

DO NOT WRITE ON THIS SHEET.

The Story of Stuff: Are We Consuming our Biosphere?

Objectives

- Explore the “hidden costs” of common products by viewing and discussing “The Story of Stuff” production.
- Assess the impacts of consumption on the environment, social equity, and the economy.

Background

Private consumption by households increased fourfold between 1960 and 2000, when it reached more than US \$20 trillion. The 12% of the world’s people living in North America and Western Europe account for 60% of the consumption, while the one-third living in South Asia and sub-Saharan Africa account for less than 4%. The richest 20% in the world account for 86% of total private consumption; the poorest 20% account for only 1.3%.

In 2004, the United States accounted for less than 5% of the world’s population and 33% of global consumption. The rise in consumption has not led to a rise in happiness among U.S. consumers. About a third of people in the U.S. report being “very happy,” the same share as in 1957, when they were only half as wealthy. Americans are also some of the most overworked people in the industrial world, putting in the equivalent of nine more weeks on the job each year than the average European.

The average person living in the United States uses 300 shopping bags worth of raw materials every week – weighing as much as a luxury car. We would need the resources of three planets for everyone on Earth to live as people in the United States do. If resources were shared equally, everyone on the planet would have the lifestyle of an average Italian. We are targeted by over 1500 commercial messages a day, up from 560 per day in the 1960s. Advertisers are increasingly targeting young people. Companies spend more than \$200 billion on advertising in the U.S. each year (and \$435 billion worldwide). Less than \$50 billion a year could provide adequate food, clean water, and basic education for the world’s poorest. People around the world spend much more than this amount on makeup, perfume, pet food, ocean cruises and ice cream.

The ecological footprint (the amount of earth’s surface that it takes to provide everything each person uses) of the average person in the United States is about 12 times larger than the footprint of the average inhabitant of India. So the 4.1 million babies born in the United States this year will have almost the same impact on earth as the 27.6 million babies born in India.

The world’s richest countries make up only one-fifth of global production but account for 45% of all meat consumption, 58% of total energy use, 84% of paper use, and 87% of vehicle ownership. At the other end of the spectrum, the poorest fifth of the world’s population – more than one billion people – still lack food, shelter, housing, water and sanitation, and access to electricity.

Video: The Story of Stuff (<http://www.storyofstuff.org/movies-all/story-of-stuff/>)

As a scientist, it is important to think critically about material being presented to us, as often times the presenter has hidden agendas or biases. As we watch the video, write down any statements Annie makes that you feel many have stretched the truth to support her purpose. Record any instances where she may not be giving us the entire picture.

Discussion Questions

EXTRACTION

- Annie says, “In this system, if you don’t own or buy a lot of stuff, you don’t have value.” Do you feel this is a concern? If so, in what ways?

PRODUCTION

- About how many synthetic chemicals are in use today? Why is this is a concern?

DISTRIBUTION

- What are some of the “external costs” associated with the products we consume? Should the price of goods include these external costs?

CONSUMPTION

- Victor Lebow said, “Our enormously productive economy...demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we see our spiritual satisfaction, our ego satisfaction, in consumption...we need things consumed, burned up, replaced, and discarded at an ever-accelerating rate.” Do you agree with this quote? Is this how the American economy works?
- Do you feel like our society is based more on “planned obsolescence or perceived obsolescence”? Explain why.

DISPOSAL

- Is Annie telling us the complete truth about incineration?
- Why is recycling “not enough” according to Annie?

ANSWERS

- Annie suggests a closed-loop production. What recommendations can you provide to address the environmental, along with economic and social concerns in this new economy?
- Read the review of “The Story of Stuff”. What are some possible sources of error regarding the information about consumption and waste presented by Annie Leonard in “The Story of Stuff.”
- Which perspective do you feel most adequately portrays the American lifestyle regarding “stuff” (Annie’s perspective or the reviewer’s perspective)? Explain.

Annie Leonard's "The Story of Stuff" Review and Analysis

(<http://www.andybrain.com/qna/2007/12/07/annie-leonards-the-story-of-stuff-review-and-analysis/>)

This article contains my thoughts and a short review of "The Story of Stuff". It seemed to me that Annie Leonard and The Story of Stuff primarily is a warning against consumerism and global corporations. This is bad and good at the same time. It's good because there were some valid points. It's bad because some parts sounded like extremism, and some were, I believe, simply incorrect. Here are my impressions on each aspect in The Story of Stuff:

EXTRACTION

- "We're running out of resources." True. We do need to focus more on renewable energy, and the political will just isn't there.
- "The USA is 5% of global population, but uses 30% of resources." The USA also produces 27% of the world's GDP. 30% of resources, 27% of GDP: this seems to be a good measure of efficiency, not waste.

PRODUCTION

"Toxics, toxics, toxics." It's more repetitious than a commercial. I felt like I was being manipulated through this section because of the focus on telling you that any big company's PRODUCTION produces TOXICS with zero benefit.

Now, for those who've noticed, there have been tons of recalls lately about lead-infused children's toys. This is a justifiable concern – these things are way above acceptable toxicity levels. Then Annie Leonard raised the freak-out level: We dip our pillows in BFR (brominated flame retardants), a horribly toxic man-made chemical, and we sleep on them! Not knowing anything about BFRs, I did some research on this. I found two things: One, BFRs are used primarily in electronics and electronics plastics. Things like computer circuit boards, the plastic casing around a TV set, around the rubber sheaths encasing wires in a computer, that kind of thing. And the BFRs are chemically bonded to those components. That means they're not flying into the air, we're not breathing them in. Two, I was unable to find any evidence of companies dipping pillows or pillowcases in BFRs before selling them. I find this quote interesting: "There is no federal standard requiring flame resistance of bed clothes, such as sheets, comforters, mattress pads and pillows. Additionally, the industry tends to avoid use of flame retardant chemicals on sheets, pillowcases and blankets because they have direct contact with skin".

Another study on BFRs makes this point: "These concentrations are low, but because BFRs have the potential to bioaccumulate and persist in the environment, there is cause for concern. Overall, the available literature on BRFs is incomplete and conflicting, emphasizing the need for more information on developmental effects, endocrine disruption, and longer term effects, including carcinogenesis."

Now, The Story of Stuff said that women in the USA (and Canada, which the video didn't mention) have the highest amounts of BFAs in their breast milk, compared to other countries. This, from what I can tell, is true. But remember: We also have lead in our bodies. And arsenic. And a whole bunch of other nasty things we pick up from our environment. This constant collection of toxic bits in our body even has a name: "Body burden". We all have it. The question is, at what point does it become dangerous? Just because we have detectable amounts of arsenic in our body, for example, does not mean we're in danger of dying from arsenic poisoning. I'm not necessarily disagreeing with Annie Leonard here, but I do think more research and facts are needed before I can completely agree with what she's saying.

DISTRIBUTION

A \$4.99 radio – how is it so cheap? So many parts and processes to make the radio MUST cost much more than \$4.99! What are the true costs of production? Answer: Mass-production and out-of-country factories. I don't discount everything she says about the hidden costs of the production itself, but come on now – if all production was in the USA, or if that radio's components weren't stamped out on a robotic assembly line with unskilled laborers snapping them together at dozens per minute, that \$4.99 radio would be exponentially more expensive.

A side-note here, since at this point in the video, we were treated to the Big Fat Corporate Guy with a Dollar Sign on his Chest further abusing the world for his own selfish gains. That's true. That's capitalism. But it's kept in check, ideally, by market competition and consumer demand (like what this video recommends). One thing that always frustrates me is that some people hate corporations, while still using their benefits. They hate big, nationwide or global-sized businesses. They want everything to be localized down to the mom-and-pop store level. Then they get in their car, use their computer or cell phone and send an email.

Those last things would either not be possible or affordable without big business. Without a corporation paying zillions for research and development, without mass-production, without a large production and distribution infrastructure, we arguably wouldn't have the Internet. We wouldn't have affordable cars with easily-repairable parts or computers and email. Forget those "consumer" products, and focus just on healthcare: Who do you think developed that flu shot and other disease inoculations? Or the heart stent procedure that probably saved the lives of multiple people in my family? AIDS and cancer research, the almost-worldwide eradication of polio, or (to use a specific example from someone I know) advances in knee implants, providing knee pain relief, faster recovery and less physical therapy, a wonderful alternative to total knee replacement? You can't have it both ways, denouncing a company while using its products to improve your life. I'm not saying corporate evils aren't there – they are – but I think people miss that big business does a lot of good, too.

The video mentioned planned obsolescence and perceived obsolescence. Fine. I understand the concepts, and can name ways I see this myself. But then she started talking about computers. You know when you're watching a movie, and when you see the movie, some plot point deals with something you're experienced at? Computers, science, psychology, medical issues, whatever – and the movie screws it up, either getting the point completely wrong, or dumbing it down into a non-sequitor mess? Well, that's what happened here. Computer technology does change fast. And in some cases, yes, this is planned obsolescence. But not in the way Annie Leonard described it: The "piece that changes" in a computer (the piece the video said triggers the obsolescence) is presumably the CPU. And it's just a "small corner piece". Well... no. If you want detail, let me know, and I'm happy to go into it. But for now, I'll just say, wrong:

- 1) A CPU replacement is not the way to effectively upgrade your computer performance.
- 2) There are valid reasons why one CPU can't simply be exchanged for a faster one.

Then the video brings up the flat screen monitor versus the big, "ugly" CRT monitor issue. Again, she missed some major advantages of the flat screen: A flat screen monitor is smaller (takes a lot less space on the desk) and its lighter. And, wait for it – A flat screen monitor USES LESS ENERGY than a CRT. I'm surprised how someone would still think the big CRT is just part of a planned obsolescence program, when the flat screen has so many advantages. Neither of these issues – the CPU or the monitor – is planned obsolescence. At worst, call this unplanned obsolescence due to technological advances. Perhaps a more understandable comparison would be a car: Annie Leonard is saying that because my car from ten years ago doesn't have the same performance as a modern car, it must be the fault of planned obsolescence on the part of the car company! I disagree. She did talk about fashion, about how media ads make us unhappy with what we have, and try to get us to buy, buy, buy. I do have some nitpicks about some of the details (contextual advertising is helpful, in my opinion), but for the most part I agree with what she said.

A couple of other points she made that forced me to raise my eyebrow:

- "National happiness is declining." Need more info, please. I looked for stats on this after the video ended. Didn't find them. I have a hard time believing this statement, since we have less disease, people are living longer, et cetera.
- "The average house size has doubled since 1970" I live in a house that was built in 1960. It's a good size (1250 square feet). But I really doubt the average house size these days is 2500 square feet. It depends on what market and income levels you look at, of course. I'm guessing you can pretty much make the "average" house size be anything you want.