



SCHOOLING THE WORLD

THE WHITE MAN'S LAST BURDEN

a discussion guide
& companion to the film



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**a discussion guide and companion
to the film**

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ABOUT THE FILM

If you wanted to change an ancient culture in a generation, how would you do it?

You would change the way it educates its children.

The U.S. Government knew this in the 19th century when it forced Native American children into government boarding schools. Today, volunteers build schools in traditional societies around the world, convinced that school is the only way to a 'better' life for indigenous children.

But is this true? What really happens when we replace a traditional culture's way of learning and understanding the world with our own? **SCHOOLING THE WORLD** takes a challenging, sometimes funny, ultimately deeply disturbing look at the effects of modern education on the world's last sustainable indigenous cultures.

Beautifully shot on location in the Buddhist culture of Ladakh in the northern Indian Himalayas, the film weaves the voices of Ladakhi people through a conversation between four carefully chosen original thinkers; anthropologist and ethnobotanist Wade Davis, a National Geographic Explorer-in-Residence; Helena Norberg-Hodge and Vandana Shiva, both recipients of the Right Livelihood Award for their work with traditional peoples in India; and Manish Jain, a former architect of education programs with UNESCO, USAID, and the World Bank.

It examines the hidden assumption of cultural superiority behind education aid projects, which overtly aim to help children “escape” to a “better life” – despite mounting evidence of the environmental, social, and mental health costs of our own modern consumer lifestyles, from epidemic rates of childhood depression and substance abuse to economic breakdown and climate change.

It looks at the failure of institutional education to deliver on its promise of a way out of poverty – here in the United States as well as in the so-called “developing” world.

And it questions our very definitions of wealth and poverty – and of knowledge and ignorance – as it uncovers the role of schools in the destruction of traditional sustainable agricultural and ecological knowledge, in the breakup of extended families and communities, and in the devaluation of elders and ancient spiritual traditions.

Finally, “Schooling the World” calls for a “deeper dialogue” between cultures, suggesting that we have at least as much to learn as we have to teach, and that these ancient sustainable societies may harbor knowledge which is vital for our own survival in the coming millennia.



CLICK HERE TO VIEW THE TRAILER:

<http://schoolingtheworld.org/film/trailer>

CLICK HERE TO VISIT THE WEBSITE:

<http://schoolingtheworld.org>



LETTER FROM THE FILMMAKER

Dear Friends,

The film “Schooling the World” asks us to re-examine some of our deepest assumptions about knowledge, learning, ignorance, poverty, success, and wealth. The purpose of the film is not to provide all the answers, but to ask a question, to open a conversation. Our hope is that you will be able to use the film with your friends, colleagues, students, or organization to begin conversations that will be deep, challenging, and inspiring.

One leader in the field of international education told us that he found the film “painful, provocative, and oddly exhilarating.” The exhilaration comes when we can approach a new way of seeing with honesty and fearlessness – even if it requires admitting we have been wrong about some things. One of the main premises of the film is that we do great harm when we think we have all the answers; that in fact the dialogue between cultures must be conducted with what the Buddhist tradition calls “beginner’s mind” – an attitude of openness, questioning, and listening, not with an attitude of expertise that entitles us to prescribe solutions for other people. We hope that your class or group can conduct a dialogue about the film in the same spirit.

As you or your students come into contact with people from other cultures, we encourage you to try to cultivate this attitude of openness and listening – and to use the film as part of a process of consciousness-raising. Even those of us who value cultural diversity may harbor an unconscious bias

toward seeing the knowledge of traditional societies as a thing of the past – as at best quaint and colorful, a relic to be studied and even treasured, but not as vital living knowledge that has the potential to guide how we live in the 21st century.

“Schooling the World” is challenging that assumption.

The way we educate children lies at the heart of our culture, our economy, our ecology – our schools both mirror our society and reliably reproduce it into the future. Schools as we know them today reflect a world with vast extremes of wealth and poverty, an economy with a devastating impact on natural ecosystems, a culture in which family breakdown and individual psychological distress are epidemic. What can we learn from other societies’ ways of learning about and understanding the world? What can we learn from their ways of nurturing children and raising them to a productive, satisfying adulthood? And how is our own current school system failing to support the creativity and diversity we will need to face the challenges of the 21st century? We encourage you to think about the questions here and connect the dots for yourself: how can we re-imagine learning and culture in a way that supports individual creativity, cultural diversity, economic justice, and a sustainable relationship to the environment?

Warm regards,

Carol Black

Director, Schooling the World



I THE MISSIONARY FALLACY



For the last five hundred years, Christian missionaries have traveled to every corner of the world with Bibles in their hands, teaching the Christian religion to indigenous peoples. Today we travel around the world with computers and textbooks, teaching math, science, history, and English.

Missionaries feel that their religion is true and valuable, and that therefore all people on the planet should adopt the same belief system. Are modern educators falling prey to the same “missionary fallacy,” and assuming that because they value their own system of education, that therefore all people on the planet should adopt the same system?

LOOK AT THESE FACTORS:

- Historically, missionaries have had little interest in learning about the religious beliefs of traditional societies; they have simply assumed that indigenous people are “pagans” or “heathens,” and proceeded to impose their own belief system. When we build schools today in traditional parts of the world, are we learning enough about the knowledge systems we are displacing? Or are we simply assuming that traditional people are “illiterate” or “uneducated” and imposing our own way of thinking on them?

- Missionaries have often made a deep impression with the force of their belief that indigenous people would go to hell if they did not accept Christianity. Today, we make a deep impression with the force of our belief that traditional people will be “poor” and “ignorant” if they do not adopt our system of education. Are these beliefs justified? How do you think they affect the people on the receiving end of them?
- Individual missionaries have certainly done kind or beneficial things in the course of their work; in some cases providing life-saving medical care, for example, or recording traditional languages (in order to translate the Bible.) And yet overall, their work has been a tremendous force for the destruction of indigenous languages, cultures, spiritual beliefs, and sustainable ways of life. By the same token, Westerners who teach school in traditional societies may have positive experiences and caring relationships with individuals within those societies. But what is the long-term impact of replacing traditional methods of child-rearing and education with modern ones? Is there an intrinsic structural problem with this way of approaching another culture?



2 THE CULTURE OF SCHOOLING

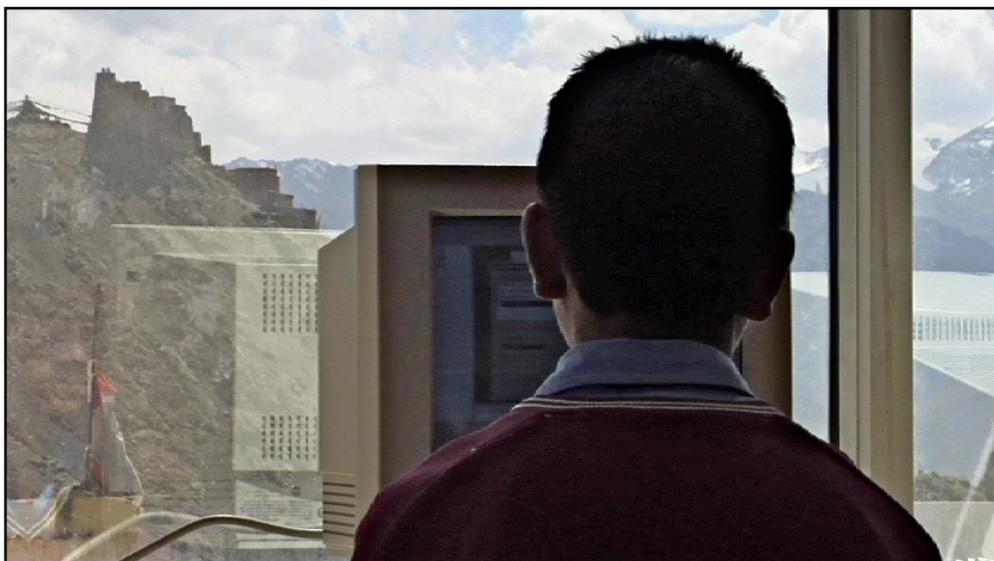


Modern educators working in traditional cultures often try to address the problem of cultural erosion by including more of the traditional culture in the classroom – traditional songs, dances, stories, visits to the school from grandparents, etc. But Marshall McLuhan’s famous remark, “*the medium is the message*” suggests that even more important than the content of the message is the mode by which it is communicated. We tend to forget that *school itself is a cultural construct* which alters traditional life in profound ways. Below is a list of some of the differences between the culture of schooling and the culture of childhood in a traditional society. Look at each item on the list. What is lost when children transition from traditional forms of learning to institutional education? Are there ways in which modern children might actually benefit if these traditional approaches were incorporated into their learning environments?

- ➔ **Age segregation:** Modern schools separate children from adult life and group them by age. In most traditional societies, children live and work alongside adults, and they play and learn in mixed-age groups of children.
- ➔ **Separation from nature:** Modern schools usually require children to be indoors for most of the day. Children in traditional societies typically spend much of their time outdoors in the natural world, and develop an intimate knowledge of their local ecosystems through their daily activities.
- ➔ **Restricted physical activity:** Modern schools usually require children to be sedentary and quiet for many hours each day. Children in traditional societies are generally free to move about, talk, laugh, etc., and are physically active both in work and in play.

- ➔ **Text-based rather than experience-based learning:** Most learning in schools is based on knowledge encoded in written form. In most traditional cultures, children learn most of what they know through hands-on experience and participation in community life.
- ➔ **Fragmentation of knowledge into “subjects:”** Modern schools separate knowledge into “subjects,” which are then viewed as separate from ethical and spiritual knowledge and responsibilities. Traditional cultures generally have a holistic view of the world, in which spiritual knowledge and ethical awareness interpenetrate ecological, medicinal, artistic, and other forms of knowledge.
- ➔ **Competition and ranking:** In modern schools, groups of same-age children are given identical tasks and then compared and ranked according to their performance. Their future life opportunities are then enhanced or limited according to the ranking assigned to them. In most traditional cultures, children participate in a variety of tasks, and may naturally gravitate toward their areas of greatest aptitude and interest, but there is little formal comparison or competition between them.
- ➔ **The illusion of “objectivity:”** Modern schools evaluate and rank children according to uniform standards which are assumed to be objective and universal. In a traditional society, it is assumed that each child is a complex individual with idiosyncratic strengths and weaknesses which can only be understood by those who know the child intimately in the context of her personal, family, and community history.
- ➔ **Control by distant “experts:”** In modern schools, parents and even teachers have little control over the most important decisions about the content and structure of learning; these decisions are generally made by distant “experts” who have no personal knowledge of the individual children involved. In a traditional society, decisions are made locally by family and elders who know each child as an individual.

*Thanks to Manish Jain and **Shikshantar: The People’s Institute for Rethinking Education and Development** for some of these ideas.*

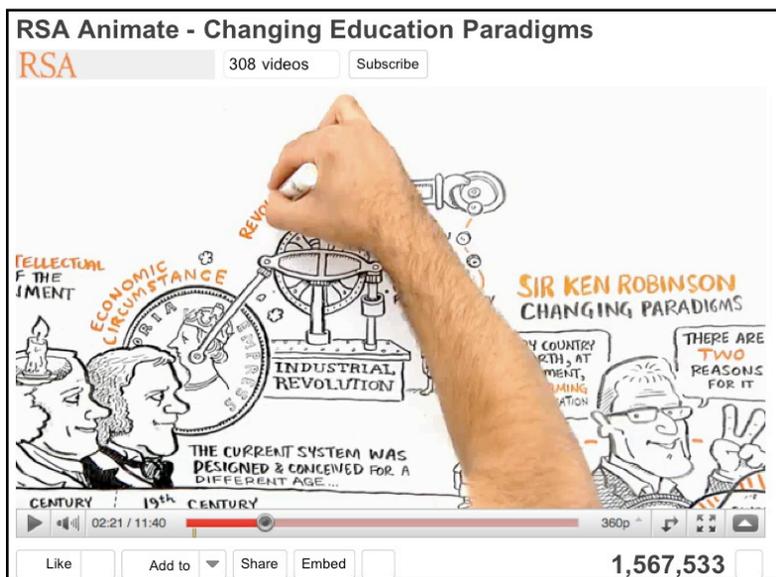


3 FACTORIES FOR CHILDREN

“ We have a system of education that is modeled on the interest of industrialism and in the image of it. School are still pretty much organized on factory lines — ringing bells, separate facilities, specialized into separate subjects. We still educate children by batches. Why do we do that?”

– Sir Ken Robinson

Educational reformer and creativity expert Sir Ken Robinson argues that our current education system is based on the factory model, with children viewed in a mechanistic way as the raw materials for an industrial process. Robinson maintains that this paradigm is outmoded – that our children need a more flexible, creative, open form of education to develop the traits they will require to meet the changes of the 21st century. Watch the following 12-minute video animation of Robinson’s lecture on **“Changing Education Paradigms.”**



<http://www.youtube.com/watch?v=zDZFcDGpL4U>

THINK ABOUT THESE QUESTIONS:

- If our current educational paradigm is so often failing to meet the needs of our own children, should we be exporting it to traditional societies?

- Because of our unconscious assumption of superiority to less technologically advanced societies, it never occurs to most people working in education that traditional cultures embody a wealth of practical information about children and learning. Indigenous societies base their modes of learning and teaching on thousands of years of experience, observation, trial-and-error, and collective wisdom. The relationships between children and adults often appear effortless, with little or no obvious teaching going on. And yet children reach adulthood with an encyclopedic knowledge of their local ecosystems, spiritual traditions, and sustainable ways of living. Look back at the list of features of learning in traditional societies in the discussion topic “The Culture of Schooling,” then read the following description of learning in a tribal society by education writer Padma Sarangapani. Could aspects of these traditional learning practices be adapted to address some of the problems that Sir Ken Robinson describes?

“Perhaps the most important feature [of learning in the Baiga tribe] is the learner’s autonomy and initiative-taking. This aspect of initiative-taking by the learner is a common feature throughout childhood where the child is almost never coerced into doing anything, but is given ample opportunity to take initiative and participate in ongoing activity. Equally important is the fact that the pace of learning is set by the learner, depending on his own judgement regarding his readiness. In most situations, children could opt out of an ongoing activity at any point when they wished, without fear of any stigma or teasing. The same level of proficiency or interest was not expected of everyone. It was also acceptable that different people would learn to different degrees, and accordingly practice differently. Most learning took place in the course of, or alongside, productive work. Thus the boundaries between work and play, leisure and labour are quite fluid. In the learning environments, whether in the family or among the peer group, there were niches for several levels of proficiency and learning by participating and direct engagement with the task.” (Sarangapani 205)





4 POVERTY

Many people believe that education is the key to solving the problem of poverty in the “developing” world. The World Bank defines “poverty” as the condition of living on less than two dollars a day. Below are two images of children from families living on less than two dollars a day:



- What do these pictures tell us about cash income as a measure of quality of life in the so-called “developing” world?

- When we hear that education has raised someone’s income level, what else do we need to know in order to evaluate whether this has been a net benefit?



- We asked the World Bank how it accounts for the cash value of having a network of grandparents and aunts and cousins to help with child care, for example, or of living in a place with clean water, clean air, and a beautiful natural environment. The honest answer from the Bank was that it simply doesn’t account for those

things. So from the standpoint of the World Bank, a family living on their own farm in an idyllic valley in the Himalayas, with plenty of food, clothing, and a beautiful house, may be “poorer” than a family working in sweatshops and living in a slum in Mumbai. What’s wrong with this view of poverty? What other factors should be accounted for to create a true assessment of quality of life?

- When people rely on traditional subsistence livelihoods, living on their own land, using their own local resources for food, housing, and clothing, are they more or less comfortable and secure than when they rely on money and jobs in the modern economy? What are the benefits and risks of these two options?

TABLE: 17 MILLION AMERICAN COLLEGE GRADUATES WORKING IN JOBS WHICH DO NOT REQUIRE A BACHELOR'S DEGREE

OCCUPATION	Percent with at least Bachelor's degree	Number
Customer service representatives	21.62	482,784
Waiters and waitresses	13.40	317,759
Secretaries, except medical, legal, and executive	16.64	311,440
Executive secretaries and administrative assistants	16.64	248,131
Receptionists and information clerks	12.89	141,476
Laborers and freight, stock, and material movers	5.07	118,441
Janitors and cleaners, except maids and housekeepers	5.01	107,457
Truck drivers, heavy and tractor-trailer	5.09	85,205
Bartenders	16.00	80,542
Carpenters	7.27	65,412
Food preparation workers	7.24	63,737
Amusement and recreation attendants	24.61	63,704
Landscaping and groundskeeping workers	6.77	62,414
Construction laborers	5.82	59,409
Telemarketers	15.85	54,713
Postal service mail carriers	13.95	49,452
Electrician	7.76	49,109
Hotel, motel, and resort desk clerks	16.14	37,156
Flight attendants	29.80	29,645
Parking lot attendants	13.74	18,749

Source: *The Chronicle of Higher Education*, Oct 20, 2010

- John Holt once said that education was never intended to change the proportions of rich and poor people in a society, and that it never would. Look at the table above, and then read the article in **“RESOURCES”** about **“China’s Ant Tribe: Millions of Unemployed College Graduates,”** and **“The Case Against College Education,”** which argues that the benefits of putting more people in college have been oversold. What would happen if all 6 billion people in the world were college graduates? Would there be good jobs for everybody? Would the percentage of people living in poverty change? Is education really a solution to the problem of world poverty?

5 FOR THE GIRLS

There is a growing focus on education for girls and women as a way of improving the lives of women in traditional societies. But women in intact, healthy traditional cultures are not necessarily suffering or exploited, nor are they ignorant. Clearly there are problems in some places, but women in many traditional societies have a wide range of knowledge and enjoy a high status and a respected role in family and community life and decision-making.

When Helena Norberg-Hodge first came to Ladakh in the 1970's, she wrote:

“One of the first things that struck me on my arrival in Ladakh was the wide, uninhibited smiles of the women, who moved about freely, joking and speaking with men in an open and unselfconscious way. Though young girls may sometimes appear shy, women generally exhibit great self-confidence, strength of character, and dignity.”



Are we sure that the position of girls and women is better in modern societies? Equal access to education and to political and economic power have clearly brought enormous benefits to modern women. But tremendous new problems have emerged for women in developed societies, and we tend to overlook the fact that it is not usually possible to export the positive aspects of our culture without exporting its negative aspects as well. At what point can we be sure that a net benefit has been reached? Are there ways that modern people could learn from women in traditional societies?

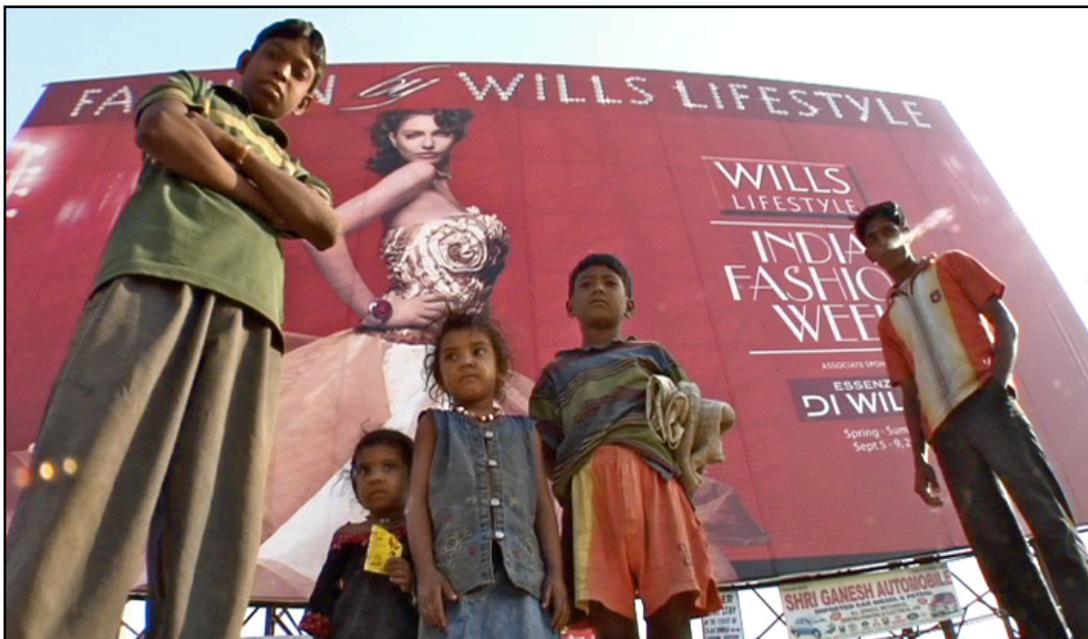
LOOK AT THESE FACTORS:

- **“The Triple Bind:”** In his book, “The Triple Bind,” Psychologist Stephen Hinshaw points out that modern girls are caught in an impossible set of demands – expected to be pretty, sweet, and caring in the traditional ways, but also to be competitive and high-achieving at academics and sports, and to do all this while being sexy, cool, and fashionable – and to make it all look effortless! How many girls feel they can live up to these expectations? Look at the statistics on depression, suicide, and self-mutilation disorders like “cutting” in the chapter **“STATISTICS FROM THE FILM.”** Dr. Hinshaw believes that these problems are related to the impossible pressures on our girls. What do you think?
- **Beauty and body image:** How many women in the modern world are comfortable with their appearance? How many suffer from issues with low self-esteem, eating disorders, overspending on clothing and beauty products, or pressure to be sexually appealing from the fourth grade until well into middle age and beyond? Look at the following videos and discuss the pressures on girls and women in the modern world. Are modern girls and women still being exploited – just in different ways?
 - ➔ Dove evolution: <http://www.youtube.com/watch?v=iYhCn0jf46U>
 - ➔ Onslaught: <http://www.youtube.com/watch?v=Ei6JvK0W60I>

Now watch this commercial made by the same corporation (Unilever) for a skin-lightening cream sold in India and used by many of the younger educated women in Ladakh, who have come to believe that their natural skin color is unattractive. (The video is not in English, but the pictures tell the story.)

- ➔ Fair and Lovely: <http://www.youtube.com/watch?v=ubbufbkbvY> *

**Thanks to the “Yes Men” for the idea for these links.*



- **Sexuality:** Author Kathleen Bogle has pointed out that in some important ways, the relationships between young men and women are more male-dominated today than they were in the 1950's, with young men often able to insist on sex without commitment even though surveys show that most young women would prefer stable, loving relationships. Rates of STDs are steadily climbing, and very young girls in middle school are being exposed to pornography and engaging in sexual activities in order to be popular. What are the sexual realities for modern girls today? Has girls' power over their own sexuality really increased, or has it actually decreased in some disturbing ways? Have we arrived at a culture that really works well for girls and women? Should other societies follow in our footsteps?
- **Family instability and isolation:** In traditional societies, mothers and their children are surrounded by a network of extended family members, from grandparents and aunts and uncles to older siblings, cousins and neighbors, all of whom help the mother with child care so that she can do her daily work without stress or concern for her child's well-being. How many women in the modern world are trying raise children alone with very little family or community support? What is the effect – both economic and emotional – on women and children when child care becomes the job of paid employees rather than extended family? What could we learn from traditional cultures about rebuilding networks of family and community to provide support for mothers and emotional security for children?
- **Women and poverty:** In most traditional societies, while there may not be perfect equality and justice, there is always a place for everybody – one can always make oneself useful helping around the house, in the fields, or with the children, and there will always be basic food and shelter for all. In the modern world, where indigenous people are often discriminated against, women who are unable to succeed academically or economically all too often end up in sweatshops, as exploited domestic servants, or in the sex trade. When we dislocate girls from their traditional societies and funnel them into a larger economy with no guarantees, how many wind up in these positions?



6 THE INVENTION OF FAILURE

One of the things that is most disturbing to me, at a level of justice and morality, is that you have an institution in place globally that is branding millions and millions of innocent people as failures.

– Manish Jain

Schooling the World



One feature of modern societies that is not characteristic of most traditional cultures is the idea of failure. In most traditional societies there is a baseline of knowledge and skills that everybody is expected to acquire, but these things are all reasonably attainable by everybody, so nobody “fails.” More advanced study – in areas like healing and knowledge of medicinal plants, the arts, or spiritual traditions – is completely optional, and there is no stigma attached to the choice not to pursue these things at a higher level.

In modern societies, on the other hand, failure is built into our system of education at a structural level. Grade level standards are intentionally set at a point where a predictable percentage of children will fail: if a given school were to set standards at a point where all children succeeded, it would simply be said that the standards were too low.

- Why do we do this? What does this kind of failure – and the fear of failure – do to young people? When students get “C’s” or “D’s” in school, what effect does this have on them? How does it affect their view of themselves? Of their lives?

- How often does the fear of failure motivate people in a way that makes their lives and society better? How often does it actually dampen creativity and personal satisfaction?
- Many highly brilliant and successful people – some of them quoted in the film – actually did very poorly in school, and were labeled as failures at a young age. What does this reveal? How often does the school system fail in this way to recognize the diverse talents of children?
- What would happen if we reconfigured our educational system along the lines of a traditional culture – in other words, if we only required those skills which are both reasonably attainable and essential for a normal functional adult life, and made the rest optional? Would we have a shortage of engineers and doctors and artists, or would the same numbers of people pursue those paths anyway? How might educational outcomes be different? What impact would it have on society?
- Children from traditional societies are often raised within an ethic that stresses equality. They are uncomfortable with being ranked competitively with their peers, and it makes them uneasy to be labeled as “successes” while their friends are labeled as “failures.” Is this good or bad? What message do we send when we competitively grade children and tell them not to “help their neighbor?”
- Do you think some children in developed societies are uneasy with this ranking as well? How might that relate to the phenomenon of children who “underachieve,” or seemingly refuse to make an effort to succeed at school? How might it relate to the phenomenon of “cheating?” Does our culture of success and failure bring out the best in people? Should all cultures follow in our footsteps?



ACTIVITY

According to the people interviewed in the film, most first-generation traditional children who pass through formal schooling will ultimately fail. Use the arts to try to imagine the inner experience of a young person from a traditional society who is encouraged to enter the modern school system to seek a “better life” – and ***who then is told that she has failed.*** What would she feel? How would she view her future? Her past? Would she return to her traditional village and culture? If so, would things be the same, or different? Would she leave home to look for work in an urban area? What kind of work would be available to her?



Write an imaginary first-person narrative, short story, soliloquy, or short play about this experience. Or make a short film, write a song, or use the visual arts to try to render this experience from the inside out. Of course there will be many cultural details that you will not be able to render accurately. But try to use your imagination and empathy to place yourself in this person’s position as closely as you can.

Or explore the experience of school failure from one of these perspectives:

- ➔ a child from a refugee camp in a war-torn region who fails to pass his school exams.
- ➔ a child from a slum in one of the “megacities” of the world – Mumbai, Rio de Janeiro, Beijing.
- ➔ a child from a poor urban neighborhood in the United States.
- ➔ a young person in your own school.

7 AN ANTHROPOLOGIST FROM MARS

Stand firm in your refusal to remain conscious during algebra.

In real life, I assure you, there is no such thing as algebra.

– Fran Liebowitz, “Tips for Teens”

Anthropologist Wade Davis’s favorite thought experiment is to try imagine you were an anthropologist from Mars attempting to understand your own culture. Why do we do the things that we do? Which of our behaviors really make sense, and which are simply the rituals of our culture that might not make sense to other people?

One thing our Martian anthropologist might remark on is an unusual rite of passage in modern societies called “algebra.” Almost all modernized people, she would note, spend years of their youth learning something called “algebra,” and then almost all of them promptly begin to forget it. A small percentage of adults actually use algebra in the course of their work, but the vast majority of adults never use this knowledge again once they leave school.

Why do we do this, the anthropologist might ask? What is the function of this unusual ritual? Why don’t we spend our time and energy learning things that we plan to actually remember and use?

LOOK AT THESE FACTORS:

- Many modern people would explain to the anthropologist that mathematics “teaches them how to think.” They believe that it provides practice in logic and problem-solving that will translate into other areas of their lives. Is this true? Is there evidence that modern Americans, for example, who all take algebra, think better or behave more logically than traditional Ladakhis, who did not? What do you think that the anthropologist would find?
- Is learning algebra a universal good, or is it a specific cultural practice of our own society? Should people from all other cultures learn algebra (and then forget it) because we do? What might be some alternatives that other cultures might prefer to choose?

ACTIVITY #1

Write and perform a sketch or make a short film in the style of PBS documentary about a team of anthropologists (Martian or otherwise) coming to study education in your society. Have the anthropologists observe and interview the “natives” of this unusual culture, and the ways they train and initiate their offspring into adulthood. What would they find?

ACTIVITY #2

Conduct your own anthropological research into the education practices of your culture, and then write a report of your findings. To try to understand why modern teenagers all study algebra, for example, use the following questionnaire as a starting point, and then expand with your own ideas (or create your own questionnaire to examine another cultural practice.) Have fun with this, but at the same time use it to seriously question which of our cultural values for education are universal and which are perhaps somewhat arbitrary.

$$3x = 3x + 6(x^2 + 15) - 48x$$

1. Ask a sample of adults from your culture to solve for x in equation above. (Solution on Page 44)
2. Record the reactions that people have when asked to perform this task. Are they happy to do it, interested, reluctant, embarrassed, annoyed?
3. What percentage of adults can correctly solve the equation?
4. When was the last time they used this type of equation? What percentage have used it since high school? Since college?
5. Record the uses, if any, that your interviewees have for this type of equation.
6. For those who do not use it, what percentage can name one practical purpose for it?
7. Ask them why they feel they learned this material. Do they feel they have benefited from it? If so, in what ways? If not, why not?
8. If they could have spent the time spent learning algebra on learning something else, what would it have been?
9. Now ask a sample of teenagers to solve the same equation.
10. What percentage can correctly solve it?
11. What percentage believe they will use this type of equation after high school? After college?
12. What percentage can name one practical purpose for doing this type of equation?
13. Ask them why they feel they are learning this material. Do they feel they have benefited from it? If so, in what ways? If not, why not?
14. If they could spend the time spent learning algebra learning something else, what would it be?
15. Present your findings and then discuss them.

8 MENTAL AID

In traditional Ladakh, children learned Buddhist philosophy and practice, organic farming, sustainable building, natural textile production, sustainable water and waste management, and the traditional songs, stories, arts, and crafts of their people. Today, in modern schools, Ladakhi children learn academic subjects like algebra, chemistry, history, literature, and physics.

- Which do you think is a better curriculum? Which would you personally find more useful? Organic farming or chemistry? Pre-calculus, or Buddhist philosophy and practice? Why do we choose the required subjects that we do? Are we sure that we're choosing – and excluding – the right things?
- Should people in all cultures around the world follow the same curriculum? Or is there a benefit to fostering the different kinds of knowledge that are developed within different societies?
- If we are going to build Western-style schools in Ladakh, should Ladakhi people come over to our countries and teach our children the things that they know? What would we think if a foreign aid team of Ladakhis came here to advise us on the education of our children?

ACTIVITY #1

Write and perform a sketch or make a short film about a team of Ladakhi “foreign aid” workers coming to advise and assist with the education of children in your neighborhood. Follow them as they examine the current state of education in your country; have them question children and teachers about their daily activities and goals; and have them implement broad changes in your school based on their beliefs. What would those changes be? How would students and teachers react?

ACTIVITY #2

Divide into two groups and have a debate. Have one side argue for the benefits of bringing modern education to places like Ladakh. Have the other side make the case for the benefits of bringing a traditional Ladakhi education to the developed countries. Make sure you discuss the impacts of each style of education on:

- ➔ intellectual and artistic achievement
- ➔ environmental sustainability
- ➔ social and economic justice
- ➔ community health and cohesion
- ➔ individual happiness





9 HUMAN + NATURE

Even a cursory examination of the numerous problems facing modern technological societies and the failure of modern education systems to find solutions to these problems, which are essentially moral and ethical in character, suggests something is fundamentally amiss in the dominant education systems of the United States. The conflict between Western science and religion, and the inability of the vast majority of Western thinkers to find a common ground or consistent intellectual framework, speak directly to the central problem with Western metaphysics; the failure to produce a coherent worldview encompassing the processes of the world and how we humans find meaning in these processes.

— Daniel Wildcat

Power and Place, Indian Education in America

The world will not evolve past its current state of crisis by using the same thinking that created the situation.

— Albert Einstein

What your people call your natural resources, our people call our relatives.

— Oren Lyons, Onondaga Faithkeeper

Western educators tend to think of science and environmental education as the way to raise a generation of children who will protect and restore our natural ecosystems. But as Wade Davis points out, the ethical and spiritual frameworks of indigenous societies have long created ways of life that are both satisfying and in balance with the natural world. Dolma Tsering describes how Ladakhi children were traditionally

taught not to dirty the water both for practical reasons – because they needed it for drinking – and for spiritual reasons – because water was an offering to the deities.

Modern environmental science is both fascinating and important. But is teaching environmental science in a classroom setting the best or only way to foster an attitude of environmental stewardship? Does everyone need to learn about nature from a Western scientific point of view?

THINK ABOUT THESE FACTORS:



- Look at the faces of the students in the environmental science class in *Schooling the World* as their teacher explains to them that Ladakhi vegetation is xerophytic, or that human beings are part of the ecosystem. Does this way of thinking about nature seem to be affecting them positively?



- How do you think it will impact their behavior and future choices? Are their lives likely to be more or less in balance with the natural environment than their parents' and grandparents' lives? Is this class a good replacement for their elders' knowledge of sustainability?



- How often does school knowledge trigger a greater concern for the environment? What is the difference between environmental knowledge gained in a classroom setting and environmental knowledge gained by time spent in nature?

- Conservation groups have begun to realize that detailed knowledge about ecosystems and conservation is encoded in the spiritual beliefs, stories, and rituals of indigenous people. When a mountain is viewed as sacred, or a forest as the abode of deities, or an animal as a spirit guide or clan member, appropriate and intelligent conservation behavior tends to follow. Modern science, which views nature in a more mechanistic, materialistic way, can produce either environmental conservation or exploitation and destruction. What can modern people learn from the indigenous way of understanding nature? Should indigenous beliefs be viewed as mere superstition?
- Indigenous people generally have an encyclopedic knowledge of their local ecosystems, including the behavior and personalities of local animal species, the nutritional and medicinal properties of plants, and subtle patterns of weather, water, and seasons that would be invisible to most modernized people. A tribal person in New Guinea can identify 70 species of birds by their songs; a shaman in the Amazon can identify a thousand species of medicinal plants and which preparations will enhance their chemical potency in the human body; a traditional Polynesian navigator can detect an island a hundred miles away by a pattern in the waves and the behavior of birds. Much of this knowledge is lost in the first generation of children who go to school instead of growing up in the traditional way; more is lost with each succeeding generation. Can this kind of knowledge be replaced by scientific knowledge learned in a classroom? What is lost when this occurs?
- Some might suggest that children can go to school and still learn traditional knowledge. But the depth and breadth of indigenous knowledge derives from the fact that most traditional children essentially spend their entire childhoods out in the natural world – something that is simply incompatible with full-time schooling as we know it. Is it possible that it is worthwhile for some people to do this while others go to school? Is it possible to see this type of education as equal in value and status to a school education, as a perfectly acceptable alternative to conventional schooling?

ACTIVITY:

Spend an hour outside in a natural environment familiar to you. How many plants, birds, or animals can you identify? How many do you feel that you know by sight, although you do not know them by name?

Take photographs of as many different plants as you can distinguish in a one-hour period. Ask your friends, relatives, teachers if they can help you identify any of them, to see how much plant knowledge is embedded in your local community. Use guide books or the internet to try to identify the rest. How many plants can you identify? What would it be like to know each plant and animal in your local environment the way you know your friends and relatives?



10 OTHER WAYS OF KNOWING

In her study of the Baiga, a tribe in India known for its extensive knowledge of medicinal plants, Padma Sarangapani argues that the foundational character and epistemology of indigenous knowledge is so incompatible with the culture of schooling that it is better *not* to try to include it in the school curriculum:

Baiga villages can be regarded as epistemic communities (Holzner, 1968) engaged with the application and the transmission of medicinal knowledge.... In Baghmara village, for instance, virtually all the adults have a fairly extensive knowledge of the trees and plants in the forest, and varying degrees of knowledge about the medicinal properties of various plants. Children, both boys and girls, from the age of about five or six years can identify several of the more common medicinal plants around the village... By the age of about eight or nine years, the scope of the child's environment and knowledge both widen quite dramatically. On some of our visits together to the forest, they named over 60 plants with medicinal properties, and many more that bore fruits that could be eaten or were useful. They stopped their list out of consideration for me because I could no longer keep track...

From a very young age children exhibited an awareness of the forest landscape in its details. It was first and foremost a landscape of edible things and full of objects of human interest—useful plants and trees, plant roots and fruit and animals to eat, plants, insects and animal activity to be noticed and perhaps to be careful and wary of. Names of many plants and insects were known to a high degree of specificity; e.g. koilad and kachnar were names for two kinds of trees which were identical in every respect save that the former had leaves that were edible and the other did not, and while most Baiga could distinguish between two types of bamboo, some could distinguish between five types.

But the Baiga learning tradition differs markedly from the structure of contemporary schooling in ways that are typical of traditional indigenous societies:

...This includes features such as context embeddedness of thought and activity, aggregative and cumulative organisation of thought rather than analytical categorisation, and learning through performance of real tasks rather than abstract learning tasks.... Along with this, one must also recognise features that are linked to the subsistence economy. One is that childhood (after infancy) is not clearly differentiated from adulthood, so that while children are integrated into productive work at an early age, adults retain a childish playfulness. Another is the non-hierarchical structure of society and non-authoritarian structure of the family. The acceptance of children's volition and initiative is linked to a production process where children's labour is valuable and valued.

And by contrast:

The institution of the modern school is based on different premises regarding the nature of knowledge, learning and childhood. The literate tradition which is foundational to the modern school necessarily presents knowledge 'out of context', not directly experienced. Schools teach how to act on a modelled world—not the real world... Furthermore there is also an authority inherent in the pedagogic device of the formal school. Learning is ... privatised and competitive.

...My purpose in presenting this contrast is to suggest that the Baiga knowledge tradition, at least in its present form, cannot survive in the modern school institutional structure.....One could consider generating from Baiga knowledge learning tasks that could be carried out in the school; for example, taxonomic and herbarium-like tasks. But turning each plant into an object to be observed and talked about may amount to simplifying or trivialising the way in which the

plant is known in a living dynamic culture, or accord it with properties and dimensions that are of no interest and perhaps even distracting in the Baiga system.

*The survival of indigenous knowledge systems is probably better assured by being kept out of the purview of the formal modern educational system.
(Sarangapani, 203-207)*

- What do you think of the idea that there are some kinds of knowledge that will survive better outside the school system than within it? Does the structure of schooling alter the experience of the thing being learned?
- Think about something that you have learned to do and enjoy outside of school. Would it change by being included in a school curriculum? How?
- Local authorities often complain about “truancy” among Baiga children, because the children generally do not enjoy school and the parents do not force them to go. If the Baiga can sustain themselves comfortably using their traditional knowledge, should their children be forced to go to school? Should Native American children in the 19th century have been forced to go to school? Why or why not?



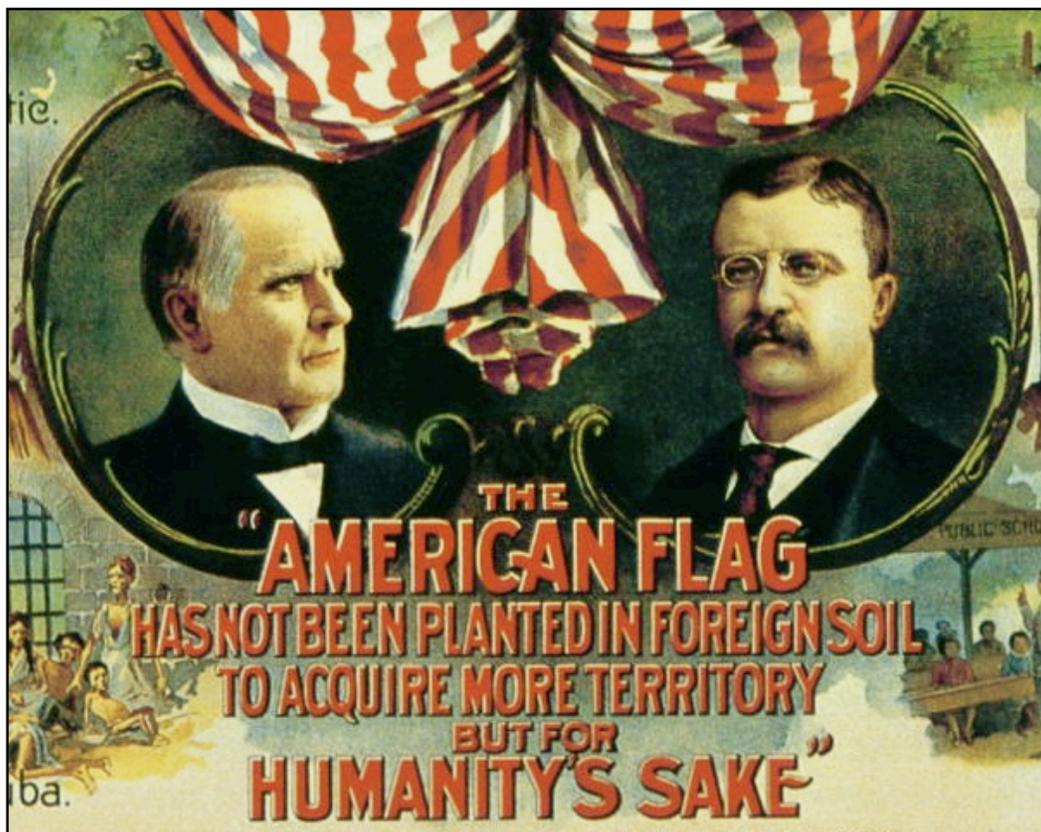


II “FOR HUMANITY’S SAKE”

When U.S. President William McKinley made the decision to take control of the Philippines in 1898, education was part of his plan from the beginning. The idea of providing schooling to the Filipinos was part of McKinley’s political strategy of presenting the conquest of the Philippines as a humanitarian effort. According to Howard Zinn in *The People’s History of the United States*, McKinley recounted to a group of ministers how he came to his decision:

I walked the floor of the White House night after night until midnight; and I am not ashamed to tell you, gentlemen, that I went down on my knees and prayed Almighty God for light and guidance more than one night. And one night late it came to me this way—I don’t know how it was, but it came.....

... That we could not leave them to themselves—they were unfit for self-government.... That there was nothing left for us to do but to take them all and to educate the Filipinos, and uplift and civilize and Christianize them, and by God’s grace to do the very best we could by them, as our fellow men for whom Christ also died. And then I went to bed and went to sleep and slept soundly. (Zinn, 313)





According to Zinn, "The Filipinos did not get the same message from God." They resisted American rule, and it took the United States three years and over 500,000 Filipino deaths to crush the rebellion.

- Do you think that McKinley was sincere in his altruistic feelings, or was he using the idea of education to forward his political and economic goals?
- Rudyard Kipling's poem, "The White Man's Burden" describes the Filipinos as "new-caught, sullen peoples, half devil and half child." How did this attitude translate into U.S. policy?
- Are there other historical or contemporary examples of nations justifying military action by claiming altruistic goals and using education as part of a program of humanitarian "aid?"
- How do you think the Filipinos felt about being "educated, uplifted, and civilized" by the United States?



12 AN ANTHROPOLOGIST FROM THE FUTURE



THE WHITE MAN'S BURDEN.—*The Journal, Detroit.*

When we look today at some of the historical images in the film, it's hard to believe that people really saw things in that way. And yet, only 100 years ago, most Europeans and Americans of European descent truly believed that indigenous people were “savages,” and that the kindest thing they could do was to “educate” and “civilize” them away from their own cultures and assimilate them into white society.

At every stage of modern history, people tend to think that they have arrived at the apex of knowledge, culture, and civilization. Then, a few decades or a century later, their attitudes and actions appear almost incomprehensible to those who come after them.

- Which of our current educational practices will stand the test of time? Which will appear primitive, inappropriate, unjust, or comical to our descendants?

- Will future generations agree with mainstream international aid agencies that every child on the planet should have the same kind of education? Will they value traditional indigenous knowledge more or less than we do now?
- At every point in history, there are a few individuals or small groups of people who dissent from widely held mainstream beliefs. Mark Twain, for example, was vocally opposed to U.S. imperialism in Cuba and the Philippines, and satirized the attitude of those who believed that it was the “white man’s burden” to educate and civilize indigenous peoples. How often is it humorists like Twain who have the most clear-eyed critiques of the belief systems of their times? Look up Mark Twain’s descriptions of school at the beginning of “Huckleberry Finn,” and compare them to the images of schools in the montage of comedy films – “Ferris Bueller’s Day Off,” “Dazed and Confused,” “The Simpsons” – in ***Schooling the World***. Are there serious points about education being made by these comedic portrayals of schools? How will they appear to future generations?



The painting above, called “American Progress” (John Gast, 1872), shows a white woman drifting across the plains of the American West. White settlers, trains, and telegraph wires follow her; Indians and wild animals flee. On her forehead she wears the star of Empire; in her right hand she carries a school book.



“SCHOOL BEGINS”

UNCLE SAM (to his new class in Civilization) — Now, children, you’ve got to learn these lessons whether you want to or not! But just take a look at the class ahead of you, and remember that, in a little while, you will feel as glad to be here as they are! (Puck Magazine, 1899)



13 A DEEPER DIALOGUE

Some might suggest that the film “Schooling the World” is romanticizing traditional cultures, glossing over very real problems like infant mortality and infectious disease in order to present an idealized view of traditional life.

But perhaps the fundamental point of the film is that we are romanticizing our own culture and our version of education when we export it overseas. Despite the mountains of evidence cited by critics like Sir Ken Robinson of the damage done to children’s creativity in schools, or the evidence of persistent failure and social injustice illustrated in films like “Waiting for Superman,” when we raise money to build a school in Africa or Nepal, suddenly we see our form of schooling as a rosy vision of enlightenment and opportunity. We take pictures of happy uniformed schoolchildren raising their hands excitedly in class, crowded around their young attractive teacher, reading and singing and playing soccer. It makes us feel very good about ourselves to look past the institution’s dark side and believe that we are simply bringing the wonderful gift of learning to the “deprived” children of the world.

In reality we are bringing a complex set of changes, including profound and intransigent problems like the tragic failure rate, along with the opportunities that we intend to offer. And we do this with enormous blindness to the depth, breadth and complexity of the knowledge systems that we are displacing and more often than not destroying.

But as we romanticize ourselves and all that we have to offer, at the same time we are romanticizing traditional people in a different way, seeing them not as our intellectual equals, as complex human beings with strengths and weaknesses quite parallel to our own, but as somehow childlike and innocent, ignorant and in need of our tutelage, sometimes happily and gratefully receiving our bounty, sometimes stubbornly refusing it.

In reality many traditional people are making calculated judgments about the potential economic benefits of schooling, often funneling some of their children into the school system and the cash economy and keeping others at home to protect and work the land and continue the cultural life of the family. One of the arguments of the film, however, is that the economic benefits of schooling have been vastly oversold, and families are giving up their land and houses, getting into debt, and losing their cultures, only to find that the fabulous wealth they had hoped for remains out of reach. This, of course, is a problem that is touching families in the developed world as well.

So how can we move beyond romanticizing either side of this cultural confrontation and have a deeper conversation about the choices that lie open before us?

- First of all, can we let go of the idea that it is up to us to figure out what everybody in the world should do and how they should raise and educate their children? Can we let go of thinking that it is our job to have all the answers? Can we accept the idea other people might choose to emulate our way of life, or they might choose to go in very different directions, for very good reasons of their own – reasons which we may or may not fully understand?
- Can we look honestly at the pros and cons of our way of life, and accept that when we export the good aspects of our society we will usually be exporting its bad aspects as well? Can we place our actions in a richer, more complex context, in order to try to understand their unanticipated consequences?
- Can we look more realistically at the trade-offs that occur when people move from traditional to modernized life? For example, traditional people generally have higher infant mortality rates and more death from infectious disease than people in the modernized world; but developed societies may have higher rates of diabetes, heart disease, suicide, traffic deaths, and deaths from drug and alcohol addiction. The bottom tiers of the global economy have the greatest health problems of all, but this is where indigenous children will end up if they fail to pass their school exams. Can we research issues like this in order to see if our intentions and actions are likely to yield the desired result?
- Can we look deeply at the institution of school as part of a larger economic and cultural system, and how its structural features may be related to the persistent problems that we face? Can we question how the school failure rate is connected to the larger problem of wealth and poverty in the developed

world? How the separation of children from nature and the fragmentation of knowledge in schools contribute to the environmental destruction developed economies leave in their wake?

- When we see the picture of the girl from a traditional village who excelled in school and became a doctor, can we remember to ask what happened to all the other children in her village? When we talk about the successes of our own education system, can we remember to think about the 50% failure rate in American cities? Any system that puts millions and millions of children on an economic discard pile must be questioned deeply. Can we move past assuming that this branding of children as failures is inevitable and begin to talk seriously about alternatives, for developed societies as well as for the traditional world?
- Can we move past thinking only in terms of what we want to teach and begin to think about what we can learn? Rather than romanticizing indigenous people *or* our own societies, can we approach our contacts with other cultures with the understanding that all people have strengths and weakness, all people have insights and blind spots, all people can learn from one another – but that the best learning will take place in the context of a respectful, open-minded, open-ended dialogue *between equals*?
- And finally, can we remember that what Wade Davis calls “the ethnosphere” thrives on diversity just as the biosphere does? Just as any genetic population can begin to evolve in an unhealthy direction if it is inbred and isolated, any culture, whether large or small, can drift into a state of imbalance. It is difference, diversity, that creates a pool of cultural options that may help us to survive and thrive under changing circumstances. If a traditional society has no cure for a child with scoliosis, our culture may be able to contribute a medical procedure that can help. But by the same token, if our way of raising children is leading to high rates of depression and stress-related illness, traditional cultures may be able to teach us ways of nurturing children that lead to greater emotional security and happiness. There are many, many questions we can ask each other. Can we begin asking them?



STATISTICS FROM THE FILM

16,000,000 U.S. children suffer from depression and other emotional problems

1,600,000 are currently on 2 or more psychiatric drugs

69,000 girls between 13 and 19 regularly cut themselves

78 U.S. children have been killed or wounded in school shootings in the past 8 years

120,000 have tried to kill themselves in the past 12 months

55.5% of U.S. high school students believe the government should not be able to censor newspapers

32.5% believe the government should censor newspapers

12% don't know

Percentage of American public school students who FAIL TO GRADUATE FROM HIGH SCHOOL:

New Orleans **46.6%**

Kansas City **54.3%**

Detroit **78.3%**

Atlanta **54%**

Dallas **53.7%**

Chicago **47.8%**

Pittsburgh **35.9%**

Los Angeles **55.8%**

New York City **61.1%**

15,500,000 U.S. children live in poverty

Since the film came out, a new study from the National Institutes of Mental Health found that around half of US teens meet the criteria for a mental disorder:

Fifty-one percent of boys and 49 percent of girls aged 13-19 have a mood, behavior, anxiety or substance use disorder, according to the study published in the Journal of the American Academy of Child and Adolescent Psychiatry.

In 22.2 percent of teens, the disorder was so severe it impaired their daily activities and caused great distress, says the study led by Kathleen Merikangas of the National Institutes of Mental Health (NIMH).

"The prevalence of severe emotional and behavior disorders is even higher than the most frequent major physical conditions in adolescence, including asthma or diabetes," the study says.



QUOTATIONS USED IN THE FILM

“To civilize the Indians...immerse them in our civilization... and when we get them under...hold them there until they are thoroughly soaked.”

– **General Richard Pratt, founder of the Carlisle Indian School**

“Let all that is Indian within you die.”

– **Carlisle Indian School commencement speech**

“We must at present do our best to form...a class of persons, Indian in blood and colour...but English in taste, in opinions, in morals, in intellect.”

– **Lord Macaulay’s “Minute on Indian Education”**

“School forcibly snatches away children from a world full of God’s own handiwork ...It is a mere method of discipline which refuses to take into account the individual...a manufactory for grinding out uniform results. I was not a creation of the schoolmaster: the Government Board of Education was not consulted when I took birth in the world.”

– **Rabindranath Tagore, 1927 Nobel Prize Winner for Poetry**

A general State education is a mere contrivance for molding people to be exactly like one another: and as the mold in which it casts them is that which pleases the predominant power in the government...it establishes a despotism over the mind, leading by a natural tendency to one over the body.”

– **John Stuart Mill, “On Liberty”**

“Modernization... proceeds at a limited pace within a society still characterized by traditional low-productivity methods, by the old social structure and values... The population at large must be prepared to accept training for an economic system which increasingly confines the individual in large, disciplined organizations allocating to him narrow, specialized tasks.”

– **Walt Rostow, “The Stages of Economic Growth,” 1960**

“Our schools are, in a sense, factories, in which the raw materials – children – are to be shaped and fashioned into products... The specifications for manufacturing come from the demands of 20th century civilization, and it is the business of the school to build its pupils according to the specifications laid down.”

– **Ellwood P. Cubberly, Dean,
Stanford University School of Education, 1898**

“In our dreams, people yield themselves with perfect docility to our molding hands.”

– **John D. Rockefeller, General Education Board, 1906**

“As the mass of population are uneducated, illiterate, they will remain backward, and follow old and religious superstitions.”

– **Ladakhi economics textbook**

“As majority of people are illiterate (sic) and backward, their standard of living is low as compared to their counterparts who are well educated and advanced.”

– **Ladakhi economics textbook**

“You are in the process of being indoctrinated. We have not yet evolved a system of education that is not a system of indoctrination.... What you are being taught here is an amalgam of current prejudice and the choices of this particular culture. The slightest look at history will show how impermanent these must be.”

– **Doris Lessing, 2007 Nobel Prize Winner for Literature**

“The great purpose of school can be realized better in dark, airless, ugly places. It is to master the physical self, to transcend the beauty of nature. School should develop the power to withdraw from the external world.”

– **William Torrey Harris, U.S. Commissioner of Education 1889-1906**

“It is, in fact, nothing short of a miracle that the modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry; for this delicate little plant, aside from stimulation, stands mainly in need of freedom.”

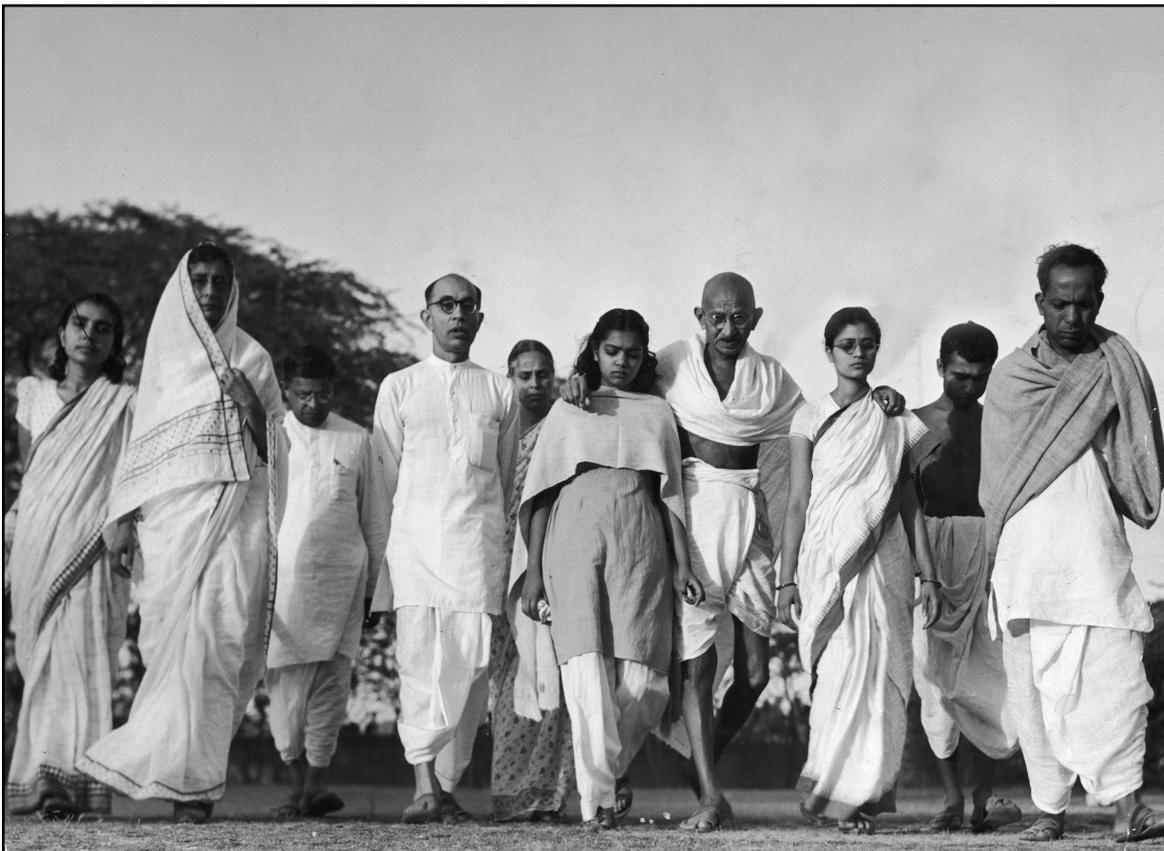
– **Albert Einstein**

“Education...makes a straight-cut ditch of a free, meandering brook.”

– **Henry David Thoreau**

“Real freedom will come only when we free ourselves of the domination of Western education, Western culture, and the Western way of living.”

– **Mahatma Gandhi**



“Education is a compulsory, forcible action of one person upon another. Culture is the free relation of people... The difference between education and culture lies only in the compulsion, which education deems itself in the right to exert. Education is culture under restraint. Culture is free.”

– Leo Tolstoy



ADDITIONAL RESOURCES

ARTICLES

Alessa, Lilian Na'ia. "The Other Way of Knowing." Cultural Survival Quarterly. 33-3 Fall 2009.
<http://www.culturalsurvival.org/print/8752>

Ford, Peter. "China's Ant Tribe: Millions of Unemployed College Grads," Christian Science Monitor
 21 Dec. 2009. [China's Ant Tribe: millions of unemployed college grads - CSMonitor.com](http://www.csmonitor.com/China's-Ant-Tribe-millions-of-unemployed-college-grads)

Ginsburg, Oren. There You Go! Survival International. [Survival International - The movement for tribal peoples](http://www.survivalinternational.org/movement)

"National Survey Confirms that Youth are Disproportionately Affected by Mental Disorders"

National Institute of Mental Health, Sept. 27, 2010

<http://www.nimh.nih.gov/science-news/2010/national-survey-confirms-that-youth-are-disproportionately-affected-by-mental-disorders.shtml>

Ponnaru, Ramesh. "The Case Against College Education." Time Magazine 24 Jan. 2010.
[College Education, Good Jobs: Why Degrees Are Overrated - TIME](http://www.time.com/time/magazine/article/0,9171,716117,00.html)

Sarangapani, Padma. "Indigenising Curriculum: Questions Posed by Baiga *Vidya*." Comparative Education 39.2 (2003): 199-209. http://www.swaraj.org/shikshantar/resources_padma.pdf

BOOKS

Bogle, Kathleen. Hooking Up: Sex, Dating, and Relationships on Campus. New York, NYU Press, 2008.

Cajete, Gregory. Look to the Mountain: An Ecology of Indigenous Education. CO, Kivaki Press, 1994.

Davis, Wade. The Wayfinders: Why Ancient Wisdom Matters in the Modern World. House of Anansi Press, 2009

Deloria, Vine and Daniel R. Wildcat. Power and Place: Indian Education in America. CO, Fulcrum, 2001.

Hinshaw, Bill. The Triple Bind: Saving Our Teenage Girls from Today's Pressures and Conflicting Expectations. N.P, Ballantine. 2009.

Norberg-Hodge, Helena. Ancient Futures: Learning from Ladakh for a Globalizing World. Sierra Club Books 2009.

Small Meredith. KIDS: How Biology and Culture Shape the Way We Raise Young Children. Anchor, 2002

Small, Meredith. Our Babies, Ourselves: How Biology and Culture Shape the Way We Parent. Anchor, 1999.

SOLUTION TO ALGEBRA PROBLEM ON PAGE 24

$$3x = 3x + 6(x^2 + 15) - 48x$$

Simplifying

$$3x = 3x + 6(x^2 + 15) + -48x$$

Reorder the terms:

$$3x = 3x + 6(15 + x^2) + -48x$$

$$3x = 3x + (15 * 6 + x^2 * 6) + -48x$$

$$3x = 3x + (90 + 6x^2) + -48x$$

Reorder the terms:

$$3x = 90 + 3x + -48x + 6x^2$$

Combine like terms: $3x + -48x = -45x$

$$3x = 90 + -45x + 6x^2$$

Solving

$$3x = 90 + -45x + 6x^2$$

Solving for variable 'x'.

Reorder the terms:

$$-90 + 3x + 45x + -6x^2 = 90 + -45x + 6x^2 + -90 + 45x + -6x^2$$

Combine like terms: $3x + 45x = 48x$

$$-90 + 48x + -6x^2 = 90 + -45x + 6x^2 + -90 + 45x + -6x^2$$

Reorder the terms:

$$-90 + 48x + -6x^2 = 90 + -90 + -45x + 45x + 6x^2 + -6x^2$$

Combine like terms: $90 + -90 = 0$

$$-90 + 48x + -6x^2 = 0 + -45x + 45x + 6x^2 + -6x^2$$

$$-90 + 48x + -6x^2 = -45x + 45x + 6x^2 + -6x^2$$

Combine like terms: $-45x + 45x = 0$

$$-90 + 48x + -6x^2 = 0 + 6x^2 + -6x^2$$

$$-90 + 48x + -6x^2 = 6x^2 + -6x^2$$

Combine like terms: $6x^2 + -6x^2 = 0$

$$-90 + 48x + -6x^2 = 0$$

Factor out the Greatest Common Factor (GCF), '6'.

$$6(-15 + 8x + -1x^2) = 0$$

Factor a trinomial.

$$6((-5 + x)(3 + -1x)) = 0$$

Ignore the factor 6.

SUBPROBLEM 1

Set the factor ' $(-5 + x)$ ' equal to zero and attempt to solve:

Simplifying

$$-5 + x = 0$$

Solving

$$-5 + x = 0$$

Move all terms containing x to the left, all other terms to the right.

Add '5' to each side of the equation.

$$-5 + 5 + x = 0 + 5$$

Combine like terms: $-5 + 5 = 0$

$$0 + x = 0 + 5$$

$$x = 0 + 5$$

Combine like terms: $0 + 5 = 5$

$$x = 5$$

Simplifying

$$x = 5$$

SUBPROBLEM 2

Set the factor ' $(3 + -1x)$ ' equal to zero and attempt to solve:

Simplifying

$$3 + -1x = 0$$

Solving

$$3 + -1x = 0$$

Move all terms containing x to the left, all other terms to the right.

Add '-3' to each side of the equation.

$$3 + -3 + -1x = 0 + -3$$

Combine like terms: $3 + -3 = 0$

$$0 + -1x = 0 + -3$$

Combine like terms: $0 + -3 = -3$

$$-1x = -3$$

Divide each side by '-1'.

$$x = 3$$

Simplifying

$$x = 3$$

SOLUTION

$$x = \{5, 3\}$$