

The Inconvenience of Truth: Rethinking the Agency of Science Film Spectators in a Post-Postmodern Era

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The spectator of science's advancement in the postmodern world is a viewer who gazes upon the world with full cognizance of the mixed bag of gains and losses, risks and benefits, entailed in scientific and technological advancement. We no longer can regard the audience of the science film to be composed of innocents or naifs in need of education about true facts, or about contextual impacts.

Introduction

In the Spring of 2007 I served as a juror for the 43rd International Festival of Popular-Scientific and Documentary Films Academia Film at Palacky University in Olomouc, an ancient Moravian city of 100 thousand whose town square still houses speakers used by the Soviet-era Czech government to broadcast state propaganda each evening. A formerly isolated and technologically under-developed university town became a hub of high-tech international media, with journalists, filmmakers, and web and television newscasters accessing WiFi from the cafes and university offices that filled the baroque and gothic buildings along the narrow cobbled streets of the city center. Jurors and visiting filmmakers ranged from figures in science film production during the Soviet era to contemporary graduate students from post-Cold War former Soviet bloc countries training in the US as well as at home. The group, and the ethos of the festival, was transgenerational as well as international, intercultural, and formally and esthetically wide-ranging. There was a lot of excitement about the science film as a genre that was seeing widespread international attention after the successes of films such as Al Gore's *An Inconvenient Truth* and the visually lush science large-screen films of the 2000s (such as *The Deep Sea*) that benefited from advances in digital production and exhibition technologies of the 1990s digital boom.

At this science film festival I screened DVDs of hundreds of submissions of popular and niche-audience documentaries produced around the world in the previous few years. Unsurprisingly, there was a preponderance of graphically striking films about science and globalization, most of them linking together the themes of climate change, global warming, the oil and natural resources industries and the alarming rates of consumption among westerners, global industry and trade expansion, population explosion, and the impact of globalization on indigenous agricultural practice and the planet in general. These films had in common an impressive range of footage from around the world, and shared the goal of educating western spectators about the global crisis in natural resources and the unsustainability of our current production and consumption practices. All of these films had in common as well the use of voice-over narration (in most cases male) delivering, along with sobering facts and alarming footage, all driving home the message that viewers

should be aware of the deep and irreversible costs of technological advancement and globalization.

What struck me most about these films was the fact that most of the audiences to whom they were geared already knew about the circumstances they narrated. The apparent goal of these films to educate viewers about the environmental, demographic and human impact of technological advancement and economic and industrial globalization was lost, I felt, on an audience already well aware of the crises enumerated, but less clear about options with regard to the paths of action citizens might take to address these crises effectively. The circumstance I sensed in relationship to these films was well captured by a science journalist I heard interviewed on National Public Radio months later. The journalist was asked the question: what can we do to avoid the train wreck looming ahead in light of multinational industry's impact on the environment and on the poorest nations and peoples? He paused and then quipped,

"Well, the train wreck has already happened."

It occurred to me as I listened that this remark was probably not received as a new fact by many listeners besides myself. I interpreted his pause to be due to his momentary incredulity that the interviewer could even imagine that there might be time left to change the course of globalization's impact. More accurately, we might say that we all know that little and big train wrecks are happening in incidental ways as we go about our everyday lives, in a kind of on-going way that we no longer really notice for long, any more than we really notice for long the wreck moved off to the accident inspection site at the side of the freeway during our evening commute. We cannot turn back the clock. I was reminded of my experience sitting in small audiences of students, journalists, and filmmakers from around the world watching film after film about climate change, medical findings about the western diet, and human sexuality—all of them presenting to us information we more or less already knew. The apparent goal of these films was not only the modernist goal of imparting knowledge--to educate us about scientific advancement. It was also the postmodern goal of getting us to see the contextual factors that make scientific knowledge do the work of helping us to interpret and live life meaningfully in the everyday world.

But in watching these films, and in hearing the NPR commentator's quip about living in the wake of the train wreck and not in its anticipation, I find myself realizing that we no longer live in that postmodern moment in which knowledge is power. The Internet and the Web have contributed to a situation in which most of us that watch these films, at whatever age, already know the facts. Moreover, most of us who see these films are aware of the contextual circumstances and effects of scientific and technological research, development and practice. As science educators, we need to face up to the fact that we are dealing with a public that is already in the know. We live in an era that has moved beyond the postmodern ethos of already-knowing. Moreover, we are shortchanging the public when we offer films that point out the wrongs and ironies of facts about the world such as the impact of industrial and technological development. Our task, I propose, is to make

films that offer options to viewers in their quest to figure out best practice in everyday life in the midst of the on-going wrecks that accompany the gains of science; to minimize long-term impacts and to mitigate damage.

Audience and knowledge

The biggest problem that faces producers of science films today, I propose, is how to engage the science film spectator in a project of engaged action despite the fact that the spectator is a knowing, even jaded, subject of science. The first step in this challenge, I further propose, is to determine where the spectator stands in relationship to scientific knowledge and practice. Is he or she merely a spectator, an observer of expert practice and a recipient of expert knowledge, who can give voice to opinion through the democratic process? Contemporary relationships of knowledge and power no longer take the form of a top-down science in which the consumer imagines him- or herself as recipient of the benefits of science, medicine, industry. Rather, the consumer-spectator is more likely to see him or herself as implicated ambivalently in the democratic practice of science, as someone with the right to a say in things that may hold both risks and benefits.

At the same time, the contemporary consumer-spectator sees him- or herself as one who witnesses—that is, one who looks out onto the world of science in breathless awe from afar, whether that experience is produced through gazing upon Disneyfied distant wonders (*Roving Mars*), to vicariously witness the conquest of nature (*Everest*), or to gasp at the unthinkable impact of big industry on small communities (Channel 4's *The Drilling Fields*, an exposé of Shell Oil). Let me use a filmic metaphor. We watch the impact of industrial globalization and the scientific and technological transfer that accompanies it knowing full well that even as we celebrate the gains that come with technological, medical, and scientific advancement, these changes bring other changes that can only be described as tragic for the environment and for human life. But we—meaning all of us, the lay public, filmmakers, scholars, and scientists alike—look out at these changes as if they are occurring on a cinema screen. Witnessing is a kind of drive-by consumption of science in action. The impact we witness is indirectly felt—is *witnessed as if from afar*, even when the impact is direct and as-if up close (an experience the IMAX experience is designed to give us). Even as we watch the benefits of technological and scientific advances, enjoy them, we just as quickly feel those benefits reverse themselves as we witness someone else paying the price (those living in the midst of Shell Oil's waste pools, for example) or as we find we can no longer pay the price (at the gas pump, for example). We see globalization's surge forward and its reversal as if from the distance afforded by the cinematic screen.

Engaging the audience

The challenge thus becomes how to engage a consumer-spectator jaded not only by knowledge of science's truths, convenient and inconvenient alike, but by the fact of distance that characterizes most of the contemporary issues and practices that come to light. What, we might ask, is the next step after witnessing, and how might science films foster that step?

To put this another way: The spectator of science's advancement in the postmodern world is a viewer who gazes upon the world with full cognizance of the mixed bag of gains and losses, risks and benefits, entailed in scientific and technological advancement. We no longer can regard the audience of the science film to be composed of innocents or naïfs in need of education about true facts, or about contextual impacts. There is little we can tell our everyday audiences, from the 8 year old shown *An Inconvenient Truth* at school to the 80 year old grandparents who grew up crop-dusted well before Rachel Carson's awakening of a liberal sector of the American public. These spectators know the truth about their experience, and face the science documentary today with a jaded eye. But the jaded spectator loses interest. We have to offer some means of bringing the jaded postmodern spectator into the action of science.

The question for science documentarists thus becomes: How do you educate a knowing spectator to the point of imparting agency and the ability to act? What is it that we want spectators to do with the knowledge they take away from a film? Is it knowledge that we wish to impart, or something more? What approach do we take in the education of viewers who must learn how to live in the mundane circumstance of the contemporary environment, in which wondrous cures and amazing feats of communication are accompanied by rising rates of cancer, poverty, illness, and economic crisis for the many on a global scale? With the heady era of trade liberalization and the collapse of distance past us, we now live in an era when we all know that distance costs money, and that scientific advancement is never without significant costs close to home. For the spectator of the 21st century big-screen science film, then, there is no going back to a purer place for science in the public imagination. There is no wonder untouched by the awareness of the costs of scientific gains. Nature is a spectacle to be consumed always at some alteration to someplace, or someone.

To return to the science films I viewed in 2007: Although I found the goals of the many science films about global warming and industrial globalization laudable, and their formats persuasive, I also felt invited by them into a frenzy of social outrage that required of me a realist response to truth claims. These were not the truth claims of science so cogently attacked by postmodernists in the science wars—the critics who argued that science's foundation in truth claims ignored the social relativism of any construction of truth. Rather, the truth-claims of the new wave of science documentaries were in the direction of truths one could surmise only through critical analysis, and only through interpretive tools that allow us to see science in social context. Although I am more than happy to back this notion of truth as contextually produced and contextually impacting, I am left wondering where spectators can be expected to go with such inconvenient contextual truths. Critical consciousness on its own leaves no opening for compensatory or mitigating action. These films left me with no blueprints or guidelines for social action. In the end we awarded the top prize to a film about the philosopher Slavoj Žižek, a film most of us saw as not really about science. This was simply because at the very least this film saw the global circumstances in which knowledge and information alone left viewers with few options for seeing themselves as agents of action.

Rethinking the science film

The agenda I want to propose, then, is to rethink the model of science as the domain of expert knowledge, and the public as a body of citizens in need of education and information. Rather, I propose that we consider the science film spectator as a potential actor with agency, and the science film as a means of generating something beyond a change in consciousness.

This proposal begs the question, how would one impart agency to viewing audiences? My first suggestion is that the producers of science films drop the tired conventions of voiceover narration as the locus of authority and take up the strategy of distributing voice among a wider range of constituents, including those for whom films are intended. I look, for example, to the successful audiovisual ethnographies of Richard Chalfen of Temple University, who participates in hospital programs designed to increase patient compliance in asthma treatment. Chalfen engages patients in a program in which they participate in the production of media texts that informally document on video the day to day treatment experience in the home and clinic. These tapes are then viewed by doctors and caregivers, who can learn from them exactly how it is that the patient experiences his or her treatment regimen, and why it is that some methods—and some drugs protocols--just don't work.

Another example is the Global Tourette project by science digital media producer Brian Goldfarb, a professor at the University of California at San Diego who has retooled hundreds of disposable video cameras, placing them in the hands of youth with Tourette syndrome and their family members and caregivers. The home videos they produce, in addition to media they produce in animation workshops geared toward maximizing behavioral traits associated with the disorder, are woven together in documentaries with the goal of providing the public with an awareness of the diversity and variability of Tourettic experience, rather than imparting truths about the condition from expert to novice or lay public. As in the case of Chalfen's documentaries, the Global Tourette films are used by doctors to get a glimpse at the everyday performance of youth with Tourette who are expert at masking symptoms in the clinical setting.

Conclusions

This brief set of examples and suggestions is meant to open up some new doors for those who work within the genres of science as spectacle and science education. We must begin to play with the roles of who learns and who imparts wisdom in a post-postmodern era in which the ironies of truths, however convenient or inconvenient those truths are, cannot sustain engagement and turn it into action among spectators. For spectators to be active agents in the world of science, film production models that move beyond the producer-consumer, educator-learner binaries are needed.