



LANGUAGE AND DISCOURSES:  
MEANING IS IN THE GAME

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I started my career in academics (in 1975) as a theoretical linguist studying things like the syntactic and semantic structure of “naked infinitives”—not, despite the term, a very sexy topic to most humans. When, by a series of accidents, I ended up years later working in education, the “hot topic” at the time was “Why do so many poor and minority students fail in school?”. As a linguist, I was intrigued to discover that one proposed answer to this question was that there was a mismatch between the language practices of certain sorts of children’s homes and the language practices of school.

For example, one African-American girl I studied (thanks to my collaboration with Sarah Michaels) told very poetic stories at sharing time in school, performing the stories in a dramatic way, using exaggeration for emphasis. She used grammatical devices like the so-called “naked be”, a habitual/durative marker in Black Vernacular English, as in “My puppy, he always be followin’ me to school”. Additionally, she used falling pitch contours to mark the ends of episodes in her stories, not to mark the ends of sentences as the Anglo children in the class did. The teacher was quite unaware that these were all culturally specific features of the little girl’s (developing) community narrative practices.

However, in this school sharing time practice, the teacher was looking for more linear, prosaic reports on the “facts” stated in “explicit” language, whether this was a report of going swimming with Mom or making candles. She was looking for—and trying to help children produce—such sharing time turns because they constituted early literacy training for children who could not yet

read or write. She wanted the sort of explicit, single topic-focused language typical of school-based talk and writing.

Unfortunately, humans tend to blame communication problems on people's motives and traits, not language differences, the details and nuances of which they are unaware. Thus, the teacher assumed the little girl was rambling on, telling tale tales, and otherwise not being cooperative. The little girl was often told to sit down because she was not "talking about one important thing", a rule in this sharing time classroom. Needless to say, this did not build a strong affiliation with school or school-based literacy for this apprentice to school and schooling. When I studied her years later in high school, she was a "good citizen", but one who could neither write nor read "academic language" well.

So, the proposal was that there is a mismatch between the child's "ways with words" (taken from her home and community) and the school's academic "ways with words" (ultimately taken from academic books and practices to do with academic books). The language mismatch theory, oddly enough, did not really make sense to me as a linguist.

First of all, anyone who knows anything about child language development, knows very well that this little girl and any girl like her could very well have told a blow-by-blow linear "just the facts" report had she realized that was what was wanted of her (in fact, "story" to her community means "performed narrative", not linear "just the facts narrative"). Second of all, lots of poor

and minority children who do give teachers language they are looking for still do not succeed. And, third, this little girl's "ways with words" are, in my view, just not foreign enough on their own to cause such havoc. Over the years, every audience that has seen this little girl's stories in written form as transcripts has been able to appreciate them as brilliant verbal performances, though often Anglo adults do not know how to "listen" to them when they have their "school ears" on and have to hear them in "real time".

Every decent sociolinguist knows that language never operates all by itself. It is always a tool fully integrated with the social and cultural contexts within which it is used, contexts it always simultaneously both reflects and helps to create. Just looking at the features of language and not social, cultural, and institutional factors integrated with language and meaning is not good (socio-)linguistics.

It was in an attempt to capture this last insight that I introduced the notion of "Discourse" with a capital "D" (so-called "big D Discourse"). A Discourse with a capital "D" is all about the enactment and recognition of *socially situated identities* or "kinds of people" (see Ian Hacking's work on "kinds of people"). These identities might be things like "being-doing" a Los Angeles Latino street-gang member, a Los Angeles policeman, a field biologist, a first-grade student in a specific classroom and school, a "SPED" student, a certain type of doctor, lawyer, teacher, African American, man, woman, boy friend, girl friend, or regular at the local bar, etc. and etc. through a nearly endless list. Discourses, for me, are all about how we get recognized as being, at a given time and place, a socially meaningful kind of person.

Whenever we speak or write, in order to be understood, our hearer or reader must know *who* we are and *what* we are trying to do. For example, is the doctor talking to me as a patient and giving medical advice or is she talking to me as an “everyday” person trying to “break the ice”? There is a doctor Discourse (more than one, there are different types) and there are culturally specific “everyday person” Discourses. Of course, since both took place in the doctor’s office, with her sitting behind a solid desk surrounded by medical books and tools, the doctor Discourse “infects” the “everyday person” Discourse in this setting. And this—the office, desk, book, tools—is a good example of how it is not just language that communicates, but places and things too. Discourses are not just about language.

In one classroom I studied, a little girl was bouncing in her seat during her “guided reading” group session. The teacher asked her why and she said “Because I am so happy”. The teacher then said, “Well, sit still”. The teacher responded to the child in terms of her identity as a teacher-manager trying to control the child (and this teacher, by the way, operated in terms of a cultural model which she expressed as “give them an inch they’ll take a mile”). The teacher responded in terms of what Basil Bernstein used to call the “regulatory discourse” of schooling and what we could also call “teacher classroom-management Discourse”.

Of course, the teacher could have said, “How great! Why are you so happy?”. In this case, the teacher would have been a different *who* engaged in a different *what*. She would have been responding out of her “everyday person” Discourse. Note, too, that the teacher’s *who* and *what*

helps create a *who* and *what* that the child is invited (or, in some cases, perhaps, here, for example, forced) to take up. The child is invited or forced to be a “regulee” of a certain sort in the teacher classroom management Discourse.

To enact a given identity or to pull off being a certain “kind of person” takes more than language. The teacher above could not have enacted teacher-manager controlling child in the same way outside the classroom. It is not just her words that mean, but the space/environment, as well. The teacher has “read” the child as being a “misbehaving student” (an identity) and in need of control and, in a sense, imposed this identity on her, via the girl’s bodily movements within a specific activity, not anything she has said. To enact “good (or behaving) student” in this class requires more than words and even overt activities, it requires accepting (or acting as if one accepts) a set of values that include “noise is detrimental to learning” and even “one’s out of school identities and experiences are not relevant in the classroom”, and much more. Other teachers and other classrooms create and sustain different sorts of identities.

Bruno Latour’s work has told us a great deal about how scientists mean to each other not just via words, but also in terms of how they integrate their words with actions, interactions, values, beliefs, attitudes, tools, technologies, objects, texts, places, and times. If you are studying soil scientists and how they mean to each other, and even to themselves, you have to study not just their words, but how they integrate words, values, actions, and interactions with things like soil and a Munsell soil color chart and many other objects and tools.

The Discourse of bird watching (being a “birder”) is, too, like science, all about coordinating and being coordinated by birds (their feathers, their sounds, their behaviors, and so forth), environments, binoculars, scopes, newsletters, bird books, other birders, and even the weather. No one will take you for a birder just because you “talk the talk”, you have to also “walk the walk” and, even more, get your talking and walking in synch, well integrated.

So now I can say, in more technical terms, what a “Discourse” is: A Discourse with a capital “D” (I use “discourse” with a little “d” just to mean “language in use”) is composed of distinctive ways of speaking/listening and often, too, writing/reading coupled with distinctive ways of acting, interacting, valuing, feeling, dressing, thinking, believing, with other people and with various objects, tools, and technologies, so as to enact specific socially recognizable identities engaged in specific socially recognizable activities.

I wanted to focus first and foremost on socioculturally situated identities. In terms of the little girl at sharing time, I wanted to ask the following sorts of questions: What identity did this little girl bring to class from her home and community? What identity was she expected to form in this sharing time practice? What other identities were being developed in other practices in this classroom and school? How did all these identities relate to and intersect with each other? How does language operate in regard to all these identities and their relations and intersections? How does language integrate with other “stuff” (gestures, values, attitudes, ways of interacting with people and objects within specific times and spaces) in this play of recognizing and enacting and developing identities, old and new? Note, for example, that this little girl enacts her identity

even at the level of intonation when she uses falling contours at the ends of episodes rather than sentences, showing that she cares more about the flow and structure of the story than she does about the linear factual bits that compose it.

The whole point of talking about Discourses is to focus on the fact that when people mean things to each other, there is always more than language at stake. To mean anything to someone else (or even to myself) I have to, as I have said above, communicate who I am (in the sense of what socially-situated identity am I taking on here and now) and what I am doing in terms of what socially-situated activity I am carry out. Language is not enough for this. We have to get our minds and deeds “right”, as well. We also have to get ourselves appropriately in synch with various objects, tools, places, technologies, and other people. Being in a Discourse is being able to engage in a particular sort of “dance” with words, deeds, values, feelings, other people, objects, tools, technologies, places and times so as to get recognized as a distinctive sort of who doing a distinctive sort of what. Being able to understand a Discourse is being able to recognize such “dances”.

It has always struck me that the sort of early knowledge of literacy test given to three-year-olds is a perfect of example of how being able to “dance” with more than words is crucial to the identities we enact, recognize, and get hailed to. In this sort of test one thing that happens is a book is placed upside down and the tester sees whether the child will turn it right side up. The child is asked to open it and point to a picture and then point to words. The child’s movements and gestures—the child’s ability to coordinate with and get coordinated by the book—is the



earliest test we have of whether the child has entered a school-based literacy Discourse, whether the child is already at three a “literate kind of person” or ready to be one.

What if you wanted to “pull off”—get someone to recognize and accept you as—being/doing a “hippie” in the 1960s? There were certainly forms of talk you had to engage in. But there were ways of acting, interacting, and valuing that were important. You were not going to have a “Say No to Drugs” sign on your bedroom wall, save as a parody. You had to dress in certain ways and had to have the ability to interact with certain sorts of objects in certain ways (“Don’t Bogart me”—if you don’t know what that means, you haven’t coordinated yourself with a group of people passing around marijuana blunt). And you had to coordinate and get coordinated by all this at the right times and places—you did not take the blunt to church or to your parents’ dinner table, at least in my area. In fact, we know that there were some people who were hippies in some places and at some times, and something else—a different kind of person—at other times and places, just as Native Americans, for instance, need not, all of them, always be “being-doing” a Native American at all times and places. We all have many identities, are members of many different Discourses.

I use the hippie example, because it is stereotypically clear. I want to argue that it is typical, nonetheless, though in many other cases—for example, when a little girl is trying to get recognized as a good sharer at sharing time—things are more subtle and nuanced and complicated. Teachers create multiple Discourses in their classrooms: e.g., being a good (or bad) student in this classroom, being a good (or bad) math student in this class, being a well (or

poorly) behaved student in this class, being a “Special Ed” or “disabled” or just “special” student in this class, and so forth. Sometimes the “rules” are clear, sometimes they are not. When they are not, then children are just as confused, bemused, conflicted, and up tight as you are when you have to play out an identity you are not clear about, but where there are consequences for failing (Never done this? You’re lucky). Sometimes there are official labels, sometimes there are not.

Notice that I have repeatedly used the phrase “coordinate and being coordinated by”, because I want to stress—like Latour—that people in action, interaction, and dialogue are both agents (actively coordinating other people, objects, environments, etc.) and patients (letting themselves get coordinated not only by other people, but by objects and environments and other non-human things). Since we must “dance” with things (remember the Munsell soil color chart or the birding binoculars) as well as people, then, things, too, become agents and patients. This is why Latour refers to them all—people and things—as “actants”.

The sharing time practice the little girl was in also contained a good example of how “being/becoming a certain kind of person” (a socially-situated identity) involves coordinating and getting coordinating by objects in the “right” ways. One little girl brought in a candle to share how she had made candles at home. When she pointed to parts of the candle (e.g., the wick or the wax), the teacher insisted she also explicitly name the part, not say something like “this”. In this early practice of “being/becoming a school-based literate person”, words, gestures, and objects had to be “in synch” in a specific way.

Discourses are not units or tight boxes with neat boundaries. Rather, they are ways of recognizing and getting recognized as certain sorts of whos doing certain sorts of whats. One and the same “dance” can get recognized in multiple ways, in partial ways, in contradictory ways, in disputed ways, in negotiable ways, and so on and so forth, through all the multiplicities and problematics that work on postmodernism has made so popular. Discourses are matters of enactment and recognition, then. When Jesse Jackson ran for President, he melded African-American Discourses (e.g., connected to the street and the church) with mainstream political Discourses in a bid to get accepted as a “serious politician” and, by and large, succeeded (at least if we are to judge by how even many white politicians now engage in the sorts of verbal rhetoric and play that Jackson did). Of course, such bids can also fail and much depends on the time and place where they happen, even on the historical scale.

All recognition processes involve satisfying a variety of constraints in probabilistic and sometimes partial ways. For example, something recognized as a “weapon” (e.g., a baseball bat or a fireplace poker) may share some features with prototypical weapons (like a gun, sword, or club) and not share other features. And there may be debate about the matter. Furthermore, the very same thing might be recognized as a weapon in one context and not in another. So, too, with being in and out of Discourses, for example, enacting and recognizing being-doing a certain type of street gang member, Special Ed student, or particle physicist.

While there are an endless array of Discourses in the world, nearly all human beings, except under extraordinary conditions, acquire an initial Discourse within whatever constitutes their

primary socializing unit early in life. Early in life, we all learn a culturally distinctive way of being an “everyday person” – that is, a non-specialized, non-professional person. We can call this our “primary Discourse”. Our primary Discourse gives us our initial and often enduring sense of self and sets the foundations of our culturally specific vernacular language (our “everyday language”), the language in which we speak and act as “everyday” (non-specialized) people.

As a person grows up, lots of interesting things can happen to his or her primary Discourse. Primary Discourses can change, hybridize with other Discourses, and they can even die. In any case, for the vast majority of us, our primary Discourse, through all its transformations, serves us throughout life as what I will call our “lifeworld Discourse”. Our lifeworld Discourse is the way in which we use language, feel and think, act and interact, and so forth, in order to be an “everyday” (non- specialized) person. In our pluralistic world there is much adjustment and negotiation as people seek to meet in the terrain of the lifeworld, given that lifeworlds are culturally distinctive (that is, different groups of people have different ways of being-doing “everyday people”).

All the Discourses we acquire later in life, beyond our primary Discourse, we acquire within a more “public sphere” than our initial socializing group. We can call these “secondary Discourses”. They are acquired within institutions that are part and parcel of wider communities, whether these be religious groups, community organizations, schools, businesses, or governments.

As we are being socialized early in life, secondary Discourses very often play an interesting role. Primary Discourses work out, over time, alignments and allegiances with and against other Discourses, alignments and allegiances that shape them as they, in turn, shape these other Discourses. One way that many social groups achieve an alignment with secondary Discourses they value is by incorporating certain aspects of the practices of these secondary Discourses into the early (primary Discourse) socialization of their children. For example, some African-American families incorporate aspects of practices and values that are part of African-American churches into their primary Discourse, as my family incorporated aspects of practices and values of a very traditional Catholicism into our primary Discourse. This is an extremely important mechanism in terms of which bits and pieces of a valued “community” or “public” identity (to be more fully practiced later in the child’s life) is incorporated as part and parcel of the child’s “private”, “home-based”, lifeworld identity.

Social groups that are deeply affiliated with formal schooling often incorporate into the socialization of their children practices that resonate with later school-based secondary Discourses. For example, their children from an early age are encouraged (and coached) at dinner time to tell stories in quite expository ways that are rather like little essays, or parents interact with their children over books in ways that encourage a great deal of labeling and answering of a variety of different types of questions, as well as the forming of intertextual relationships between books and between books and the world. Of course, this fact has been a mainstay of the literature on school failure.

I have referred to the process by which families incorporate aspects of valued secondary-Discourse practices into their primary Discourses as “filtering, but no one seems to like this term. Perhaps a better term is just “borrowing” (or just “incorporating”). Borrowing is used as a way to facilitate children’s later success in valued secondary Discourses. I want to stress the following point: *Borrowing functions not primarily to give children certain skills, but, rather, to give them certain values, attitudes, motivations, ways of interacting, and perspectives, all of which are more important than mere skills for successful later entry into specific secondary Discourses “for real” (skills follow from such matters).*

There are, of course, complex relationships between people’s primary Discourses and the secondary ones they are acquiring, as well as among their academic, institutional, and community-based secondary Discourses. These interactions crucially affect what happens to people when they are attempting to acquire new Discourses. Borrowing is one of these relationships. Others involve forms of resistance, opposition, domination, on the one hand, or of alliance and complicity, on the other, among Discourses.

The little girl at sharing time was speaking, valuing, acting, and interacting out of her primary Discourse. The teacher was attempting to introduce the children to a secondary Discourse connected to school-based literacy, without being clear to the children that this is what was at stake. She mis-recognized the little girl’s identity—who she was and what she was doing. The little girl mis-recognized what the teacher wanted—who the teacher wanted her to be and what

the teacher wanted her to do. The Anglo children had practiced within their primary Discourses elements of the school-based secondary Discourse as early preparation for future learning and for showing allegiance to that secondary Discourse. No one dealt with the relationships, tensions, and potential connection points between the two identities. A story within the little girl's primary Discourse was meant to be interactive, to engage the listeners, to involve them fully. The secondary Discourse of school-based literacy values treating the listener/reader as a blank slate about which the speaker/reader assumes little and to whom the speaker/listener feeds information as explicitly as possible. Even had the little girl known this was what was wanted, it still might not have made much sense to her to talk this way to friends in front of her.

The teacher in this classroom was able to put her arm around children who understood what she wanted and to interrupt them in helpful and synchronized ways that led them to produce more explicit and linear reports and narratives. She could not do this for the little African-American girl—every interruption seemed to be a disruption (in part because the teacher was waiting for a falling pitch contour as the place to interrupt and the little girl used less of them than the Anglo children, using them for episode and not sentence boundaries—this is one reason, among many, that the teacher thought the little girl was “rambling on”). With some children the teacher was able to “dance” with them—to synchronize her talk, action, interaction, and body—and with others she couldn't. I see this as the embodied dance of the enactment and recognition of identities, Discourses at work, and this dance or mis-dance between the little girl's primary Discourse and the secondary Discourse of school-based literacy has been enacted a great many times at school. It is not just a matter of individuals, but of Discourses speaking through individuals and their bodies in history.

Over the last few years, I have been concerned with the issue of “academic language”. In my view, far more children fail in school because they cannot cope with the complex demands of the specialist sorts of language connected to “content” (e.g., science, social studies, math) in school than because they did not learn to decode early on in school. Indeed, this is why we so often face the well known and long described phenomenon of the “fourth-grade slump”. The “fourth-grade slump” is the phenomenon whereby many children—often less privileged children—seem to be learning to read in the early years of school, but by around fourth grade cannot read well to learn content (fourth grade used to be the grade in which school content and the language associated with it really kicked in for the first time—often today it is earlier).

As an example, consider the difference between a sentence like “Hornworms sure vary a lot in how well they grow” and “Hornworm growth exhibits a significant amount of variation”. The first is in vernacular English. The second is in an academic variety of language. As children get into the later grades they see more and more language—oral and written—like the second and must be able, when necessary, to make the transition from the first to the second. The second sentence is not just a variant of the first, rather, it is about technical tools and ways of looking at the world that scientists have invented for specific knowledge building goals. Failing to prepare early to make this transition when necessary makes academic language very difficult, indeed, later on.



Children who do not get early preparation for school-based academic language—the sort of language they will see with a vengeance in their high school science textbooks and throughout college—are simply swamped by it. Such language gets worse with each passing year of school. A child’s early home-based vocabulary at five years of age is the best predictor of later school success and is rarely made up for by later schooling. This is so, in my view, because the sort of early home-based vocabulary that we are actually talking about here is the child’s early exposure (orally and in print) to school-based and other “public sphere” words, words like “state”, “realize”, “planet”, and so forth, through a great many other such words. Such words show early preparation for (and affiliation with) school-based literacy in the home and are preparation for future school learning.

The issue of academic language is another place where a focus solely on language is inadequate. Here, too, we need to focus on Discourses. I used to believe that school-based academic language was just “hard” and that kids needed to gear up early on for a challenge that none of them would much choose on their own. That was until I started to study popular culture and video games. I soon realized that kids as young as seven were playing things like *Pokémon* and *Yu-Gi-Oh* and bankrupting their parents buying cards that had far more complex and specialist language on them than many of these children were seeing in school. These children were using complex language for play and loving it, rich and poor kids alike. It turns out that children are, in fact, good at specialist language—such language is not really much of a challenge for them when integrated into lucid rules, activities, and play.

Let me give some examples of the sorts of complex, non-vernacular language children see and play within their popular culture today. Consider the text below, which appears on a *Yu-Gi-Oh* card. *Yu-Gi-Oh* is a card game involving quite complex rules. It is often played face-to-face with two players, sometimes in formal competitions, more often informally, though it can be played as a video game, as well.

**Armed Ninja**

**Card-Type:** Effect Monster

**Attribute:** Earth | **Level:** 1

**Type:** Warrior

**ATK:** 300 | **DEF:** 300

**Description:** FLIP: Destroys 1 Magic Card on the field. If this card's target is face-down, flip it face-up. If the card is a Magic Card, it is destroyed. If not, it is returned to its face-down position. The flipped card is not activated.

**Rarity:** Rare

The “description” is really a rule. It states what moves in the game the card allows. While this text has little specialist vocabulary (though it has some, e.g., “activated”), it contains complex specialist syntax. It contains, for instance, three straight conditional clauses (the “if” clauses). Note how complex this meaning is: First, if the target is face down, flip it over. Now check to see if it is a magic card. If it is, destroy it. If it isn’t, return it to its face-down position. Finally,

you are told that even though you flipped over your opponent's card, which in some circumstances would activate its powers, in this case, the card's powers are not activated. This is "logic talk", a matter, really, of multiple related "either-or", "if-then" propositions. It is the type of explicit specialist language children will see often in school in the later grades.

Consider another *Yu-Gi-Oh* card:

**Cyber Raider**

**Card-Type:** Effect Monster

**Attribute:** Dark | **Level:** 4

**Type:** Machine

**ATK:** 1400 | **DEF:** 1000

**Description:** "When this card is Normal Summoned, Flip Summoned, or Special Summoned successfully, select and activate 1 of the following effects: Select 1 equipped Equip Spell Card and destroy it. Select 1 equipped Equip Spell Card and equip it to this card."

**Rarity:** Common

This card has the following technical words (some are compound words) on it: “effect monster”, “dark”, “machine type”, “normal summoned”, “flip summoned”, “special summoned”, “successfully”, “select”, “activate”, “effects”, “equipped”, “Equip Spell Card”, “destroy”, “rarity”, and “common”. These all have special meanings within the game rules. You don’t really know exactly what they mean unless you know the game. While they have specialized uses within the game, their uses there are related to their more common meanings in other activities and areas.

I have watched seven year old children play *Yu-Gi-Oh* with great expertise. They must read each of the cards. They endlessly debate the powers of each card by constant contrast and comparison with other cards when they are trading them. They discuss and argue over the rules and, in doing so, use lots of specialist vocabulary, syntactic structures, and discourse features. They can go to web sites to learn more or to settle their disputes. If and when they do so, here is the sort of thing they will see: “The effect of ‘8-Claws Scorpion’ is a Trigger Effect that is applied if the condition is correct on activation”—note “effect”, “applied”, “condition”, “activation”, and the conditional “if” clause.

Let’s consider for a moment what *Yu-Gi-Oh* involves. First and foremost it involves what I will call “lucidly functional language”. The language on *Yu-Gi-Oh* cards, web sites, and in children’s discussions and debates is quite complex, but it relates piece by piece to the rules of the game, to the specific moves or actions one takes in the game. Here language—complex specialist language—is married closely to specific and connected actions. The relationship between

language and meaning (where meaning here is the rules and the actions connected to them) is clear and lucid.

There are two ways to understand words. I will call one way “verbal” and the other way “situated”. People have situated understandings of words when they can associate them with images, experiences, actions, or dialogue with which the words are associated. They have merely verbal understandings when they can only associate the words with other words (e.g., a paraphrase or a definition). While verbal understandings may facilitate passing certain sorts of information-focused tests, they do not necessarily facilitate actual problem solving where learners have to apply words to the world to accomplish goals and actions.

Situated understandings are, of course, the norm in everyday life and in vernacular language. Even the most mundane words take on different meanings in different contexts of use and we can associate the words with different images and actions in the different contexts. For instance, people construct different meanings for a word like “coffee” when they hear something like “The coffee spilled, get the mop” versus “The coffee spilled, get a broom” versus “The coffee spilled, stack it again”.

We can see the nature and importance of situated meanings if we consider video games for a moment. Written texts associated with a video game are not very meaningful, certainly not very lucid, unless and until one has played the game. Let me take the small booklet that comes with

the innovative game *Deus Ex* as an example. In the twenty pages of this booklet, there are 199 bolded references that represent headings and sub-headings (one small randomly chosen stretch of headings and subheadings that appears at the end of page 5 and the beginning of page 6 is:

**Passive Readouts, Damage Monitor, Active Augmentation & Device Icons, Items-at-Hand, Information Screens, Note, Inventory, Inventory Management, Stacks, Nanokey ring, Ammunition**). Each of these 199 headings and subheadings is followed by text that gives information relevant to the topic and relates it to other information throughout the booklet. So, though the booklet is small, it is just packed with concise technical information.

Here is a typical piece of language from this booklet:

Your internal nano-processors keep a very detailed record of your condition, equipment, and recent history. You can access this data at any time during play by hitting F1 to get to the Inventory screen or F2 to get to the Goals/Notes screen. Once you have accessed your information screens, you can move between the screens by clicking on the tabs at the top of the screen. You can map other information screens to hotkeys using Settings, Keyboard/Mouse (p. 5).

This makes perfect sense at a literal level, but that just goes to show how worthless the literal level is. When you comprehend this sort of passage at only a literal level, you have only an illusion of understanding, one that quickly disappears as you try to relate the information in this passage to the hundreds of other important details in the booklet. This passage means nothing

real to you if you have no situated idea about what “nano-processors”, “condition”, “equipment”, “history”, “F1”, “Inventory screen”, “F2”, “Goals/Notes screen” (and, of course, “Goals” and “Notes”), “information screens”, “clicking”, “tabs”, “map”, “hotkeys”, and “Settings, Keyboard/Mouse” mean in and for playing games like *Deus Ex*.

Second, though you know literally what each sentence means, they raise a plethora of questions if you have no situated understandings. For instance: Is the same data (condition, equipment, and history) on both the Inventory screen and the Goals/Notes screen? If so, why is it on two different screens? If not, which type of information is on which screen and why? The fact that I can move between the screens by clicking on the tabs (but what do these tabs look like, will I recognize them? ) suggests that some of this information is on one screen and some on the other. But, then, is my “condition” part of my Inventory or my Goals/Notes—doesn't seem to be either, but, then, what is my “condition” anyway? If I can map other information screens (and what are these?) to hotkeys using “Setting, Keyboard/Mouse”, does this mean there is no other way to access them? How will I access them in the first place to assign them to my own chosen hotkeys? Can I click between them and the Inventory screen and the Goals/Notes screens by pressing on “tabs”?

Of course, all these terms and questions can be defined and answered if you closely check and cross-check information over and over again through the little booklet. You can constantly turn the pages backwards and forwards. But once you have one set of links relating various items and actions in mind, another drops out just as you need it and you're back to turning pages. Is the

booklet poorly written? Not at all. It is written just like, in fact, any of a myriad of school-based texts in the content areas.

When I first read this booklet before playing *Deus Ex*, I was sorely tempted to put the game on a shelf and forget about it. I was simply overwhelmed with details, questions, and confusions. So I decided just to play the game—however badly—for several hours. After playing, when I went back to the booklet, something marvelous had happened. Now all the language in the booklet was lucidly clear and easy to understand. Why? Because now I had an image, action, experience, or piece of dialogue from the game to associate with words—had situated meanings for the words. Then, at last, the booklet makes good sense.

So now I would make just the same claim about any school content domain as I have just said about the video game *Deus Ex*: specialist language in any school domain—e.g., math, science, or social studies—has no situated meaning (thus no lucid or applicable meaning) *unless and until one has “played the game”*, that is, engaged in and with the images, actions, goals, experiences, practices, and dialogue that give situated meaning to words in these domains.

Good video games don’t just support situated meanings for the written materials associated with them in manuals and on fan web sites—and these are copious—but also for all language within the game itself. The meaning of such language is always associated with actions, goals, experiences, images, and dialogue. Furthermore, always and only, players get verbal



information (words) “just in time”, when they can apply it or see it apply, or “on demand”, when they feel the need for it and are ready for it (and then, in some cases, games will give the player walls of print, e.g., in *Civilization IV*).

So in regard to children and academic language we face a paradox: what is hard in school isn't outside it. It is not language that is making the difference here. It is Discourses. The Discourse of *Yu-Gi-Oh* places complex specialist language inside an enticing identity and a set of lucid practices that situate meaning in images, actions, goals, experiences, and dialogue. The Discourse of traditional schooling—and its many sub-Discourses around literacy and content—places complex language inside no enticing identity; relates words to other words and texts, not to meaningful and motivating images, actions, goals, experiences, and dialogue; and uses such language to sort people into “good” and “bad” students. Some children—often because their homes have given them no affective ties to such practices—simply will not affiliate with such Discourses (and their concomitant identities), even if they know what is wanted of them.

Consider again the vernacular sentence “Hornworms sure vary a lot in how well they grow?” versus the specialist variety “Hornworm growth exhibits a significant amount of variation”. The second, specialist, sentence replaces dynamic processes (e.g., “vary”, “grow”) with abstractions (e.g., “variation”, “growth”). The second sentence disallows the emotion (“sure”) expressed in the first (you cannot say “Hornworm growth sure exhibits a significant amount of variation”). The second sentence demands that judgment be relativized to a professional discourse community (what is a significant amount of variation is determined not by the speaker's opinion

or vision but by tests owned and operated by a Discourse in biology), while the first expresses the opinion of the speaker based on his or her own experiences with hornworms. The second sentence is about an abstract trait of a something (“hornworm growth”), while the first is about a cute little creature that children love (hornworms are cute and biggish green worms with yellow horns; they look like fantasy creatures).

Faced with all these substitutions, any child has the right to say “Why should I play that game?” In fact, “What game is that language connected to?” “Is it as well designed and ‘deep’ as *Yu-Gi-Oh*”? Of course there are answers, and good ones, to these questions. But when they are not answered in school—for areas like math, science, and social science—then schooling becomes at best a bad game and at worst a form of child abuse.