

# *Intent and Expression: Complexity, Ethnography and Lines of Power in Classrooms*

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## Introduction

An important function of critical social theory (in its various forms) is to demonstrate lines of power and how those lines function. This paper attempts to address the issue of whether complexity can be critical in this sense. I draw on complexity science and ethnography to propose theory to think about and analyze complex relationships that contextualize everyday classroom interactions and illuminate various lines of power captured within their webs of meaning. Starting with others whose ethnographic work also draws from complexity science, the first section seeks to set the scene, demonstrating commonalities between ethnography and complexity science. This section borrows some of the ideas and ideals of complexity science to reconsider and reinterpret aspects of ethnographic methodology.

The second section of this article is an ethnographic account of one upper grade classroom in an urban elementary school in Southern California. This section uses the terminology and constructs provided in the first section as a means to examine the concentric circles of context that inform commonplace classroom interactions. Grounded in a data strip from a language arts lesson I explore these multiple layers and the

complex constellation of curriculum, pedagogy, and studenting<sup>1</sup> necessary to render the lesson sensible.

## Ethnography and Complexity Science

Operating from an understanding that meaning is socially constructed, ethnography is a process of translating one set of meanings so that it makes sense to another's worldview (Agar, 1996; Erickson, 1986; Geertz, 1973). Writing about the connections between complexity science and ethnography, Agar (2004) remarks, "What's especially interesting about all this, for an ethnographer, is how familiar this new epistemology sounds" (p. 2). Indeed, there is a growing body of literature that seeks to enunciate parallels between complexity science and qualitative methodologies (Clarke & Collins, 2007; Jewett, 2005; Hayles, 1990; Polite, 1994).

Of these works, Agar's (2004) most directly explores the relationship between ethnography and complexity science. Agar states that ethnography is an emergent process that is both iterative and recursive, and as such is similar to both complexity science and the cultures it translates (Jewett, 2005; Hayles, 1990). It is also an iterative process of constructing and reconstructing frameworks of understanding until they serve to translate multiple, often seemingly unrelated points of cultural dissonance. When placed together these iterative and recursive translations form cultural patterns which are applicable in multiple instances across many layers of sociocultural interactions, from the most intimate interaction to interaction at its most grand.

For example, during a six-month home-stay program in Japan during my junior year in college, and despite years of studying both language and culture, I still found myself to be lacking the knowledge necessary for understanding many aspects of Japanese culture. That is, until one of my friends explained, "It's like bookends." This very simple sentence hit me like a ton of bricks as I recalled situation upon situation where this cultural pattern held fast. My first day of as a teacher at a public junior high school where I met everyone, made a speech, ate some food, then listened to everyone else make a speech. Students standing and bowing

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<sup>1</sup> Just as all of what teachers do during classroom lessons regardless of academic content is called "teaching," I refer to the breadth of students' similar interactions as "studenting."

as I entered and left the classroom. The gifts I handed out and received upon arriving and leaving peoples homes or cultural events. Conversations with Japanese friends where we greeted each other in ritualized formal language and left one another with similarly formal good-byes. “Call it a ‘theme,’ call it a ‘cultural pattern,’ call it what you will. It acts like a fractal in the sense of being an algorithm that applies iteratively and recursively to create patterns at different levels” (Agar, 2004, p. 21).

Ethnography and complexity science also share an essential aesthetic underpinning, walking a fine line between science and art. Paradoxically, the best ethnographies often simultaneously exhibit the meticulous rigor and analysis of science with the grace and creativity of literary arts (for examples in education see, Metz, 1978; Page, 1991; Spindler, 1982). The same can be said of strong works in complexity science where deeply complex relationships are often displayed in an artistic fashion (Davis & Sumara, 2006; Doll, Fleener, Sleeter & St. Julien, 2005).

There is another central parallel between ethnography and complexity science, one that Agar does not speak to, the nested nature of both complexity science (Davis & Sumara, 2006) and cultural patterns (Agar, 1996; Erickson, 1986; Varenne & McDermott, 1998). One example of such nested contexts are sociocultural norms and values that run from the immediately local—this is what is accepted and expected in this classroom—to the broadly global, such as national values and biases. Adding to the complexity, this multitude of contexts is neither bounded nor linear but fluidly non-linear. While not all contexts are necessarily in play at all times, there is no time when multiple contexts are not in play simultaneously in any given interaction.

The nested nature of interactions raises an important theoretical question: how does one talk about such complexities? It is in this respect that complexity appears to have a leg up on ethnography. Where ethnographers most often continue to use language from the “physical sciences” adopted towards the beginning of the previous century, complexity science has constructed a language of its own.

Complexity science speaks of *autopoiesis* (Mantura & Verala, 1980), “a word used to describe...the ability of a system to continually reproduce itself” (Smitherman, 2005). Ethnographers, on the other hand, often still wrestle with how to render the difficulty of highly dependent yet utterly

unpredictable human interaction “valid.” Validity in quantitative methodologies often refers to the degree to which a particular study can be replicated. If the same procedures can be followed to produce amazingly similar results, that study is considered valid. Given that no two human interactions are exactly the same and that differences between any two iterations of the same event are subtle, the use of such a language and construct seems contrived at best. Yet ethnographers wrestle on (see Maxwell, 1990 and Lather, 1986 for two such conflicting constructions of validity). In an attempt to provide language for interpretive researchers that is a better fit for the field, this next section uses some commonalities between constructions of interpretive research and complexity science as a springboard to propose constructs that seem better suited for ethnography.

### Intent, Expression and Ethnography

In this section, I propose that the constructs of intent and expression can be used as a possible means for thinking and talking about what human interaction means. Most scholars agree that one of the central tenets of ethnography is to understand the actors’ meaning and perspective. Wolcott (1990) proposes just this, that understanding rather than validity should be the ethnographic mark of trustworthiness and believability. However, this is often overlooked. Validity has been one of the hallmarks of ethnography for so long that interpretive researchers seem to have forgotten what complexity science has remembered. Validity, like all other such constructs, is a metaphor and as such is a social construction not an immutable fact. As Geertz puts it, the analysis of culture is “not an experimental science in search of law but an interpretive one in search of meaning.” (Geertz, 1973, p. 5).

Ethnographers examine and document how actors in their studies interact with one another and their world. These interactions are as often non-verbal as they are verbal and are acts of omission as often as they are explicit acts of purpose. In other words, what ethnographers are participating in and observing are actors’ *expressions* of culture. Rich points (Agar, 1996) are expressions that make perfect sense to the actors involved yet are to some degree nonsensical to the ethnographer(s) conducting the study. The ethnographer then works to understand what the actor’s expressions and their surrounding contexts mean (Agar, 1996;

Erickson, 1986; Hammersly & Atkinson, 1995) by actively seeking to understand both the *intent* behind the actor's expressions and other actors' responsive *expressions* of their intent. Thus, nested layers of intent and expression, from the most to least local, can serve as a means for ethnographers to interpret actors' meanings and analyze the data they collect. Expressions of intent are met with others' expressions and intents, which, in turn, solicit another round of responsive expressions based on other particular sets of intents, and so on. By examining the similarities and differences within and between actors' actions, the expression of their intentionality, and the purpose or ideas they held when they acted, its intent, the researcher can use multiple iterations of expression and intent to understand the cultural precepts that make such interactions make sense to local actors. This next section presents an argument for why the possible uses for the constructs of intent and expression are particularly well-suited to ethnographic studies of teaching and studenting.

### Intent, Expression and the Arts of Teaching and Studenting

Teaching is an art (Dewey, 1934; Parks, 1992; Schwab, 1983; Sarason, 1999) as are teachers' and students' interactions (Blumenfeld-Jones & Barone, 1997; Erickson, 1982; Gershon, 2003, 2006; Mehan, 1979). As the scholars cited above present in their work, making art, be it visual, performing, or otherwise (i.e. teaching), necessitates a great deal of time, effort, practice, preparation, and thought as well as innate skill. It also requires artists to keep one foot strongly planted in the affective and the other in the cognitive, a fluidity of processes that enables visual and performing artists (as well as teachers) to be simultaneously critical and creative. I suggest that those who believe teaching is a science rather than an art do not truly understand the process of art-making.

There is a good deal of evidence to support the argument that our consistent use of a scientific models to understand teaching and studenting have produced neither equal nor just educational experiences for many students, often based on sociocultural factors such as race and class (Anyon, 1981; Metz, 1989; Rist, 1970; Varenne & McDermott, 1998). While there is much debate over whether teaching is an art or a science, considering teaching and studenting as an art is, however, highly

problematic on at least two fronts. First, the highly contextualized, deeply qualitative nature of visual and performing arts often causes them to be difficult to define. This multiplicity of definition and understanding is further complicated by the fact that the Arts are cultural artifacts and systems of meaning (Clifford, 1988; Geertz, 1983). As such, what is aesthetically sensible for one group is not necessarily the same for another, both within and between any two cultural groupings. Second, what is often most meaningful in the processes of both art making and interactions with the Arts<sup>2</sup> is meaningful precisely because we experience it in a visceral, exceedingly personal manner that seems to escape explanation. What exactly is it that makes the hair on one's arm stand on end when one hears a particular piece of music? How does a teacher know when she has arrived at a "teachable moment"? One answer that resonates with many forms of Art is the existence and relationship between intent and expression. For example, the rehearsal director of the internationally acclaimed Batsheva dance company – Luc Jacobs – in response to a question about how he leads the company through rehearsals and the kinds of things he and his fellow dancers work on, replied, "It is a question of intent, what you put in and how you go about it. It is also a question of expression and how you express that energy."<sup>3</sup>

There are at least three advantages to using intent and expression as a means to understand what both studenting and teaching mean to classroom actors and the cultural meanings and patterns that render those interactions sensible. First, intent and expression is applicable to each layer of meaning. For example, 1) ethnographers attempt to understand the intent behind the actors' interactions that are expressions of that intent; 2) teachers use multiple student expressions of schooling, both academic and social, in an attempt to understand students' intent to inform their pedagogy; and 3) students interpret their teacher's expressions in order to better understand her intent so they can gauge how to adjust their studenting. The same can be said for

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<sup>2</sup> I capitalize Arts here to denote all forms of visual, performing, and new media arts including but not exclusive to: dancers, visual artists, actors, new media artists, and my fellow musicians.

<sup>3</sup> This quote is an excerpt from notes I took during a "talk back" question and answer period after their 2006-2007 performance in Cleveland.

examinations of policy (this is what a policy says but what is the legislature's intent and how is it expressed in schools or classrooms?), cultural biases (elementary school teachers often tell students that everyone can be President but know this is not necessarily the case; what is their intent when they express this thought to students?), and so on.

Second, examinations of actors' expressions and intents affords researchers a means to concretely compare and discuss what students and teachers do, what those interactions mean to those involved, and to situate those meanings within broader cultural contexts. For example, consider how a student raises her hand to be called on in response to a teacher's question. Her intent is to reply to her teacher's question and raising her hand is an indicator of that intent. It is also an indicator that she believes that she has the correct answer to the question. A teacher's question can be seen as an expression of her intent to examine the degree to which her students have comprehended a particular concept. This mode of student-teacher interaction also speaks to a particular understanding about their roles that this teacher and her students share: teachers have knowledge; students are to gain knowledge. Similarly, this vision of instruction is a particular cultural understanding of what teaching and studenting means: teachers are active disseminators of knowledge while students are to be generally passive receptors of knowledge (Freire, 1970; Mehan, 1979). As with the first example, there are layers upon layers of possible analysis using these constructs in this manner.

Finally, when combined, layers of intent and expression form a lens that enables its user to critically examine how lines of power operate, a consideration that is central to good ethnographic studies of educational contexts (Agar, 1996; Erickson, 1986). The curriculum a teacher intends to deliver to her students is one set of possibilities of what teaching could be and is strongly informed by local and less local contexts. Thus, the constructs of intent and expression provide particular advantages for interpretive researchers whose work relates to schools, classrooms, teachers, and students. The following section is one example of how intent and expression can be used as an analytical tool to examine classrooms and the cultural frameworks that contextualize classroom actors' meanings.

## Intent and Expression in Practice: Analytical Tools for Interpretive Research

This section is comprised of four parts. In the first I provide the necessary context for the vignette that is the second part of this section. The third portion of this section is an example of how nested layers of intent and expression can be used to interpret local meanings and to analyze data. A final section steps back from these interrelated layers in to name the onion that is the cultural framework these strata of intent and expression formed.

### *Setting*

This strip of data is taken from a larger study on the relationship between formal curriculum and upper grade students at Coachella Elementary<sup>4</sup>, a diverse urban school in Southern California. According to scores on state and federally mandated annual standardized assessments, Coachella was also a “good school” being placed in the top third of all schools in its large urban district. The research project was conducted in three classrooms over five and a half months. In order to better discern cultural precepts from interactional particularities, I was a participant-observer in Mr. Gutierrez’s four-five split-grade classroom at the end of one academic year, then observed fourth graders as fifth graders in Mr. Jimenez’s class and Mr. Gutierrez teach a different group of fourth graders. The data presented here is taken from a typical morning’s language arts lesson in Mr. Gutierrez’s fourth grade class.

Students in Mr. Gutierrez’s class reflect the school’s racial, class, ethnic, and ability norms. The school’s district categorizes a third of the thirty-three fourth graders in Mr. Gutierrez’s classroom as “White, Non-Hispanic” and, with the exception of one Asian and one African American male, all other students are designated as “Hispanic.” However, while the majority of students in Mr. Gutierrez’s classroom and at Coachella are racially White, they are not Anglo but ethnically Armenian and share many of the same characteristics as their Latino/a peers. Students from both communities are as likely to be recent immigrants and speak a language other than English at home. Even so, in all three classrooms observed for this study, Latino/a students were

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<sup>4</sup> All proper nouns are pseudonyms.

most often from working class or poor communities while Armenian students were usually from upper-to-middle class homes.

Although students were ability grouped according to the parameters set forth in the language arts program used at the school, students were not assigned classrooms based on their perceived educational abilities. According to the assessments given in each grade level, there were students of all degrees of academic ability in each classroom. Finally, there were more boys than girls in Mr. Gutierrez's classroom, largely because of the school's year-round schedule that placed students on four different academic calendars. In an effort to help parents, siblings at the school were generally placed on the same academic calendar, a local decision that was a contributing factor for Mr. Gutierrez's boy-heavy classroom (Personal communication, Mr. Gutierrez).

### ***Classroom Snapshot: A Typical Moment in Mr. Gutierrez's Fourth Grade Classroom***

Mr. Gutierrez stands in his usual spot at the front of the class as he teaches. He and the students are in the midst of another day of whole class language arts instruction. Mr. Gutierrez has just written a sentence on the board and has turned to address the class, who have been quietly copying down the previous sentences. Students sit in their seats, grouped in desks that are arranged so that most students face the board at the front of the classroom.

*Mr. Gutierrez:* Alright, now, the third rule, the third thing you pretty much need to cover is that adjectives often answer the question which one, how many, or what kind. [Pointing at board] Looking at this up here this says, "Two distant towers can be seen from the ridge." Okay? "Two distant towers can be seen from the ridge."

*Sounds of several chairs rustling while Mr. Gutierrez waits a few seconds for the non-verbal noise to die down*

Mr G: Now look at that word. Can somebody tell me what nouns we have here? What are some of the nouns that we include in this sentence?

*Thomas whispers something in audible as Mr. Gutierrez is talking*

Mr G: What are the nouns, Thomas?

*Thomas: Towers?*

Mr. G: Towers, okay, what else, do we have any other nouns? Two different towers can be seen from the ridge...Beatrice?

*Beatrice: Ridge*

Mr. G: Right, ridge. What kind of nouns are these, common or proper?

*Several students at once: Common! Proper!*

Mr G: They're common. They're not capitalized.

### ***Nested Layers of Intent and Expression***

Classroom lessons are filled with interactions like this one. They are so commonplace that they often pass by unnoticed and their familiarity often serves to hide their strangeness (Spindler & Spindler, 1982). For example, why did Mr. Gutierrez use *this* particular sentence, as while there are many ridges in parts of Southern California, there are few towers? Why nouns? Why is it that students are not writing their own sentences and asking their peers to identify the kinds of nouns they contain? When there is some confusion about whether "tower" and "ridge" are proper or common nouns, why does Mr. Gutierrez supply the answer rather than ask again?

The sentence used by Mr. Gutierrez is one in the Teacher's Edition of *Geared for Success*, the reading program used at the majority of schools in Coachella's large urban district. Page 139G of the guide is dedicated to the skill "Adjectives." To the side of the text, a "Teacher's Tip" reads:

“Remind students that adjectives describe people, places, or things. Students can practice using adjectives in their own writing to make it more interesting.” Next to the word “Instruct” is the following set of bulleted points and instruction:

Remind students of the following rules regarding adjectives. You may want to write the following rules on the chalkboard.

- Adjectives describe a noun or pronoun.
- Adjectives may describe how something looks, tastes, feels, smells, or sounds.
  - The bright sun hurt my eyes
  - I reached for my dark sunglasses.
- Adjectives often answer the questions
  - Which one? How many? or What kind.
- Two distant towers could be seen from the ridge.  
(author’s emphasis)

In the data strip above, Mr. Gutierrez has followed the guide’s suggestion and written the last of these three examples on the board. While this appears to be his intent, why does he do so? What are contextualizing layers of intent and expression inform his decision? Similarly, students’ expressions seem to be aligned with their teacher’s. Other than Thomas’ brief side conversation which Mr. Gutierrez and Thomas work together to quickly cut short, Mr. Gutierrez calls on Thomas and he complies by answering, students are silent while Mr. Gutierrez speaks and answer when spoken to. What is the intent behind such expressions?

One possible explanation for the interactions in the above data strip is that it is an expression of how America does school. A teacher-driven lesson that follows a tripartite lesson structure where teachers evaluate students’ responses to their questions is a well-documented and common way teachers and students work together to enact curriculum (Bellack, Kliebard, Hyman & Smith, 1978; Mehan, 1979). As the teacher, Mr. Gutierrez is the person in the classroom who has the authority to define both his and his students’ classroom roles. “To define the student’s role is one of the teacher’s fundamental obligations and prerogatives. It

manifests the teacher's greater authority and power in the classroom" (Page, 1991, p. 33). From this perspective, how Mr. Gutierrez teaches and how the students in his class student are enactments of sociocultural understandings about how lessons should function and of how teachers' and students' classroom roles should look. They are expressions of a collectively negotiated American intent to create what school means (for more on this argument see Metz, 1989; Varenne & McDermott, 1998).

How does Mr. Gutierrez talk about his teaching? According to Mr. Gutierrez, there are at least three key factors that strongly inform his intent. One factor is related to pressures he feels to follow the program as presented in the Teacher's Edition and according to the provided pacing plan.

The pacing plan is, pretty much what happens is that we cover each GFS story, there's a suggestion given by our district, that we have to cover language arts, some days we'll have four days to cover the story, some days we'll have five days. Because what's happening is that by the end of maybe the sixth or seventh week depending on how many stories you have within the unit itself, they're going to be assessed, and there's a specific timeframe when that testing is taking place. (Personal communication, Mr. Gutierrez)

Here Mr. Gutierrez presents two contextualizing expressions of intent that inform his intent to follow the guide as directed. The first is "a suggestion" from the district that teachers follow the pacing plan as written in the Teacher's Edition. This suggestion is actually a district-wide mandate that teachers use the program's pacing plan as the district's official "Instructional Guide" (Personal communication, Mr. Stone[Coachella's Principal]). The second is mention of testing students receive at the end of each instructional unit. Instead of using the unit assessments provided with the program, Coachella's district, in conjunction with the publishers of GFS, hired an outside contractor to prepare the "standardized-test-format" (Teacher's Edition, Program Appendix, p. 37) assessments used throughout the district. This combination of district expressions of policy resulted in unit assessments

that were given on the days assigned by the program yet teachers had not seen prior to delivering these tests to their students.

Mr. Gutierrez and all teachers across the district were not provided with the program's additional teacher textbooks. This created a situation where the only link teachers had to the content on unit assessments and the only way they had to prepare their students for the content of those tests was by following the content and pace set forth in the Teacher's Edition.

Furthermore, each school was assigned a "Language Arts Coach." According to the district's official application for the position, although the job "does not include the evaluation of teachers," it does include the following:

- [F]ormal and informal feedback and professional development for teachers on instructional strategies and classroom practices aligned to research and standards-based instruction.
- Plan, facilitate, and attend grade level meetings/study groups to assist teachers in maintaining pacing of instruction and utilizing data to determine next instructional strategies for improving student achievement in reading/language arts.
- Prepare forms, records, and reports for the purpose of monitoring implementation (e.g. pacing report, summary of assessment data).

In other words, although coaches were not officially involved in the evaluation of teachers they were to closely monitor how teachers taught and that the curriculum they delivered followed the pacing, content, and instructional strategies set forth in the Teacher's Edition. According to the district and program's publisher's websites, this exacting use of the GFS has resulted in consecutive years with considerable gains in student test scores on annual mandated federal assessments (NCLB, 2001). The district policies presented above are some of the ways that the district expressed its desire to continue this trend. Such pressures may also have contributed to Mr. Gutierrez's instructional decisions. For example, in the above snapshot, Mr. Gutierrez elected to call on particular students,

quickly accepting their correct answers yet when a good portion of the class could not discern a common from a proper noun, Mr. Gutierrez supplied the correct answer with equal speed.

However, Mr. Gutierrez's faithful delivery of the program was not a simple case of coercion and compliance. Mr. Gutierrez genuinely believed that the content students learned through GFS to be valuable and that the instructional techniques he employed to deliver such content were helpful to his students. As in the example from page 139G above, GFS usually presented skills as a key term, such as "Adjectives," and, at most, a few possible definitions for that term such as "Adjectives describe a noun or pronoun." During one interview session about the particular kinds of skills presented in GFS, Mr. Gutierrez informed me "there are a lot of key words [in GFS]. And when any one of the kids in this classroom hears that word, they know what we're talking about." This lead me to ask Mr. Gutierrez if he found such key words helpful.

*Mr. Gutierrez:* Yea, I do find them helpful, not only do they help out in the sense that they're vocabulary that'll help them, say for example, when it comes to learning vocabulary word "comprehension" they know that the synonym [which is the key word] is "understand," so that it helps them in that sense build a vocabulary, but it also helpful within the program.

WG: So does it help you as a teacher?

*Mr. Gutierrez:* Yea it does. It makes a lot of the management issues, in a sense, procedural issues, a lot easier, yea.

WG: How so?

*Mr. Gutierrez:* Say, for example, when I say, focus on comprehension skills, they know what I'm talking about. If I were to say we're going to be working on this strategy, they know what

strategies are. They know what they are. They know that they're "reread." They'll tell that it's questioning, maybe "visualizing," so they're key terms that when they hear they know exactly the kind of items that fall within that category.

Similarly, although Mr. Gutierrez does have some concerns about having enough time to properly implement the program, he nonetheless believes in the strength of GFS.

I mean, I think it's a good instructional program in the sense that they're [the S] getting the things that they need to and our district's mandated us to take these assessments, but I think that um, we're on such a time constraint during the day that there should be enough time for supplemental material. I mean, I can include some stuff, but really, I can't deviate too much because there is that time restriction. (Mr. Gutierrez)

However, when I asked Mr. Gutierrez how he supplements the program here is how he responded

[W]e teach them vocabulary we're going over the next day...or even just dialoging about vocabulary we're not familiar with, or reading something out of the book and going out of the book and going over the concepts we'll be doing in future reading [from GFS].

In other words, Mr. Gutierrez supplemented the program by more deeply previewing and otherwise delivering its skills.

Finally, Mr. Gutierrez's use the Teacher's Edition relieved him from having to make many curricular and instructional decisions. For example, by following the content, pace, and instructional strategies proposed in the guide, Mr. Gutierrez did not have to decide what content to teach, how that content should be organized, or the ways in which that content was to be taught. Because many examples in the guide are accompanied by prescribed correct answers for students,

similar to the way the adjectives are underlined on page 139G, Mr. Gutierrez's exacting enactment of the program also often relieved him having to make decisions about what answers "counted" as correct. In short, it made Mr. Gutierrez's life easier.

But it made it a lot easier...You have things already set in place that are going to help you, carry you, throughout the year. So in that sense it was kind of beneficial to me, and I found the program welcoming. (Mr. Gutierrez)

Therefore, Mr. Gutierrez's participation in delivering the curriculum as directed in the Teacher's Edition can be constructed in the following three ways: 1) as a set of coercive contexts, 2) as relief from making certain kinds of instructional and curricular decisions, and 3) as a person willingly working with a program that reflects his own understandings of how content should look, function, and be delivered.

In each case, explanations for his diligent delivery of GFS involve the interaction and negotiation of multiple layers of intent and expression. It is important to note that, in keeping with the complex, iterative nature of the ethnographic tradition, these three constructions are not mutually exclusive but operate simultaneously and are equally integral to understanding the cultural frameworks of what teaching meant in Mr. Gutierrez's classroom.

Factors that influenced students' intent parallel those offered about Mr. Gutierrez above. First, like Mr. Gutierrez, students believed lessons to consist largely of multiple interactions such as the one presented at the beginning of this chapter. It is corollary to a general understanding that teachers leading the class lessons through a tripartite participation structures is a common iteration of what lessons look like in American classrooms. Despite nearly thirty years of scholarship that calls such a construction of schooling into question (Freire, 1970; Jackson, 1968), students' roles in this tradition of studenting largely consists of quietly following directions and attempting to arrive at the correct answer the teacher has in mind (Heath, 1982; Mehan, 1979). Responding when called on, waiting one's turn to talk, and ceding the conversational floor to the teacher are all long-standing American traditions.

I asked multiple students in several recorded interviews to recall a

time when they remembered lessons functioning differently. Students informed me that, in their recent memories as third and fourth graders, most lessons had the tone and tenor of the teacher-directed, skills-based strip presented above.<sup>5</sup>

WG: What do you do in class?

*Jose Luis:* We'd only do reading the whole time

WG: Only reading the whole time? Is that different from now? (3)

WG: Do you do stuff other than reading?  
Whadoyoudo?

*Jose Luis:* We do math (3)...we do, um...*trails off*  
(12)

Well, in first grade it was not, not really boring we got to learn a lot of stuff and most of the time it was just pure projects, second grade, just like math and then, only like and then in the whole year of second grade we got to do only like ten projects and then right now, last year in third grade we only got to do like two projects, and right now in fourth grade, only one project<sup>6</sup> (Personal Communication, Thomas).

This understanding of textbook-based, teacher-directed lessons about discrete skills is one factor that influenced student intent, an intent that

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<sup>5</sup> The number in parenthesis is the number of seconds Jose Luis was silent. Thomas uses the word "projects" to indicate "like art and science and stuff," that were hands-on activities rather than working with textbooks.

<sup>6</sup> I interviewed Thomas approximately a quarter of the way through his fourth grade year. It is entirely likely that he would do at least one other "project" in his fourth grade year.

appeared to be a kind of student compliance to their teachers' expressed expectations.

Second, students' intentional participation in classroom lessons can be seen as an implicit agreement with their teacher's construction of teacher and student roles. If it is the teacher's role to lead the lessons, it is the students' role to follow their teacher's lead. Although there are often negative consequences for such actions, students have agency and can resist, reject, sidetrack and otherwise demonstrate their oft-overlooked power as students (Foley, 1990; McNeil, 1981; Willis, 1977). For example, with few exceptions, fourth graders in Mr. Gutierrez's classroom actively participated in classroom lessons, helping to keep them moving at the requisite pace. However, when Ms. Bumbershoot served as the class' substitute while Mr. Gutierrez was out for three days, the students ran her in circles. Ms. B. was not an inexperienced substitute. She had been subbing at Coachella for the past seven years and was well respected by teachers and the administration at Coachella. When I interviewed Ms. B. after her second day as sub she informed me that "Coachella is her favorite school" and that the school was situated in "her neighborhood. It's always had a really good energy to me when I walk in."

Ms. B. characterized this group of fourth graders as "rough, man they're rough...I think this class is exceptionally difficult." Although Ms. B's characterization of the class does lend credence to Mr. Gutierrez's ability to keep the class largely on task, for my purposes here, it speaks to how students expressed themselves differently in her presence and to the idea that they can and did exercise their ability to make life difficult for substitutes. Students confirmed this intent during interviews, perhaps most succinctly by Josep, a student who was both a class clown and usually got high marks.

WG: So, how was it having a sub this week?

*Josep*: It's always great to have a sub, especially Ms.

B. She gets so upset fast so we can do more what we want when she's there.

This raises the question, if students know that they can exercise their agency, what do students knowingly gain through their expressions of participation? One answer to this question is that through students'

intentional expressions of surface participation with their teacher's expressed expectations, students in Mr. Gutierrez's class could more readily participate in a rich classroom underlife. Borrowed from Goffman's (1961) description of the spaces patients in asylums carve out within the all encompassing rules of total institutions, previous constructions of classroom underlife have operated with an assumption that the underlife is a constant and necessary part of classroom life (Gutierrez, Larson & Rhymes, 1995; Page, 1991). While this rings true in Mr. Gutierrez's classroom, it is also the case that students' expressions of outward participation are intentionally offered as part of an implicit bargain with their teacher. In exchange for working with Mr. Gutierrez to move classroom lessons forward at the prescribed pace, most students could interact as they chose provided they did not disturb the surface lessons that occur simultaneously.

For example, in the just over three minutes it took for fourth graders and their teacher to come to the conclusion that both "tower" and "ridge" are nouns, I observed the following interactions. Donald was quietly drawing yet another dinosaur-like creature. Next to Donald Marcy was quietly mouthing something across the room to Europa. At Europa's table, Veronica was busy looking away from Mr. Gutierrez out the classroom windows as she twirled the strap to the sling that held her mending left arm. At the adjacent table, Howard flicked a folded "paper football" to Marcus who caught it in mid air. At the head of the same table, Josep put his hand over his mouth and laughed quietly at gesture Rolf made behind his back and, not two seats down from Mr. Gutierrez, Isabelle had her head down on her desk. Other than Mr. Gutierrez's talk, only Thomas' talk was clearly audible, breaking the surface of the lesson. In response to his breaking their implicit bargain, Mr. Gutierrez suddenly called on Thomas to answer the question he posed when Thomas' voice audibly bumped his own.

Thus, similar factors influenced the intent of both Mr. Gutierrez's and the students' expressions. In each case, teacher and students reified mainstream understandings of what it means to do school, faced coercive contextual pressures, *and* willingly participated in daily lessons because of what they gained through their participation. This next section considers a cultural framework that fits these parallel intents and expression.

### ***Teaching and Studenting in the Tradition of Social Efficiency and Bottom-up Curricular and Instructional Design***

Teaching and studenting in Mr. Gutierrez's classroom is often teacher-centered with skills-focused lessons that understand students as empty vessels to be filled with the knowledge their teachers hold. Such attributes locate the as part of the curricular tradition Kliebard (1995) calls the social efficiency group. This tradition maintains that knowledge can be broken down to its smallest components and that such skills are universally attainable and applicable (Bobbit, 1918; Tyler, 1949; Hunter, 2004). Educators whose work ascribe to this tradition construct instruction as a universally applicable set of good teaching practices and effective efficiency as central to definitions of successful teaching and studenting.

Just as the strips of data presented here indicate that Mr. Gutierrez's classroom is firmly rooted in the tradition of the social efficiency group, the expressions and intents documented in this piece are an indication that lessons in Mr. Gutierrez's classroom reflect a strong tendency towards bottom-up curriculum and instruction. Bottom-up construction is how the literacy community refers to skills-first programs that often use explicit, direct instruction to deliver these quantifiable measurable discrete skills (Garan, 2004; Smith, 2003). For example, in the data strip above, students did not generate their own questions and all aspects of the curriculum-in-use (Schwab, 1969) were inexorably linked to discretely measurable skills.

That lessons in contemporary American elementary school classrooms are indicative of social efficiency is not necessarily news (McNeil, 2000; Nichols & Berliner, 2007; Pope, 2001). However, most of the educational literature on this topic does not explore how such curriculum or instruction affects the daily life of students or assumes that teachers and students are coerced into participation. Using iterative layers of intent and expression provides an opportunity to examine the complexity of how such local meanings are constructed, complexities that reveal teachers and students to be active participants in such constructions rather than "cultural dopes" (Hall, 1981, p. 59) without agency. It would appear that the use of intent and expression can both provide 1) a means for interpretive researchers to consider the many

both/and juxtapositions of local meaning systems and their contexts that are crucial to strong interpretive research (Agar, 1996; Erickson, 1986; Geertz, 1973; Hammersly & Atkinson) and 2) a language and analytical tool that is more suited to the study of human interaction than the terms and constructs borrowed from the “physical sciences” towards the turn of the last century.

However, questions about the viability of these uses of intent and expression remain. For example, would the construct of intent be helpful in understanding how or why Thomas’ talk in the underlife broke the surface lesson’s participation structure? It could well be the case that it is Mr. Gutierrez’s implicit or explicit intent to pay particular attention to how Thomas performs his classroom role as “student;” it is equally plausible that it was not Thomas’ intent to be so noticed and that he had, in fact, intended to keep such expressions in the classroom underlife. In addition, one cannot truly know another’s intent for each moment of expression. As presented at the beginning of this article, how one talks about one’s own expressions can be different than how one actually expresses one’s self to others, so it is equally unclear the degree to which such actors’ talk is trustworthy.

Yet a central part of ethnography is the process of translation through which the researcher seeks to interpret one set of understandings sensible to another’s sensibilities (Agar, 1996; Erickson, 1995). Although these questions about the limits of intent and expression are certainly in need of further exploration, they are also belong to a long standing line of questioning about issues of representation within the field of interpretive research (Clifford, 1988; Hammersly & Atkinson, 1995).

### Conclusion: Intent, Expression & Complexity Science

The uses of intent and expression presented in this article follow Agar’s (2004) perceptive linking of the similarities between ethnography and complexity science. As expression fluidly follows intent and is influences and is influenced by still other expressions of intent, following these interactional threads yields layer upon layer of meaning. Such meaning making is fractal-like. It is iterative, recursive, and self-same. Meaning is emergent in a relatively organic matter; multiple intersections of intent and expression form constellations of cultural

pattern. Although each set of intent and expression are different from one another, they are quite similar in their whole, the pattern repeats but does not replicate. As such they fit both an understanding of ethnography and complexity science. But does this mean complexity science can be used in a critical sense? In light of the ways that the kind of ethnographic work I have presented here considers *both* issues of complexity *and* lines of power, I believe the answer to this question is yes.

As I have argued, many central concepts and constructs often attributed to complexity science can be used to elucidate lines of power in human interaction and how those lines function. If complexity science and ethnography do indeed have the similarities suggested in this article, then the constructs of intent and expression could well be of use to those who wish to use complexity science in order to consider contexts that involve human interaction such as education.

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### References

Agar, M. H. (1996). *The professional stranger: An informal introduction to*

- ethnography*. (2nd ed.). San Diego, CA: Academic Press.
- Agar, M. (2004). We have met the other and we're all nonlinear: Ethnography as a nonlinear dynamic system. *Complexity*, 10(2), 16-24.
- Anyon, J. (1981). Social class and the hidden curriculum of work. In H. A. Giroux, A. N. Penna, & W. F. Pinar (Eds.), *Curriculum and instruction: Alternatives in Education*. Berkeley, CA: McCutchan Publishing Corporation.
- Barone, T. E. & Eisner, E. (1997). Arts-based educational research. In R. M. Jaeger (Ed.), *Complementary methods for research in education* (2nd ed.) (pp. 73- 99). Washington, DC: American Educational Research Association.
- Bellack, A. A., Kliebard, H. E., Hyman, R. T., & Smith Jr., F. L. (1978). *The language of the classroom*. New York: Teachers College Press.
- Bobbit, F. (1918). *The curriculum*. Boston: Houghton Mifflin.
- Bourdieu, P., & Passeron, J. (1977). *Reproduction in education, society and culture*. R. Nice [trans.]. Beverley Hills, CA: Sage Press.
- Clarke, A., & Collins, S. (2007). Complexity science and student teacher supervision. *Teaching and Teacher Education*, 23, 160-172.
- Clifford, J. (1988). *The predicament of culture: Twentieth-century ethnography, literature, and art*. Cambridge, MA: Harvard University Press.
- Davis, B., & Sumara, D. (2005). Challenging images of knowing: Complexity science and educational research. *International Journal of Qualitative Studies in Education*, 18(3), 305-321.
- Dewey, J. (1934). *Art as experience*. NY: Perigree Books.
- Erickson, F. (1982). Classroom discourse as improvisation: Relationships between academic task structure and social participation structure in lessons. In L. C. Wilkinson (Ed.), *Communicating in the classroom*, 153-181.
- Erickson, F. (1986) Qualitative methods in research on teaching. In M. Wittrock (Ed.), *Handbook of research on teaching*. (119-161). (3rd ed.). New York: Macmillan.
- Fleener, M. J. (2005). Introduction: Chaos, complexity, curriculum, and culture: Setting up the conversation. In W. E. Doll Jr., M. J. Fleener, J. Trueit, & J. St. Julien [Eds.], *Chaos, complexity, curriculum & culture: A conversation*. New York: Peter Lang, pp. 153-180.

- Freire, P. (1970). *Pedagogy of the Oppressed*. Myra Bergman Ramos [Trans.] New York: Herder & Herder.
- Garan, E. M. (2004). *In defense of our children: When politics, profit, and education collide*. Portsmouth, NH: Heinemann.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Geertz, C. (1983). *Local knowledge: Further essays in interpretive anthropology*. New York: Basic Books.
- Gershon, W. (2003, April). *Students as Performing Artists: Re-casting Classroom Interactions*. A paper presentation to the American Educational Research Association, Chicago, IL.
- Gershon, W. (2006). Collective Improvisation: A theoretical lens for classroom observation. *Journal of Curriculum and Pedagogy* 3(1), 104-135.
- Goffman, E. (1961). *Asylums: Essays on the social situation of mental patients and other inmates*. New York: Doubleday Books.
- Gutierrez, K., Larson, J. & Rymes, B. (1995). Script, counterscript, and underlife in the classroom: James brown versus brown v. board of education. *Harvard Educational Review*, 65(3), 445-471.
- Hall, S. (1981). Notes on deconstructing "the popular." In R. Samuel (Ed.), *People's History and Socialist Theory* (pp. 227-239). London: Routledge & Kegan Paul.
- Hammersley, M., & Atkinson, P. (1995). *Ethnography: Principles in practice* (2nd ed.). New York: Routledge.
- Hayles, N. K. (1990). *Chaos bound: Orderly disorder in contemporary literature and science*. Ithica, NY: Cornell University Press.
- Heath, S. B. (1982). Questioning at home and at school: A comparative study. In G. Spindler (Ed.), *Doing the ethnography of schooling: Educational anthropology in action*. (pp.102-131). New York: Holt, Rinehart and Winston.
- Hunter, M. (2004). *Madeline Hunter's mastery teaching: Increasing effectiveness in elementary and secondary schools*. Thousand Oakes, CA: Corwin Press. (Original work published 1982)
- Jackson, P. W. (1968). *Life in classrooms*. New York: Teachers College Press.
- Jewett, L. (2005). Minding culture. In W. E. Doll Jr., M. J. Fleener, J. Trueit, & J. St. Julien (Eds.), *Chaos, complexity, curriculum & culture: A conversation*. New York: Peter Lang, pp. 277-298.

- Kliebard, H.M. (1995). *The struggle for the American curriculum* (2nd ed.). New York: Routledge.
- Kuhn, L., & Woog, R. (2005). Vortical postmodern ethnography: Introducing a complexity approach to systemic social theorizing. *Systems Research and Behavioral Science*, 22, 139-150.
- Lather, P. (1986). Issues of validity in openly ideological research: Between a rock and a soft place. *Interchange*, 17(4), 63-84.
- Mantura, H., and Varela, F. (1980). *Autopoiesis and cognition*. Dordrecht, Holland: Riedel.
- Maxwell, J. (1990). Understanding and validity in qualitative research. *Harvard Educational Review*, 63(3), 279-300.
- McNeil, L. (1981). Negotiating classroom knowledge: Beyond achievement and socialization. *Journal of Curriculum Studies*, 13(4), 313-328.
- McNeil, L. (2000) *Contradictions of school reform: the educational costs of standardized testing*. New York: Routledge
- Mehan, H. (1979). *Learning lessons: Social organization in the classroom*. Cambridge, MA: Harvard University Press.
- Metz, M. H. (1978). *Classrooms and corridors: The crisis of authority in desegregated secondary schools*. Berkeley, CA: University of California Press.
- Nichols, S. L., & Berliner, D. C. (2007). *Collateral damage: How high-stakes testing corrupts America's schools*. Cambridge, MA: Harvard Educational Press.
- Page, R. N. (1991). *Lower track classrooms: A curricular and cultural perspective*. New York: Teachers College Press.
- Parks, M. E. (1992). The art of pedagogy: Artistic behavior as a model for teaching. *Art Education*, 45(5), 51-57.
- Polite, V. C. (1994). The method in the madness: African American males, avoidance schooling and chaos theory. *Journal of Negro Education*, 63(4), 588-601.
- Pope, D. C. (2001). *"Doing school": How we are creating a generation of stressed out, materialistic, and miseducated students*. New Haven, CT: Yale University Press.
- Rist, R. (1970). Student social class and teacher expectations: The self-fulfilling prophecy in ghetto education. *Harvard Educational Review* 40(3), 411-451

- Schwab, J. J. (1969). The practical: A language for curriculum. *School Review*, 78(1), 1–23.
- Smith, F. (2003). *Unspeakable acts, unnatural processes: Flaws and fallacies in "scientific" reading instruction*. Portsmouth, NH: Heinemann.
- Smitherman, S. (2005). Chaos and complexity theories: Wholes and holes in curriculum. In W. E. Doll Jr., M. J. Fleener, J. Trueit, & J. St. Julien (Eds.), *Chaos, complexity, curriculum & culture: A conversation*. New York: Peter Lang, pp. 153-180.
- Spindler, G (Ed.), (1982) *Doing the ethnography of schooling: Educational anthropology in action*. New York: Holt, Rinehart and Winston.
- Spindler, G., & Spindler, L. (1982). Roger Harker and Schonhausen: From the familiar to the strange and back again. In G. Spindler (Ed.), *Doing the ethnography of schooling: Educational anthropology in action*. (pp. 20-47). New York: Holt, Rinehart and Winston.
- Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago: The University of Chicago Press.
- Varenne, H., & McDermott, R. (1998). *Successful failure: The schools america builds*. Boulder, CO: Westview Press.
- Wolcott, H. F. (1983) Adequate schools, inadequate education: The life history of a sneaky kid. *Anthropology and Education Quarterly*, 14(1), 3-32.
- Wolcott, H. F. (1990). On seeking-and rejecting-validity in qualitative research. In E. Eisner & A. Pushkin (Eds.), *Qualitative inquiry in education: The continuing debate*. New York: Teacher's College Press, 121-152.
- Willis, P. (1977). *Learning to labor: How working class kids get working class jobs*. New York: Columbia University Press.

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