

# CANNIBALIZING CHILDHOOD'S FUTURE AS RISING TO FALLING ROPE

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## ABSTRACT

With the relaxing of restraints on advertising to American children during the Reagan Administration, marketers have pulled out all the stops in targeting the young. This paper examines the commercial exploitation of childhood and consequences as a case-in-point of the 2<sup>nd</sup> Law of Thermodynamics at work. Drawing on physical chemist Peter W. Atkins' 2<sup>nd</sup> Law metaphor as heavier weight falling linked to lighter weight rising, we contend that revenue streams driven by sophisticated marketing to children is, in large measure, at the expense of childhood, families, and the nation's future. By systematically bracketing off all but the bottom line, we've become "a society that is eating its own children in the name of profit." But, if indeed, the rising corporate order satisfies the 2<sup>nd</sup> Law by using the lives of children and families as convenient sinks for dissipative effluents, what is the modus operandi? What is the rope linking the rising and falling weights in Atkins' metaphor? The proposed answer lies in evolving techniques capitalizing on an instinct that's so natural, it knee-jerk bypasses most, if not all, critical judgment. Formally it's called "the Principle of Least Effort," the urge to preserve what was once precious food energy by seeking out and indulging in shortcuts. The techniques are especially effective with children.

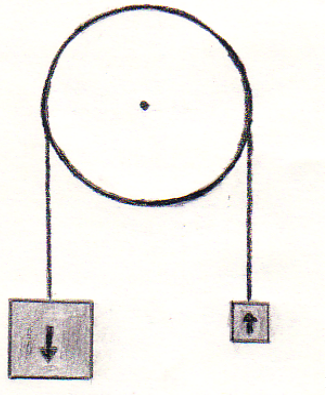
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## TWO WEIGHTS, A PULLEY, AND A ROPE

The commercialization of childhood shares more than a metaphorical connection to food webs that extend back to the origins of life. As the 2<sup>nd</sup> Law of Thermodynamics stipulates, you can't grab order anywhere, anytime, without munching on something. All living organisms have to eat. When we eat, we absorb order as usable energy and structured materials like protein, fat, carbohydrates, in our food. Plants feed on the sun. We feed on the plants that feed on the sun, or on the animals that feed on the plants that feed on the sun. Most species don't eat their own, though there are exceptions (a hungry male lion in times of scarcity will feed on his, or some other male's, cubs). Barring extreme situations of starvation, as with the Donner Party, stranded by an unexpected blizzard in the Sierra Nevada in the Fall/Winter of 1846-7, literal human cannibalism is, by and large, off the table. But, that doesn't mean there isn't a lot of dining going on.

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When we eat, we consume the means for creating and sustaining order both within ourselves, and in the world at large through well-organized individual and collective behavior. Because the 2<sup>nd</sup> Law insists that concentrating order one place must, and will be, paid for by dissipating it someplace else, the price of living is the disordering / killing of whatever is served up as our food (Arnheim, 1971; Atkins, 1984; Nicholas and Prigogine, 1989; Schneider and Kay, 1995; Schneider and Sagan, 2005; Schrödinger, 1945; Swenson, 1998).



**Figure 1.**

A good way to see this rising up linked to falling down is a metaphor of two weights connected by a rope wrapped around a pulley (Fig. 1). On one end of the rope hangs a weight. On the other end is another and heavier weight. Under the pull of gravity, the larger weight falls down, but its falling down allows the smaller weight to get pulled upward against the direction gravity would like it to go. Living organisms represent the weight going up. Food represents the weight going down. The rising weight of concentrating order, compensated by the falling weight of dissipated order, satisfies the 2<sup>nd</sup> Law and life moves on, evolves.<sup>2</sup> And has continued to evolve to the point where the rope linked rising to falling has transcended the realm of biological organisms and gone into the domain of social organisms, one of the most significant of these being the legal person called a corporation.

Public, for profit, corporations are legally bound to maximize profits for their owners, the shareholders (Bakan, 2005).<sup>3</sup> To acquire those profits in today's all-out competitive marketplaces, the corporation must do everything it can to optimize efficiency as the difference between money in – sales – and money out - costs. The successful company (Wal-Mart comes to mind) represents a super-concentration of order as highly organized,

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<sup>1</sup> For more on the metaphor, illustrated with two pulleys to better show what happens when the rope is cut, see (Atkins, 1984, 167).

<sup>2</sup> See (Corning, 2000) for a proposed alternative “thermoeconomic” view of the relationship between energy and evolution.

<sup>3</sup> While privately held companies are free to do what they want, competition will weed out all but the most bottom line focused. Non-profits still have to balance the books as the endless barrage of fund raising campaigns points out.

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purpose driven, energy, materials, and people. But, if indeed, the 2<sup>nd</sup> Law be true, and thus far no one, at the scale of our own lives, has ever found a violation, then where is the chaos compensating the risen corporate order? Who or what is paying the bill?

### **ENVIRONMENTS OF CONVENIENCE**

The answer is to be found in “the environments” surrounding, supporting, providing the inputs and receiving the outputs of whatever’s cranking out the profits. In what is usually considered “the environment,” non-renewable resources like oil and coal are being extracted and consumed. And like all biological organisms that have to get rid of what they don’t use, so too do corporate organisms have to dump the wastes of whatever’s not incorporated into their products. The environmental chaos of polluted air and water, both inside and outside China (a vast plume of China generated pollution year-round migrates across the entire Pacific Ocean to the U.S. west coast), spins off the massive pouring of order into products that far exceeds measures that deal with compensating dissipation (Hotz, 2007; Kahn and Yardley, 2007). The planetary fever called global warming is another case-in-point of our industrialized imbalance of attention, shoving dissipative impacts under the economists’ externalities rug (Beard and Lozada, 1999; Daly and Cobb, Jr., 1989; Georgescu-Roegen, 1971).

### **EATING OUR OWN FOR PROFIT**

But, there are other, not so easily recognized, environments of convenience that slip under the environmentalists’ radar. One of those environments is the child. The industrialized exploitation of childhood represents the extraction of order from children and the dumping of wastes into them. The sapping of childhood is the weight falling down. The absence of legal and effective restraint on the use and abuse of the most vulnerable has turned us into a society that is eating its own children in the name of profit.

Whereas not very long ago, in particular before the Federal Communications Commission under Ronald Reagan opened children up to all out marketing forces by deregulating children’s television, there was at least some respect for the sanctity of childhood, a kind of so far and no farther. No more. There are effectively no limits to how far corporations will go to sell their products, regardless. With the door wide open, the full firepower of science-fueled marketing is being aimed at consuming the young.

### **MINING THE RELATIONS**

In her book, *Consuming Kids: Protecting Our Children from the Onslaught of Marketing & Advertising*, Susan Linn zeroes in on one highly exploited technique marketers use to get parents to buy what they’re selling. It’s called “The Nag Factor.” The phrase is based on a 1998 media research study done not to help parents cope with nagging “but rather to help retailers exploit nagging to boost sales” (Linn, 2005, 33).

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One of the companies conducting the study, *Western International Media* (now *Initiative Media Worldwide*) issued a press release titled “The Fine Art of Whining: Why Nagging Is a Kid’s Best Friend.” In it, the researchers identify the brands of parents – “Indulggers,” “Conflicted,” “Bare Necessities,” “Kids’ Pals” – most vulnerable to nagging, the products most associated with nagging, and success rates (Western International Media, Cited in Linn, 33; see also Bakan, 119-24). The Nag Factor investigation revealed that 21% to 40% of jeans, burgers, and other products sales result from nagging. Four out of every ten trips to place-based entertainment venues like the *Discovery Zone* and *Chuck E. Cheese* result from pestering parents. Ditto for one out of three trips to fast food restaurants. The apparel sales pester pump up is 31%. For home video sales, it’s 30%. (Western International Media)

Because the Nag Factor study, as Linn notes, “found that ‘the impact of children’s nagging is assessed as up to 46 percent of sales in key businesses that target children,’” it generated a lot of marketing world attention (Morales cited in Linn, 34). A marketing newsletter *Selling to Kids* headlined a story “The Old Nagging Game Can Pay Off for Marketers” (Frazier cited in Linn, 35). The piece fastened on two-weeks of nag counting diary keeping by 150 mothers with children in the age range 3-8. The total nag count came to 10,000, an average of 66.67 nags per mom, 4.7 nags per mom per day. The study was further broken down into nag type: “persistence,” and “importance” (as in “all my friends have TV sets in their rooms, why can’t I?”).

Susan Linn wishes that “The Nag Factor,” or “pester power” as it’s also known in the trade, was some kind of anomaly. “It’s alarming,” she says, “to think that people would actually want to wreak havoc in families just to make a buck.” Far from being the exception, it is just doing business as usual. Linn quotes the senior brands manager for Heinz’s catsup division, Kelly Stitt, who had this to say in the *Wall Street Journal*: “ ‘All our advertising is targeted to kids. You want that nag factor so that seven-year-old Sarah is nagging mom in the grocery store to buy Funky Purple. We’re not sure mom would reach out for it on her own’ ” (Eig cited in Linn, 35).

“It’s distressing,” she continues, “that someone can be so matter-of-fact about a highly researched and effective assault on the fabric of family life. Yet, within the advertising industry, Stitt’s attitude is not unusual. If advertising executives have any doubts about ‘pester power,’ these seem to center only on whether it’s effective, not whether it’s ethical” (Linn, 35).

Another technique called “relationship mining” aims at uncovering and then exploiting the motivations of different family members (Neville cited in Linn, 36). Its purpose is to do an end run around parental resistance, ideally leaving them clueless as to what’s really going on. If, as Linn points out, the moms in the “Nag Factor” study were approached by a researcher who said: “ ‘I’m conducting research whose results will make your life more stressful because your children will be better able to nag you to buy them things,’ or, ‘I want to mine your family relationships to better understand how to get you to agree to buy your kids things you don’t really want to buy them,’” how many would be willing to participate? (Linn, 36).

## LARGER GOINGS ON

Does the 2<sup>nd</sup> Law metaphor of rising weight linked to larger falling weight bear on pester power and relationship mining as instances of larger goings on? Let's take a look. To get the accounts of corporations wanting to maximize the selling of their stuff, advertising agencies need to show their prospective clients that they have an edge. By studying with keen and sustained attention, parent/child relationships they will stand a better chance of finding and deploying effective strategies to wilt parental control and resistance. The weight going up is increased sales and profits. The weight going down is the dissipation of parental control. The injection of chaos as stress from persistent, pester fueled, conflict. And if the father doesn't see anything wrong with what the kid wants and the mother does, or vice versa, this adds stress not only into parent-child relationships, it helps to break down marital bonds, especially if one parent is strongly opposed. The child will be all too willing to exploit the divided parental front in favor of the parent who's a better prospect for giving him what he wants. The exploitation can be especially injurious when the parents are divorced.

In a 2<sup>nd</sup> Law frame, what we see here is product pushers extracting profitable order at the expense of the nation's families and children. As Linn puts it: "For those of us who free-associate, the metaphor of 'mining' family relationships is particularly and painfully evocative. Families are perceived as a repository (the mine) containing valuables that are there for the extracting—and exploiting" (Linn, 36). The seriousness of this deep-seated absence of ethics, where marketers systematically bracket off potentials for harm, lies in its being a microcosm, a particularly egregious case-in-point, of what's increasingly going on across the board of scientifically fine tuned strategies for zeroing in on sales targets. While the decoupling of strategies and consequences is a game not recently concocted, what is new is the vertically rising techniques for exploitation.

## NOT REALLY NOT MARKETING'S PROBLEM

One, not hard to miss, accumulation of entropy as harm spinning off the exploitive targeting of children – by no means the only one - is the epidemic scale rise of overweight and obese kids and such ill-health consequences as type 2 diabetes. While it's hard even for free marketers to deny the stats, the blame they claim falls not on the machinations of marketing, it's in the failings of parents. It's their fault if their kids get overweight or obese from overindulgence in fat and sugar laden foods. As one *New York Times* responder to a Paul Krugman column on the obesity epidemic, "Girth of a Nation," wrote: "'Obesity,' is strictly their problem, not the food companies' or any other American's. Food companies should remain free to market their products, including ads targeted at young people, thus exercising their right to free speech (advertising) and their right to free trade (the production of materials that individuals willingly buy)" (Kellard, 2005).

But is it really so straight forward? The marketing assault on children is relentless and ubiquitous. "The problem," Linn writes, "is that while parents are trying to set limits,

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marketing executives are working day and night to undermine their authority...So which battle should we pick? Should we pick the violence battle? Or the language battle? The candy battle? The sugar cereal battle? The Lunchables battle?<sup>4</sup> The sexualized clothing battle? The World Wrestling Federation battle?" (Linn, 38). Or the TV time watched or what's watched battle? The stay away from website war? The "M" (mature) rated video game played at friend's house struggle?...

### EASY RULES

If indeed, as activists in the über-war against the commercializing of childhood contend, corporate gain is at child's expense, this fact of life does not explain the modus operandi. Is there a largely unrecognized force underlying the success of exploitation? There is.

In a nutshell, what is at work backstage is something that's so obvious, so knee-jerk natural, that we don't see it unless it's pointed out. That something is the urge to take least food energy consuming paths whenever, wherever, they present themselves. Formally, it's called "The Principle of Least Effort" (see Mann, 1993, Robbins, 2000, 2006; Zipf, 1949, 1965). Once a supremely successful survival strategy that we still retain from our long history of hunting and gathering, today, in our technology transformed world, the instinct is both out-of-whack with the times and exploited to the hilt.

### ROPE'S ROLE

In the two weights, a pulley, and a rope, metaphor, our attraction to anything promising us an easier route is the rope. By offering us an endless stream of products that make life easier, the corporate order rises. Because human order in brain, body, and health is sustained by effort, by consuming the mass of products that, one by one, remove more and more effort, the human order falls. By giving us what we want, or have been convinced through ever more sophisticated marketing to want, we're systematically losing it for no longer having to use it, children not excluded.

If you look at virtually every instance where Susan Linn says that parents are engaging in battles with media onslaughts, and filter them through the color of ease, what you see is that the force drawing the child to the harmful activity (or better, absence of activity) falls in the direction of it's easier. The same applies to parents who either give up the struggle or don't, for one reason or another – time, exhaustion, ignorance - ever engage what's going on deeply enough to see what researcher / activists like Susan Linn have uncovered.

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<sup>4</sup> Lunchables is a food as entertainment friendly product that was awarded a Lifetime Wastemaker Achievement Award in 2001 by the Massachusetts Public Interest Research Group (Linn, 37). The fact that parents object to Lunchables high cost and questionable nutrition is viewed from a marketers perspective as a plus because their disapproval, of course, makes the kids want it more.

### **DIRECT TO REPTILIAN**

Successful marketers, whether they realize it or not, tap hard into the knee-jerk reptilian / emotional limbic “old” portions of the brain we share with other members of evolution’s tree. With children - the younger the better - this is much easier. The thinking, wrapped around old brain, cortex doesn’t stand a chance. It has yet to be developed. It all starts at the very earliest ages, as today’s kids are never left alone long enough to start cultivating the synaptic pathways that might lead them into rejecting, or at least doubting, the equation of consuming with good living, more consuming with better living, and shopping ‘till dropping, whoever dies with the most things, wins. That linkup might lead them down the dangerous to economic growth path of grasping the reality that they are being used, their capacity for critical thought, drained, their ability to feel, deadened, their motivation to create, squelched, their power of imagination, undeveloped, their attention span, withered, their physical health, squandered.

### **AND THE WANING OF PLAY**

Had those critical pathways been established early on, there’s the revenue stream risk that as these children enter their teen years and beyond, they may come to the realization that the commercialization of their lives has eliminated, or seriously crimped, what is arguably the most vital factor in the developing mind and body: play. “Play,” says Ms. Linn, “is a fundamental component of a healthy childhood and linked inextricably to creativity. The ability to play is central to our capacity to take risks, to experiment, to think critically, to act rather than react, to differentiate ourselves from our environment, and to make life meaningful...I place marketing’s impact on children’s toys and play among the most dire consequences of commercial culture” (Linn:61).

### **DRAW OF THE SHORTCUT**

Why does Linn say this? The answer has to do with children taking easier routes when it’s offered to them. Today’s hi-tech playthings make it easier for them to get the satisfaction they want without the effort children in the past, with their less technologically active toys, games, and media, had to exert. In a word, the hi-tech playroom lets kids – and their parents – take shortcuts. And don’t we all like shortcuts?

Although the first edition of *The Plug-In Drug* was written more than 30 years ago, an eon in techno-time, author Marie Winn captures the essence of loss thanks to the escalating incursion of toys that do more and more, substituting for the efforts that children once had to exert. She calls the process a “Gresham’s Law of Child Activity” in that passive amusements, whose technology based “activity” demand less from the child to sustain amusement, drive out more child activity demanding amusements. “Since passive amusements,” says Winn, “require less effort than active ones, human nature dictates that, all things being equal, doing something easier is preferable to doing something harder” (Winn, 1977, 186).

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Observe a girl playing with a simple wooden truck who is presented with a complicated mechanical locomotive. Whereas she had been obliged to amuse herself by pushing the symbolic vehicle around the floor, devising an imaginary route in and out and under furniture (providing her own sound effects), now she watches the new toy with fascination, amazed by the smoke spouting from the stack, charmed by the rhythmic toot-toot of the engine, delighted by its ability to propel itself backward and forward (Winn, 186-7).

But soon, Winn continues, the child gets bored with the mechanical locomotive. Its repertoire of tricks is limited. She wants a new toy that does more than move, blow smoke, and toot. This was not the case with the do-nothing wooden truck because the only thing limiting what it can do is the child's imagination. Unfortunately Gresham's Law of Child Activity kicks in and makes it hard to return to the more imagination demanding do-nothing toy. "For though the attractiveness of the [active] plaything," writes Winn, "is brief, there is something so compelling about the passive pleasure it affords the child that the appeal of another toy requiring active participation is diminished...Passive play experiences inevitably make active play less appealing, and therefore less likely to occur spontaneously" (Winn, 187).

### **PROCESS IS BLIND, MANIPULATORS ARE NOT**

Because the powerful draw of the dangling shortcut to gratification skips the cortex, zeroing in on the reptilian seat of emotion (limbic) connection, the ad and marketing squads key in with a vengeance. As Dr. David Walsh, president of the National Institute on Media and the Family based in Minneapolis puts it, "emotion focuses attention, determines what we remember, shapes attitudes, motivates, and moves us to act" (Walsh and Gentile, 2004). Even though they may not formally know what's going on in the brain in response to their ads, advertisers, through trial and error, have discovered that appeals to reason don't work, especially in competition with messages that massage the limbic. "Because emotional responses don't engage our reason," says Walsh, "they can easily slip in undetected under the radar of critical judgment. Then they subtly but powerfully begin to shape the way we view [a] product without our even being conscious of the process" (Diamond and Hopson cited in Walsh and Gentile).

This under the radar cortex skipping is especially effective with toddlers. Because the synaptic pathways are being furiously formed (a two-year-old's brain burns calories at twice the rate of an adult's), creating the "codes" that link product to satisfaction in the very young before a competitor's product locks in the synapses may be critical to long term market success (Diamond and Hopson cited in Walsh and Gentile; see also Rapaille, 2006).

Once neuronal pathways associated with a product are established, just as we physically will take shortcuts when offered, our brains, as Walsh puts it, will take "mental shortcuts." These shortcuts save energy because new pathways don't have to be established to achieve a desired result. Shortcuts, mental or physical, represent the path of least effort, and will be taken without cortical intervention because the act of making new



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synaptic connections, when not needed, is not energy efficient. Significantly, “the process [of creating and then exploiting the “soft wiring,” the neuronal networks shaped by experience,] is blind. The manipulators of the process are not” (Walsh and Gentile).

And that's the rub. It's relatively easy to see how the mass of products eliminating the need for physical effort in an ocean of energy rich food and drink sums up to health's downfall. It's much harder to certifiably pin the tail on the donkey of downside to products capitalizing on either hardwired shortcuts (the powerful draw of anything relieving us of the need to think) or softwired shortcuts (previously wired connections between emotion and product, as in not getting pleasure from watching cutesy creatures on television). Since the ad and marketing minions slip in undetected by the newest and weakest brain overlay, the cortex, the product push easily avoids raising red flags on the possibility of serious and escalating harm.

### PATH OF A DRUG

In *Born to Buy*, Juliet B. Schor writes that “We have become a nation that places a lower priority on teaching its children how to thrive socially, intellectually, even spiritually, than it does on training them to consume. The long term consequences of this development are ominous.” From the first grade on up, America's youth “have emerged as the most brand-oriented, consumer involved, and materialistic generations in history,” topping the list globally. Closely tracking the rampant commercialization of childhood, “evidence of distress among children has been mounting. Rates of obesity are at epidemic levels. Diagnoses of attention deficit disorder and attention deficit hyperactivity disorder have risen dramatically, and record numbers of kids are taking drugs to help them achieve self-control and focus” (Schor, 2004, 13).

Although critics, like Drs. Linn and Schor, of the increasingly sophisticated targeting of youth as powerful engines of sales, point well researched fingers at both the exploitation and its dire consequences should practices continue on, business as usual, this paper aims at setting up an interpretive frame that can add weight to their contentions. What that frame tells us is that the commercialization of childhood is in reality a feeding frenzy that is cannibalizing childhood's future. Because effort in any activity is the cost of moving mind, body, or society, uphill against the tide of losing it for not using it, the escalating / accelerating deluge of products and media selling themselves on the promise of eliminating one kind of effort or another is the rising weight of industrialized order coupled to the falling weight of dissipated human order, an exploitation that is particularly egregious with children.

How does the coupling work? It works by the fact that effort involves pain and we, adult or child, do not like pain. The pain reminds us that we're burning once precious food energy. Without the reminder, in a world of uncertain meals, cavalier burning of calories would be a prescription for not getting over the scarcity humps. Offer us something that relieves us of pain, or even better, promises us pleasure, instant gratification, even better, and, like those moths to the flame we're drawn, no questions asked. The child presented with the choice of active toot tooting, moving, smoke blowing, locomotive will drop the

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do-nothing symbolic toy because the do-something toy relieves the need for putting up with the discomfort, however slight, of imaginative, creative, effort.

Because, as Ms. Winn observes, the entertainment value of the do-something toy is transient, but going back to the do-nothing toy is tedious, a demand for ever more active amusements is, to the delight of technologists, toy makers, and marketers is created. Jump 30 years into the future, from the time when toot tooting locomotives could for a time entertain, to today's robotic playthings, and what begins to appear is a continuous, faster and faster, intensity of activeness in technology driven amusement joined at the hip with ever more sophisticated marketing muscle. But its not just discrete playthings, it's the soaring incoming stimulation of everything impinging on children, parents, and everyone else. We demand more and more, get bored faster and faster, because the naked human, physical, mental, and social order continues to fall. The path is that of an addictive drug.

### TV AS MOMMY

The knee-jerk conventional wisdom is not only that advancing technical "activeness" doing more for us is ipso facto good, it is also that we, children included, can absorb the escalating intensity and still, in our essence, either remain unchanged, or be changed for the better. Although the American Academy of Pediatrics recommends no exposure to television before the age of two, millions of parents either don't heed or, more likely, are unaware of the warning. They expose their infants to hi-tech, "edutainment" media on DVD, "electronically sugar coated 'learning,'" as educational psychologist, Jane M. Healy puts it (1998, 53), from not long after emergence from the womb under the massively marketed belief that it will give their kid a leg up on getting into Harvard. Television programs are now aimed at babies well under the age of two. With synaptic pathways furiously gelling, one significant upshot from all this early exposure may be the infant brain getting "imprinted" with TV as mommy (see Lorenz, 1969 on imprinting). Television, in synergy with convergent DVD and online media, becomes the source for instant, effortless, gratification, a perfect setup for nag factoring / relationship mining to follow.

The two weights over pulley metaphor casts doubt on the, not a second thought, equating of goodness with accelerating intensity of media to brain input. As the incoming stimulation escalates, the recipient does not remain unchanged and what changes do occur are not necessarily for the better. If true, what the proposed metaphor is saying is that if it takes more and more input to hook the consumer, as with an addictive drug, something in that consumer is going down. Although their study is a work in progress, Christakis et al., report that "early television exposure is associated with attentional problems [specifically attention-deficit/hyperactivity disorder, ADHD] at age 7." They recommend that "efforts to limit television viewing in early childhood may be warranted, and additional research is needed" (Christakis, et al., 2004). In particular, the authors note this:

It is widely known that the newborn brain continues to develop rapidly through the first few years of life and that considerable plasticity exists

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during this period. Considerable evidence also exists that environmental exposures, including types and degrees of stimulation, affect the number and the density of neuronal synapses. The types and intensity of visual and auditory experiences that children have early in life therefore may have profound influences on brain development.

In contrast to the pace with which real life unfolds and is experienced by young children, television can portray rapidly changing images, scenery, and events. It can be overstimulating yet extremely interesting. This has led some to theorize that television may shorten children's attention spans. Others have speculated that it may lead to ADHD...[and] that television viewing reduces reading in later ages and self-reported levels of concentration. (Christakis, et al., 2004)

If the hypothesis of Christakis, et al., is right, the rising weight of televised input to the infant brain is being compensated by the falling weight of shortened attention spans later in childhood, which, arguably in some, is pushed over the genetically predisposed tipping point to ADHD. The rope linking the rising to falling, as per Walsh, is the young brain being exposed to energy saving shortcuts. The TV, like the toot tooting locomotive, does the work that the child's brain, with parental help, once had to do itself.

### **GAMER'S TOLL**

Children, tweens (ages 6-11 in the marketing world), and teens, today would be bored stiff by amusements that once held the attention of previous generations. Recent studies lament the fact that reading for entertainment, despite come and gone Harry Potter blips, is going down and down (see *NEA* report "Reading at Risk: A Survey of Literary Reading in America," 2004 and its follow-up report "To Read or Not To Read: A question of National Consequence," 2007). Why? Well books, like do-nothing wooden toy trucks, just sit there with words on pages. How can books compete with video games, as in the recently released super hot seller, super graphically violent, *Grand Theft Auto IV* (3.6 million copies sold on the first day out, \$500 million in sales in the first week)? Yes, the latest and last in the Potter phenomenon sold 8.3 million copies in the U.S. on the first day after it went on sale. So maybe books can compete with video games? Or maybe the crowd reading Potter is not the same crowd craving to play GTA IV? Or maybe their soaring successes, like television itself, in similar, yet different, ways tap into something deep seated like the rope wrapped around pulley connecting the one heavier and one lighter weights: they pull the reader/player/viewer in – they hook.

### **SYMBIONT NOT PREDATOR?**

There are some, especially, but not only, on the marketing side of the equation, who would argue that the model I'm proposing here is all wrong. The product/media torrent pouring into young brains is empowering them, the technology is not a predator, it is a symbiont. It feeds us, not on us. We rise up with the technics. When products eliminate the need for personal effort, mental or physical, they free us up to pay attention, to exert

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ourselves on the things we choose, because we want to not because we have to. The title of Steven Johnson's well celebrated book, *Everything Bad Is Good For You: How Today's Popular Culture Is Actually Making Us Smarter*, captures the message of empowerment thru media. Television, according to Johnson, isn't dumbing us down, it's smartening us up. In case you haven't noticed, program series like *ER* or *The Sopranos*, or the popular math wiz celebrating FBI series, *Numb3rs*, are far more complex and multithreaded than series of earlier generations like *Dragnet*, or *Gunsmoke*, or *Starsky and Hutch*, or even *Dallas*. Video games, by tapping into the brain's natural reward circuits, brilliantly "manage to get kids to learn without realizing that they're learning" (Johnson, 2005, 34).

### BLESSINGS UNINTENDED

There's something to be said for Johnson's case. The ways media, TV, video games, toys, best selling, can't put it down, novels, whatever, motivate mental, physical, or social effort, in those ways we and our kids rise up with whatever's producing the incoming stimulation. Edward Tenner, in his insightful, *Why Things Bite Back: Technology and the Revenge of Unintended Consequences*, would call the benefits Johnson is pointing out, "reverse revenge effects" as in rare animals thriving in former weapons arsenals, or superfund sites, "because artillery shells and toxic wastes have kept people out" (Tenner, 1996, 10).

Unfortunately, these unintended blessings are just that, unintended. The selling point is not motivation to effort, it is the elimination of effort. Making it easy, or at least easier. Why is the GTA series such a hit? Answer, because solution by violence, especially when graphic, sex, bad guys, and hookers thrown in, is magnetic. Easy to get hooked and stay hooked. Multithreaded TV series draws, keeps the viewer off balance, addicted to wanting to find out what's going to happen to whom and when. *Numb3rs* incorporates cool sounding theories for locating and catching perps. Bayesian probability, is a for instance. Odds are the bulk of the audience is clueless as to what exactly Bayesian probability is, but that doesn't matter. It sounds brilliant. The viewer is flattered by being privy to math magic bad guy catching stuff. And yes, edutaining programs for tots does impart some edu with the taining.

But if, on balance, despite the sprinkling of reverse revenge in the incoming blitz, the 2<sup>nd</sup> Law weights linked over pulley metaphor holds water, what it tells us is that the sum total of losing it for not using it exceeds, conceivably, and worriedly, far exceeds, the pluses. Television may, in some ways be making us smarter, but since most viewers don't turn on the TV to work harder, but to let those on the other side of the screen work like hell to grab and hold our increasingly fleeting attention, the scales of the medium are tilting ever more precipitously towards dumb and dumber (Jacoby, 2008; Barber, 2007). Yes, video games do improve gamer skills, hand eye coordination, rapid problem solving, and that's good. The downside, not even considering the central ethos of violence as solution of choice with possible real world, tipping point, consequences, is all the things getting neither attention nor effort, physical, mental, and social, because the gamer is hooked for 40 to 100 hours playing just this one game; a downside, that for a small minority of

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online gamers has actually resulted in death through neglect of basic requirements for life like eating and drinking (BBC NEWS, 2005).

### CONCLUSION

The cannibalizing of childhood's future is a systems problem with roots in the way the 2<sup>nd</sup> Law of Thermodynamics works. If you're going to concentrate order, and the power that order grants, in a system, compensating dissipation must accrue somewhere in the environment of that system. While it can be argued that the accelerating power in all forms of technology driven media, including the increasingly fine tuned sophistication of marketing techniques, is being paid for by the consumption of food as proxy for fusion in the sun, the problem with this argument lies in the sheer and escalating rates of concentration. Just as the extremely rapid, irreversible, consumption of fossil fuels as concentrated solar energy formed over millions of years has allowed human industry to proceed at a pace not possible otherwise, the pace of focusing power in industrialized media, including the media impinging on childhood, demands compensation from other than food sources. Found in the environment of media, as a system, is the child. The compensation is the mining of childhood.

The dissipative mechanism we propose lies in the industrialized capitalizing on the deep seated, once survival enabling, but now out of whack in a technology transformed world, tendency to seek out shortcuts, to take paths of least effort, paths that reduce or eliminate the pain of effort. Since effort is our primary volitional means of opposing the universal trend towards swelling entropy, summed over the growing totality of effort being removed, our children, with mounting evidence of physical, mental, and social harm, are being served up as the sacrificial lambs of the soaring techno-industrial order.

The simple metaphor I've proposed of two weights linked over a pulley by a least effort rope, while for sure lacking in nuance, offers an image that can begin to help restore order where it belongs, in children, childhood, families, and non-virtual communities. The service the metaphor offers is that it raises up to the level of critical thought what normally lies below. If the falling weight, representing the ongoing loss of potential, is lightened to the point where the direction of pulley rotation is reversed, the exploiters will have to put more effort into a new business model, one that keeps its hands off children.

How can the pulley's direction of rotation be reversed? The answer is simple, but real world implementation, not so, because it requires consciously avoiding opportunistic shortcuts. As in choosing to climb steps instead of taking the escalator, or not going round and round a parking lot to find a spot that requires the least walking to a door, it requires putting in more effort than our jerking knees, tell us is absolutely necessary. It requires recognizing Gresham's Law of Child Activity and reversing the expectation that toys and technology do more and more. The answer is to inject effort, mental, physical, and social, back into childhood's future.

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