Running Head: WATCHING TRANSFORMATION

DRAFT

In M. Downing and L. Tenney (Eds.), *Video vision: Changing the culture of social science research*. New Castle, UK: Cambridge Scholars Publishing, 2008.

Watching Transformation in Student-Made Videos

Lara Margaret Beaty

Queens College, City University of New York

Video has increasingly been used as a tool for social science research, yet the potential for video cameras to reveal the activity of the person standing *behind* the camera has been largely overlooked. The fact that videos provide a record of the willful intentions of camera operators as well as the events in front of the camera is more likely to be viewed as criticism of research than as a tool for furthering our understanding. This chapter reports on an approach to studying the actions of videographers as a way to understand learning, development, and social relations among high school students. It began with a simple premise first used by Worth and Adair (1972) and furthered by Bellman and Jules-Rosette (1977). They recognized that the decisions a person makes while creating a film or video reflect the person's relations to and understandings of the events being recorded:

> No matter how "disinterested" the observer filmmaker or videoist is in the events taking place, he [or she] perceives them from an intentional perspective located in the "here and now" of the recording situation. . . . The camera operator throughout the process of filming or taping makes definitive choices of what to shoot, when to turn the camera on and off, and where to use zoom, pan, dolly, crane, and follow shots. These decisions, whether they are made for aesthetic considerations or to posit a particular feature of the setting, are intentional choices. (Bellman & Jules-Rosette, 1977, p. 3)

The choices include all that videographers do with the camera as well as the selection of

accessories to use, people to work with, and planning tools such as scripts and storyboards. Another set of choices then become available during the editing phase of production. These choices can emerge in the moment or result from careful planning but must involve the videographer's relationship to both the aims and context of production. They are indications of dynamic student-school relationships when the video production occurs as part of a school course. This chapter briefly presents my strategies for analyzing informant-made videos as a way to understand specific student-school relationships and to study "cognitive change" as a social process (Newman, Griffin, & Cole, 1989).

My methodology is based on and intended to elaborate upon a sociocultural perspective of development. As such, I assume that learning and development are not equivalent and that learning brings about development (Vygotsky, 1978). The problem is that learning and development are interwoven. Moreover, the necessarily social nature of these processes impacts learning and development in ways that were not considered by Vygotsky: Power, agency, resistance, cooperation, identity, alliances, and affections shape what and how learning and development occur (Diamondstone, 2002; Gutierrez, Baquedano-Lopez, & Tejada, 1999; Holland, Lachicotte, Skinner, & Cain,1998; Litowitz, 1993; 1997). The processes of learning, development, and social relations are thoroughly intertwined, challenging our capacity for description and explanation. Studying these processes and the relations between them requires a methodology that reveals situated activity over extended periods such that subjective experiences are available for analysis. Informant-made video offers this opportunity and many others for

research.

Schools are actually making the use of informant-made videos easier for researchers by adopting video production a part of many school curriculums. Dozens of organizations and individuals are calling for the integration of video production in one form or another (i.e. Miller & Borowicz, 2003; Goodman, 2003; and the American Film Institute, n.d.). Programs frequently pursue reforms for reaching disenfranchised youth, media education, multimedia literacy, technology integration, media arts, and vocational training. Goodman described three dominant strands of media education for youth: technology integration, media literacy, and community media arts (p. 10). The changes in technology that allow new and cheaper uses of video, however, clearly contribute to the rise in programs. Regardless of how video production has entered a school, I have found that the activity necessarily shifts social relations so that students have increased power and the possibility of shifting long-standing relationships (Beaty, 2005). Most importantly, though not necessarily appreciated, the process of editing requires the kind of reflection that is a major goal of secondary and post-secondary education.

Simultaneously, researchers are already using video as a way of documenting school activity. Goldman-Segall (1998) pioneered video ethnography of schools as a way of accessing processes and giving students a voice in research, but she was typically still the one holding the camera. Teachers and the teachers who teach them are also using video as a way of demonstrating exemplary lessons and critiquing one's own practices (i.e. Schwartz & Hartman, 2007; Sherin, 2007). Video production has been introduced as part of education, and it has entered the classroom as a tool to document school

activity for both researchers and practitioners. By combining these two uses, researchers can shift the focus from teacher practices to the reception and use of practices by students.

The first section of this chapter describes how video production can reveal learning and development. Then I shift the focus to the real-time events of the recording sessions and discuss my strategies for revealing social relations. The role of video cameras is taken up in the next section because the camera introduces changes that are fundamental to research with informant-made videos and help demonstrate the interdependence of learning, development, and social relations. In this section, Latour's (1996) challenge to view artifacts as participants or *actants* is placed squarely in the middle of the analysis. Finally, an analysis of a brief video segment will be presented. I have thus far conducted research in four schools under diverse circumstances and have begun exploring a new program. My analysis demonstrates the effectiveness of informant-made videos—particularly for revealing and shifting power relations—and indicates directions to be pursued. This chapter intends to demonstrate the value of informant-made videos for social science research and to highlight possible uses.

A Method For Seeing (And Hearing) Situated Learning And Development

My use of video was initially inspired by Worth and Adair (1972), who sought expressions of "cognitive styles" in informant-made films. They taught Navajo informants how to use movie cameras and edit film, seeking to use their informants' lack of

experience with film as a way of capturing culturally specific ways of making films. The study was based on the premise that movies were in many ways like language and would reflect the culture of their makers, believing that the Sapir-Whorf hypothesis would be supported. Worth (1981) later backed away from asserting a strong resemblance between language and film, but the analysis nevertheless revealed patterns of usage that reflected cultural meanings and practices as well as the subjective experiences of individuals. Worth and Adair, for instance, found more movement in the Navajo films as well as a lack of close ups, yet one man's film—while sharing these characteristics—was distinct from the others because of his distinct relationship with the community. Their analysis examined their informants' choices in terms of *context* and *code*.

The contexts of video production programs vary enormously, creating subcultures of video production that relate in diverse ways to the larger cultures of video and schooling. The contexts that Worth and Adair (1972) studied, however, were specific to the productions: "Context" referred to the *process* of production and, applied to school programs, involves many types of characteristics that reflect program culture and individual or group differences. Video characteristics that I have considered included the recording location, the selection of equipment, the type and amount of planning, the choice of who to work with, the manner and level of labor division, and instances of instruction and imitation. The manner of participation has thus far revealed the most about cognitive change. Obviously, students will participate more or less, but the choices of *how* to participate provide more information than how much. Students find numerous

ways of working with one another, and programs structure these relations in different ways. Students are sometimes required to select roles that imitate professional television studios, but some students will stick rigidly to their roles while others will compete for or more evenly share ownership and creative input. Similarly, many students will want to spend their time in front of the camera while others find joy in standing behind the camera (Worth & Adair; Beaty, 2005). Changes in participation are the most salient aspect of observable changes: The interest a student shows rarely remains consistent, and changes in participation—whether increasing, decreasing, or showing a shift in the type of activity—are the clearest indication of change. Often, obstacles to learning are revealed. One young man, for instance, recorded the entire project on his own and literally paced behind the students who were editing his work: He seemed to feel trapped by the division of labor and did not know how to negotiate continued participation. By contrast, many students shared all phases of the work, learning from one another on the way. The choice of how to participate defines the areas in which learning and development may occur, but participation itself often represents progress.

The similarity of video to language, which Worth and Adair (1972) discussed in terms of "code," is particularly meaningful for the study of learning and development. The most important similarity is that language and video production are ways of communicating; they are expressions of our experiences and thoughts. Both have the potential for being more or less planned—more or less "intentional"—and analysis can focus on overt characteristics such as subject matter and more abstruse characteristics such as the patterns of camera actions that resemble grammar (Worth and Adair, 1972,

p. 45). Video production is less like language, though, than it is like writing. Teaching media literacy is increasingly a priority for schools, and the endeavor resembles and compliments traditional literacy (Hobbes, 2004). There are multiple points at which writers and videographers can choose to act spontaneously or to engage in careful planning, but the writing/recording phase can usually be distinguished from the rewriting/editing phase. In video, these phases are more distinct because they use different tools and involve different actions (Beaty, 2005, p. 188). Videographers initially record shots, referred to as "cademes" by Worth and Adair (1972), and then transform these into "edemes" when they sit down at a computer to capture video clips for editing. Edemes are created by trimming, dividing, or otherwise altering cademes. The techniques used, whether used in the original cademe or inserted during the editing process, and the connections between edemes give the edited video a meaningful structure. While Worth (1981) decided that this did not truly qualify as grammar, understanding the use and meaning of different techniques clearly requires learning and development. I argue that learning becomes development when techniques that were taught or observed are successfully used to communicate—when they become an established part of a videographer's repertoire. The shift from a pan being a simple movement of the camera that shows the other side of the room to something that carries meaning and furthers the message of the project is development. Video production thus enables researchers to trace the use of techniques and allows broad involvement in defining when its use has been mastered.

My forays into examining the learning and development of high school students

have not yet systematically traced techniques into final projects. My explorations have thus far taken three different approaches: The first examines interview techniques over time, the second compares different projects according to an array of qualities, and the third makes use of the connections between cademes and edemes. The examination of changes in interviewing actions is the most straight forward and the clearest application of following a technique over time. Of my completed research (Beaty, 2005), only one group had a series of interviews, and despite a wide range of contexts for the interviews, the questions and camera work varied little. Because the project was never edited, there was no opportunity to consider their selection of utterances from interviews. In short, there was no observable transformation in relation to interviewing. In a new analysis of projects with interviews as a central part of their activity, I am finding that some refinement of questions is common, and I will examine the edited work to consider whether students' selection of interview segments shows an understanding of their meaning.

My second approach employed an exploration of the following characteristics in both cademes and edemes: the clarity of the message, coherence between shots, agency in initiating and influencing events, technological proficiency, aesthetics, and self-expression (Beaty, 2005, p. 213). My conclusion was that the strength of a characteristic is highly dependent on the context. I had initially expected to find a closer resemblance between edemes and cademes in the strongest projects but discovered that there are two distinct approaches to video production: one with extensive planning and one that involves exploration or experimentation and then selects and connects disparate clips

during the editing phase. Many projects mix the processes to varying extents. While both approaches have clear merits*, the level of exploration changed the relations between cademes and edemes: Cademes tended to be altered more when there was considerable exploration, and their number was larger.

Projects in all contexts showed self-expression, but the expression of other characteristics were so connected to assignments, topics, locations, and equipment that they reflected little about what one might consider the "abilities" of the students. Students showed a clear shift in priorities as the contexts changed. The only opportunity I had to compare multiple projects by the same videographers demonstrated most clearly that some qualities will become the focus and others will drop to the background depending on the topic the students choose and the context of the production. With more consistency across projects or more projects, some form of "literacy development" is likely to be observable, but the connection to the contexts will continue to shape the meaning of changes. In theory, expertise leads to less dependence on the context, and therefore, greater consistency across contexts.

My third analysis examines the events within cademes and the subsequent selection of edemes (Beaty, 2007), but the actual application of the method is dependent on the project. In the project to which I have applied it, two Native-American youth wandered their school, engaging in entirely spontaneous recording and later transforming a small selection of unrelated images into a digital art project with a

* Exploration seemed to lead some students to have more agency and more awareness of the effect of camera techniques, while planning made the process easier and faster as well as having students work on traditional literacy skills.

message about power. The transformation of cademes into edemes and their placement in the completed project demonstrate meaning-making as it occurred. Furthermore, the full meaning of the final project was only evident in an examination of the cademes. This analysis provides evidence that concepts arose in moments but developed in the act of connecting otherwise distinct events, much as Vygotsky (1994) described. The images were intentionally connected and set to music by the students. The way that concrete events were meaningfully associated would not otherwise have been observable. The cademes captured real-time events in a way that allowed me to trace them from their origin to the point at which they became a sharable artifact. Video affords the observation of meaning-making as videographers select events from their cademes, connect them, and present them as parts of a whole.

Cademes and edemes, however, are not the only artifacts created during production that give researchers entry into cognitive processes: Storyboards, scripts, and early edits reveal the videographers' actions, intentions, and changes in both. I am currently exploring an analysis of different points in the editing phase as well as the selection and placement of cademes as a way to evaluate student and course progress. Though concept formation is not visible in these projects, they are audible as students struggle with how best to use other people's statements to assert their own understanding of the topic. As I continue this analysis, I will collect written work. The processes of planning, recording, and editing a video thus allow multiple points for researchers to enter into the production process and therefore into activity that is not easily observed.

The dynamic relationship between learning and development (Vygotsky, 1978) within the social and material contexts of production are revealed by tracing the choices students make during video production. Video is a form of literacy that documents many stages and steps in the composition process—without distracting or costly research procedures—making learning and development uniquely visible and audible. This use of student-made videos reveals many actions during the process of composing a video. The greatest value of pursuing this methodology, however, is in how videography maintains a visible and audible connection to the "real" world while recording the actual flow of time. If, as Bahktin (1986) suggests, the words of others become our own, then videos have the ability to demonstrate this literally as the words and actions of a friend, teacher, or principal are reshaped to tell the videographer's message. Moreover, the work must involve some relation to and negotiation with the community as a student or students pursue activity within school that is not normally part of their schooling.

The Real-World, Real-Time Meaning Of Video

Video literacy is different from traditional literacy in important and useful ways. "Moving images" in any format are closer to our experiences of the world (Gibson, 1986) and therefore do not have the same level of structure imposed upon them: There is no real grammar to constrain camera use, though there are many other structures to constrain actions. Videographers are in many ways making a record of their experience of events, and by shifting our focus from the communicative function of video to the implicit

messages within the recording context, we can examine the actions of the videographer as part of a dialogue with the events occurring around the camera. Bellman and Jules-Rosette (1977) took up this potential and shifted the analysis from questions about cognition to questions about social relations. They used film and video with Kpelle and Bapostolo communities in Africa and stressed the actions of the camera operators as a way to capture the informant's understanding of and relationship to the events being recorded. In short, culture as experienced by informants was revealed in how they related to and displayed cultural practices. Bellman and Jules-Rosette compared their use to photographic elicitation (p. 15), a method of using photographs to stimulate an informant's conceptions of what is portrayed. With video, however, informants can demonstrate attitudes and concepts in how they use the camera that they may not entirely be aware of or that would be less likely or more difficult to talk about. Photographic elicitation draws forth comments that might not arise in a standard interview because it provides people with something to relate to, but by putting people behind the camera, their relationships with what is in front of the camera are displayed in real time as the structures of events and places lead to particular recording choices. The material reality of bodies, furniture, and walls becomes part of an analyzable dialogue, facilitating an ecological perspective (Barab & Roth, 2006). Every explicit and implicit choice the videographer makes as well as reactions to the videographer become available for analysis. Additionally, one can still return, as I have, to have videographers describe their reasoning and reflect on why they made particular choices. The major challenge for this analysis becomes one of selecting from and interpreting the many

choices that occur.

The key to structuring my exploration of social relations was obtained from de Certeau's (1984) distinction between *strategies* and *tactics*. Accordingly, a *strategy* is activity from a position of power, and it is associated with the designation and ownership of places. Power arises in defining what is appropriate behavior within a particular *place*. A place and its power are "borrowed" when one aligns oneself with the activity structure of the place. A *tactic*, on the other hand, is activity from a position of weakness and is associated with time in that a tactic must take advantage of moments in time to either use the structure to achieve alternate ends or to subvert the meaning of a context entirely. I have found that the video camera has a tactical ability to change the meaning of places, providing new ways for people with less power in the social structure, such as students, to have an enhanced status and new opportunities to designate meanings and exploit structures (Beaty, 2005). This power will be discussed further in the next section, but the result is that students can choose between strategic or tactical uses of the camera. De Certeau, moreover, offers an ecological interpretation that equates dialogues with people and dialogues with the material environment that facilitate a systematic analysis and draws forth the role of places and artifacts in shaping events. The difference is exemplified by a comparison of standing atop the World Trade Center versus walking through the streets.

> To be lifted to the summit of the World Trade Center is to be lifted out of the city's grasp. One's body is no longer clasped by the streets that turn and

> return it according to an anonymous law; nor is it possessed, whether as player or played, by the rumble of so many differences and by the nervousness of New York traffic. When one goes up there, he [or she] leaves behind the mass that carries off and mixes up in itself any identity of authors or spectators. (p. 92)

A video camera, like a skyscraper, gives the spectator access to the plan—to the structure—underlying a place if the videographer chooses to use it.

The example of looking out over the city versus walking in the streets has guided my interpretation of videos as much as the consideration of power. The use of power is clear when students use cameras to establish topics and control who can speak, but de Certeau's (1984) more symbolic analysis creates a clear difference between displaying a scene and recording the subjective experience in terms of power. A videographer can literally constrain the actions of an individual or symbolically assert power by turning the camera away or inserting a defining narration. He or she could show their lack of power by following the instructions of the person in front of the camera or by distorting how the unknowing person looks. This is less about how much power a student has than in how they express the power they have or that the camera has lent them. Strategies and tactics offer the tool of comparing diverse actions according to a single dimension.

The distinction between constraining actions and more symbolic uses of power, nevertheless, creates the need for an additional dimension: A strategic view of a school has a very different impact in the moment than turning the camera away from someone who is talking. Similarly, a student acting from a position of weakness who resists an

authority uses their power quite differently from a student who chooses to cooperate with the authority. Hodge and Kress (1988) examined the messages of power and *solidarity* in their social semiotics, and I find that the added dimension furthers the analysis. It provided a solution when I first attempted an analysis of three young men who used the camera to relate to people in very different ways. One was aggressive and dominating as he challenged his classmates in on-camera conversations: His use of power was high and his solidarity low. Another young man shifted his position more often, but it was particularly an interview of a vice principal that caught my attention. He had written the questions down and handed the paper to the administrator silently and then proceeded to record his answers in an extreme close-up shot, with parts of his face drifting in and out of the frame. He recorded the interview from what was clearly a position of weakness, but the awkward image asserted a mocking critique, thus his use of power was low as was his solidarity. The third young man was quite different. When the first student was aggressively asking him about who he was, he turned his answers into ways of sharing qualities with the first youth. He so effectively diffused the aggression of his interviewer that I sought a category to draw out these differences.

I, therefore, define solidarity as drawing on similarities or the accepted meanings of a place, while accentuating differences or opposing some structural influence suggests a lack of solidarity. This added dimension structures the distinction between the power of benevolent leadership and that of tyranny on the side of power, and from a position of weakness, it distinguishes between cooperation and resistance. For instance, a student

recorded from a distance as another student ran from school security. The overarching view of the student and security was strategic but no one's behavior was constrained, and solidarity was expressed simply in the videographer not revealing the hiding student. On the other hand, the videographer turned to the school security as they walked across the distant lawn and referred to them as "bozos," thus clearly expressing with whom he was and was not in solidarity. Another videographer showed both his lack of power and high solidarity when he followed a teacher's instructions to move closer to his interviewee or another who turned the camera to look at what someone was indicating should be recorded, while others have ignored or refused such suggestions.

Power and solidarity thus offer a framework for the analysis of social relations that has guided my interpretation of student-made video, and I have found it a useful lens for viewing student-school relationships among diverse videos. I had originally planned, however, a systematic application—conceived of as codes for each "event" in terms of their use of power and solidarity—but found that establishing specific actions that carried a clear meaning was more complicated than anticipated. For instance, a slow pan, in theory, suggests an overarching view that is strategic and shows solidarity with the structure of the place in that in reinforces what the place already contains. A walk with the camera down a school hallway, on the other hand, captures the odd movements of a pedestrian and is tactical in how it demonstrates the experience of the place yet simultaneously affirms the structure by using the walls to shape its path. The problem is in applying this distinction in a way that is consistent and meaningful. When, for instance, is a movement of the camera to the left or right a "pan" with strategic

implications and when is it more of a shift or turn to look at something, thus recording the experience of the videographer? Would even asking the student make the original intentions clear? And what of the walking through a hallway? One student, when defining his rather strange walk, indicated that he was showing what it was like to be drunk. The camera turned from wall to wall and across a drinking fountain in what was clearly a tactic, but was it expressing high or low solidarity? With the additional information from the student and the information that students were routinely sent home from this boarding school for alcohol usage, he seems to express a lack of solidarity as the walls cause visual confusion rather than organization. Additionally, the idea of a camera tilt has clear symbolic significance: Looking up shows a lack of power and looking down dominates, but when none of the students seem to actively seek a tilt and do so only because they are above or below (taller or shorter) than what or whom they are recording, the apparent lack of intent suggests a lack of meaning. Meaning could still exist in its effect and it may still reflect social relations, but can this be treated as equivalent to actions that are clearly intentional? A whole range of experiments seem possible to remove some of this ambiguity, yet the fact remains that the meaning of a particular action is defined by the context and those involved in it, such that the meaning may not be consistent and should not be assumed to be so.

Many events, furthermore, contain contradictory actions. These demonstrate that contradictions seem to be a routine part of social relations. Take the striking example of teasing, which is common among adolescents and which is raised to new heights when a video camera is exploited for this purpose. Youth tease one another to flirt, to get to

know someone, and to humiliate, but it is not always clear what the effect is and is certainly not clear what the intentions are. A. Marjanovic-Shane (personal communication, March 24, 2008) suggested that teasing involves negotiation between the participants about whether the "frame" (Goffman, 1974) is defined as play or not , but I would argue that the ambiguity itself is purposeful. One of my future plans is to use such shots to stimulate a conversation with the videographer as well as gather additional instances of teasing to document patterns. I will present the analysis of one instance of teasing in more detail as a way to demonstrate the analysis, but first the camera itself requires further attention.

Putting The Camera Into The Analysis

The power of video cameras was alluded to but not discussed above, yet it is an essential part of the analysis because the videos are not a recording of how people normally interact within their communities. The existence of the camera and the act of recording fundamentally changes a person's actions. Cameras become additional *participants* in school activities (Latour, 1996). They mediate activity and are often the cause of the particular events being recorded. As a participant that is often overlooked, artifacts like video cameras carry their own histories and assert their own ideologies (Latour). At their most basic, cameras have particular *affordances* (Gibson, 1986) that limit what can be done while promoting some actions (for a discussion of how development is both constrained and promoted, see Valsiner's (1997) descriptions of the *zone of free*

movement and the *zone of promoted action*). Latour argued that people and artifacts equally participate in events—that both are *actants*, capable of action only through the other. Viewing the camera as an actant conceptualizes the agency of a video production as an emergent property of the interaction between videographer and video camera. The interdependence of actants is particularly clear in video production. First, the video production could not occur without having both a camera and a camera operator. Even if the camera is placed on a tripod, someone had to put it there and turn it on. The volition behind video activity therefore requires all the participating actants; the events to be recorded are equally essential. By taking the position that video cameras, videographers, actors, sets, and props are all actants in the video production, we are roused to interrogate the data—to question what it really means—given that we have not in anyway captured "normal" activity. We are no longer studying students but *camera-student entities*.

Latour (1996) stressed that artifacts have the ability to bring the actions of distant people into the immediate interaction, thus connecting macro and micro social relations. Distant actions are embodied and therefore participate in the immediate ones. In schools, the furniture that establishes seating and work patterns was chosen with some idea of how classes function, and the video equipment was selected with a particular conception of video production. Even posters on the walls maintain the presence of other activities and the ideologies behind them. Artifacts thus maintain the connection to the world outside the immediate context. They further maintain a stability over time because most materials do not frequently change.

Video cameras, however, are actants that change activities and relationships in particularly noticeable ways because they are not routinely present. They also have the power to reveal the participation of other artifacts. Video production courses are often designed to bring about change, and I have found that fundamental changes in school activity arise (Beaty, 2005; in preparation). Students must get up out of their seats and are granted permission—because of the camera—to move around the classroom and campus and even into the streets in ways that they are never allowed at other times. This movement alone offers opportunities to create new relationships and to change old ones. The camera and student form an entity as they are empowered to interact with the school in new ways: going places, asking questions, or focusing on details never observed before. This new found freedom can, however, stress teachers and school staff who are not comfortable with their loss of control, and it can be uncomfortable for students or even make them more aware of their usual passivity.

A student videographer has the power to ask questions and designate topics. The student can choose who speaks and when. The videographer is often the center of attention, disrupting routines and teachers' plans. Rooms can be rearranged. Most importantly, videographers must become visibly active—sitting at a desk simply does not suffice—and can choose to use the power of the camera to shift the social structure, to change their position within the social structure, or to affirm the way things are usually done. Nevertheless, some decisions constrain students' exploitation of cameras. Tripods, for instance, limit the formation of camera-student entities. Similarly, the use of lights, sets, and microphones further distribute agency and constrain the affordances of camera-student entities. Even the size of a camera can change the ease of forming a pair. Thus the video camera is an actant that—like all actants—is constrained by its context and local meanings.

The potential for and promotion of change reveals the constraints on typical social relations as well as suggesting individual differences in the use of power and solidarity. Students in actuality rarely misuse cameras, and teachers can effectively mediate or more directly constrain use. One established teacher of a vocational program emphasized safety and protection of the equipment, which was accepted by students so that they limited their own production activity. Nevertheless conflicts do emerge and boundaries are tested and occasionally crossed. There are the relatively minor or symbolic uses of power that cause tension: One set of students used the camera to insist that a teacher reveal his first name when he clearly did not want to. The same set of students filmed through the windows of locked doors to exceed the environmental constraints. Cameras

were used as hallpasses by students and teachers alike, replacing written excuses to be out of the classroom. These reveal patterns of normal student-school relationships by drawing out recognition of what has changed. The more serious problems and those that relate more to specific student-school relationships also hint at how serious the misuses of video cameras could be: A prop gun led to a conflict with school security that could have led to a tragedy, a male student "violated" a female student by recording inside her shirt, and one student's act of pointing a camera at another student led to a fight, which in the end led to the expulsion of both students.

Serious problems are possible but rare; these examples serve as a warning for teachers and researchers alike. From the researcher's perspective, Bradley (2007) has documented his struggle with gaining permission from one human subjects protection committee because of an institutional concern with "protecting" youth from themselves. I circumvented this problem by studying programs that already existed, being in the role entirely as researcher, but ideally, I will not be limited to this position in future studies. The merit to video production programs is that they promote new kinds of relationships, helping youth find power they did not know they had. People always have the potential to cross boundaries, break laws, and violate the rights of others, and situations with these potentials need to be studied. What is the limit to what a researcher can ethically analyze? These concerns are not unique to video production. Protocols for addressing and preventing serious problems are needed, but if the power of video is to be utilized, these ought to avoid controlling and silencing mechanisms. Bradley argues for involving participants in the process of establishing such protocols and protections, not only as

part of planning but as part of the IRB process.

These problems demonstrate what it means for an artifact to be an actant that co-creates events without losing the impact of the student also being an actant. Actions of camera-student entities emerge from the joining of two actants and the context in which they become active. Emergent conflicts reveal the structures that normally constrain student activity. Most of the time, for instance, students are not allowed to get out of their seats and wander the building; students are limited in where and when they can go. The camera gives students a basic freedom of movement, which holds the potential for other constraints to be loosened. I have observed students occupying the teacher's position in the class—both materially and socially—and students have used the camera to raise uncomfortable topics. The most revealing part of the conflict over the prop gun was not that security became alarmed about a toy gun but that the teachers grasped onto this conflict as a way to halt all video productions—even though there were no dangers with the other projects. The teachers openly defended their decision because they feared the subject matter of the student projects—crime, drugs, and teenage pregnancies—might offend someone, sounding a lot like the IRB of which Bradly (2007) wrote. They seemed to want to keep the problems of the community out of the school. Thus the response of teachers and other school staff to student videographers serves as evidence of normal practices and the ideologies behind them.

An Application Of The Analysis

In developing an approach to understanding informant-made videos, several theories

have been applied. This analysis is obviously not the only possible approach, but it has enabled entry into student-school relationships that took different directions with different projects, depending on what was relevant to a particular project. This approach enables descriptions of projects such that they could be compared to radically different projects. A more detailed analysis of a small piece of one cademe demonstrates the issues that have been discussed and then will be described in terms of its role in the project. I selected an excerpt from the explorations of two Native American youth that spanned only two days, a week apart. The section is short and not the most meaningful in terms of the project, but it shows how the camera serves as an actant in restructuring student-school relationships.

The camera operator, who chose the pseudonym “Wicket,” stood with his partner, “Jerome,” in the doorway to the “on-campus suspension” classroom. Wicket and Jerome immediately began to tease the suspended students. Illustrations of stills from the video follow.

> Jerome says, “Hey, no cussing.”
>
> A girl is shown. Two girls laugh, and one says, “No.” Someone walks between the girl and the camera.
>
> Wicket says, "Oh, we got a Choice Dorm.” [The dorm is where students who are being disciplined live temporarily and is written on the back of the student’s shirt.] Wicket continues, “We're in for saying Choice Dorm.” The female student turns toward the camera. She returns to hiding behind her notebook.

Illustration 1: The female student's shirt is visible

Wicket says, “Eh.” Jerome says, “Eh! Quiet little boy.”

Wicket says, “Oh man, I’m recording her folder.” He laughs.

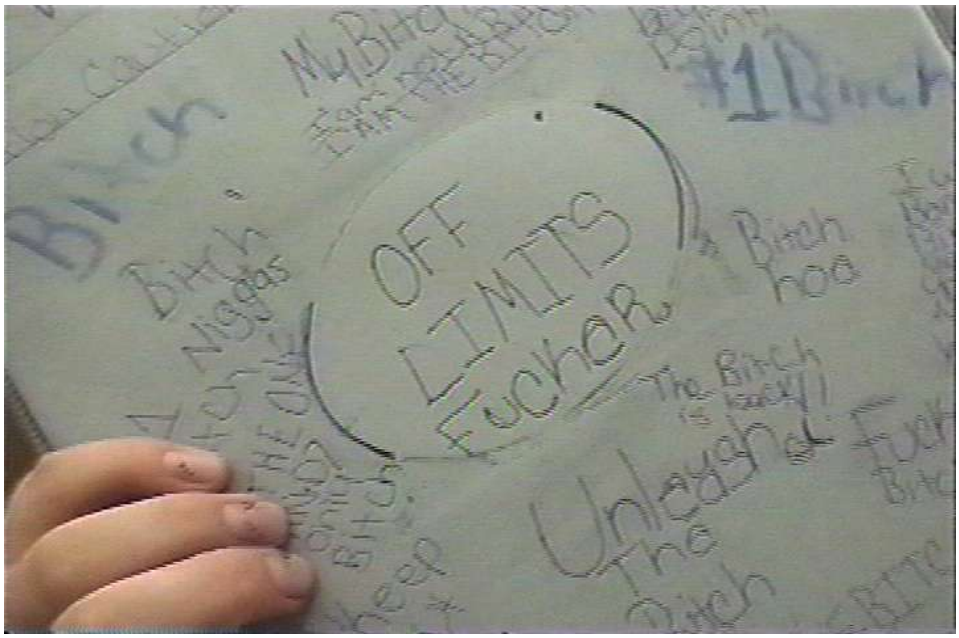

Illustration 2 Female student shielding herself from being recorded

Jerome says, “Zoom in. See what all’s written on there.” But Wicket has already zoomed in. Wicket begins to read it out loud, “Off limits fucker.”

Wicket and Jerome both laugh. . . .

The notebook is shown again. The girl holding it extends her middle finger toward the camera by holding the notebook such that only her middle finger is extended.

Illustration 3 Female student extending her middle fingers toward the camera as she hides.

Wicket says, “Oh, she’s flipping us off too.”

The shot continues, switching to focus on the female student’s shoes being off and then a teacher is heard yelling and Wicket and Jerome leave. It is a typical example of the teasing that occurs during video production and alludes to some of the ethical considerations discussed above. The videographers express their increased power by

forcing people to be on camera when they do not want to be and use the camera to emphasize or document some embarrassing situation. In this case, the fun comes from asserting an important difference: The students in the class are being disciplined, and one young woman was so thoroughly in trouble that she was placed in "Choice Dorm." Wicket's actions with the camera assert his power in being able to document her punishment. She shielded herself from the camera, offering a tactical message through the words on her notebook, but even these are exploited. The camera-student entity acts strategically, using its omniscient powers to read her note, and simultaneously acts tactically as the youth take joy in the defiance embodied in the notebook's message. The student continues to hide and sends another message with her middle fingers, resulting in more laughter. At some level, the laughter shows solidarity with the students being punished, even while playfully mocking them for it. And while Wicket emphasizes the differences in his position as compared to those being punished, Wicket and Jerome show high solidarity with one another in this and many shots. Wicket and Jerome routinely work together as part of the camera in shaping the events and playing with the power they have gained through their solidarity with the camera.

The events are not important—the youth are simply playing—but they take on importance because they represent a pattern. First, Wicket and Jerome record the "OCS" room three times in their two days. The proximity of the room near their starting point clearly affords this frequency, but they also have fun when they stop there. And the room has meaning, which ties in with the second significance: These events are part of a pattern of playing with power that becomes the focus of their final project. A few events

respectfully display student and faculty art work or students playing instruments, but most involve some play with status or direct commentary on power structures. The OCS classroom is a monument to the power the authorities hold over the students. Third, these events, like many, were recorded entirely from the doorway. Doorways and hallways are places that are not owned by anyone (Lefebvre, 1974)—they are in-between places—and as such offer temporary freedoms; they are the spaces between places that can be tactically exploited. Hemmings (2000) described a "corridor curriculum" that exploited such spaces to assert a student hierarchy outside the institution's control, particularly when teachers were afraid to venture outside the safety of their classrooms, but my observations suggest that even when discipline is maintained, students find freedom from assigned activities in these places, which they use to pursue their own interests. This usage of doorways and hallways has occurred at every school I have thus far studied and indicates the position in which students find themselves. Few students have occupied the teachers' position in a classroom or traveled to administrative offices, but when they did, it was through their solidarity with the camera—by doing interviews mostly. Lastly, the cademe is important because it shows how camera techniques are meaningfully used by the students. Wicket and Jerome zoom in and out a lot, but it serves very clearly here as a way to read the text on the notebook. Similarly, Wicket turns the camera from one person to another and zooms in and out according to what he is focused upon. By contrast, many students were observed to use camera techniques without apparent purpose. The amount of play in Wicket and Jerome's cademes as well as the emphasis on art are likely to have facilitated what appears to be a

more developed use of visual techniques. Based primarily on the work from this school, I would like to investigate what more freedom to explore and experiment would do for video literacy.

This excerpt was selected because it contains many of the issues that have been discussed, but it does not, by itself, reveal much about student-school relationships. That requires many more cademes and information about the context: Wicket and Jerome's videos show their school through their eyes in a way that I never would have been able to access through an interview. The college interns, who worked with the students at this school, and I had several conversations about the awkwardness of the work because students were so thoroughly uncommunicative. The students were quiet and respectful in our presence. If not for the video with its playfulness and social critique, I would have known nothing about these youth. Wicket was explicit about his beliefs during his narration of the scenes. Jerome, by contrast, struggled with his narration, leaving long silences. This suggests that Wicket dominated in the work, but Jerome's participation in the cademes revealed that he was not simply along for the ride. In short, I got to know Wicket and Jerome through their video.

Conclusion

The contribution of a detailed visual realm to the study of social relations should not be underestimated. Images provide concrete data, the meaning of which may remain contested as audiences share the analysis but for which patterns can be sought to resolve disputes. I have pursued the ability of "images [to] not only carry information in the

constant battle over meaning but . . . to mediate power relations" (Fischman, 2001, p. 31) and to reflect the connections between people as they are drawn and severed. Power and solidarity are rarely spoken about concretely or consciously acted upon, but it's role can be revealed in semiotically rich informant-made videos. A wealth of new information becomes available that is untouched in standard discourse analyses or video recordings.

As data, informant-made videos have five significant advantages over videos made by a researcher: First, individual positions—both material and metaphorical—are uniquely demonstrated by informant actions and the reactions they provoke. This provides the opportunity to view social relations in great detail. Second, the actions of the videographer are in dialogue with the people, places, and objects that are a meaningful and ongoing part of their lives. The material environment is made particularly salient by the nature of video production because it is visual and does not necessitate reflection. Third, changes in videography over time are documented. Whether the time span is half an hour or months or several years, differences in the choices the videographer made can be analyzed. Fourth, the camera promotes change. Students in particular have opportunities to look at and relate to the world differently. And lastly, videographers can be asked to reflect on their work. I have asked a small sample of students to narrate their work, and in future studies, I would like to extend this reflection to specifically ask students the same questions I am asking of the data—to ask if they see in their own work what I see.

Informant-made videos are important beyond their use as data collection, however: Video production changes student-school relationships in ways that frequently

remain unnoticed but that could be further exploited. Video cameras are actants along with students and contribute to activities in meaningful ways. Video production changes student activity in big ways such as in providing students with greater voice in school, in making their work more relevant, and in stimulating more active participation. It also changes school in small but important ways that are really about the camera itself: Movement, for one, becomes possible for students who normally must remain in their seats. This has profound implications for student agency as students have increasing affordances for directing their own education. Related to this are the new opportunities for interacting with people and environments. From possibilities for interviewing to affordances for seeing artifacts and places in new ways, camera-student entities shape the events that compose student-school relationships, thus video cameras afford new ways of being a student.

References

American Film Institute (n.d.). *AFI screen education.* Retrieved June 13, 2008, from http://www.afi.edu.

Bakhtin, M. M. (1986). *Speech genres and other late essays* (V. W. McGee, Trans.). Austin: University of Texas.

Barab, S., & Roth, W.-M. (2006). Curriculum-based ecosystems: Supporting knowing from an ecological perspective. *Educational Researcher, 35*(5), 3-13.

Beaty. L. M. (in preparation). Video Cameras As Tools For Transforming Student-School

Relationships In High School.

Beaty, L. M. (2005). *"Give Me Space!" Situated Video Production And High School Social Relations.* Unpublished doctoral dissertation. Graduate School And University Center, City University of New York. Available: http://lbeaty.freeshell.org.

Beaty, L. M. (2007). Concept development in action: Adolescent development in one student-made video from a Vygotskian perspective. 2007 Annual Meeting of the American Educational Research Association, Chicago, IL. Available at http://lbeaty.freeshell.org.

Bellman, B. L., & Jules-Rosette, B. (1977). *A paradigm for looking: Cross-cultural research with visual media*. Norwood, NJ: Ablex Publishing Corporation.

Bradley, M. (2007). Silence for their own protection: How the IRB marginalizes those it feigns to protect. *ACME: An International E-Journal for Critical Geographies, 6*(3), 339-349. Available at: http://www.acme-journal.org/vol6/MB.pdf.

De Certeau, M. (1984). *The practice of everyday life* (S. Rendall, Trans.). Berkeley: University of California Press.

Diamondstone, J. (2002). Keeping resistance in view in an activity theory analysis. *Mind, Culture, and Activity: An International Journal, 9*(1), 2-21.

Fischman, G. E. (2001). Reflections about images, visual culture, and educational research. *Educational Researcher, 30*(8), 28-33.

Gibson, J. J. (1986). *The ecological approach to visual perception*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Goffman, E. (1974). *Frame analysis*. New York: Harper Colophon Books.

Goldman-Segall, R. (1998). *Points of viewing children's thinking: A digital ethnographer's journey*. Mahwah, NJ: Lawrence Erlbaum Associates.

Goodman, S. (2003). *Teaching youth media: A critical guide to literacy, video production, and social change*. New York: Teacher's College Press.

Gutierrez, K. D., Baquedano-Lopez, P. & Tejada, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the third space. *Mind, Culture, and Activity: An International Journal*, *6*(4), 286-303.

Hemmings, A. (2000). The "hidden" corridor curriculum. *The High School Journal*, *83*, 1-10.

Hobbes, R. (2004). A review of school-based initiatives in media literacy education. *American Behavioral Scientist*, *48*(1), 42-59.

Hodge, R., & Kress, G. (1988). *Social semiotics*. Ithaca, NY: Cornell University Press.

Holland, D., Lachicotte Jr., W., Skinner, D., and Cain, C. (1998). *Identity and agency in cultural worlds.* Cambridge: Harvard University Press.

Latour, B. (1996). On interobjectivity. *Mind, Culture, and Activity: An International Journal*, *3*(4), 228-245.

Lefebvre, H. (1974). *The production of space* (D. Nicholson-Smith, Trans.). Oxford, UK: Blackwell.

Litowitz, B. E. (1993). Deconstruction in the zone of proximal development. In E. A.

Forman, N. Minick, and C. A. Stone (Eds.), *Contexts for learning: Sociocultural dynamics in children's development* (pp. 184-196).

Litowitz, B. E. (1997). Just say no: Responsibility and resistance. In M. Cole, Y. Engström, and O. Vasquez (Eds.), *Mind, culture, and activity: Seminal papers from the laboratory of comparative human cognition* (pp. 473-484). Cambridge: Cambridge University Press.

Miller, S. M., & Borowicz, S. (2003). City voice, city visions: Digital video as literacy/learning supertool in urban classrooms. Paper presented at the Annual Conference of the American Education Research Association, Chicago.

Newman, D., Griffin, P., & Cole, M. (1989). *The construction zone: Working for cognitive change in school.* New York: Cambridge University Press.

Schwartz, D. L., & Hartman, K. (2007). It's not television anymore: Designing digital video for learning and assessment. In R. Goldman, R. Pea, B. Barron, & S. J. Derry (Eds.), *Video research in the learning sciences* (pp. 335-348). Mahwah, NJ: Lawrence Erlbaum Associates.

Sherin, M. G. (2007). The development of teachers' professional vision in video clubs. In R. Goldman, R. Pea, B. Barron, & S. J. Derry (Eds.), *Video research in the learning sciences* (pp. 383-395). Mahwah, NJ: Lawrence Erlbaum Associates.

Valsiner, J. (1997). *Culture and the development of children's action: A theory of human development*. New York: John Wiley & Sons.

Vygotsky, L. (1994). The development of thinking and concept formation in adolescence.

In R. v. d. V. J. Valsiner (Ed.), *The Vygotstky Reader* (pp. 185-265). Oxford: Blackwell.

Vygotsky, L. (1978). Interaction between learning and development. In M. Cole, V. John-Steiner, S. Scribner, and E. Souberman (Eds.), *Mind in society: The development of higher psychological processes* (pp. 79-91).

Worth, S. (1981). *Studying visual communication.* Philadelphia: University of Pennsylvania Press.

Worth, S., & Adair, J. (1972). *Through Navajo eyes: An exploration in film communication and anthropology*. Bloomington, IN: Indiana University Press.