travels to England a lot or has been on the trip a long time).

Standard English has no such durative/habitual marker [though it once did], but a great many other languages in the world do. Leona’s dialect has simply added a device [back] to the larger shared grammar of English. Such things are entirely common as all languages change through time.

Human groups change language all the time. They have ever done so. Physicists and mathematicians long ago combined words with mathematical symbols [in speech and writing]. Today, thanks to modern social and digital media, young people are creating new styles of language by mixing and matching “natural language” with new symbols and new conventions. For example (see Gee & Hayes 2010 and Chapter 4 of this book):

Sunday, 02 December 2007
As u can see I gave my page a little makeover! I’ve had that oldd one for over a year! Needed a change! As 4 LH 1.3 I’ve got around thirty slides, working up to my usual 127! Patience is all it takes! I garentee it’ll B out B4 Xmas though! ;)
<3 A

It is crucial to see that, from a linguistic point of view, we must not compare one style of language to another in terms of better or worse—or say there are errors in a given style—until we have asked what work the style is meant to accomplish. A given style of language can only be judged in terms of the work it is meant to do. In the example from social media above [from a fifteen-year-old fan-fiction writer keeping in social contact with her large fan base] the “misspellings” and other features of the text are there for a specific form of social bonding and social identification. A misspelling in an essay means something entirely different and is most often a “mistake,” since essays have different purposes, do different work.
ANOTHER STORY

We have seen that a language or a dialect is something people share, something they have in common. Languages and dialects are also resources through which humans create diversity. This diversity allows them to accomplish different types of work and/or to identify themselves with different specific social or cultural groups.

The dance between commonality (unity) and diversity has long been vexed in society and in academic research. When commonality becomes an imposition that seeks to erase diversity or when diversity becomes a rallying cry for in-groupism, we get injustice, hatred, and even war.

When we study language, literacy, society, and culture—as we will in this book—we will deal a great deal with issues of commonality and diversity, inequality and justice, and belonging and isolation. In Education and the social sciences, a good many scholars greatly value diversity and are suspicious of calls for commonality and unity as imperialistic. Others in the academy and in society put a higher premium on commonality and fear the silos, isolation, and echo chambers that hiving off too many like-minded groups can create.

So let me end this introductory chapter by sharing with you a true story. The story is about commonality and diversity. Some years ago I was studying talk and interaction in a project where school teachers and university academics had come together to design an oral history curriculum for middle-school students in a post-industrial town in New England. The town had once been a flourishing blue-collar town, but had hit on hard times as industrial jobs had been out-sourced overseas [Gee 2014].

School teachers in this town were the products of 19th and 20th century white immigration. Their people had come from all over Europe, from places like Ireland, Poland, and Russia. The teachers were third-generation members of the town and they hoped their children would spend their lives there as well.

The university academics were from a private college in the town. None of them had been born in the town and many did not intend to end their careers there. They oriented to a national level of prestige and felt little shared cultural identity with the school teachers.

The school teachers felt that their immigrant ancestors had struggled to find a common identity as citizens of the town. They saw belonging to the town as an identity that transcended their immigrant differences. In fact, they saw their identity as citizens of the town as what gave them distinctiveness from the big city that defined the state they were in.
The town had a rich, long, and storied history. The teachers saw themselves and their families as having added to and continued this history through immigration, even though they were not part of the original English immigrants who had settled the town and America (actually, taken it from the native inhabitants).

Simultaneously with its loss of its industrial base, the town had experienced a massive new wave of “brown” immigrants. These new immigrants came from Mexico, South America, the Caribbean, and Asia. Both the loss of industry and this new immigration were caused by the new global economy that began in the late 1970s.

As the school teachers and the university academics talked in their meetings, one thing the academics were very concerned about was cultural diversity. They pressed to find out if the teachers—whose classrooms were filled with both white students and the new “brown” immigrants—honored diversity. At one point an academic asked a teacher whether she had “diversity” in her classroom. The teacher said, “No, they are all town kids,” meaning they are all now “from our town,” citizens of the town.

To the school teachers, all the kids in their classrooms were citizens of the town and it was the teachers’ job to create a sense of common belonging and contribution to the town. The academics came to suspect the teachers were racists. The teachers thought that the academics obliterated the children’s individual identities and needs under large group labels (e.g., African-American, Hispanic, Asian, and so forth).

In one meeting where the group was discussing classrooms and curriculum, the teachers used the word “common” or “commonality” dozens of times, but never used the words “diverse” or “diversity.” The academics used the words “diverse” and “diversity” dozens of times, but never used the word “common” or “commonality.”

For the teachers, common and commonwealth were good, while diversity was a macro-level phenomenon that academics studied but that could forestall seeing each child in a class as a town citizen in the making, able to carry on the history of the town as the teachers had themselves. For the academics, diversity was good and commonality was an imperialistic way to efface diversity. They talked for hours without ever rising to the meta-level to explicitly name their assumptions and compare and contrast them with mutual respect.

It is an irony that the town had schools integrated by race and class. The people in the town, the products of the earlier white immigration, wanted all citizens of the town together in school for fear of losing their town identity and history. In the big city that the town has defined itself against for such a long time—a much more
prosperous and cosmopolitan place than the town—the schools were and are deeply segregated, as they are in so many other cities in the United States.

We will see in this book that diversity of many different sorts is essential for collective intelligence in school and society. But there is nothing for diversity to contribute to if we have no common projects as “citizens” of some sort—members of causes larger than ourselves and our “in-groups”—and as humans. Of course, we have to choose wisely.
CHAPTER 2  SOCIAL LINGUISTICS AND LITERACIES
ABSTRACT

Social Linguistics was initially an attempt to do two things. First, it was an argument that a new field was emerging out of work from different disciplines. In the first edition of this book, this field was called the ‘New Literacy Studies’. Second, I wanted to develop within this field a particular perspective on language and literacy with special reference to educational issues. The New Literacy Studies is now established and the perspective developed here has become one standard viewpoint within that field. What started as an ‘intervention’ is now ‘after the fact’, so the book can serve as an introduction to what it originally only hoped to help bring into existence. The book has been updated over the years with revisions to old material and the addition of new material, but its basic arguments have stayed the same.

Social and cultural approaches to language and literacy have made great progress since the first (1990), second (1996), third (2007) and fourth (2011) editions of this book. I hope that I have made some progress as well. In each new edition, I have tried to bring the book up to date and to make it easier to read. I have added and subtracted material. I have revised old analyses and added new ones. Nonetheless, through all five editions, it has remained at core the same book.

When this book was first written, the traditional view of literacy was ‘cognitive’ or ‘mental’. Literacy was seen as something residing primarily inside people’s heads, not society. This book sought to show the limitations of a purely cognitive view of literacy. However, in the intervening years, work on the human mind has become itself less purely cognitive and more social and embodied. This newer work makes psychology fit a good deal better with the sociocultural viewpoints expressed in this book. Thus, in newer editions of this book I have discussed how theories about the ‘social mind’ and embodied learning relate to sociocultural approaches to language and literacy.

Since the first edition of this book, digital media and ‘digital literacies’ have come to play a much more dominant role in society. They have changed the ecology of reading and writing and added new literacy, like forms of producing and consuming meaning. The new editions of this book discuss these matters more and more and relate them ever more deeply to how traditional literacy now works in the world.

This fifth edition rearranges the structure of the book for the first time. I have placed the material in more, but much shorter chapters than before. And I have changed the order of the chapters a bit. I hope and believe this will make the book more accessible and the argument clearer. As with every new edition, I have revised the
writing in the book to seek greater lucidity and clarity, a never-ending task in writing and part of what makes writing such an interesting challenge.

This book offers an overview of the sociocultural approaches to language and literacy that coalesced into the New Literacy Studies. It also introduces readers to a particular style of analysing language-in-use-in-society (see also Gee 2014a, b). Finally, the book develops a distinctive specific perspective on language and literacy centred on the notion of ‘Discourses’ (with a capital ‘D’).

The general argument of the book is this: to appreciate language in its social context, we need to focus not on language, but on what I will call ‘Discourses’. Discourses (‘big ‘D’ Discourses’) include much more than language. To see what I mean, consider the unlikely topic of bars (pubs). Imagine I park my motorcycle and enter my neighbourhood ‘biker bar’. I say to the burly, leather-jacketed and heavily tattooed man sitting next to me: ‘May I please have a match for my cigarette?’ What I have said is perfectly grammatical English. Yet, it is, nonetheless, ‘wrong’, unless I have used a heavily ironic tone of voice. It is not just the content of what you say that is important, but also how you say it. And in this bar, I have not said it in the right way. I should have said something like ‘Gotta match?’ or ‘Would’ya give me a light?’

But now imagine I say the right thing (‘Gotta match?’ or ‘Would ya give me light?’), but while saying it, I carefully wipe off the bar stool with a napkin to avoid getting my newly pressed designer jeans dirty. In this case, I’ve still got it all wrong. In this bar they just don’t do that sort of thing. I have said the right thing, but my ‘saying–doing’ combination is all wrong. It’s not just what you say or even how you say it. It’s also who you are and what you are doing while you say it. It is not enough just to say the right ‘lines’, you have to be [enact, role-play] the ‘right’ sort of person.

Other sorts of bars cater to different ‘types of people’. If I want to, I can go to many different bars and thereby be different ‘types of people’. So, too, with schools. Children are ‘hailed’ [‘summoned’] to be different sorts of students in different classrooms, even in different content areas like literature or science. In one and the same classroom, different children may be ‘hailed’ to be different types of students. One, for example, may be ‘hailed’ to be a ‘gifted student’ and the other a ‘problem student’. There are specific ways to get recognised – different in different schools and at different times – as ‘gifted’ or ‘a problem’. The teacher, the student and fellow students need (however unconsciously) to know these ways for ‘business as usual’ to go on. A good deal of what we do with language, throughout history, is to create and act out different ‘kinds of people’ for all sorts of occasions and places.
This conflicts with a common view that things like ‘gifted’ and ‘problem student’ are internal and fixed internal traits. But none of us can be (or act out) a certain kind of person unless such a niche exists in our environment. No matter what the shape of your brain, you cannot be a dyslexic (have serious problems with decoding print) in a society with no reading or one that does not use an alphabet (letters correlated with sounds). The Syrian Simeon Stylites (390–459 AD) achieved fame because he lived for 37 years on a small platform on top of a pillar. Today we would make him a mental patient. But in his time and society they made him a saint and called him, not ill, but an ascetic. Heavy multitasking can get one labelled ‘ADD’ (attention deficit disorder) in school and yet can earn one respect as a ‘digital native’ out of school. A fanatical and obsessive narrow focus can earn one a Nobel Prize in maths, but earn one disdain when devoted to other areas like, say, carving avocado pits into shrunken heads, unless one joins a worldwide internet site of fans devoted to such carvings and becomes a respected artist and member of the community. We need other people to be anything.

Discourses are ways of behaving, interacting, valuing, thinking, believing, speaking and, often, reading and writing that are accepted as instantiations of particular identities (or ‘kinds of people’, see Hacking 1986, 1994) by specific groups, whether one is being a lawyer of a certain sort, a biker of a certain sort, a business person of a certain sort, a church member of a certain sort, an African-American of a certain sort, a woman or man of a certain sort and so on and so forth through a very long list. Discourses are ways of being ‘people like us’. They are ‘ways of being in the world’. They are ‘forms of life’. They are socially situated identities. They are, thus, always and everywhere social products of social histories.

Language makes no sense outside of Discourses and the same is true for literacy. There are many different ‘social languages’ (different styles of language used for different purposes and occasions) connected in complex ways with different Discourses. There are many different sorts of literacy – many literacies – connected in complex ways with different Discourses. Cyberpunks and physicists, factory workers and boardroom executives, policemen and graffiti-writing urban gang members engage in different literacies, use different ‘social languages’ and are in different Discourses. And, too, the cyberpunk and the physicist might be one and the same person, behaving differently at different times and places. In this book I will use schools and communities, rather than bars, as examples of sites where Discourses operate to integrate, divide and sort people and groups in society.
Each of us is a member of many Discourses and each Discourse represents one of our ever multiple identities. These Discourses need not, and often do not, represent consistent and compatible values. There are conflicts among them and each of us lives and breathes these conflicts as we act out our various Discourses. For some, these conflicts are more dramatic than for others. The conflicts between the home-based Discourse of some minority children in the United States and the Discourses of the school are deep and apparent. Indeed, the values of many school-based Discourses treat some minority children as ‘other’ and their social practices as ‘deviant’ and ‘non-standard’.

The same was true of my home. I am white, but my home was not middle class in the ways in which schools often expect. These conflicts are real and cannot simply be wished away. They are the site of very real struggle and resistance. Such conflicts also exist for many women between their ways of being in the world as women of certain types and the dominant Discourses of male-based public institutions. Similar sorts of conflicts exist for many others, as well, most certainly for many people based on social class. They are endemic in modern pluralistic societies.

Each Discourse incorporates taken-for-granted and tacit ‘theories’ about what counts as a ‘normal’ person and the ‘right’ ways to think, feel and behave. These theories crucially involve viewpoints on the distribution of ‘social goods’ like status, worth and material goods in society (who should and who shouldn’t have them). The biker bar ‘says’ that ‘tough guys’ are ‘real men’; the school ‘says’ that the certain children – often minority and lower-socioeconomic children – are not suited for higher education and professional careers. Such theories, which are part and parcel of each and every Discourse, and which, thus, underlie the use of language in all cases, are forms of ideology. And, thus, language is inextricably bound up with ideology and cannot be analysed or understood apart from it.

I do not believe there is any one uniquely ‘right’ way to describe and explicate the workings of language in society. Thus, I do not see myself as in competition in a ‘winner takes all’ game with other social and critical theorists, many of whom I greatly admire. Certain ways of describing and explicating language and society are better and worse for different purposes. And any way of doing so is worthwhile only for the light it shines on complex problems and the possibilities it holds out for imagining better and more socially just futures.

This book has been in print continuously for 25 years and going. It has been updated to remain current, but it has really remained current because its core argument still
holds as strongly today as it did when it first appeared. For example, newer editions of the book argue that the views on literacy that appeared in the original edition of the book – and the core ideas of the New Literacy Studies – apply straightforwardly to digital media and digital literacies as well.

But, sadly, it is also true that many of the social problems in the world of 1990, when this book first appeared, are worse today than they were then – problems like inequality, greed, poverty, segregation and environmental degradation. Language and literacy, including digital literacy, are still too often today used to sustain inequalities and to create acquiescence to an unjust status quo. So there is new pressing work that must be done. This book is, at best, a start. But readers cannot let it be an end. They must dare to rethink language, literacy and the world in new ways, in ways that will go well beyond this book, and in ways that will truly make this book out of date. And, thus, finally, I pass the task to you. This will be the last edition of this book.
CHAPTER 3
A STRANGE FACT ABOUT NOT LEARNING TO READ
A STRANGE FACT

Politicians, policy-makers, and media in the United States claim we have a “reading crisis” (National Institute of Child Health and Human Development 2000a, b). They argue that lots of children are not learning to read well enough. Traditionalists argue that this is because children don’t get enough overt instruction on “phonics”: that is, the relationship between sounds and letters (e.g. the fact that the letter “a” stands for different sounds in words like “bat”, “bate”, and “calm”). More progressive educators argue it is because schools are too centered on meaningless and unmotivating skill-and-drill.

Oddly enough, learning to read is not a good thing over which to have a major controversy. Most children learn to read, regardless of what instructional approach a school adopts, as long as it is not particularly stupid (Coles 1998, 2000). Furthermore, school children in the United States do well on international comparisons of early reading (Elley 1992; Snow et al. 1998).

Who, then, are the children who do not fare well in early reading? Some are children with genuine neurological disorders making learning to read quite difficult. But the majority are poor or come from minority groups whose members have faced a history of prejudice and oppression (Snow et al. 1998). Though this fact is now well known enough to be taken for granted, we ought to see it as strange. Why should being poor or a member of a particular social group have anything whatsoever to do with learning to read in school? Isn’t the whole purpose of public schooling to create a level playing field for all children?

I should hasten to add that, though I will concentrate now on “poor” and minority children, the issue is not really poverty or minority group status in and of itself. The real issue is failing, for whatever reason, to be a member of a particular “in group.” For now, let’s just call this “in group” the “school club.” You don’t have to be particularly poor to fail to be a member of this “in group.” You simply have to feel unaffiliated with school and formal schooling for any of a variety of reasons. Not everyone who goes to school is in the “school club” and not everyone who is not in the club is poor or non-white. But, for now, let’s leave this issue aside and continue to talk about poverty and minority status.

Controversies over reading should have less to do with debates about methods of instruction and more to do with understanding the links between poverty and (not) learning to read. Understanding these links will illuminate much wider issues about learning and schooling, as well. The strange fact that poverty and learning to read in
school are linked is not caused by poor children being less good at learning than rich kids. To see that this is so, consider the phenomenon of Pokémon, perhaps the longest-running popular culture “fad” ever (waning now, though the points made below could equally well be made with Digimon, Dragon Ball Z, or Yu-Gi-Oh). Pokémon ("Pocket Monsters") are odd-looking little creatures that human trainers care for. They can fight each other, but losers don’t die, they just fall asleep. Pokémon appear on cards, as plastic figures, in video games, and in television shows and movies.

There are over 250 Pokémon now. But let’s just consider the Pokémon world as of the time the Nintendo Game Boy games Pokémon Red, Blue, and Yellow were out in the late 1990s (e.g., see, Hollinger and Ratkos 1999). Newer games have introduced yet more Pokémon. At the time, there were 150 Pokémon. They all had polysyllabic names, ranging from Aerodactyle through Nidoran to Wartortle. Each Pokémon name stands not for just an individual Pokémon, but a type. A child can collect several Aerodactyles or Nidorans in a game.

Each Pokémon falls into one of 16 types (Bug, Dark, Dragon, Electric, Fighting, Fire, Ghost, Grass, Ground, Ice, Normal, Poison, Psychic, Rock, Steel, and Water) that determines how the Pokémon fights. There are actually more than 16 types, since some Pokémon are mixed or hybrid types, but let’s leave that aside. Take Charmander, a Pokémon 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, Pokémon can evolve, as they gain experience, into one or two other Pokémon. 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 Pokémon has a set of skills that determines various sorts of attacks that the Pokémon can make in fights against other Pokémon. 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 Pokémon have a somewhat shorter list of attack skills, many have a longer list. Let’s for simplicity’s sake say that each Pokémon has eight possible attack skills.

There are other things children know about each Pokémon (e.g. which type is particularly good or bad at fighting which other types). But let’s stop here. What does a child have to know to name and recognize Pokémon? The child has to learn a
system: the Pokémon system. And that system is this: 150 Pokémon; 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 greatly simplified the real system.

However, many children’s Pokémon knowledge is deeper than even this implies. Children we have studied could readily name all 150 Pokémon and state their type, skills, and what other Pokémon they could evolve into when shown a picture of a Pokémon. But they could do more. When they searched for pictures of Pokémon on the Internet, the picture often came in slowly, one little strip at a time. When a small part of the top of a Pokémon was on the screen and the children were waiting for the rest of the picture to fill in, they could often identify the Pokémon. Since these children can identify one of 150 Pokémon by seeing only a small bit of it, this means that they have done a feature analysis of the whole system. From a small subset of one Pokémon’s features, the child can discriminate that Pokémon from all the others.

We had no trouble finding children who knew their Pokémon – children as young as five and six. Some of these children did not yet play the Pokémon video games or the card game. They knew Pokémon as plastic figures and pictures from books and the Internet. They imagined and acted out their fights, based on what they had learned from “Pokedexes” they had seen in books or on the Internet [a “Pokedex” is a list of the Pokémon, their types, evolutionary states, and skills].

I know of no evidence that mastering the Pokémon 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. Many schools banned Pokémon cards because poor children couldn’t get as many cards as richer children and spent lots of time trying to trade cards at recess. You can’t make good trades if you don’t know the system. There is no evidence that poor children weren’t often sagacious traders. In fact, it seems a bit strange – creepy even – to claim that an African-American child or a poor child might be inherently less able to engage with Pokémon than white or rich children. We do not, however, find such thoughts strange when we think about school learning, though we should. Certainly the capitalists who made and sell Pokémon have more trust in non-white and poor children than that.

Now, consider the following paradox. Traditionalists claim that the big problem in our schools is that we need to teach “phonics skills” more overtly and intensively. Phonics is the mapping between sound and letters [the fact that the letter “a” sometimes makes the sound /æ/, in a word like “mat”; the sound /əh/, in a word like “calm”; and the sound /A/, in a word like “made”). When children have to 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 needs to learn with which of 44 sounds each of 26 letters can be associated. This system is pitifully smaller than the Pokémon system. That system is 150 (Pokémon) 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 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 Pokémon, 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 Pokémon argument say something like this: “But Pokémon 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 Pokémon into a subject on the school curriculum, then certain children, many of them poor, would all of a sudden have trouble learning Pokémon. This is not (yet or necessarily) a criticism. For now, it is just a fact.

So what is it about school that manages to transform children who are good at learning (witness Pokémon), regardless of their economic and cultural differences, into children who are not good at learning, if they are poor or members of certain minority groups?

LEARNING TO READ

In the debates over reading, traditionalists advocate a sequential, skills-based approach to reading instruction (Carnine et al. 1996; Lyon 1998; National Institute of Child Health and Human Development 2000a, b). It’s all about “basic skills” (see Coles 1998, 2000, 2003 for discussion). First there is instruction on “phonemic awareness” (the conscious awareness that oral words are composed of individual sounds), then on phonics (matching letters to sounds), then practice with fluent oral reading (reading out loud), then work on comprehension skills. Each stage is supposed to guarantee the next. It’s a virtual assembly line. Henry Ford would have been proud. Traditionalists argue that learning to read requires overt instruction. For them, reading is what we can call an “instructed process.”
More progressive educators, on the other hand, stress meaning-making (Edelsky 1994). They believe that people learn to read best when they pick up the skills stressed by the traditionalists as part and parcel of attempting to give meaning to written texts. There have been many different non-traditionalist approaches, though Whole Language has been the best known of these after the 1950s (Goodman 1998). Traditionalists find the whole meaning-making argument romantic nonsense – a leftover 1960s permissive coddling of children.

Advocates of Whole Language argue that learning to read is a “natural” process in the same way in which the acquisition of one’s native language is a natural process (see Cazden 1972: pp. 139–42 for early and critical discussion of the issue). Every human child, barring those with quite severe disorders, acquires his or her native language through immersion in talk and activity. No instruction is needed or helpful. Whole Language advocates argue that this is how children should acquire literacy as well.

Many linguists, following the work of Noam Chomsky (e.g. 1965, 1968, 1986, 1995; see also Pinker 1994), argue that the acquisition of one’s native oral language happens in this “natural” way because acquiring a first language is biologically supported in human beings. Much as some species of birds know innately how to build their species-specific nest or sing their species-specific song, human children know innately what a human language can look like (including the parameters of possible variation across human languages) and how to go about “building” one. This is to say, in a sense, that for human beings acquiring a native language is a type of “instinct.”

Today’s reading traditionalists, supported by many linguists, myself included (Gee 2001; Rayner et al. 2001, 2002), argue that learning to read, unlike acquiring one’s first oral language, cannot be a biologically supported process and, thus, cannot be “natural.” Literacy (written language) is too new a process historically to have had the evolutionary time required to have become “wired” into our human genetic structure. Written language is, at the very best, 6000 to 10,000 years old – too short a time to have gained biological support. Furthermore, written language was invented by only a few cultures and only a few times, unlike oral language, which has existed for all human cultures for long enough to have become part of our human biological inheritance.

Learning to read is not a natural process like acquiring a first language or, for that matter, learning to walk. Such natural processes simply happen when a child is exposed to the right sorts of input and environments [e.g. speaking with others, moving around a 3D world]. They “unfold.” So does this mean, as the traditionalists argue, that reading is an instructed process? Does learning to read require lots of overt instruction? Not necessarily.
There are actually three major learning processes in human development, not two (natural and instructed). When humans acquire something by a natural process, like their first language or walking, we find that everyone, barring those with serious disorders, succeeds and succeeds well. This is the hallmark of biologically supported acquisition. All human beings acquire their first language well, and about equally well as everyone else (just the same happens with learning to walk). It never happens that Janie, a smart little girl, acquires English relative clauses, though Johnnie, a dumb little boy, acquires the rest of English but just can’t get those pesky relative clauses. Of course people acquire different dialects depending on where they are born and into which cultural group.

There are many things that for most human beings are acquired by more or less overt instruction. This is how most people acquire knowledge of physics, social studies, and mathematics. In such cases, we humans have no support from our biological inheritance. Even when instruction is good, we find a pattern in such cases where a small number of people succeed quite well and a far greater number succeed much less well. Every human is built to learn a native language well; not everyone is built to learn physics well.

We can construe the traditionalists’ argument that learning to read is an instructed process as a claim that learning to read is more like learning physics than learning one’s native oral language. We can construe the Whole Language argument that learning to read is a natural process as a claim that learning to read is more like learning one’s native language than learning physics. They are both wrong, since learning to read is neither like learning one’s native oral language nor like learning physics.

Besides natural and instructed learning processes, there are also what we can call “cultural processes.” There are some things that are so important to a cultural group that the group ensures that everyone who needs to learns them (Lave and Wenger 1991; Rogoff 1990). 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. Here we see a pattern where a few people really excel (as in physics), but everyone who needs to, again barring serious disorders, learns “well enough” (like acquiring a human language, though for cooking and other cultural achievements the standard of excellence need not be as high as speaking a native language). If most people learned to cook as well as they learn physics, whole cultures would starve.

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. 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 learners’ efforts. Texts or other artifacts (e.g. recipes, cookbooks) 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 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 – and this will be a major theme of this book – this last point about identity is crucial.

Now here is a problem with what I have just said: cultural learning 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 learning process even when they were not really “cultures” or were cultures only in some extended sense. For example, what I have called a cultural learning process 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 we can certainly use the word in an extended sense here, at least for the time being.

Let us return for a moment to instructed processes. We have argued that for most people learning something like physics is an instructed process. 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 cultural and not an instructed process (or not just an instructed process). Why? Because it is clear that deep learning works better as a cultural 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 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 cultural process (i.e. via becoming a member of the games culture).

What does it mean to learn physics as a cultural process (in our extended sense of “culture” where we are counting physicists as being their own cultural group)? Much
the same as what it meant to learn cooking as a cultural 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 and 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.

In today’s schools many instructed processes, not least those connected to learning to read, involve practicing skills outside any contexts in which they are used by people who are adept at those skills (e.g. good readers). If this is how children had to learn to play a computer or video game – and, remember, these games are often very long and quite challenging – the games industry would go broke.

Children who learn to read successfully do so because, for them, learning to read is a cultural and not primarily an instructed process. Furthermore, this cultural process has long roots at home – roots which have grown strong and firm before the child has walked into a school. Children who must learn reading primarily as an instructed process in school are at an acute disadvantage. It would be like learning to cook or play video games via lectures or decontextualized skill-and-drill. Possible, maybe, but surely neither effective nor easy.

Let me add here too that as schools turn reading into an instructed process, today’s children see more and more powerful instances of cultural learning in their everyday lives in things like Pokémon and video games. Modern high-tech society – thanks to its media, technology, and creative capitalists – gets better and better at creating powerful cultural learning processes. Schools do not.

DEEP CAUSE OF READING FAILURE

So the argument thus far is this: though you can turn learning to read into an instructed process, it works best as a cultural process. However, traditionalists would have us believe that poor readers, young and old, have failed to learn to read well because they have received poor skills instruction early on in school. In fact, this is the traditionalists’ answer to everything: kids learn math and science and anything else poorly in school because they receive poor skills training. It’s all about skills.
There is good reason, though, to believe that this traditionalist claim is not true, at least for people who do not have a genuine neurologically based reading disorder. Poor readers have not failed because of bad skills instruction, though, indeed, they may have received bad skills instruction. They have failed for a variety of more important reasons, one of which we will get to below (the others will have to wait until later chapters).

One skill that the contemporary traditionalists have focused on is “phonemic awareness.” Phonemic awareness is the conscious awareness that oral words are composed of individual phonemes or “sounds.” Thus, the word “shoe” is made up of two sounds, /sh/ and /u/, though the word happens to be spelled with four letters. Traditionalists now see phonemic awareness as the crucial prerequisite skill for learning to read (National Institute of Child Health and Human Development 2000a). And, indeed, non-literates often are unaware that oral words are made up of discrete sounds, though they are aware that words are composed of syllables. Thus, non-literates might not be aware that “mischief” has six sounds in it (/m/, /i/, /s/, /ch/, /i/, /f/), but they are aware that it can be decomposed into “mis” and “chief,” though they need not know these things are called “syllables.”

The central significance traditionalists place on phonemic awareness training is misplaced, though it is typical of traditionalists that they place great emphasis on skills outside the uses to which they are put. Consider, for example, the remarks below from the National Academy of Sciences’ report Preventing reading difficulties in young children (Snow et al. 1998; in the quotes below, the term “phonological awareness” is used for phonemic awareness and other aspects of knowledge about how sound works in oral language):

*studies indicate that training in phonological awareness, particularly in association with instruction in letters and letter-sound relationships, makes a contribution to assisting at risk children in learning to read. The effects of training, although quite consistent, are only moderate in strength, and have so far not been shown to extend to comprehension. Typically a majority of the trained children narrow the gap between themselves and initially more advanced students in phonological awareness and word reading skills, but few are brought completely up to speed through training, and a few fail to show any gains at all.*

[p. 251]
While a stress on phonological awareness and overt phonics instruction does initially help “at risk” students, it does not bring them up to par with more advantaged students. In fact, they tend eventually to fall back, fueling the phenomenon known as the “fourth-grade slump” (this fact is amply documented in the report, see pp. 216, 228, 232, 248–9, 251, 257). The “fourth-grade slump” (Chall et al. 1990) is the phenomenon where some children seem to acquire reading (i.e. pass reading tests) fine in the early grades, but fail to be able to use reading to learn school content in the later grades, when the language demands of that content (e.g. science) get more and more complex. The fourth-grade slump is made up of kids who can “read,” in the sense of decode and assign superficial literal meanings to texts, but can’t “read” in the sense of understanding, in any deep way, informational texts written in fairly complex language.

From remarks like the one quoted above, it would certainly seem that the problems poor and minority children have with learning to read must lie, for the most part, someplace else than a lack of early phonemic awareness training or other early “basic skills” training. The fourth-grade slump tells us this much (because here we see kids who have mastered early reading skills of the sorts traditionalists stress, but still can’t read to learn in the later grades). But what is the problem then?

Though *Preventing reading difficulties in young children* (Snow et al. 1998) is, by and large, a traditionalist document, the report acknowledges that there is something else that is more significant than early phonological awareness in predicting early success at learning to read. This is what the report calls “early language ability,” a loaded phrase, indeed.

Chaney (1992) also observed that performance on phonological awareness tasks by preschoolers was highly correlated with general language ability. Moreover it was measures of semantic and syntactic skills, rather than speech discrimination and articulation, that predicted phonological awareness differences.

(p. 53)

What is most striking about the results of the preceding studies is the power of early preschool language to predict reading three to five years later.

(pp. 107–8)
Let’s be clear: in the first quote above, “measures of semantic and syntactic skills” means how well children deal with what language means and with its structure (“syntax”). Kids who are good with meaning and structure in language also acquire good phonemic awareness early on and later learn to read well.

So what is this early language ability that seems so important for later success in school? According to the report, it is indicated by things like vocabulary (receptive vocabulary, but more especially expressive vocabulary, p. 107); the ability to recall and comprehend sentences and stories; and the ability to engage in extended, connected verbal interactions on a single topic. Furthermore, I think that research has made it fairly clear what causes such language ability. What appears to cause it are family, community, and school language environments in which children interact intensively with adults and more advanced peers and experience cognitively challenging talk and texts on sustained topics and in different genres of oral and written language (see pp. 106–8).

So a certain sort of early “language ability” is what causes both phonemic awareness and learning to read early and well. True enough, but we must be careful here or the term “language ability” can lead us into massive amounts of confusion. It is a very poor term indeed. I turn to this issue now.

LANGUAGE ABILITY

Do poor children have less “language ability” than rich ones? The way the term is being used above certainly makes it sound as if they do. But no, they don’t. Linguists have known for years that all children – including poor children – have impressive language ability. The vast majority of children enter school with vocabularies fully fit for everyday life, with complex grammar and with deep understandings of experiences and stories. It has been decades since anyone believed that poor and minority children entered school with “no language” (Labov, 1972; Gee, 1996). Every human being, barring those with very serious disorders, acquires a complex native language early in life – a language fully fit for the task of leading daily life in a human culture.

When Snow et al. (1998) uses the term “language ability,” it is not really talking about language ability in the sense in which all human beings acquire a fully fit native language. We have already pointed out earlier that it never happens (barring those with quite serious disorders) that Janie gets relative clauses and Johnnie doesn’t when they are both young children acquiring English as their native language. Rather, the report is talking about specific early “ways with words” that prepare children to
do well when they enter school. We can’t really understand what these are unless we understand some very basic and important things about language itself.

People think of a language like English as one thing – “a language.” 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 bookies, lawyers, or video game players.

I want to introduce an important distinction between two different types of varieties of language. This is the distinction between vernacular varieties and specialist varieties. 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. Different groups of people speak different dialects of the vernacular, connected to their family and community. Thus a person’s vernacular dialect is closely connected to his or her initial sense of self and belonging in life.

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 and activities. For example, they may acquire a way of talking (and writing) about fundamentalist Christian theology, video games, or birdwatching. Specialist varieties of language are different – sometimes in small ways, sometimes in large ways – from people’s vernacular varieties 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 and Cecilia 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 (as I well know when non-academics review my books and castigate them for their “jargon,” despite the fact that I try to keep it at a minimum).

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 of language. Of course there are some texts written in specialist varieties of language [e.g. nuclear physics] that many very good readers can’t read.
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 too (e.g. in a lecture).

Figure 1 lists the distinctions I am making here.

It is obvious that once we talk about learning to read and speak specialist varieties of language, it is hard to separate learning to read and speak 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 often differ in syntax and discourse features as well (“syntax” means the internal structure of sentences; “discourse” here means how sentences are related to each other across a text and what sorts of things can or cannot be said in a particular type of text). For example, suppose someone is studying the development of hornworms (cute green caterpillars with yellow horns). Contrast the vernacular sentence “Hornworms sure vary a lot in how well they grow” to the (academic) specialist sentence “Hornworm growth exhibits a significant amount of variation.”

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. It doesn’t “go with” the other things we say or write in this variety. At the cross-sentential level, specialist languages use many devices to connect, contrast, and integrate sentences across stretches of text that are not used as frequently, nor in exactly 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 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 going to the beach.

So what, for heaven’s sake, has all this got to do with poor kids having a hard time learning to read in school? School is, as it is presently constituted, ultimately all about learning specialist varieties of language, in particular academic varieties of language connected to content areas. Some children bring early prototypes of academic varieties of language to school – prototypes they have learned at home. Some do not. Those who do bring prototypes of academic language to school have what Snow et al. (1998) refer to as “early language ability.” Those who don’t don’t, despite the fact that they have perfectly good vernacular varieties of language and, as we will see below, a plethora of language abilities that don’t get rewarded at school.
In the next chapter I will demonstrate exactly what I mean by “early prototypes of academic varieties of language.” The examples will be familiar to many. They are things like children doing pretend readings of books, that sound like the child is reading a real book, or children reporting at dinnertime on their day in a fashion that sounds like a school report. Some families encourage their children to do these things, while others don’t – some, in fact, wouldn’t be caught dead doing some of these things.

For simplicity’s sake, I will now sometimes use the term “academic language” (as I just did in the last paragraph) as a shorthand form for “academic varieties of language.” I ask the reader to keep in mind that “academic language” is not one thing, but a set of different, though related, varieties.

The failure to bring prototypes of academic language to school is exactly why the fourth-grade slump happens. Children who do not bring such prototypes to school can learn to read in the sense of decoding vernacular language that is written down. But they cannot later read the early versions of academic varieties of language they see in books and sometimes hear teachers speak around fourth grade (often earlier today). This is because schools do not start the academic language acquisition process for these children – a process that has already started at home for other children. Rather, they teach these children to “read” only in the sense of being able to do phonics and dealing with the superficial literal meanings of words mostly in the vernacular. Poor children suffer the same sort of plight that someone who tries to pass French 4 without French 1, French 2, and French 3 does. This problem doesn’t say much about the children’s abilities, though it says a lot about the schooling system they are in.

On the other hand, schools allow children who bring early prototypes of academic languages with them to school to practice and acquire more complicated varieties of academic language step by step. They bring French 1 – sometimes French 2 – with them to school and can make the leap to French 4 in fourth grade, thanks to their ongoing acceleration at home, even if they have not had much focus on academic varieties of language in the early grades. Of course they are often in affluent schools, and in fact get lots of practice with academic varieties of language at school starting in the early grades. By fourth grade they are doing middle-school work.

So we need to move on to see what it means to learn early prototypes of academic language at home. We will see that ability per se does not have much to do with the matter. I turn to this topic in the next chapter.
CHAPTER 4

SCHOOL AND PASSIONATE AFFINITY SPACES
ESSAYIST LITERACY IN SCHOOL

For a long time now, in a sense, school has “owned” literacy. School honors and rewards a narrow range of literacy practices. It also honors a narrow range of oral language practices connected to literacy. Further, it honors and rewards some literacy practices that are never or rarely used in life outside of school. Let’s look at some of the major “ways with words” [Heath 1983] honored in school.

Ron and Suzanne Scollon (1981) have argued that the fundamental orientation to literacy in school is what they called “essayist literacy.” Essayist literacy is a style of discourse that demands (written and spoken) formal and explicit language. An essay is focused on a single well-developed topic. Essays are written in the voice of the rational intellect for other rational intellects. As we discussed earlier, author and readers are, in that sense, “fictionalized.” They are not writing and reading in terms of their own idiosyncratic and individual personalities (or they are seeking to hide them).

Historically, the nature of essayist literacy is a little more complicated than the above description implies (Bazerman 1988). Essays were a text form originally meant to present a personal point of view on a challenging or deep topic. This sounds like a pretty individualistic orientation. But, in fact, this personal point of view was supposed to be the point of view of an ultimately rational person who had special insight based on experience, education, elite birth, or expertise.

Think about how this view is reflected in expectations for an essay written for a college application today. Candidates have to present themselves as “special” (having a unique perspective to bring to the college), but not as idiosyncratic. Candidates typically share their beliefs and values, but cannot say they believe X because Uncle Fred told them. They have to claim something like their volunteer “service” (vacation) to the Caribbean led them to insights (that any rational person would share, if they, too, had had these experiences) about the toxic admixture of poverty and wealth in the developing world.

The word “essay” has come to stand for a wider range of argumentative forms. It now often includes such things as factual reports, biographical essays, editorials, and, sometimes, academic research papers. There is, of course, considerable value in well-argued and focused rational argumentation. But in school there are problems with the emphasis placed on essayist literacy as well. First, essays are often, out in the world, written by experts in the essay’s topic. Students are typically just pretending to be experts, or at least being asked to pretend they are experts.
Second, essays in the world are usually written by people who care a good deal about their topic. Students often do not care about the topic, since typically they did not choose it. They are expected to pretend to care.

Third, in the everyday world, the essay as a way of intellectually confronting, at a fairly deep level, key human questions or dilemmas has pretty much been replaced, on the one hand, by (not always so rational) media and, on the other, by professional academic papers. The result is that students rarely encounter examples of essays in their daily lives, making this form seem even less relevant and giving students little exposure to models of good (or bad) essays.

Finally, the vast majority of people (including “powerful” and successful people like CEOs) do not write essays of any sort after they leave school. There is, of course, still a role for the essay in society, but its place in the ecology of literacy has changed considerably since its invention as a form in the sixteenth century.

**SCHOOL CONTENT**

Another orientation to literacy in school is what we might call teaching “content literacy” (Gee 2004). In school, “content” is identified by labels like “algebra,” “biology,” “civics,” and “literature.” School content is loosely connected to academic disciplines. It is basically the “knowledge” (in a quite oversimplified form) such disciplines have produced over the years, sanctioned by authorities, commoditized into textbooks and similar texts. By the time such content gets to school, it becomes “what every educated person ought to know” (about science, for example, or history) or the “facts” and “information” every “informed” person ought to know.

There are many problems with content literacy. First, academic disciplines produce content with methods, tools, practices, and controversies that are essential to its production and necessary for evaluating that knowledge (as “content”). But schools present the content without the methods, practices, and controversies.

Second, as we said in the last chapter, cutting edge academics today often work collaboratively on themes or challenges that transcend a single discipline. Rather than teach “social studies” in school (a term for the “content” of the social sciences as this content is reduced to “facts” and information for school textbooks), perhaps schools should teach students urban planning where they could put the tools of various social sciences (economics, sociology, ecology, and political science) together to think about real problems and challenges. Perhaps they could even engage in this task collaboratively, each specializing in one area, teaching it to others, and all
combining their knowledge and skills. There are digital tools today that allow young people to do just this in games that are like \textit{SimCity}, but which are more realistic in regard to real urban planning (Shaffer 2007).

Third, a considerable amount of important knowledge today is produced outside of academic institutions, sometimes well outside them. It is produced in think tanks, businesses, workplaces, across the Internet, and, most distinctively today, in popular culture activities using digital media. We will describe an example of just this later in the chapter. Today students can engage in knowledge production outside of school, but often only engage in fact and information consumption in school.

Fourth, ”content” (meaning information and facts) is today ”cheap,” that is, easy to get. It can be found all over the Internet. Understanding the methods for producing such content and reasons for trusting it (or not) is, however, not cheap or easy. School is still often about the former and not the latter.

Fifth, a tremendous amount of school ”content”—”what every educated person should know”—is, in fact, not true or it is so oversimplified as to be misleading. Textbooks repeat what other textbooks have said, errors included (Gould 1985). To use an example of ”content” from our field, linguistics, an oft-heard claim is that ”Eskimo languages” have dozens or hundreds of words for snow. But this is not true (Pullum 1991).

Sixth, academic disciplines and newer cross-disciplinary research endeavors are not about producing ”content,” but about solving problems. The ”content” [facts, information, skills] they produce is used as a set of tools to help them solve problems. School abstracts the content from the problems and we get students who can pass tests, but not solve problems. We mentioned in a previous chapter that students who can recite Newton’s laws of motion often cannot apply those laws to solve a real world problem.

Seventh, much of the ”content” any educated person will need to know in the future, out of school, has not yet been discovered. People need to be more adept at learning new things than storing old, oversimplified, sometimes false ”facts.” Increasingly school needs to prepare students for future learning (Bransford & Schwartz 1999).

\section*{TEST LITERACY}

A third orientation to literacy in school is what we can call ”test literacy.” Tests define what students should know and should be able to do. Today’s tests often lead to knowledge and practices that are used nowhere else than in school. Take reading
tests as an example. Such tests often (though this is now changing somewhat) involve reading short passages on many different topics (none of which the reader may care about) and answering questions about important or unimportant aspects of the passage [Hill & Larsen 2000]. The questions are determined by test design (the need for scores to fall into a bell curve), not relevance to the passage or any real purpose connected to reading it.

On such short-passage tests, and even on tests now using longer, more connected passages, the questions are often ones that can be answered without reading the passages [Owen 1985]. For example, we gave a fourth-grade “high-stakes” reading test with a long passage about monkeys to a first grader. We did not give him the passage, only the questions. He answered 80 percent of the questions correctly. He was from a privileged family and had read, heard, and seen a great deal about monkeys and other animals. His background knowledge was enough to answer the questions on a “reading” test meant for older children.

Such reading tests do indeed constitute a literacy practice, but it is a practice that is used nowhere else in life. In fact, there are aspects of this reading test practice that contradict what children are told elsewhere in school. On such tests (and, for example, on the SAT reading test), students are told not to make inferences about the text based on their experiences in the world [Owen 1985]. This, by the way, is good advice for these tests; such tests punish test-takers for drawing on their own experiences rather than sticking to the information in the text alone. But elsewhere in school, students are told to use their experiences to understand and make connections to the texts. Of course, we typically draw on our experiences when reading outside of school.

Tests tell teachers and students what reading, science, mathematics, and other subjects are. Often, as with the reading tests we just discussed, they make these subjects something they never are or rarely are in life. It is an interesting fact that young people in countries that perform the best on international comparisons of science and math tend to have the least positive attitudes toward science and mathematics (TIMSS 2000a, 2000b). These tests, as all important tests, shape how people think about learning science and mathematics and the view of learning they give is, in fact, not terribly motivating or attractive to students, even when they can pass the tests.

Test literacy—learning to take tests and treating topics like reading and science the way tests suggest we should—has other interesting properties. One is that, in many cases, a standardized test that was designed in another state by a national company,
taken on one day outside the course of normal instruction, trumps the assessment of the teacher who has been with the students for months. It trumps, as well, any assessment of how students have grown and developed across time, since a student who has made considerable progress and one who has not are judged the same if they get the same score. Yet Johnnie may have started way behind Janie and made much more progress in a given time period than she has.

We would only change our approach to testing if we wanted to change what and how schools teach. If we taught problem solving and the use of content [information, facts, and formulas] as tools for solving problems we would need new tests. In turn, we would get students who knew content and could solve problems, while, today, too often we get students who have only [temporarily] retained a good deal of content in order to pass a test.

**SCHOOL REFORM AND LEARNING REFORM**

There are many efforts today to reform schools, and there are many controversies. Some people want to make our schools better at what they already do: essayist literacy, content literacy, and test literacy. Others want a new paradigm based on problem solving, collaboration, important themes or challenges, the ability to innovate and create, and the ability to understand and deal with complex systems. Some people even want both: the latter for children from affluent backgrounds and the former for poorer kids presumably headed for service jobs.

While people fight over how to reform our schools, a whole new “school system” has arisen. It represents the deepest competition schools have ever had. Young and old people are learning in this new out-of-school system, and they are learning in ways that are radically different from how learning is organized in school [Gee 2004, 2007b, 2007c; Gee & Hayes 2010; Ito et al. 2010; Jenkins 2006a, 2006b]. Some educators are drawing new ideas for school reform from this new out-of-school system. Others argue that the sort of learning that goes on in this new system could never happen in school, at least not any schools remotely like we have known up to now.

As policy makers, politicians, and educators debate school reform, there has been a massive and sweeping reform not of schools but of learning in society outside of school. This reform has been facilitated by digital media.
THE NEW OUT-OF-SCHOOL LEARNING SYSTEM: PASSIONATE AFFINITY SPACES

The new learning system, competing today in many respects with our school systems, is learning as part of popular culture. Popular culture is more complex today than it has ever been, as we will soon see (Johnson 2006). Many different things happen in popular culture, good and bad, deep and superficial. Here we want to talk about one type of learning associated with popular culture, a type that is, we argue, complex, deep, and knowledge-producing.

There is no "official" name for this type of learning, so we will have to make one up. We will call it “passionate affinity-based learning.” Passionate affinity-based learning occurs when people organize themselves in the real world and/or via the Internet (or a virtual world) to learn something connected to a shared endeavor, interest, or passion. The people have an affinity (attraction) to the shared endeavor, interest, or passion first and foremost and then to others because of their shared affinity.

Just as school is, in one sense, a place or space where people (students and teachers) are “in school” or “at school,” passionate affinity-based learning is done in a place or space, what we call a “passionate affinity space,” which may be real or virtual or both (Gee 2007c; Gee & Hayes 2010; Hayes & Gee 2010). A passionate affinity space, and the learning that goes on in it, requires some people associated with the space to have a deep passion for the common shared endeavor. It does not require everyone to have such a deep passion, but it does require them to recognize the value of that passion and respect it, in some sense.

Young people learning and playing the video game Civilization or playing chess in a club or via the Internet (or some mixture of both) are in a passionate affinity space, if the conditions are right. So, too, are people building and testing robots or model cars in competitions; people writing fan fiction; people designing land, houses, clothes, and furniture for The Sims (a video game); people sharing gardening or cooking lessons and expertise; and through almost any endeavor you could name.

What are the right conditions for a passionate affinity space in which people engage in passionate affinity-based learning? Passionate affinity spaces are a type of interest-driven group (Ito et al. 2010). (However, we are trying to avoid words like “group” and “community,” since in a passionate affinity space and many so-called interest-driven groups, who is “in” the group is not always easy to define. A person who goes once or rarely to a passionate affinity space for resources or “lurks” in it is in the space, but are they in the “group” or “community”? The point is that people are in the space in different ways.) These spaces must have additional features as well.
First, people are associated with them because of their shared endeavor or interest, not because of their “credentials” (e.g. degrees). They can achieve expert status regardless of their official credentials. Such spaces cannot be defined around or restricted to “professionals” in any credentialing or institutional sense.

Second, some people (usually, but not always, around 20 percent) must have a deep passion for the common endeavor, not just a passing interest (Gee & Hayes 2010; Shirky 2008). This passion may be reflected in different ways, such as an extended commitment of time to the interest and space, high levels of production, and so forth. Others in the space will have many different degrees of interest and may come and go in various ways. But they must affiliate with others in terms of the common interest and show that they respect and value the passion that fuels the most active people in the space.

Third, in passionate affinity spaces, everyone can, if they choose, produce (produce knowledge, create things, do things) and not just consume what others have produced. Of course, there can be and usually are standards—high ones—about what counts as good production and people who produce must accept (or seek to negotiate) and meet those standards.

Fourth, in passionate affinity spaces, people sometimes lead and sometimes follow. Some people lead in some situations and others lead in others. Leadership is flexible, and takes different forms, such as managing the site, introducing new ideas and practices, and helping others. People sometimes mentor (“teach”) others and sometimes get mentored. Mentoring is flexible.

Fifth, knowledge in the affinity space is “distributed” in the sense that different people know different things and can share that knowledge when necessary. Often the space has good tools and technologies that store and facilitate knowledge. No one person has to or is expected to know everything all by themselves.

Sixth, the affinity space is not closed, though there may be requirements for entry, and takes in newcomers (“newbies”). It refreshes itself. Unlike school, people do not “progress” all at the same pace, age, or “grade.” Movement in the space is quite varied; people may focus on one narrow aspect or explore the entire breadth of the interest area, spend as much time as they want on a particular set of skills or practices, and otherwise pursue quite different learning trajectories.

Seventh, affinity spaces are about sharing a common endeavor where people learn things, produce things or knowledge, and can, if they wish, become experts.
("professional amateurs" or "pro-ams," see: Anderson 2006; Leadbeater & Miller 2004). Even these experts believe there is always something new to learn, more to discover, and higher standards to achieve.

Passionate affinity spaces are one distinctive type of interest-driven group. People can be nice or mean within them. Some operate quite cordially and collegially and some do not. In some, people flame each other and “haze” newbies (to ensure that they are “tough” enough). Both caring and cruel passionate affinity spaces can produce knowledge and learning. Both are, in that sense, alternatives to our traditional school system. We prefer caring passionate affinity spaces, as we prefer caring schools.

We want to focus now on how learning happens in passionate affinity spaces and how radically this differs from school as we know it. In the rest of this chapter and in the next we turn to video games as one (but only one) area where the new out-of-school learning is apparent.

EARLY PASSIONATE AFFINITY-BASED LEARNING: THE ROLE OF “AMATEURS”

We will delve into some of the main attributes of out-of-school passionate affinity-based learning in the next chapter. In that chapter we will discuss specific examples. This new out-of-school learning system does not require digital media, but digital media were essential to its rapid growth.

Passionate affinity-based learning is not really new. It is just much more widespread today than it has ever been, thanks to digital media. In the eighteenth century and much of the nineteenth century a good deal of scientific discovery occurred through something akin to a passionate affinity space. Many scientists were “amateurs” (Allen 1994; Lucier 2009; Myers 1990). Many did not work for scientific institutions or universities, but “did science” on their own. They supported their research with their own money (as did Darwin and Benjamin Franklin), or they might generate funds by collecting samples for others or giving paid lectures to the public (as did Alfred Russel Wallace, the co-founder of the evolutionary theory).

The amateur scientists kept in contact with others across the world via letters. They shared their discoveries and gained help from others in different countries. They sometimes met face-to-face in official and unofficial meetings, but they may never have seen some of their correspondents. People with different degrees of expertise and of different ages dealt directly with each other. Those with more expertise often welcomed the involvement of newcomers and helped them get started, if the newcomers were sufficiently dedicated.
Science journals in the eighteenth and nineteenth centuries published articles that were written as letters and contained narratives about what the scientist had seen and done (Myers 1990). The more standard scientific “essay” arose as more formal societies for science were organized, began to compete with each other, and as science gradually became a more professional activity (Bazerman 1988). Of course, science eventually became rooted in universities and other institutions, a process that started in the nineteenth century. People who did not have the “right” credentials or work for the right sort of institutions no longer counted as scientists. The “amateur scientist” died out, for the most part.

Another activity that was organized into passionate affinity spaces was “birding” (Weidensaul 2007). People with a passion for finding birds and keeping lists of the birds they saw, by the twentieth century, organized themselves into clubs. They published newsletters that contained members’ lists. Expert birders kept in contact by letters, newsletters, and trips to “bird” with each other. They shared knowledge about where to see rare birds. Even very adept birders mentored each other and welcomed interested newcomers. Today birders use phones and the Internet to alert each other to places where interesting or rare birds can be seen.

In the nineteenth and twentieth century, birders competed with ornithologists (with some conflicts) to discover new knowledge about birds and their habits. This is true even today (and rarely in any other area of science), though official “credentials” mean more than they ever have, even in ornithology.

Such early passionate affinity-based learning was reliant on literacy. Letters, lists, and newsletters were crucial for storing and sharing knowledge. Bird guides (books that help birders identify birds) became foundational for modern birding to flourish, just as did binoculars and scopes.

What was true of nineteenth century science and of birding has become commonplace today. Thanks to digital media the reach of passionate affinity-based learning has exploded, and this has meant a return to “amateurs” who compete with professionals (Anderson 2006; Leadbeater & Miller 2004; Shirky 2010). This return of amateur knowledge production is raising questions about the meaning of professional credentials. It has been a long time since “amateurs” like Darwin or Franklin could become world-renowned experts. But that time is returning. In the next chapter we will see “amateurs” (old and young) producing all sorts of knowledge outside the strictures of credentials and institutions.
The nature of expertise and knowledge production has changed in our current world. Today, more than ever in history, humanity faces the perils and possibilities of complex systems. Complex systems have so many variables interacting in such complex ways that it is difficult (or impossible) to predict how the system will behave. When we intervene in such systems there tends to be many unintended consequences, some of them potentially quite disastrous.

Complex systems have always existed. The environment, weather, national economies, as well as the global economy, the rise and fall and clash of civilizations, the growth and interaction of religions, and the spread of viruses are all complex systems. What is new is how humans have intervened in these systems, or created new complex systems, to the point where we are constantly endangered by the unintended consequences of what we do and what we have created.

Many former “natural systems” are today hybrids of nature and human intervention. The heat in Phoenix is now caused by nature (it is a desert after all) and by the “heat island” effect caused by too much concrete storing heat all day and releasing it at night. Global warming is an intricate mix of nature and human intervention and it is hard to disentangle the effects of each (Gore 2006). Our rivers, streams, and oceans are so polluted, overfished, and redirected (by dams, reservoirs, and so forth) that they are no longer “natural” systems. Human global interactions with each other and the environment (e.g. cutting into rainforests, traveling across the world in planes) have exposed us to viruses we have never seen before.

Understanding complex systems requires the work of more than a single lone expert. It requires a team of experts, each with their own specialty, but each capable of understanding the big picture, working with other experts, and creating new interdisciplinary tools, methods, and shared language. The “wisdom of the crowd” (Surowiecki 2004) also plays a role, since the knowledge that diverse sorts of everyday people have, when pooled, can lead to important insights that are beyond even the experts.

A core skill in the new global “knowledge economy” is what we call “system thinking” —being able to think about and work with others to deal with complexity and complex systems. This core twenty-first century skill should by no means be restricted to credentialed professionals. Everyone needs the ability to deal with complexity today.
We have claimed that out-of-school learning in passionate affinity spaces is competition for schools as we have traditionally thought of them. Learning in these spaces is organized quite differently than in schools. Often people of different ages are together. Different people teach or mentor at different times. The emphasis is on problem solving centered on a shared theme or endeavor, not on “content” derived from a discipline. Finally, passionate affinity spaces often involve systems thinking and other twenty-first century skills not often on offer in schools today. We will close this chapter with a couple of short examples to make clear what exactly we mean.

Our first example is a teenage girl from a rural and working-class family in the Midwest [Gee & Hayes 2010]. This girl we will call “Jade.” Jade was an average student in school at best. She liked to play video games, and at one point, she played the video game *The Sims*. *The Sims* is a game where the player constructs and maintains a household, a family, and a neighborhood through long periods of time (a lifetime or even generations). It is a simulation of life. It is also the best-selling game in history. One attractive feature of the game is that players can buy or create houses, furniture, clothes, and many other things for the “Sims” (virtual people).

Jade joined an after-school club that was meant to help young women get interested in technology. The club used *The Sims* as one activity, to see if the game could be used as a starting point for fostering an interest in technology among the girls (as computer games seem to do for boys more generally). Jade had stopped playing *The Sims* before joining the club. Though she played the game again as part of the club’s activities, she soon lost some of her interest in playing. Instead, she became fascinated by the potential to create clothes from pictures of real clothes, using Adobe Photoshop, and import them into the game for her Sims to wear.

Jade did not know how to do any of this, nor did the people running the club. They told Jade she would need to learn about Photoshop, and directed her to some online tutorials. Jade spent weeks following tutorials on *The Sims* fan sites, learning to use Photoshop (no easy task), and perfecting her ability to create new Sims clothing. Making clothes for *The Sims* in this way requires technical knowledge about images, vision (i.e. how to transform images in ways that look realistic), Photoshop, and the underlying source code in *The Sims*. It also requires “taste” and a sense of design.

Jade encountered highly technical and specialist language as she learned to use tools like Photoshop and follow *The Sims* design tutorials. Even the most basic tutorials required that she interpret the names of files and file extensions (such as
alpha.bmp and NormalMap.texture.bmp), understand that file extensions refer to different kinds of files that may or may not be modified with different tools (i.e. Photoshop files have PSD extensions and cannot be opened with Bodyshop, a Sims tool that requires the use of bitmap [BMP] files). She also had to understand the meaning of terms that related both to tools in Photoshop and to aesthetic features of what she was designing, such as hue, saturation opacity, spread, and noise. Other terminology found in Photoshop and its tutorials were important to the design process itself, such as layer mask, anti-aliased (a property of the image), contiguous (in this case, the areas adjacent to a selected color range), and tolerance. She had to associate icons with different tools and properties of the image she was editing. Often she had to interpret a combination of numeric and textual information: 1024 x 1024 pixels, 100 percent opacity, and so forth.

Jade joined a Sims fan site where The Sims designers mentored newcomers and where people could upload their creations to let other people use them in their games. She became a better and better designer with help from people on the site. Eventually hundreds of people from around the world downloaded her designs and left notes thanking and praising her. This inspired her to go further.

Jade learned about Second Life in her club, a virtual world with content built by its own players, using complicated 3-D design tools that Second Life makes available. Most people in Second Life just buy what others have designed (houses, developed land, furniture, clothes, cars, and almost anything else you can think of), finding the design process too demanding.

Jade became involved with the teen version of Second Life. There, with help from members of that space, she built her own store and designed clothes and other things for Second Life. She sold them for “Linden dollars” (Second Life’s currency), which are legally exchangeable for “real” money. She began to run her own business and make money.

Jade became interested in technology more generally and became quite adept with computers and software. She earned the respect of her friends, teachers, and the many people she met on The Sims fan site and in Teen Second Life from across the world. When asked what her experiences had taught her and any influence they had on her goals, she said she had learned that computers give you power and that she wanted to work with computers.

Jade is still not very successful at school. Her school would never really officially acknowledge her growing skills or give her credit for them. When she wanted to take...
a graphics art class, the school would not let her unless she took a prerequisite course that was, by this time, all “baby stuff” for her. A low grade in a previous math course kept her out of a computer programming course she wanted to take.

Outside of school, Jade learned computational skills, the ability to use different software, the science of transforming images, design skills, entrepreneurial skills (as she ran her business), global communication skills with people across the world, and gained respect and confidence. She learned none of this at school. Her learning out of school, though deeper than school, led to no official credentials. That learning was supported by passionate affinity spaces like The Sims fan site and Second Life, as well as the club she joined, run by people who well understood passionate affinity-based learning and spaces, as well as the importance of linking young people to them.

The skills Jade learned out of school are arguably more important for her future than much of what she learned in school. Furthermore, her out-of-school learning motivated her desire to learn more at school, though the school refused to let her pursue this interest on her terms. Unfortunately, only school could give her an official credential to “verify” her learning.

Our second story is about Jesse, a Latina woman in her twenties [Hayes & Gee 2010]. Jesse did reasonably well in school but struggled in her geometry class. As a young adult, Jesse began playing The Sims Online, a multiplayer version of The Sims (no longer active). She actually ran a Mafia family in The Sims Online for a while. Jesse eventually gravitated to Second Life, along with many of her friends from The Sims Online. There she then became interested in being a designer, particularly of houses and other environments. One motivation was her desire to create large and attractive spaces for her extended Mafia family (reconstituted in Second Life) that had dozens of members.

To design objects for Second Life one must use a 3-D design tool that requires knowledge of geometry. After all, objects, houses, and landscapes have parts that must fit perfectly together. The Second Life 3-D design tool uses a 3-D grid with x, y, and z coordinates, allowing designers to see the relationship of numeric values to an actual object as they create it. Jesse practiced with this tool for many hours and became a respected designer. She observed that geometry now made sense, because she could actually see what happened to objects when she manipulated their numeric coordinates, even walk through [with her avatar] something she created to experience the result. She now feels quite comfortable with geometry, likes it, and helps other people with it. Furthermore, she is today a graduate student studying educational technology, inspired by her work in Second Life.
Jesse learned geometry in *Second Life*, out of school, when it was part of what was called “designing.” She acquired a situated understanding of geometric terms and concepts that previously were abstract and meaningless, such as axis, coordinates, coordinate planes, directrix, slope, transversal, vertex, and many others. She did not learn geometry in school when it was called “geometry,” she had no purpose for learning it, and there was not a passionate group of people around to help her, respect her, and let her help them.

School “owns” what counts as “literacy” and “knowledge.” School “counts” only a narrow range of each. Jade and Jesse picked up new “ways with words” as they became “amateur experts” (that is, experts without credentials). They had to master technical language as they mastered technical practices. They had to master artistic language as well, as they also mastered aesthetic practices. Technical knowledge and artistic knowledge were nowhere near as separate for them as they are in school or in our current obsession (in the United States, at least) with STEM (Science, Technology, Engineering, and Mathematics).
CHAPTER 5

WHAT IS DISCOURSE ANALYSIS
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INTRODUCTION

This chapter is an overview of what the word “discourse” means – or, at least, what it will mean in this book – and an introduction to the perspective on discourse analysis this book will develop. Some readers will be helped by an initial “big picture” view from the top. Others may prefer to enter the water more slowly. If readers find this chapter too arid, they should start the book with the next chapter and return to this one when then feel ready for a “big picture” view.

In the last chapter, we said that when we use language we are saying, doing, and being. When I am a professor in a meeting with a student, I say and do professor things as I enact my identity as a professor. When I game (play video games), I say and do gamer things as I enact my identity as a gamer. When I “bird” (go bird watching), I say and do birder things as I enact my identity as a birder. To say, do, and be something I need other people and things in the world in order say, do, and be. I need other professors (and students and colleges), other gamers (and games), and other birders (and birds).

WHAT DOES THE WORD “DISCOURSE” MEAN?

The word “discourse” is used in different ways in different academic areas. And different types of discourse analysis are used in a variety of different disciplines. We humans can analyze nearly anything in terms of meaning. We can treat anything as a sign or symbol and give it some meaning. For example, babies, mountains, and stars can be, for us humans, not just things in the world, but symbolic of meanings like innocence, majesty, and infinity. However, to linguists “discourse” names a part of language that has an intimate relation to syntax (“syntax” means the structure of language, the way words and phrases combine together into sentences).

So what is syntax, and what has discourse got to do with it? Think about painting. If you want to paint a picture, you have to compose different parts of it to fit together in the ways you want. All the elements compose one thing, a painting [though the eye takes in bit by bit, in pieces]. Now think of an animated film. Each frame in the film has to be composed [drawn] just like a painting. The designer has to choose what elements to put into each frame and how they should fit together. Perhaps a loving couple to the left, a large tree to the right, and a waning moon at the top. Each frame is a picture that could stand by itself. However, animated films are made up of many different frames that flow [very fast] through time, one after the other. The art is in both the drawing and the sequence of drawings. So the film makers have two choices to make: first, what to put in each frame [picture] and second, how to sequence frames one after the other to tell a story or achieve an effect.
Language, like film, flows in sequence through time. In language, we call a frame (a single picture) a “sentence”. “Syntax” names the “rules” (conventions) we follow when we compose the parts of a sentence. Like a painting or a film frame, we choose what elements to put in the sentence and how they should combine or fit together. So, in “Microsoft’s new operating system is loaded with bugs” I combine elements (noun phrases, verb phrases, subjects and objects, and so forth) in one way, and in “Microsoft loaded its new operating system with bugs” I combine elements in a different way. Each sentence follows the conventions of English grammar. Each says a different thing. The first makes the bugs sound like a mistake, and the second makes the bugs sound like something Microsoft did on purpose.

Like film, language moves through time. So having composed a sentence (like a frame in film), we have to choose how to order our sentences one after the other to tell a story or a joke, make an argument and an excuse, write a report or a rant, and so on through a great many other possibilities.

Now we can see one meaning linguists have given the word “discourse”. Discourse is the sequence of sentences. It is the ways in which sentences connect and relate to each other across time in speech or writing. As we speak or write we choose what words and phrases we will put into or “package into” sentences. Discourse concerns how various sentences flowing one after the other relate to each other to create meanings or to facilitate interpretation. If we applied the word to film, it would mean a sequence of frames that compose a part or all of a film.

For example consider the examples below:

1. The destruction of my home in the fire took only an hour.
2. My home was destroyed in the fire. It took only an hour.

Much the same information is expressed in [1] and [2]. However, that information is all combined into one sentence in [1] and is expressed in two separate sentences in [2]. The information that my house was destroyed relates to the information that it took only an hour syntactically in [1]. The same two pieces of information are related by discourse (or “at the level of discourse”) in [2].

Why say it one way or the other, why use [2] rather than [1]? This decision depends not just on what the speaker or writer wants to say, but on who the speaker or writer takes the listener or reader to be (e.g., friend, reporter, first responder, neighbor, stranger, etc.), and what he or she wants the listener or reader to feel, think, and possibly do (about the situation and about the speaker/writer).
Some people think that the notion of a “sentence” is relevant only to writing. This is not, in my view, true. Sentences work differently in speech and in writing, as we will see in this book, but syntactic relations and intonation do demarcate sentences in speech, albeit more flexibly and loosely than they do in writing.

What is a sentence at the most fundamental level? It is a way to background and foreground information in the same “unit,” much like in a painting or film frame. It is a way to treat some information as foregrounded (the main point) and other information as subordinated to the main information, that is, as background. Thus, consider the examples in (3) and (4):

3. Though money often determines the outcome of elections in the U.S., we still call the U.S. a democracy.

4. Though we still call the U.S. a democracy, money often determines the outcome of elections.

In (3), the speaker or writer is assuming that money often determines the outcome of elections in the U.S.; this is information that is background and that the speaker or writer asks the listener or reader to assume or take for granted. The speaker or writer is claiming (asserting) that nonetheless we still call the U.S. a democracy. This is information that is in the foreground and that the speaker or writer asks the listener to treat as the main claim to be discussed or disputed.

The situation is just the reverse in (4). Here the information that we still call the U.S. a democracy is assumed and backgrounded and the information that money often determines the outcome of elections is asserted and foregrounded.

It is the little word “though” that helps determine which piece of information in (3) and (4) is background and to be assumed and taken-for-granted, and what information is foregrounded and asserted as the main claim. Linguists call structures like “Though money often determines the outcome of elections,” or “Though we still call the U.S. a democracy,” “subordinate clauses”.

Why do we combine sentences one after another? Why do we combine frames in a movie one after the other? Filmmakers combine frames to create bigger things than a single frame, to create things like scenes and episodes and stories. We combine sentences to create bigger things than a single sentence, to create things like conversations, reports, stories, jokes, arguments, or meaningful parts of them (e.g., the set-up of a joke, the premises of an argument, the finale of a story, the first stanza of a poem, and so forth).
ANOTHER MEANING FOR THE WORD “DISCOURSE”

There is another – and partially related – meaning linguists have given to the word “discourse”. This meaning is this: discourse is language-in-use (language actually used in specific contexts). When we study language-in-use, we study language not just as an abstract system (“grammar”), but in terms of actual utterances or sentences in speech or writing in specific contexts of speaking and hearing or writing and reading.

Of course, in most cases, whether in speech or writing, we use language to produce more than one sentence and our sentences follow one after each other. This is where the first meaning of the word “discourse” kicks in: relationships across sentences. But, of course, we can utter or write just one sentence, as in “Get out quick!” or “Can I have some coffee, please?” When linguists study language-in-use – and use the term “discourse” for this – they are concerned with the relationship between language and context, with the ways in which contexts help determine the full extent of what we mean or can be taken to have meant. For example, in a context where liquid coffee has spilled, “Clean it up” means go get a mop, while in a context where a can or tin of coffee grains or beans has broken open, it means go get a broom.

This sense of the word “discourse” – namely, language-in-use – is like the study of how people actually interpret films as they watch them. Such a study would have to investigate the clues and cues (how frames have been composed and how they have been sequenced) filmmakers use to help shape how film goers interpret their films and how film goers use these clues or cues to make meaning from the film in the actual contexts of viewing and their lives. So, too, with language. Discourse analysts study how speakers and writers use clues or cues (namely, syntax and discourse) to shape the interpretations and actions of listeners and readers.

Some linguists use the term “discourse analysis” for the study both of the connections among and across sentences as they follow one after the other, and for the study of language-in-use in specific contexts. Other linguists use the term “discourse analysis” just for the first meaning (the connections among and across sentences as they follow one after the other), and they use the term “pragmatics” for the study of language in context, for how context gives meanings to words and words give significance to context. I will use the term “discourse analysis” for both, though readers should keep in mind that in their further readings what they read will sometimes be labeled “pragmatics” and not “discourse”.

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WHAT SPEAKERS/WRITERS AND LISTENERS/READERS DO

In the first chapter, I pointed out that, when we speak or write, we simultaneously say something, do something, and are something. Different approaches to discourse analysis tend to foreground saying (information), doing (action), or being (identity). This book foregrounds identity. We speak and listen, write and read, as particular kinds of people: for example, as students, scholars, politicians, gamers, birders, women, feminists, anime fans, and so on through a nearly infinite list. We also design (shape) our language in terms of who we take ourselves to be talking or writing to. For example, am I talking to my doctor as a medical professional or a friend, to my wife as an academic colleague or an intimate? Such identities organize our social worlds.

This book will argue that we interpret saying and doing in terms of identities in this sense – as different kinds of people or roles in society. I cannot really tell what you are trying to do or what you are really intending to say or imply unless I know who you are and who you think I am or want me to be. It is consequential whether one Native-American, for example, is talking to another as a fellow Native-American, or as fellow military veterans, or as a Native-American talking to someone he refuses to acknowledge as also a Native-American.

When we speak or write we actively design our language to say and do what we want to or hope to. We are like artists or musicians, composing with words rather than paint or musical notes, trying to communicate and achieve effects. There are two key jobs – two key types of work – we carry out as speakers or writers:

1. "Recipient Design": When we speak or write we design our language with due consideration for whom we take our recipient or recipients to be. We speak and write differently for friends than we do for strangers. Scientists speak and write differently for fellow scientists than they do for nonscientists. We talk differently to service workers than we do to our boss.

2. "Position Design": We also often design our language in terms of how we would like our recipient[s] to be, think, feel, and behave. This means that the speaker/writer seeks to invite or hail the listener/reader to assume a particular identity, to be a particular type of recipient that the speaker/writer wants. We try to “position” our listeners or readers in certain ways. We do not just design what we say and write for whom we take our listener or reader to be. We sometimes actively try to entice them to be who or what we want or need them to be. We try to “position” others to be and do what we want them to be and do. We might speak in a way to try to get our doctor or teacher to be (“invite our doctor or teacher to be”) less “official” and more “humane” and “personal”. We might write in a way that
tries to get readers to be more liberal or conservative or more religious or less religious than they may actually be. We entice listeners and readers, if only for a while, to take on a new or different identity that may lead to new or different beliefs or actions. We seek to persuade, motivate, change, and even manipulate others. This, too, is a core part of social life and social change.

There are also two jobs – two core types of work – for listeners and readers:

3. "Situating Meaning": This means the listener/reader gives words, phrases, clauses, and sentences, and groups of these, specific situated meanings based on a construal of what constitutes the relevant parts of the context as the context exists in the world and as it is actively created, construed, and constructed in and through language and interaction. If there is liquid coffee on the floor, that context makes us take "Clean it up" to mean "Get a mop". If it is coffee grains or beans that are on the floor, that context makes us take "Clean it up" to mean "Get a broom". "Clean up" means different things if we take the context to be about our own hygiene or about a mess in our bedroom. Later in this book, we will see that language-in-use has the interesting property of both reflecting the situations in which we use language and helping to create these same situations or what they mean or portend.

4. "Response Design": As listeners and readers we need to prepare a response to what we are listening to or reading. This means crafting a response based on how speakers have done their jobs and how we as listeners or readers have carried out our task of situation meaning (what we have made of the context). This response may be held in mind, shown partially on the body without language, or delivered in action or language. In speech, listeners are always reacting and responding (e.g., by nods, eye gaze, body posture, and vocalizations) while the speaker is speaking and, thus, both speaking and listening are active design roles. A listener or reader has to, in the end, take his or her "turn" and respond. This response is based on how the utterance or text was designed by the speaker or writer. The response might be to walk away, to get really engaged in the conversation, or to argue with the speaker. The response might be to throw the book away, blog about it, or admire the writer and even change one’s views. The response might be to help or hinder the speaker or writer in some way. If the response is language, it has to use Recipient Design and perhaps Position Design, considering how the original speaker or writer carried out these two types of designs. We can reject or accept the original speaker’s or writer’s view of who we are (Recipient Design) and the ways in which he or she seeks to position us (Position Design).

The main point here is that I want you to see speaking and writing and listening and reading as active designing, as work we can also engage with playfully and even artistically. These are all things we do like artists designing art works to elicit a certain response and interpretation.
IDENTITIES

Identity is a complex concept (and complex set of practices in the world). We can talk about identity at two levels, one quite broad and one much more narrow and nuanced:

5. "Social Distance": We can distinguish here among intimates, associates, and strangers. Who counts as an intimate, associate, or stranger differs by social groups and cultures and can change over time, of course. Associates are people we know, but not well enough, or associate with, but not closely enough to count as intimates. They are in the middle between intimates and strangers. People often tend to treat associates more politely than intimates (whose regard they sometimes take for granted) and strangers (whose regard they care less about than in the case of those who they are more likely to interact with again in the future). We can also talk about social distance in terms of a continuum with solidarity/bonding at one pole and status/deference at the other.

6. "Socially significant kinds of people": The identities we are talking about here are identities that are enacted and recognized by different social groups and social and cultural formations in society. They are situated in the sense that they are enacted, recognized, and construed in specific (partially conventional) ways in, and for, specific contexts as these contexts exist, and as they are simultaneously construed and constructed. Such identities are multiple – we all have many, can lose or reject some, and can gain new ones. They can be partial, negotiated, contested, attempted, improvised, innovated, imposed, freely chosen, hybrid, mastered, in progress, or fossilized. They can be lies, truths, or a little or a lot of both. Socially significant types of people may or may not have commonly agreed upon labels, such as "lawyer," "theoretical physicist," "African-American," "radical feminist," "Christian fundamentalist," "tough guy," or "Latino street gang member". Such labels are most often rough and cover a variety of more specific types (e.g., "African-American who is an insider to Black Street Culture" or "Radical feminist of the postmodern English Department sort"). Identities are very often more fluid than labels, and both identities and labels for them are negotiated, contested, and change over time. Both are creatures of history and often malleable conventions.

Each human language has a grammar. This grammar is the set of all linguistic resources available to that language’s speakers and writers. These resources include the language’s lexicon (words), phonology, morphology, syntax, and semantics.

The grammar of any language is used, recruited, adapted, and transformed differently by different social groups in order to carry out specific tasks, practices, work, and to enact or recognize specific socially significant and meaningful identities. These
adaptations of grammar give rise to different styles, varieties, or registers of language, to what I will call different “social languages”. We can distinguish between two big classes of social languages.

7. “Non-vernacular (‘specialist’) social languages”: They are things like the “way with words” used by lawyers, physicists, musicians, carpenters, gang members, video gamers, and a great many more, i.e., socially significant types of people. Each social language draws on the grammar of the language – as well as on some of its own inventions – to shape language to its own goals, values, needs, and work. For example, all speakers know how to make and use relative clauses or nominalizations in English, but these grammatical types are recruited differently and pattern with other grammatical resources differently in different social languages.

8. “Vernacular social languages”: One type of social language – one variety or style of language – is special. This is a person’s “vernacular social language”. This is the variety of language a person uses when he or she wants to enact being an “everyday person” speaking or writing not as a specialist of any sort, but as an everyday person with “common sense”. Different social groups have different vernacular social languages (often different dialects). They have different ways of using language to enact “everyday person”. And, of course, what constitutes “common sense” can vary across social groups (and need not be consistent within them).

Since Recipient Design, Position Design, Situating Meaning, and Response Design involve identities (either of the “social distance” sort or of the “socially significant type of person” sort), it is crucial to realize that identities cannot be enacted solely in language. Language is melded with other things in the act of enacting and recognizing identities. For example, a minister cannot marry someone just by saying the right words; he or she must also be a minister in the right way and at the right time. A professor can say all the right things in a lecture but will not be enacting the identity – or fully accepted in it – if he is lecturing drunk in a thong. A street gang member cannot use serious intimidating language while holding a Nerf Blaster.

To enact identities people have to talk the right talk, walk the right walk, behave as if they believe and value the right things, and wear the right things at the right time and right place. Identity is a performance. Like all performances it will not work unless at least some people recognize what you are and what you are doing in your performance.

Speaking and writing in discourse is always like lines in a play: the actors and the audience both need to know who the actors are supposed to be, what they are supposed to be doing, and what it all portends. Of course, avant-garde plays can leave all this very vague for effect. But leaving it too vague in real life can be dangerous. If
you are not convincing as a cop in a rough bar you can die. If you are ambivalent as a lover you can lose your mate. Most of life is not avant-garde, which is not to say none of it is.

So when we communicate with each other we design not just with language but with everything at our disposal. We design with clothes, gestures, bodies, environments, props, tools, technologies, objects, the social display of beliefs and values, and configurations of all these which we create or use as we find them, for our purposes. So discourse is interactive identity-based communication using language. We therefore need another term for interactive identity-based communication using both language and everything else at human disposal. We call this “Discourse” with a capital “D” or “big D Discourse”:

9. “Big ‘D’ Discourse”: When two people are engaged in discourse (language in interaction in context) they are communicating with each other via enacting and recognizing socially significant identities. The identities are socially significant because various and different social groups construct, construe, use, negotiate, contest, and transform them in the world and in history. So when two people interact, so too do two (or more) Discourses. It is as if socially significant forms of life (identities), formed in history via social work, talk to each other – continue a long-running conversation they have been having, by using different human bodies and minds at different times. When John and Jane talk, men and women (of certain types) and other socially significant identities (e.g., doctor/nurse, gay/straight, white/black, football fan/baseball fan, etc.) talk to each other as well, using John and Jane. But John and Jane are not dupes of Discourses. The conversation among Discourses is in their hands for the time and place and as they act it out, they can change it, as can any good actor in any good play.

D/discourse theory is about seeing interactive communication through the lens of socially meaningful identities. Speakers/writers use language, bodies, and things (“context”) in the world to enact socially significant identities. Listeners/readers pay attention to language, bodies, and things in the world (“context”) to recognize such identities (successfully or not). It is often better to say that speakers and writers are bidding to get a certain socially significant identity (or set of them) recognized by listeners/readers. Bids can succeed, fail, or partially succeed or fail. They can invite or bring about negotiation or contestation from listeners/readers. Identities are lived and transformed (and come and go, as well) in history via social interactions among responsive bodies and minds.

Of course, some written language relies more on language alone than does most oral language, where bodies, places, and things are more readily apparent. But written
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Language still has to communicate in specific contexts, contexts composed of more than language. A textbook is usually read differently – and recruits different identities – than does a policy document, a newspaper, or an anime manga. And each can be used in different ways than they usually are (e.g., the manga can be used as a textbook in a course on anime).

Readers may well ask where the notion of "culture" fits into D/discourse analysis. "Culture" is a word with too many meanings and often brings with it too strong assumptions about uniformity. Being a (particular type) of "tough guy at a biker bar" is a Discourse just as much as being a (particular) type of "anime otaku" or being a (particular type) of "special ed – 'SPED' – student". There is probably no point in calling all these cultures. In any case, D/discourse theory is concerned with enacting and recognizing socially significant identities. It is about recognition of "kinds of people" in performances in context. "Culture" often covers much else (too much, really) and yet is often concentrated on beliefs and values, not bodies, things, and the world, as well.

Discourses can be big or little (e.g., runners, gamers, lawyers, politicians, evangelicals, gang members, or birders). There is no end to them. They come and go in history. They are rooted in conventions that allow us for a time and place to enact and recognize being certain socially significant socio-historical types of people. We run out of labels for them because the human capacity to recognize types and type of types – and to transform them in practice – is nearly (and maybe really) infinite (just as is our capacity to recognize faces). Recognition is both a psychological process and a social process and can be studied as either or both.

WEBS OF ASSOCIATION

When we interpret oral or written language in specific contexts of use, based on how language is designed and on context, we build webs of associations in our minds. We build (and change) these webs as speech or writing unfolds across time in context. We associate ideas or themes with both the words we hear and the elements of the contexts we are in. These associations are often based in our past experiences. Some people have called these webs of associations "discourse records" or "mental models of discourse". In this book we will see that such webs are made by the work we do to situate meaning (determine what things mean based on and in specific contexts of use) and by what we will later call "social models".
I will give a simple example to exemplify how the web of associations we build as discourse unfolds helps us interpret language and situations and to enact and recognize Discourses.

I, a 65 year-old college professor, enter a Mexican restaurant for a late lunch in the college town attached to my university. As I enter the restaurant, I store – in my discourse record—interpretations/construals of the context:

- Mexican
- Restaurant
- Lunch
- College town
- Slightly upscale
- Slanted towards young college-aged people and drinking

Etc.

These elements and their associations – and a great many other elements – are placed in my discourse record. I sit at an empty bar, and a college-aged white male comes to me and says “What can I get you, boss?” I now add, among others, the following to the discourse record:

- Service encounter
- Young college-aged white male
- Old man–young man
- Dressed in jeans
- Informal tone
- Jocular tone
- “Boss” – hierarchy, deference, status
- Wants to know what I will order
- He expects a drink order first, since I chose to sit at the bar
- He expects I may or may not also order food

All the associations so far would be typical for a person like me in a college town like mine. All would be easy to discover via interviews or ethnographic work. But I have other associations that are more closely aligned to other Discourses in which I participate:
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- Mexican restaurant in Arizona
- Anglo (not Mexican or Mexican-American) bartender/waiter
- No Mexican people in sight
- Perhaps this will not be “authentic Mexican” food
- Arizona has had lots of political turmoil over Hispanic immigration and the treatment of Mexican immigrants and Spanish speakers.
- The term “boss” is sometimes used as an address by “lower status” people to “higher status” ones, in particular sometimes it has been historically used by African-Americans to whites as a sign of deference in an oppressive racial culture. [For example, I have been asked by homeless people in cities: “Can you spare some change, boss?”]

I am aware that these latter associations stem from my affiliations with other Discourses and experiences that the bartender/waiter, much younger than me, may or may not be aware of or care about, or may care about in a quite different way than I do.

I order a beer and ask for a menu. The bartender/waiter and I have enacted identities in a Discourse. It is a service encounter where hierarchy and deference is used, but masked by a jocular and informal tone. I am aware that this restaurant Discourse can be contrasted with others I am capable of participating in or recognizing. For example, there is the “pretend friend” service encounter where a young waiter gives me her or his first name and asks mine and thereafter treats me as if we are on friendly terms. There is the more traditional service encounter where the waiter is distantly courteous and efficient, and there is the older-fashioned one where the waitress [always a waitress] says something like, “What can I do for you, Hon”. There are more, such as the sort where the waiter would say, “What can I get you, brother?” I know what the current Discourse I am enacting means partly by placing it in relation to these others.

These Discourses have and need have no formal name or label. They need not be clearly discrete or unambiguous. We just have to get through the encounter without anyone crying “foul” and “breaking” the Discourse encounter [which, of course, happen]. For example, I am well aware that the Discourse encounter I am participating in in the Mexican restaurant can be “broken” if I take the bartender/waiter’s informal jocular deference too seriously and seek to actually be a “boss” and order him around.

For me, the encounter is slightly uncomfortable because of the more political associations I make, but uncomfortable in a way I am used to in Arizona and the United States, since we are all used to having to leave unsaid all sorts of aspects of
our everyday lives that might, under more inspection, “bother” us. For example, many Americans have had the experience of being in a restaurant or hotel in Washington D.C., our nation’s capital, where every service employee is African-American and every manager and “higher up” and all the customers are white. We "take it for granted" because to mention it would “break” the service encounter Discourses we are participating in.

Discourses involve people communicating via language and other stuff (e.g., my clothes and the bartender/waiter’s clothes, my sitting at the bar and ordering a drink in the middle of the day, my age, the pop culture decorations, and so forth). Discourses also involve communication – using our minds, bodies, and environments – among themselves across history. The service encounter I had is part of a larger trend in U.S. and Western history to “mask” (hide) power, hierarchy, and status without removing them. It is part of a variety of youth-oriented collegiate Discourses that involve drinking and sexual ambience. It is also part of how we deal with age in a youth-oriented culture. Discourses are “talking” all the time, though if they cannot inhabit minds and bodies, they die in history.

The example is meant to show how much has to go on to “pull off” a Discourse even for the smallest encounter. Furthermore, what I have delineated here is only a very small part of what is going on. However, we should keep in mind that for D/discourse analysis we need not uncover everything, only enough to make the point or argument we are trying to make in some convincing way. D/discourse data is grist for arguments and hypotheses about social life, not important just in and of itself.

D/discourse analysis is one tool for studying social life. It is best put together with other tools (e.g., ethnography, history, sociology, psychology, etc.). It uncovers the order in social life, an order that is changing and always prone to being broken. It shows us producing and reproducing identities in history.

D/discourse analysis has a special feature. As analysts we are doing more overtly and formally what all of us are doing (less overtly and formally) in our lives in order to mean things to each other. D/discourses are about how we know what we are to each other and what we are doing with each other in encounters (in speech or writing). All of us, just as humans, are D/discourse analysts.

THE APPROACH IN THIS BOOK

The material in this chapter is meant to be a general overview of the issues any approach to discourse analysis has to deal with. You can compare and contrast
different approaches to discourse analysis by asking how each such approach deals with the issues we have discussed here.

In this book we will explicate Recipient Design in terms of how speakers and writers enact specific socially meaningful identities. We will explicate Position Design in terms of how speakers and writers use language to get listeners and readers to view themselves and the world in certain ways and to act in it in certain ways. We will explicate webs of associations in terms of what we will call “figured worlds” or “cultural models,” as well as in terms of how people situate meaning in specific contexts (how they assign specific meanings to words or phrases based on the contexts in which they were used). However, it should be pointed out that webs of association can be further explicated by work on cognition and the brain that we will not cover in this book (see Gee 2004 for more on this and references to the literature).

Response Design – how listeners and speakers plan and carry out responses to what speakers say or writers write – is less directly discussed in most approaches to discourse analysis, though it is a main topic of discussion in literary criticism. However, discourse analysis tends to deal with Response Design by considering how what a previous speaker has said, or what a writer has written, shapes the language in terms of which listeners or readers respond in speech or in their minds. It is, thus, at the core of how we analyze the flow of interaction across time and the ways in which people in conversation (with other people or with written texts) co-construct (build together) meaning as time unfolds and within specific contexts.
CHAPTER 6
CONVERSATIONS
LANGUAGE, WORLDS, AND GAMES
MEANING

We are all comfortable with the idea that words have "meaning". But what does it mean to "have a meaning"? Words and phrases mean things to us because we are familiar with social conventions in terms of which a word like “puppy” in English means YOUNG DOG and “large mouse” means a MOUSE THAT IS LARGE FOR A MOUSE. Meaning is simply a matter of social conventions just like a strike in baseball is. “Three strikes and you are out” is a “rule”—a convention—in baseball. That “puppy” means YOUNG DOG is a convention in English.

Human languages are communication systems that rely on shared conventions about what words will mean (Gee 2011, 2014a). There are other sorts of communication systems built on conventions but ones which do not use (or do not only use) verbal words and phrases. Mathematics is one such communication system. It is clear that we give and get meaning from mathematical symbols much as we do with language.

CONVERSATION

Oral language is not just a set of conventions for how to mean with words. It is also a tool for having conversations. Conversation is a turn-taking system. When we speak we design what we say in anticipation of a response. When we get a response, we design what we say next with due regard for the response we just got. Our listeners do the same as they engage with us. We each take our turns. We each shape what we say based on the responses we seek, anticipate, or actually get. In the end, conversation in language is co-constructed, co-designed, and performed collaboratively. Conversation is the product of “us”, not just “i” as an isolated individual. It is like a dance.

Linguists and sociologists have argued that face-to-face conversation is the primordial and most fundamental form of language for humans (Sidnell & Stivers 2013). We use language in a great many other ways, but human conversation is what shaped language from its beginning. In fact, face-to-face conversation with adults is crucial for a child’s development, socialization, and later success in school and society.

Unlike speech, writing (“literacy”) is not good for conversational turn taking. Writing is responsive in the sense that writers must anticipate and hope to shape the reader’s response. But writers do not and cannot respond back to the reader’s response while the reader is reading. Letters are a form of conversation, but they are slow and they seriously constrain the range of responses that can be displayed.
Well, this was all true for most of the history of writing. But, perhaps, not anymore. Text messaging and some other forms of social media are quick turn-taking systems. In text messaging, we anticipate, shape, and respond to responses and, in the act, together co-shape, co-design, co-construct what we say. Text messaging is a form of writing that is a bit like speech. Nonetheless, until text messaging allows for more ways to show emotion, the range of responses will remain more restricted than in the case of face-to-face conversation.

For most of their histories, film, books, and music have not been turn-taking forms. Films, books, and music do not respond turn by turn to the viewer, reader, or listener and thereby co-shape an act of continuous meaning making. Viewers, readers, and listeners can respond in their minds—or to their friends—but their response cannot change the film, book, or music. Books, film, and music are not reciprocal or co-designed. The “author” is all important.

There are forms of improvisational music and theater and we could imagine digital improvisational books. But these are not pure turn-taking forms. In pure turn-taking forms the responder (listener, viewer, or reader) gets to take a turn at production. In conversation, I speak (produce), you listen (consume) and then you speak (produce) and I listen (consume).

Turn-taking systems make us take the risk that while we start out as the boss—the original speaker, designer, producer—we end up, at best, as a co-participant and even at times a bit player in a play we started, but which the inmates have taken over. Sometimes this is the most liberating outcome for speakers and designers. Other times, it is not so good for them. But it is a risk they always take.

**CONVERSATIONS WITH THE WORLD**

Intriguingly there is one turn-taking system that is older and even more primordial than verbal conversation. Even many sorts of animals can engage in this turn-taking system. This is “conversation with the world” through actions and not words.

And there is one radically new turn-taking system: video games. However, radically new as video games are, compared to language, they nonetheless take a ride on the nature of our ancient conversations with the world, as we will now see. Video games essentially create new worlds to have conversations with, worlds designed by humans.

What is a “conversation with the world”? We humans have long engaged with a cycle of thinking and action that is essential to our very survival (Gee 2013). This cycle goes
this way: We want to accomplish something. We form a goal. Then we act. Our action can be looked at as a probe of the world, a sort of question we put to the world. The world responds to our action. The world’s response might indicate that our action was effective as a way to our goal or it might indicate that it was not. We reflect on the world’s response and then we either reconsider our goal or act again in an attempt to elicit further responses from the world that will allow us eventually to accomplish our goal.

This cycle is simple: form goal—act/probe—get response from world—reflect—act again with due regard for the world’s response. We and the world take turns. We repeat the cycle until we succeed or until we see we cannot succeed, in which case we get another goal.

People who do not pay serious attention to responses from the world that tell them their actions are not working well, put themselves at high risk for failure and even at risk of harm and death. Of course, sadly, we humans today often do not listen to the world. For example, the world has been telling us, in response to our actions, that it is getting too hot. Yet we do not change our course of action. This is as disrespectful to the world as it would be to a conversational partner. If we conversed with people this way, we would alienate them and come to regret their responses. The same is true of the world.

Humans (and some other animals, like the primates) developed, in the course of evolution, a souped-up and super-sized version of the conversation with the world. They developed the ability to simulate and role play in their minds so they did not have to act too soon in the world or with too much risk. Humans can imagine what might happen before they act. They can role play other people and even things to imagine how things might go. They can think before they leap.

We humans can imagine what might happen if we ask someone out on a date in a certain way, say by trying to use humor. We can even role play other people and seek to imagine how they feel, what things look like from their perspective, and what they might do. This is the foundation of empathy. Humans can even imagine being things like a hunting wolf or, as Einstein did, a light beam. When we imagine what might happen we use our former experiences as a basis to make predictions.

This ability to simulate, imagine, and role play in our minds greatly enhances our conversations with the world (and, indeed, with other people). We can form a goal, run a simulation/role playing session in our minds, decide on an action based on how things went in our simulation/role playing session, pay attention to the world’s
response, reflect and perhaps even do another simulation/role playing session, and act again. This allows us to lower risk and to make much more powerful hypotheses or guesses about what we should do.

The human power to simulate and role play in our heads is the basis of consciousness (Hood 2012; Kahneman 2011). It is also the basis of our human sociality, since we humans can imagine things from the perspective of others (thanks, in part, to mirror neurons). What we do in our heads is more than a simulation. It is much more like a video game (Gee 2004, 2013). We design a world in our heads, based on our past experiences, and “play” ourselves and/or other people. We humans appear to have evolved long ago the capacity to “mod” experiences and to “game” experience in our heads. [“Mod” is a gamer term that means “modify” and names the activity where gamers use the software by which a game was made to modify it or transform it.]

The human conversation with the world—super-sized through our mental powers of modding experience in our heads—is basic to human thinking and survival. We use it in our everyday lives all the time, whether we are gardening, driving, cooking, or mating. In a more formal version—and a version super-sized yet further by new tools and technologies—it is the basis of all science.

Science is a high-powered, tool-enhanced, socially and institutionally organized conversation with the world based on respect for the world’s responses. Scientists use simulations they can build on computers, not just ones they can run in their heads. But their computer simulations usually do not allow them to “be” the electron, the light beam, or the wolf pack’s leader. The scientist watches the simulation from the outside, so to speak, from a god-like viewpoint. The scientist does not act within the simulation as a part of it, as we humans do in our heads.

Nonetheless, scientists often and readily talk and imagine as if they were indeed what they are studying. They use their mental video game design capacity—enhanced by the experiences of the world they have had as scientists—to imagine being an electron, a light beam, or a member of a wolf pack. They can see and “feel” the world from the perspective of an electron, a light beam, or a wolf. They can also imaginatively enter their graphs and simulations and act things out in their minds.

**VIDEO GAMES AS CONVERSATIONS**

Turning now from the very old—our capacity to carry on super-sized conversations with the world—to the very new, we come to video games. Humans have invented only
one truly new—radically new—turn-taking form beyond our conversations with the world and with each other in language. This new form is video games.

Video games are a truly new form of turn-taking conversation. And in historical terms, they were invented yesterday. Yet, new as video games are as a technology, we have just seen that humans have long been able to run video games in their heads. Video games as a technology just externalize our human capacity to mod and play in our heads. In this sense, video games take a free ride on a mental capacity—simulation and role playing—that we humans have long had.

Think what players do when they play a video game (Gee 2004, 2007, 2014c). They treat the game as a world and they probe it and reflect on its responses in hopes of accomplishing their goals. While playing, they build their own simulations/role playing sessions in their heads of what might happen in the game world if they take certain actions, make certain decisions, or engage in certain strategies. They can even imagine being one of the NPCs (Non-Playing Characters) in the game or one of the other human players in a multi-player game. They are “modding” the game in their minds. They are building a model of the game and game world in their heads and testing it out before they act. This is just model-based reasoning (the core form of advanced science).

We humans were all modders (transforming the world in our heads and in reality) before we were game designers and we players are all modders in our heads when we play intelligently. A video game is a piece of the mind made public in the world of things. When we play video games we confront the nature of our own minds. A video game gives us a new world to probe and with which to have a conversation. And, perhaps, these new conversations can teach us things about the real world, about language and learning, and about ourselves and our minds.

When they carry on conversations with the world, some people believe they are having conversations with a designer, with God. But, in reality, the world was not designed, but evolved. The world is vastly more complex than any game world. That the world is so complex is the reason that scientists often study models of parts of the world and not the world directly. Nonetheless, games are often complex enough that players have to build models of the game and its rules system in their heads and reflect on how the rules might work to help them accomplish their goals. We usually do not play games just by mashing buttons with no thought and reflection (though we can if we like).

Games are new. Oral language is at least 50,000 years old, maybe much older. Written language is much newer, at best 8,000 years old. Video games are only decades old. They are baby forms of communication. So, we do not know yet how far they can go.
There is a long academic history of analyzing language. We have a good many different academic disciplines devoted to analyzing oral language (e.g., linguistics, discourse analysis, philology, phonetics, and conversational analysis, etc.) and others devoted to analyzing written language (e.g., literary criticism, rhetoric, stylistics, and hermeneutics, etc.). We do not have any discipline analyzing video games as an interactive communicational form, because video games are new and we do not yet agree how and even whether they communicate.

Here is my argument: Video games do communicate. Furthermore, they are a turn-taking form. The player acts and the game responds. They involve a turn-taking, real-time, responsive and reciprocal conversation. Therefore, they are potentially important for human communication. I say “potentially” because they are new and we have explored only a very tiny bit of their potential.

Since video games involve an interactive (turn-taking, responsive, reciprocal) conversation, they are, perhaps, open to analysis as a conversational, discursive form of communication and collaborative meaning making. We can, perhaps, develop a communicational analysis—or what linguists call a “discourse analysis”—for video games, alongside what we already have for oral language. Of course, in gaming we are having a conversation via meaningful actions and not just via words. But we have seen that we have conversations via actions with the world in everyday life and in science.

Perhaps, we can discover something yet deeper. Perhaps, the analysis of video games can illuminate, change, and transform our analysis of language. In turn, perhaps, our analyses of language can illuminate video games and the contributions they can make to culture, society, and communication. In any case, we don’t know until we try, though, of course, success is not guaranteed.

I have distinguished between conversations with other humans via words and conversations via actions with the world. But I would argue that these two types of conversations are not as different as they may at first seem. In conversation we use language to engage in actions, actions like promising, supporting, questioning, encouraging, threatening, and many others. We predict what response we will get from our listener when we speak and we reflect on the actual response we get in formulating how we will proceed toward accomplishing our goals. We treat the other person as a world to probe and act on and with. Language is a form of action and people are complex worlds, as we will see as this book proceeds.
PROBLEMS

In trying to explore whether there could be a field devoted to video games as a communicational media, let alone one unified with the analysis of language, we face a problem immediately. In fields like literary criticism and film criticism, many of the texts or films being studied tend to stay around and be readily available. Video games go out of date quickly. As technologies change, older games come to look old and become unplayable on modern equipment. While classic books and films still get read and watched years after they were produced, classic games are not often played, save perhaps on emulators or older pieces of equipment. As anyone who has written about video games knows, mentioning games in a book means that soon the book itself will sound out of date as new games come out and old ones get played less and less.

Then there is another problem. Games are fast changing. As technologies change, games sometimes blur into other forms like simulations, digital stories, and even movies. It is hard to predict how games will develop (and what we will call them). Many new forms will surely arise.

And, too, as far as I am concerned, there is no one general category of video games all of which share some essential set of features. Rather, there are many different types of video games. “Video game” is a “family resemblance” concept. This means video games share some rough similarities, different similarities with different other games, and not identities—just like members of a family.

Since games are variable and changing, all we can do is analyze some paradigm cases in the hope of developing principles that apply somewhat widely, though not necessarily to everything called a game or related to one. After all, part of the excitement here is to map out not just realities [what already exists] but to map out possibilities [what could exist] as well. We can discover not only what has been done, but also how designers might create something new by varying from what has been done.

Now we face a final hard problem. Oral conversations, films, and books all have content. We can converse about cats, weather, or politics. We can have a book or film about war, crime, or baseball. Video games, of course, if they have stories, appear to be about something and, therefore, to have content. But, then, not all video games have stories. Even when a game does have a story, it is not clear that its story is all that the game is “about”.

A game like Tetris simply involves manipulating falling blocks. There is no story. So if it is a conversation between a player and the game, what is the conversation about?
The various *Call of Duty* games have stories, but aren’t they as much or more about what the player does than the game story the player has not him or herself written? Content is a vexed category for video games.

Let’s talk first about games that have stories, like *Call of Duty* or *BioShock*. Such games have stories in several different senses or ways. There is the top-down, author-written story that the player did not write. This is the sort of story books and films have. Then there is the story of the player’s moves, decisions, strategies, successes and failures, and what the player has learned and accomplished in the game. This is a story the player creates through decisions, reflection, and play. It is the narrative of the player’s course of play.

We all realize that it is inherent in video games that the top-down story, if there is one, must leave room for the player’s decisions and actions to matter. The reflections and decisions a reader makes while reading a book make no difference to the book. But a game must somehow change and respond to player’s decisions and actions.

In games, the top-down story usually exists to help shape the player’s story and the player’s story is predominant. Recently, some games have become so much like movies or digital stories, that the player’s story—the player’s decisions and actions—seem to exist just to allow the game story to unfold and to recruit the player’s attention and engagement with the story. Indeed, some games now come with a story mode where “players” can basically just watch the action.

This new trend—part of the convergence of games and movies—raises anew the issue of difficulty in games. Games, for many players, are not games if they are not challenging (although there can be debate about how challenging they ought to be and how much they should or should not cater to different levels of players). Games where players’ actions seem to be there only to drive the story forward are often not very challenging. Or, at least, we can say that a high level of difficulty will mean many players may not see the end of the “movie” [and story].

A game series that is a good example of where the player’s decisions and actions are subordinated to an authored story is the *Walking Dead* series of games. Players make decisions and the game adapts to them—so we do have a conversation. But the decisions and actions are really in the service of making the story unfold and getting the player to care about it. This series of games is quite good. It is an example of where video games and digital storytelling are beginning to converge. Indeed, we could imagine a future in which television shows work like the *Walking Dead* with viewers making and debating decisions. Nonetheless, *Walking Dead* is not very
challenging as a video game (and it is not meant to be), though it does encourage thought and reflection.

So we will see, in any analysis of video games as conversations, we have to deal with the question about the role of challenge and difficulty in games. Gamers are used to the fact that in traditional relatively hard games, they have to “earn” the ending of the story. They do not see the ending unless they have put up with the difficulty of getting there. But this is not now true of many games and will be even less true in many cases in the future.

I will argue that questions like this one—about the role of difficulty in games—and many others have to do with what type of conversation a game is setting up. There are different types of conversations in both oral language and in games. Some are more challenging than others and each type has a different purpose and different sources of enjoyment (or tension).

So, we can say that games with stories are about two things. They have “content” in two different ways. They are about the top-down story. This is just the sort of content books and films have. They are also about the player’s story—the tale the player can tell about the flow of decisions, reflections, responses, and outcomes that the conversation between game and player has triggered. This is content in a new and different sense. We can always ask about the balance and relationship between these two stories in a story-driven game.

In a game without a story—like Tetris—we have as content only the player’s story. In these cases, the player’s only story is the story of the player’s confrontation with problem solving and his or her own identity as a learner and as an engager with problems and patterns. Such learning and engagement is for many of us a great deal of fun. And, indeed, we will have to explore why so many people find this sort of enterprise so much fun.

However, games like Tetris seem trivial to some people, just a matter of time wasting activity. Indeed, all games seem this way to some people. Nonetheless, when we get to why humans find things like Tetris so absorbing and so much fun, we will see that the sort of fun and engagement such games offer is not trivial at all. This sort of engagement and fun is at the very heart of science and of being human. It is exercise of a very real human “super power”, a power that today is being taken away from many human beings, though it is part of our human birthright. This is the power to gain a sense of agency and control by insight, effort, and pattern recognition.
SUMMARY

To summarize: I am using the word “conversation” to mean a turn-taking exchange in which each turn anticipates a response and, after the initial turn, is shaped by previous responses. I have delineated three types of conversations: conversations in language between or among people; conversation with the world either in everyday life or in science; and conversations between a player and a video game.

I have argued that long ago humans evolved the capacity to play video games in their heads. They can imagine and act as themselves or other people or things in their heads and not just in the world. Video games externalize this mental capacity and, in that sense, are models of the human mind.

Games have content in two ways. One way is the same way books and films do, a story designed by someone else. The other way is the record (and memory and recall) of the player’s own decisions, actions, and responses to the game. Some games have stories in the first sense and some do not. All games have stories in the second sense. Our conversations with other people and with the world have stories in the second sense as well.

We will be seeking to develop a “unified theory” of conversational communication, a theory that covers verbal conversations, conversations with the world (in everyday life and in science), and with game worlds. In the end, I will argue, as well, that our unified theory will also help illuminate non-conversational types of communication, forms which have evolved from or after conversation.