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Broadening Our Lenses of Perception to Advance Learning: An Introduction to Multilectics

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Broadening our lenses of perception: A multilectical approach

1. The need for broader lenses of perception

The statistical data paint a bleak picture for the Black and Latino/a seventh graders in this inner-city school. Over half of them scored below proficient on the standardized language arts test, which is to say they answered less than 50% of the questions correctly. Many others hovered on the border between proficient and less than proficient while only 3% were categorized as advanced proficient. Seen through the statistical lens of the official tests, the primary tools of assessment, these students appear to be stereotypical representatives of class or racial failure, lacking skills, knowledge, and the ability or desire to engage with academic learning. Because test scores mostly determine high school options for poor inner city students, these students face dim academic trajectories.

Official policies to reverse these prospects tend towards remediation rather than enrichment despite the failure of remediation as attested to by the record, in the United States, of the No Child Left Behind (NCLB) Act and Race to the Top, both of which rely on tests to assess student abilities and have hastened the trend towards the “narrowing of the curriculum,” and “teaching to the test” as a result of which “Teachers exclude from their lesson plans the material that is not tested...” (King & Zucker, 2008, p. 5). According to the Center for Educational Policy, “Seventy-one percent of the nation’s 15,000 school districts...reduced the hours of instructional time spent on history, music and other subjects...” (Dillon, 2006, p. A1).

The stark underperformance of large swaths of minority youth predates NCLB. Almost two decades ago, Jerome Bruner (1996) wrote about the failure of schools to scaffold the self-esteem, confidence and optimism of minority youth and worried, “America manages to alienate enough black ghetto boys to land nearly a third of them in jail before they reach the age of thirty” (p. 38). Bruner wrote that, for Black youth, schools were not able to compete with the “allure” of the streets.

Today, in the United States, almost 10% of Black males 30-34 are in prison at any given time (Carson & Sabol, 2012) while contemporary studies, including Ann Ferguson’s *Bad Boys* (2001) and Maryann Dickar’s *Corridor Cultures* (2008), document the criminalization of African-American adolescents within schools. Meanwhile, “If current trends continue, one in three black males born today can expect to spend time in prison during his lifetime” (Mauer & King, 2007, p. 1). This trend manifests, in part, schools’ failure to successfully promote an academic trajectory for poor Black and Hispanic youth.

The failure of schools to successfully serve many minority populations is not an issue unique to the United States. John Ogbu and Maria Matute-Boianchi (1986), in their controversial theories about voluntary and involuntary immigrants, demonstrated that countries as different as Japan, New Zealand, Malaysia and India are unsuccessful in serving certain populations for many historical and

sociocultural reasons. A summary study by the Australian Council of Education Research reported, “By the age of 15, around 20 per cent of Indigenous students have already left school” (Greenwood, Frigo, & Hughes, 2002, p. 27). Allan Luke (2008), also in Australia, cites conditions that mediate the dismal prospects for marginalized students writing, for example, that literacy, “too often seems imposed, an act of symbolic violence with “rewards that often are inaccessible and invisible” (p. 68).

In this research, I suggest one way to begin to reverse the dysfunction of schools, especially in relationship to underserved populations, is to develop and apply lenses of perception that see beyond the limited range of phenomena made visible by test data. These different lenses emphasize data available through multilevel observation of student production and direct attention towards the unmeasurable qualities upon which learning rides including curiosity, passion for knowledge, and thoughtfulness. They embrace a phenomenological approach to classroom activity by illuminating how underperformers whose cultures diverge from dominant norms experience formal education and manifest knowledge. By so doing, they suggest interventions that could help transform the academic path into a viable option for students who do not conceive of schools as being supportive of their aspirations. These lenses burrow beneath the statistical wall and may open up new possibilities for affording success to our most disenfranchised youth.

The methodological imperative for such capacious lenses rests on the recognition that the evaluative criteria used to define and comprehend students sift data according to narrow limits imposed by measurement standards while neglecting observable but unmeasurable data that could help advance student achievement. To illuminate these unmeasurables, we need to look and listen closely to how students interact in school using multimodal (verbal and non verbal), multilevel and polysemic approaches. We need multidimensional ways of representing collected data in order to provide the clearest picture possible of the educational landscape. Though such an approach to

educational research is most crucial in communities where youth disproportionately underachieve, it has the potential to enrich the prospects of all students. An ethical imperative for more perceptive lenses is based on the recognition that the poor are excluded from the promise that academic learning holds in part because of the narrowness of evaluative lenses that judge them. Pierre Bourdieu (2000) explains:

An educational system that puts into practice an implicit pedagogic action requiring familiarity with the dominant culture...offers information and training which can be received and acquired only by subjects endowed with the system of predispositions that is the condition for the success of the transmission and of the inculcation of the culture. ...The educational system demands of everyone alike that they have what it does not give. This consists mainly of linguistic and cultural competence and that relationship of familiarity with culture which can only be produced by family upbringing when it transmits the dominant culture.” (p. 58)

2. Background for the study

In the fall of 2010, Ana (a pseudonym, as are all students’ names in this article) was a seventh grade African-American student who, until that year, had an Individualized Education Program detailing her “delayed” intellectual development. According to official evaluations, she read at a third grade level, as did many of her classmates. She was popular with peers and animated in face-to-face conversations but, like many of her classmates, often tuned out in class and seemed uninterested in schoolwork. The official record paints Ana as having little potential; her standardized test scores hover just below or just above proficient. Because her transcripts represent her as lackluster and subpar, her academic future is imperiled: one more young African-American whose trajectory seems predetermined by assessment methodologies, grounded in measurable criteria, that tell us something about race and class but little about her.

Close examination, however, reveals that rumbling beneath the numbers that profess objectivity is a young woman with a poetic love of language who observes keenly, thinks reflectively, and engages enthusiastically with academics when she sees their relevance to her life. These attributes, invisible through official lenses, are illuminated when Ana is given work in which she can find herself.

A memoir Ana wrote for class over the course of many weeks built on her experiences to produce a profound and reflective piece of writing. Unalienated from her task, she could see herself in the artifact she produced. The memoir provided evidence of abilities that were not reflected in the standardized assessments. As we shall see, it provided a launching pad for other writing and other conversations about writing that deeply affected her and her classmates and produced ripples with consequences for future seventh graders.

That schoolwork should relate to the lives students lead is not an epiphanic realization. Many literacy texts promote strategies that encourage self-to-text and self-to-world connections. These strategies are also listed on the websites of Boards of Education; in my experience, however, they are merely mentioned in passing and take second-place to the imposition of standardized curricula. The best teachers are often able to find ways around official restraints, but policy demands often give them little flexibility to adapt curricula to their students' needs and abilities.

In Ana's memoir, however, the investigation of self and how that self connected to her world held center stage. What follows is the first draft of her memoir, written after whole-class brainstorming and a quick write in which students were encouraged to remember specific aspects of the most important event of their last three years. We asked them to associate that event with colors, settings, dialog, participants, and the five senses, giving students individual prompts for each connection.

God in the bible

One night in my kitchen with its dimmed light all you could see was the black and white stove, the off white fridge, the dusty old glass table set and what was left of the wooden cabinets. At the table Tiffany, Mi-Mi and I were sitting down talking about God. I asked Tiffany when was she going back to church? “This Sunday,” she said. I asked Tiffany would she bring me a Bible. I asked a lot of questions about the bible and God. I wanted a bible so I could understand more. Tiffany and Mi-Mi were going back and forth about God and what they believed in. I interrupted them when I asked, “Is God and the bible by my side?”

Tiffany sat up straight with her white and black sweatshirt on and told me, “God will always be by your side if you just believe.” After hearing that, it got to me. I wanted to know more about God and start going to church.

It is almost inconceivable that a twelve-year-old who writes so beautifully and reflectively should be represented as a failure in the official transcripts. When Ana’s own experiences were summoned, embraced and respected, when the social context of the classroom found relevance in the knowledge she owned and used, when her teachers served not as judges but as advisors, then her talents and intellectual curiosity were inspired and illuminated.

The above draft subsequently went through five revisions (evidence of engagement over time), doubled in length, and richly plumbed the ideas hinted at above. Not only did the memoir process prove fruitful for Ana and her peers who discussed it with her, it also served as a critique of school literacy practices. At home, when surrounded by people she loves, Ana is engaged in reading and critical discussion; at school, where systemic conditions afford few connections to her “self,” she tunes out. When I asked her why, over the course of her revisions, she changed her title from “God and the bible” to “Heaven” though she never mentions the word “heaven” in the body of her

memoir, she replied, “When I’m at home with Mimi, it feels like heaven because I can ask any question I want to and it’s ok,” an unintended but biting critique of schools that are unable to foster student inquiry. In a later version of her memoir Ana adds, “It was like I could be able to ask all of those questions and felt alive while asking them” and “Mimi went word by word so that I could understand what it [the Bible] trying to say.” When I asked Ana why she performed so badly on standardized tests when she clearly had the capacity for exceptional writing, she replied, “I don’t understand what they talking about [on the tests]. It’s all fake. Give me something real.” Ana could become an important writer of her generation, but given the repeated signs from her school that she is a failure, joined with the complex conditions associated with her race and class, it is not clear that she will make it through high school.

3. Multilectics: methodology and methods

3.1 Multilectics as methodology

Ana’s memoir is a testament to her deeply perceptive and inquisitive mind and, simultaneously, to the betrayal of an educational system that cannot recognize her talents and abilities. If we discard, for the moment, the world as represented by grades and statistics, and choose to observe through lenses that perceive Ana in her multi-dimensionality rather than as a flattened image that the numbers linked to her represent, we would have even more evidence of her potential.

Such a multidimensional approach to understanding teaching and learning resonates with my own background as an artist. I learned to look at phenomena from a range of perspectives, joining them together to make sense of the whole. Merleau-Ponty, quoting Madame Cezanne, wrote that to understand the landscape before him Cezanne had to “weld together all the partial views he could catch sight of” (1993, p. 67), and in Cezanne’s work one sees a multiplicity of perspectives that

channeled his gaze and helped impart a complexity and fullness to his subject. Pedagogical theory could profit from such an approach.

Rather than seeing narrowly then, we might embrace an “artistic” pedagogy that values multiplicity in viewpoints but also in the many different modes through which knowledge is communicated but that tests are ill equipped to monitor. Painters, musicians and performers recognize the importance of tone, intensity, movement and rhythm in their art. Teachers and administrators, however, rarely think of these aspects of communication between students and between students and teachers as important sources of data about learning though speech cannot exist without them.

An *artistic* approach to empirical and philosophical research has been embraced by numerous scholars who bring multiple ways of seeing to their examination of how individuals experience social life; in some cases, they specifically examine social life in the classroom. Their generally phenomenological approach rests upon the idea that though our identities are socially mediated, each one of us perceives life uniquely; to the degree that we can learn to sense each other’s experiences, we can further our collective understanding and enrich our being in the world together.

Urie Bronfenbrenner (1979) uses the word “ecology” to describe the dynamic interconnectedness between individuals and between them their social contexts and posits different “nested” systems (micro, meso, exo and macro) in which they enact culture; each interrelated system mediates lived experience. Fred Erickson brings to his scholarship an ontological lens that also values multiplicity and interconnectedness. From an analytical perspective, he has been at the forefront of investigating and documenting the “multimodal” and “multiparty” dimensions to social interaction. By multimodal he means verbal as well as nonverbal methods of communication, “The full range of the individuals’ communicative actions across vocal and non-vocal channels are seen as related components” (Erickson, 1984, p. 223). By multiparty, Erickson means the interactions

between speakers and listeners (2011). Erickson illuminates “the full range of the individual’s communicative actions across vocal and non-vocal channels” (p. 223) including on posture, gaze gestures, and prosodic characteristics of speech. He emphasizes the multiple perspectives that different agents bring to any event noting that the roles they play in schools (teachers, administrators, students) mediate their perceptions of reality and that these perceptions/experiences manifest themselves multimodally. Kenneth Tobin and Rey Llena (in press) have also researched multimodality, analyzing through micro videoanalysis, the unconsciously enacted gestures, expressions, intonations and pauses produced by classroom participants as they engage in classroom activity. For them, this unconscious multimodal production is recursively intertwined with the emotional climates for teaching and learning.

The importance of multimodality to the construction of meaning and to communication has been central to the phenomenological approach to social life. Alfred Schutz (1967) notes how we perceive each other not merely through the lexical content of words exchanged but through an instantly absorbed composite of words, gestures, glances and vocalizations that are interpreted through one’s own experiences, “bodily movements are perceived not only as physical events but also as a sign that the other person is having certain lived experiences which he is expressing through those movements” (p. 101) and, “If.... Someone is talking to me, I am aware not only of his words but his voice” (p. 104).

More than most philosophers, Roland Barthes brings to his analysis of communication and the construction of knowledge an artistic sensibility. He writes, “without rhythm, no language is possible” (1985, p. 249) and the body is a “field of expression for the life experience of that psyche” (p. 22).

David McNeill (2005) and Susan Goldin-Meadow (2003) have studied the importance of gesture to the way we communicate and its importance to the way we construct meaning. They are

more interested in the origin of language than in how we experience communication, and they build upon Lev Vygotsky's (1962) insight that speech and thought emerge dialectically rather than in distinct stages within a communicative process. McNeill and Goldin-Meadow, multiplying the two-sided dynamic traditionally associated with dialectics, join gesture to the speech-thought dynamic. They have convincingly demonstrated that gestures emerge along and in equal partnership with speech and thought providing what McNeill (2005) explains is a "co-expressive," "synchronous but not redundant" dimension to what is being expressed. By not redundant McNeill means that gesture (a continuous movement irreducible to units) and speech, composed of sequential lexical units, are conveyed by contradictory structures. Each mode has its own way of "packaging meaning" (p. 91) and the modes continually mediate each other, "This is the key to the dialectic. The modes are opposites in multiple ways – global meaning with analytic meaning; idiosyncratic and created on the fly with pre-specified form-meaning pairings; imagery with forms regulated by conventions" (p. 91). Citing the phenomenologist philosopher Maurice Merleau-Ponty, McNeill writes, "Gesture, the instantaneous global, nonconventional component is 'not an external accompaniment' of speech ...; it is not a 'representation' of meaning, but instead meaning 'inhabits' it" (p. 92). Though McNeill and Goldin-Meadow focus on gesture, one might theorize that prosody and facial expression are also co-expressive, synchronous and not redundant with speech itself.

There are different types of gestures, some of which are culturally embedded symbols that can substitute for lexical ones, but what is of interest here are the gestures that are idiosyncratic, and would not be legible without their verbal accompaniment (because they are not "standardized" and "repeatable").

Like any phenomena, multimodal expression is experienced subjectively. Schutz (1967) writes, "we can only interpret lived experiences belonging to other people in terms of our own lived experiences of them" (p. 109) and, "The meaning of an action is different depending on the point in

time from which it is observed” (p. 65). It is not only phenomenologists who advocate for multidimensionality. Donna Haraway (1988), for example, writes about *situated* and *embodied* knowledge and argues for seeing “from below” as well as from elsewhere, in order to construct “worlds less organized by axes of domination” (p. 585). It is this polysemic approach that is too often absent in the design and implementation of educational policy.

3.2 *Why call it multilectics?*

The power of the term Multilectics is that it embraces both the concepts of multiplicity and dialectics. Multilectics values the intertwined relationship between multiple perspectives, lenses of perception, modes, meanings and voices. Multilectics represents both a research methodology and an ontological view of how we are in the world.

For the multilectical framework that I employ below, the macro lenses include race, class, gender, and the complex economic and political systems that we create and within which we act. These are visible from afar and reflect on patterns of sameness that generate broad categorizations that “impose themselves with all appearances of objective necessity” (Bourdieu & Wacquant, 1992, p. 13) and dominate much of the thinking about educational policy. These macro structures infiltrate all levels of social life just as, in turn, they are infiltrated by the meso and micro structures. Randall Collins (1981), in his research, notes the ambiguity of borders between levels of analysis, “all macro-evidence...is aggregated from such microexperiences” and “It is clear that the distinction between micro and macro is one of degree “ (p. 987). From a multilectical perspective, the frontiers that demarcate structural borders blur, each merging into the other though we separate them in order to achieve temporary clarity.

The meso level lenses of perception make visible the beat of daily life, the rituals governing interaction between and among groups, the vitality, passion and laughter that ripple through daily

communication. The memoir (above) that Ana wrote in class and the conversations that took place about her writing, though mediated by race and class, disturbed the routinely accepted categorizations as seen from macro perspectives alone and often contradicted the analyses generated by the official statistical data.

If macro lenses allow us to identify hegemonic social categories and the meso lenses immerse us in the rough and tumble of daily life, the micro lenses attune us to the unconsciously performed aspects of our social interactions. These include the rhythm of our words and movements, the pitch, power, and articulation of speech and the silent pauses that transport meaning as powerfully as words do. The micro lenses focus on the lean of body and voice, the gaze of the eyes, the dance of hands, and the gestures that inseparably accompany virtually all communication. Analysis of data amassed at the micro level can give us clues to the public and hidden transcripts (Dickar, 2008) that rumble beneath every exchange between individuals. They reveal emotions and thoughts that surface analysis and distant viewing do not; these are the great events of discourse that we read instinctively in the moment but can only analyze if captured and revisited. Micro data can reveal patterns that contradict or cohere with data amassed on other levels of analysis. Multilectics, by embracing multiple perspectives, values contradictions as intrinsic to reality.

3.3 Representing data

I believe that if we can embrace multilectical ontologies and methodologies, we will gain deeper insights into how all participants in formal education experience school life and thus a deeper understanding about teaching and learning. Representation of multilectical data, however, is a daunting challenge. How do we render, in printed form, the experience of listening to voices and watching the gestures of individuals as they engage others who are simultaneously speaking,

moving, pausing and interacting? Possibly great writers are able to do so through words alone; researchers without the artist's touch must find their own paths.

Erickson writes, "Transcription and analysis of an individual's gaze behavior as a speaker should be done concurrently with that of the same individual's speech" (1982, p. 223) and he has experimented with alternative representations of multilectical data, transcribing conversations into musical notation in order to highlight the rhythmic essence of discourse (2003). There exist Conversation and Discourse Analysis conventions to mark the relationships between prosody and gesture (see, for example, Wolff-Michael Roth (2006) and James Gee (1996)). McNeil (2005) has developed written codes that represent the connectedness between gesture and prosodic aspects in order to document the multilectical relationship between lexical, vocal and visual aspects of discourse. He also includes successive photographic images of individuals speaking, superimposing directional arrows on the images to indicate the dynamic and continuous movement of arms and hands as they create meaning. Though all these methods of representation have their value as descriptive analytical tools, they remain steps removed from sensing the experience itself, which is always in motion and transformation. If we take seriously the phenomenological stance that to understand we need to experience events closely to how "others" experience them, then the challenge is to create ways of representation that get us closer to that ideal even as we recognize that we cannot help but filter someone else's experiences through our own.

Barthes (1985) also address the issue of representation. He writes about newspaper photographs as "analagons" to reality that convey a "denoted" message in contrast to their accompanying texts that "connote." He recognizes that a "reading of a photograph is always historical" (p. 16) and filtered through experience (Susan Sontag (2003) powerfully addresses this theme in *Regarding the pain of others*). Barthes also writes about photographs accompanied by text as combining contradictory structural aspects of the same event, one "continuous" and the other linguistic.

McNeil (2005) and Goldin-Meadow (Goldin-Meadow, 2003) also use still photos to convey dynamic, continuous gestures, that are themselves contradictory in structure to words, being visual not lexical. Still, their methods of representation serve them because their goal is linguistic not phenomenological.

3.4 Multilectical methods

A central goal of my research is to gain insight into the multiple ways in which my students experience the world and manifest knowledge. I also seek multilectical ways to convey those experiences in order to advance pedagogical theory. To do so, I use video recordings of classroom activity and then reflect upon those recordings, when possible reviewing vignettes I selected with the subjects of those recordings. In the research presented here, students, parents and the school gave permission for the videography to take place and IRB approval was obtained both by the city school system and my university. Even with approval and consent, I used a cartoon process on the video offprints so that students would not be recognizable (much as pseudonyms for students are used throughout the text and the geographic location of the school is not mentioned). Indeed when Ana and Maleeka saw the cartoons, they did not recognize themselves. As it is, only two students are facing the camera but I have also altered the images of those whose faces are invisible. In the printed article, gestures are represented through video outtakes and they thus share the problems Barthes associated with photographic representation. Sound files are included in the electronic version so that prosodic qualities can actually be heard/sensed rather than only transcribed; I have manipulated the voices to prevent speaker identification.

Ethical restrictions on use of video recordings and offprints is an obstacle to representing events as multidimensional, but my experiment below seeks to present the multidimensionality of classroom activity as fully as possible given the limits of print and electronic possibilities of

representation. My objective is to both present the continuous and intuitive experience of communication along with analysis that necessitates separation, abstraction and connotation, always keeping in mind the multilectical interconnectedness of all modes and perspectives.

I present the conversation in the form of a graphic novel. I have altered the physical features of participants in Photoshop to mask their identities while preserving a sense that we are looking at real people in real classrooms. In my documentation of conversation, I use color (seen only in the electronic version) to reflect emotional states of participants in the hope that reading color rests more on intuition than reading text by itself and thus facilitates sense-knowledge of the emotional state of the speakers. I bathe the speakers in red when their speech is of a high decibel-level passion. The color code is keyed to voice data that is measured as pitch and volume. My thought was that red immediately conveys passion and excitement in a way that that decibel numbers cannot. Using color in this way has its drawbacks (silence too can be passionate) and color interpretation is subjective and culturally mediated. I encourage the reader to see the on-line version of this article to understand how the color-coding advances multilectical representation. Because, inevitably, every individual's voice has its own "base" level of pitch and volume, and registered decibel level is also mediated by distance from the recording device, my representation of events joins the calculated volumes and frequencies with my own interpretations.

Durations of speech pauses are indicated pictorially with every half-second of silence represented by an outtake unaccompanied by dialog. Like frequency and volume, silence thus rests on statistical data but is represented visually. Though gazing at the dialog-less frames probably takes longer than the actual pauses represented, the wordless frames give a sense of experienced time in a way that numbers cannot. By accompanying the pauses with visuals, they also keep us aware of the fullness of silence, the way it is inextricably bound to meaning making. Both the

measured and observed data are interpreted through software programs (Praat for indications of pitch, frequency and pauses; Studiocode and QuickTimePro for gestural and facial analysis.)

As intrinsic to the graphic novel format, conversation is represented as text within speech bubbles, with overlapping speech represented by overlapping bubbles, and larger text point sizes for higher-volume speech. Again, the visual representation of dialog (accompanied on-line by occasional sound files) hopefully conveys a more phenomenological sense of activity than can be transmitted by transcripts resting on conversational analysis conventions. Speech, gestures and prosody, emerging together, join contradictory communicative structures as do text and images in the transcripts below. I have tried to place them on an equal footing so that analysis doesn't overwhelm sense-experience though they must surely occur simultaneously (and relate multilectically).

The data revealed by this graphic format allow us to observe the spirit of intellectual engagement and the dialogic interactions of underperforming students. Seeing their body language joined to visual data representing voice modulations gives a sense of real time and real place. The graphic format focuses attention on the richness of multiple modes of communication and illuminates their dynamic interconnectedness. In this sense, despite limitations, the cartoon represents a multilectical method in keeping with a multilectical research methodology. It is far from perfect, but it provides evidence of the substantial skills, talents and intelligences of students who are officially regarded as failures. In so doing, the format advocates for the underserved, and makes a case for a multilectical approach to teaching and learning in order to reverse the failure of educational policy in underserved communities of color and elsewhere.

4. Ana's poem

I had written a short essay about Ana's memoir and asked her if she would review it with me. She replied, "Ok. I'll read what you wrote if you read a poem I wrote." I was surprised and

delighted. Surprised because it had not occurred to me that Ana wrote for herself on her own time. I was delighted because it was evidence that we had begun to build a trusting relationship through the memoir activity such that Ana now sought my feedback on a text she had written for and about herself; she was giving me entry into her world outside of school. Collins (1981), emphasizes how positive emotional energy on one level of interaction has ripple effects that can elevate social capital, “Acquiring this in one situation, an individual has more emotional resources for successfully negotiating solidarity in the next interaction” (p. 1001). The positive energy produced through the memoir activity was a resource Ana now parlayed to initiate a discussion about her poem. I readily agreed to Ana’s bargain.

We met the following period, along with two of Ana’s friends, Maleeka and Shelly, to discuss Ana’s poem. Ten minutes into the period, two male classmates, Darryl and Kelvin, who were thrown out of their science class for disrupting it, joined us as well. Since nobody objected when they sat down at the table with us, I just went with the flow.

Ana’s poem was about love. It was short (eleven lines) and included many metaphorical phrases such as “Love can be thick or thin,” “Love can be hate or madness,” and “When love breaks it feels like death.” That five students sat around a table for an entire class period struggling to make sense of a poem written by one of them is a testament to the capacity of failing students to engage in reflective analyses of texts. It also makes palpable the ability of an underperforming student to address the concerns of her peers through her writing.

4.1 The conversation

I ask Ana if she will read her poem. Immediately Shelly follows with, “Yeah, Ana, read your poem.” Ana laughs. Twice already when I had asked a question to one of the male students, Ana interrupted me, first by holding up her poem and saying, “Hey,” and later, raising her poem up

again, “Hold up. He got kicked out of class. He ain’t even supposed to be here. I still got to read this.” She was smiling in both instances, but she was also making it clear that this event was about her poem. Shelly’s echo of my encouragement, a sign of solidarity with both Ana and me, propels the conversation forward.

Ana reads her poem quickly without emotion. When she’s finished, Maleeka holds up a drawing of a broken heart punctured by hundreds of holes, “Did you see our picture? Look.” Ana used art and poetry to examine her feelings about love though, as far as school records are concerned, she is neither poet nor artist. Kelvin responds, “That looks like you got beat up.” Everyone, including Ana, laughs. Ana responds, “That’s what it’s supposed to be,” a confirmation, despite the laughter, that her recent love experience was bruising but also a manifestation of group recognition and solidarity. Still laughing, Ana faces me and I recognize and accept the invitation to speak, “So what do you mean, thick and thin, ‘love will always be thick and thin’?” What follows is the first part of our conversation followed by analysis.

5 Multilectically representing classroom interactions

G: what do you mean thick and thin, ‘love will always be thick and thin’?

(.3) (numbers between parentheses indicate length of pause in seconds)

(.27)

D: like

(.37)

A: Oh my god

G: You're gonna
explain what
she means?

D: Yeah

(.3)

D: Yeah, cause
I know, I think
I know what
she means
but I don't know

A: cause
people always
say like

13 Ummmm

14 thick and thin like yeah

15 it was, it was Always be rough times Long as they be together between them

A: Ummmm
thick and
thin

G: Yeah

A: It was, it was
[Always be
rough times/1

K: <Long as
they be
together
between
them]

The symbol “[” indicates the beginning of the overlapping speech of one participant while the symbol “<” indicates the overlapping speech of the second participant. The symbols “/” and “]” are represent the point at which overlapping speech ends.

A: and it'll [always be/

D: <be hard times]

A: great it'll,

Yeah

it'll always be
great times and
always be
hard times but

A: [it'll never be/

K: <So thick]

(.37)

K: [Means hard/
A: <Right]

(.4)

(.45)

A: [but/ it will never be perfect
K: <thin]

(.2)

A: [it'll always be/
K: <yes it will]

5.1 Analyzing the data

I have just asked one question, “What do you mean thick and thin? ‘Love will always be thick and thin.’” (#1) and Ana has only begun to respond (#2). Already, we see evidence of group engagement and solidarity. It is characterized by an anticipatory silence that follows Ana’s uncertain “Like...” and communicated through everybody’s fixed attention on her. Darryl’s eye gaze is emphasized by the lean of his body angled towards Ana; he is making sure he will hear what she has to say (#3). Ana leans back and closes her eyes as she ponders the question (#4). The pause, lasting .57 seconds, just exceeds the standard half-second interval of verbal silence that is

customary for a change of

speakers (Tobin, 2005). Darryl, in his anticipatory excitement, takes advantage of the pause to interject, “like...” (#5), entering the conversation with the same word that Ana has just used, a demonstration of empathy at the same time as he is bending the focus of the conversation away from Ana and towards himself. Darryl’s interruption can be read as an effort to help Ana make sense of her own poem. She, however, reacts ambiguously to his contribution. First, she hesitatingly, silently and skeptically regards his interruption (#6), then she dramatically mocks it, “Oh my god” (#7). At the same time, though, she acts more astounded than offended, and Darryl smiles in response; there is a tension but it is absent of hostility, almost like a flirtation. Ana looks at me and I attempt to repair the interruption by reorienting the attention back to Ana as I, smiling, say to Darryl, “You’re gonna explain what she means?” (#8). Ana is laughing and swinging her upper body back and forth rhythmically but impatiently though she is allowing Darryl to have his say. Darryl seems unabashed, saying calmly and quietly, “Yeah,” (#9) and then, after a brief pause (#10), “Yeah, cause I know, I think I know what she

means,” but then backs off, “but I don’t know” (#11). In the face of Darryl’s own hesitation (maybe an instinctive response to my gentle rebuke) Ana pounces, cutting him off and forcefully taking the floor. She stops swinging and faces me. Her whole body responds passionately: her voice is loud, her hands firmly grasp her hips, her body is still with chest thrust forward and mouth open wide, “Cause people always say like....” (#12). Darryl leans supportively forward again to listen to her.

The conversation is only nine seconds old, but already there is intense engagement, dialog, passion and a struggle to interpret a metaphor that is commonly uttered but rarely explored. We can see both the content and the modes of responses bouncing off

each other in an unplanned and

contingent manner. We could think of the “fluid” dynamic that Marx (1990) ascribes to dialectical processes. We can also see the excitement generated when the relevance of texts to the lives of the students is transparent.

Having interrupted with so much vigor and pulled everyone’s attention towards her again, Ana now hesitates once more, trying to figure out where her thoughts are going. Her body conveys the same ambiguous determination as her voice; her hands remain

solidly on her hips but she is leaning forward and not making eye contact with anyone (#13), a sign

of uncertainty. When she resumes speaking, it is at her normal speaking level but she still is working out the puzzle, repeating, searchingly, the phrase “thick and thin” (#14). Kelvin has also been pondering the meaning of “thick and thin,” and like Darryl

earlier, he now takes advantage of Ana’s uncertainty to suggest his own definition of what the

phrase means. As Ana parses the meaning of her own text, “it was, it was, always be rough times,”

Kelvin voices his own attempt to explain the metaphor, “long as they be together, between them...”

What Kelvin may have intended as a sharing of thoughts, Ana interprets as a challenge and

responds aggressively. She raises her voice precisely at the moment when Kelvin begins to talk, and

assumes a rigid body posture (#15). She has no intention of giving way to Kelvin’s interruption; she

will drown him out with both her voice and her body language though she and Kelvin are both

trying to solve the same puzzle. Collins (1981) writes, “The stronger the common emotional tone, the more real the invoked topic will seem to be and the greater solidarity in the group” and that such an interaction “serves as a machine for intensifying

emotion and for generating new emotional tones and solidarities” (p. 1001). We see this dynamic at work here. Both Kelvin and Ana struggling to clarify their thoughts and their speech, manifesting their multilectical interrelationship. We could hypothesize, as McNeill and Goldin-Meadow do, that gestures are also part of this multilectic, that Ana’s thought, speech, corporal stance and the power of her voice all presuppose each other. These are students who are comfortable with each other and with me despite being situated within a school that often generates hostility, evidence of the multilectical interplay between levels of social life and the power of meso structures to mediate ones that are relatively more macro.

Kelvin stops speaking, either in response to Ana’s resistance to his input or because he himself does not know how to complete his own thought. Immediately, Ana instinctively, unconsciously, lowers her voice by ten decibels now that she does not have to compete for attention. She is still trying to put together the words that form her thoughts even as her thinking is being clarified through the comments of her peers. She says, “and it’ll always be great.” Now Darryl enters, speaking simultaneously with Ana, “be hard times” (#16). Ana recognizes his interruption as a contribution that represents the other half of her thought and

acknowledges it with a “yeah” as she leans toward Darryl in appreciation (#17). She is now able to speak the complete idea using both her words and Darryl’s, “it’ll always be great times and always be hard times but...” (#18).

Kelvin, clearly working to make sense of the puzzle as well, now says forcefully, “so thick....” With these words, a tense but yet synchronous dance begins between Kelvin and Ana.

Listening to the initial part of this 4.9-second segment, it is easy to get the impression that Ana and Kelvin are sparring antagonistically with each other. Kelvin is interrupting at a high decibel level and every time he does so Ana also increases the volume of her voice to match his (#19-26). When teachers raise their voices in an effort to control students by speaking over them, a common result is that tensions flare and the discussion spins out of control with negative emotions intensifying (Tobin & Llena, in press). In this case, however, Kelvin and Ana unconsciously raise and lower their voices in synchrony and, what’s more, their pauses and contributions are also in sync. When Kelvin contests Ana’s “it will never be perfect,” (#24) with “Yes it will” (#26), it is unclear if he is saying this with the intention to disagree or if he is seeking, with those words, to boost her spirits. The latter interpretation is inviting because Kelvin doesn’t continue to make his case but allows Ana to conclude, uninterrupted, with, “it will always be thick and thin” (#27-9, not shown here but see above). Whichever interpretation one chooses, Kelvin clearly has been listening to

what Ana was saying even as he was speaking. The chart below documents this enactment of shared rhythm.

In the above excerpt, Ana and Kelvin are intensely engaged in an effort to decipher the meaning of a phrase in Ana's poem. Partly a battle, it is also a chain of meaning creation in which each participant contributes to collective understanding. This was true of the previous interchanges

between Darryl and Ana as well. The back and forth is sustained throughout the entire class period, with other students also taking part in rapid exchanges (a few more examples will follow).

In the above graph, we see how both Ana and Kelvin speak and pause at precisely the same instant. They are demonstrating individual and collective agency, anticipating each other's entrance into the conversation while simultaneously making their individual (but collectively mediated) contribution. We don't usually think of knowledge as embracing this type of dialogic interaction, but here we see it enacted instinctively.

6. Hand gestures

Gestural language punctuates what is interpreted as silence, and often hand gestures are the most obviously dynamic qualities of body movement. McNeil (2005) explains the thinking process as manifesting itself in two "simultaneous" but "unlike forms," linguistic and image, each dynamically intertwined with the other. We can observe this multilectical relationship as Ana's thoughts come "into existence" (1962, p. 218) through words, and the gestures that multilectically emerge with them. The outtakes below capture hand positions but lack movement; the electronic version of this document includes a video of the gestures in order to convey a better sense of the dynamic quality of Ana's hand movements. The electronic version also includes a slow-motion movie of the gestures without soundtrack to enable careful focus on the hands.

There is still a great deal we do not know about hand gestures that emerge spontaneously with speech. This is especially true about gestures that emerge with words that do not seek to describe objects or motions but rather nuance emotional or philosophical ideas. My analysis of Ana's gestures is provisional.

Ana's hands are constantly "thinking" even at moments where she cannot locate words. In the 1.3 second pause in speech between her phrases, "it will never be right," and "but it will never be perfect," her hands move through five positions. When gestures occur during silence, McNeil (2012) says they "lack coexpressivity," exist for "pragmatic effect" and become "part of a deliberate communicative event" (p. 188). From a phenomenological and multilectical stance, we could posit that the hands are synchronous with un verbalized thought with which it may well be co-expressive. They convey her uncertainty through their inability to rest and their alternation between palm up and palm down positions (in contrast to, for example, the certainty her body transmits when her hands are firmly clamped to her waist). In the gestures

Ana uses here, she is not giving us an image of spatial dimension (demonstrated in many of McNeil's examples in which gestures are co-expressive of simultaneously spoken words). Still, Ana's gestures provide a visual dimension to the doubt that her silence also conveys. Over the course of the depicted event, Ana's hands travel through several ambiguous and contradictory motions – face up, face down, flat on the desk, suspended above desk and diagonally slicing her body from upper left to lower right. At one point in the above event (the .67s verbal pause), Ana

grabs her desk with such force and movement that she moves it a few inches to her left. All these motions comprise her effort to “make sense.” The thought|gesture|speech multilectical process leads Ana to only moderately tweak her original statement (from “it’ll never be right” to “it’ll never be perfect”) but she is more confident now about her interpretation. After metaphorically spacing her hands and fingers to represent “thickness” (here her gesture is co-expressive, simultaneous and non-redundant with her speech) and then moving them to her right as she says “thin,” she finally places them flatly on the table in confident conclusion; the thought is complete. Needless to say, every motion is accompanied by a facial expression. Similarly, every word is bound to pitch and prosody. Throughout the vignette, gesture and voice have testified to the active and excited engagement of the participants; it is not likely that Ana would have travelled through this process without this group mediating her emotional-intellectual state of being.

6.1 Hand gestures working collaboratively

There is not space here to micro analyze the entire class period, but I have included one more event in the conversation that points to a particular collaborative use of gesture in the process of meaning-making. At one point in the conversation, I probe the meaning of Ana’s phrase, “love can be hate or madness,” by asking, “So does that mean you can love someone and hate them at the same time?” In rapid succession Ana says “yeah,” Kelvin, “no,” Darryl, “Yeah” and Shelly, “Yes your mother,” each response a sign of engagement with the group and with the topic. The exchange is accompanied by Ana mirroring Shelly’s hand gestures (see below, arrows pointing at hands in # 33-36).

A: Yeah
K: No
S: Yeah

S: Yes, your mother

(.8)

A: Yeah, cause I ah

A: love my mother, but sometimes I be hating her

As Shelly says “your mother,” (#33), an example of someone hated and loved simultaneously, she puts her right hand out as if to say, “that’s obvious, duh!” (as indicated by red arrow), a gestural co-expressive contributor to the meaning of her words though a gesture that might qualify, in this case, as an “emblem,” meaning that it is culturally recognized, codified, and can substitute for a linguistic term. Almost a second of silence follows in which Shelly maintains her hand position and Ana stares at her, a look of amazement on her face (#34). She then raises her voice substantially and mirrors Shelly’s hand gesture (#35), a sign of unity with Shelly and also, in my interpretation, an epiphanic moment. Shelly, by providing a material exemplification of Ana’s

words, clarified for Ana an idea she felt instinctively but could not unravel by herself. Having been gesturally corroborated, Shelly now retracts her hand. Ana, however, maintains her right hand steady and upturned, keeping the solid contribution of Shelly alive. Meanwhile her left hand, downwardly facing (i.e., in opposition to her right), points and glides towards her right hand (#36) as she speaks the thought that her gestures have made sensible. The right hand, still and open, is not emblematic anymore but serves as a solid placeholder for the love Ana carries for her mother. Meanwhile, her left hand, moving and prone, embodies contradiction as it moves to meet the firmly placed right hand – two opposites joined together in a complex non-dualistic world. Ana now looks at me, a big smile on her face, and puts into a complete grammatical sentence the thought that Shelly first articulated in abbreviated multimodal form. By directing herself to me, she recognizes my authority within the relatively more macro structure of school while maintaining the positive

emotional energy of the group. The porous or non-existent divisions between micro, meso and macro are illuminated even as we can artificially separate them for purposes of analysis.

Through microanalysis we witness the unconscious multilectic process between thought, words and gestures and how collective meaning-making often happens beyond the range of what is normally visible. On the meso level, the exchange of words demonstrates the collaborative nature of classroom learning, and the possibilities for excitement among students who often tune out. In this conversation, they are emphatically tuned in, communicating with the full corporality that Barthes discusses.

There are many other examples of similar interchanges throughout the conversation as students gesturally, verbally, and through facial expression explore many aspects of love. The discussion is filled with moments of laughter, mostly good humored but occasionally also nasty and personal. Interestingly, the few seconds in which students mock each other pass quickly and are repaired by the students themselves, a sign of collective agreement and shared goals. Clearly the theme of Ana's poem resonated with all of these twelve-year-olds. At one point, Ana directly addresses her experience with a boyfriend who walked out on her (indicating she feels safe within the group); she is passionately angry but also finds the humor in her situation. Ana is alternately the loudest and the softest contributor, a reflection of the emotional tumults she is seeking to make sense of. About half way through our discussion, after a very long three second pause which momentarily made me think the students were losing interest, Ana burst forth, "See, if we was talking about this in class, and stuff like this with the groups and stuff, this would be more interesting, I'd be ready to come to school. Like when I wake up I go, 'Oh God, do I really got to go to school?' I don't want to step into the school building!"

7. Embracing multilectics to enrich pedagogy

A causal relationship cannot be proven between the statistical lenses that drive pedagogy and assessment and the student failure and alienation (drop out rates, suspensions, expulsions) that so disproportionately affect disaffected communities around the world. My study makes a strong case, however, that students who fit the demographic of those who chronically fail in school are capable of high-level and enthusiastic engagement with academic work.

For fifty minutes, five students, four of who straddled between proficient and not proficient on the standardized tests or scored well below the proficient criteria, maintained high interest and participation during a discussion of a poem written by one of them. They parsed metaphoric language, debated and collaborated throughout the session. They sustained positive emotional energy, which when reinforced and given the opportunity to be repeated, enhances social capital (Collins, 1981). Meso level data (conversations, Ana's memoir and poem) combined with micro data (analysis of gestures, pauses, voice, emotions) to reveal exuberant engagement with a topic, analytical thinking, reflexive thought, and a few epiphanies. Multilectics understands micro events as mediating and mediated by events visible on the meso and macro scales. Here, multilectical data contradicted the official monosemic representation of the students in this study. If recognized as vital, it could fruitfully advance pedagogy and assessment.

The need for alternative transcripts to represent classroom events rests on the imperative of conveying the strengths (and the weaknesses) of our students as fully as possible. I have tried to "denote" as well as "connote" the events above in the hope that readers will perceive these students outside of the stereotypical framework that is too often applied to them. Analysis, I believe, is incomplete if representation of pedagogical data does not embrace the rawness of felt experience that multimodality at least partially transmits.

It is worth asking if there is a way to evaluate the long-term affects of the fifty minutes session about Ana's poem? One available avenue is to follow Ana as she continued through seventh and eighth grade. Towards the end of her 7th grade year, she approached me to discuss a new poem. In it she felt "trapped in a box I can't get out of" and wanted to get to the "other side." At one point Ana said, "It's like a tiger inside me, inside the box, biting and scratching to get out?" which allowed me to introduce her to Neruda's poem, *The Widower's Tango* in which he writes about a "furious dog that you shelter in your heart" (y el perro de furia que asilas en el corazón") (1973, pp. 86–7). Maleeka was with us and read her own poem. Ana responded, "You need better metaphors to describe how you really feel."

The following fall, Ana showed me three more poems, all about boys who had failed to love her as she had loved them. We found a corner in one of the school corridors where, along with two other girls who had just returned from suspension, we spent 45 minutes in intense discussion of the poems. Her former seventh grade teacher subsequently told his current seventh graders that they were going to study the poems of a poet that they all had heard of and later meet her. Some thought Maya Angelou might be visiting. They listened attentively to Ana's poems, engaged in an animated discussion about them, and were visibly surprised when Ana was revealed as the poet. Two weeks later, those classes were comparing and contrasting the themes in one of Ana's poems to a theme in *The Outsiders* (2003), a popular middle school novel. In response to the enthusiasm Ana's poems generated, we started a weekly poetry workshop that still continues one year later. Ana's poem catalyzed a series of events that inspired students like her who were riding on the statistical edge between academic failure and proficiency. Standardized curricula were temporarily modified because of a series of events that mediated positive emotional energy and collaborative focus (visible through microanalysis) that was infectious and sustained across time and space (the continuing poetry workshop with current middle schoolers).

And yet, Ana's scores on the standardized tests have failed to get better. On the statistical measure, she is still part of an undifferentiated mass of underperformers, one more African-American student with low potential and few possibilities. The multilectical data I have collected challenges that assessment.

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