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"A must-read for any parent of boys."—**DR. MEHMET OZ**, Professor and Vice Chairman,
New York Presbyterian Hospital, Columbia University

boys adrift

**THE FIVE FACTORS DRIVING THE GROWING EPIDEMIC OF
UNMOTIVATED BOYS AND UNDERACHIEVING YOUNG MEN**

video games • teaching methods
prescription drugs • environmental toxins
devaluation of masculinity

WITH A NEW AFTERWORD FROM THE AUTHOR

Leonard Sax, M.D., Ph.D.

Author of *Why Gender Matters*

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THE SECOND FACTOR

Video Games

Your son is now thirteen years old.

He's a serious video-game player.

He still plays with a few friends, occasionally,

but more and more he prefers to play against other gamers online.

Last month he was a runner-up in an online Halo competition that drew competitors from around the world.¹

That's OK, you suppose, but you're becoming concerned about how much time he spends playing, as well as the strangers he plays with online.

Who are these people?

How come they have so much spare time on their hands?

His grades are fine, more or less, so far.

But he'll be starting ninth grade next fall.

You and your spouse have decided it's time to lay down some rules.

First of all, homework comes before video games.

Your son's going to be in high school soon.

No playing video games until all the homework is done.

Before you get to rule number two, you notice that your son isn't paying attention.

He's not even pretending to pay attention.

He's looking out the window.

He's tapping his fingers on the table.

Now he's actually humming something.

And he's not looking at you.

He just keeps looking out the window, nodding his head

—not at you,

but in rhythm to the song he's humming.

*"You're not paying attention,"
you say.*

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*"Sure I am,"
he says,
still not making eye contact.*

"No video games until the homework's done."

"Got it."

*"OK, then let's talk about rule number two,"
you say,*

"Rule number two is:

- no more than thirty minutes a day on video games, regardless,*
- Sunday through Thursday when school's in session."*

Now you've got his attention.

He stops drumming his fingers on the table.

For the first time he makes eye contact with you.

Then he snorts CONTEMPTUOUSLY.

“Not gonna happen,”

he says.

“Sorry.

Thirty minutes?

That’s barely enough time to get powered up and log on.”

*“But all the time you’re spending on video games right now
—it must be a dozen hours a week, at least,”*

you protest.

“You’re spending all your free time on video games.”

*“But those games are basically the best thing I have,”
your son says.*

His tone is simultaneously angry and pleading.

“Those games are who I am.

*I’m not some pathetic nerd geek who’s going to
spend six zillion hours a night studying.”*

*“But those games aren’t the real world,”
you say.*

“They’re just games.”

*“What’s real?”
your son says.*

Before you can answer this unexpectedly existential question,

*he continues,
“When I’m playing Halo, that world is more real to me than this one.
I’m really good, too,”
he says, dreamily.*

*“Al though I do NOT expect you to have even
the slightest clue what that means.”*

*He pauses,
then adds softly, almost shyly,*

“I could win the championship.

Next year maybe.

Definitely a possibility.

But not on thirty minutes a day.”



Where’s this coming from?

- How did this boy come to have such a monomaniacal drive to play some silly game?
- The answer will take you deeper than you might expect.

Boy World is a weird place.

- Many boys and young men are wrestling with drives and motivations that a lot of parents, especially mothers, don’t understand.
- Fathers may understand these motivations, but fathers are sometimes contemptuous of the egocentricity and unreality that characterize the inner life of many teen and preteen boys.

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- Dads may not want to be reminded that they were something like that themselves, once upon a time, decades ago.

I am not making a grand statement about all boys.

- I’m focusing only on those boys who seem unmotivated to do their best, boys who don’t seem to care much about getting the best grades or getting into a good college, boys who are capable of doing the schoolwork but who just aren’t motivated to do it.*
- Many of them could be good students, but they don’t seem to care about that.

What do they want?

- Let's agree that physiologically, boys haven't changed much in the past thirty years:
 - genetic makeup can't be significantly altered in only one generation, or even ten.
- Society has changed.
- Your son, who seems so unmotivated to succeed at school, may actually be highly motivated to succeed
 - —just not at school, at least not at the particular school he is attending.
- I hear many parents say things like
 - “My son doesn't care about school at all, but he can work incredibly hard at something that he does care about.
 - He'll stay up till two in the morning to get to the next level in *SPYHUNTER*.
 - He just doesn't care about school.”

Why do some tasks engage your boy's motivational engine, while others don't?

- It's not sufficient to say that video games are fun and school isn't.
- That answer begs the question.
- Why do these boys find video games to be so much more fun than school?
- Most girls and indeed many boys wouldn't get much of a kick out of playing *SPYHUNTER*.
- For many girls, and for some boys, the main activity in *SPYHUNTER*
 - —shooting the (virtual) bad guys while driving a car very fast down a (virtual) highway
 - or while driving a (virtual) speedboat on a (virtual) waterway—

would be as tedious as conjugating Spanish verbs in the imperfect subjunctive tense, or writing an essay on the Federalist Papers.

因為電動玩具設計太差了呀!

*I don't mean to suggest that studious, highly-motivated boys don't have any problems.

They do.

In fact these boys are, in my experience, somewhat more likely to be clinically depressed than the less-motivated boys we're discussing in this book.

More information about the emotional problems of studious, highly-motivated boys is provided in

CHAPTER 9 OF MY BOOK

Why Gender Matters

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The answer, I think, lies in a concept that most of these boys have never heard of, something that contemporary psychologists refer to with terms like “the reinforcing effects of contingent paradigms” or “learned mastery.”

The German philosopher FRIEDRICH NIETZSCHE² was the first to write at length about the reinforcing effect I have in mind here:

he called this drive simply “the will to power.”

To get a better handle on what has changed in the past thirty years, what hasn't changed, and to begin understanding how you might get your son's motivation back in gear, I think you'll find it helpful to understand Nietzsche's idea of the will to power.

就是 Bruce Lipton 講的細胞，單細胞生物也會驅利避害

First a disclaimer:

Some unmotivated boys don't fit into the will-to power category.

笑倒
事先聲明
醜話說在前頭
凡事皆有例外

We'll investigate what might be going on with those boys in CHAPTERS 4 AND 5.

Let's start with Nietzsche's insight, follow that insight to help us understand the modern research, and figure out where and how twenty first-century boys

—including your son, perhaps—
may have gone astray.

The Will to Power

The simplest version of what [NIETZSCHE](#) meant by the “[will to power](#)” is that [individuals want to be in charge of their environment](#).

- [This characteristic is clearly evident as early as two months of age.](#)
- In one classic study, psychologists [rigged](#) up babies’ cribs with motion detectors so that a colorful mobile over the baby’s head would rotate for a few seconds every time the baby moved its head.
- These were two-month-old babies.
- Very soon these babies were moving their heads back and forth and cooing at the mobiles.
- Other babies were given the same crib and the same colorful mobiles, programmed to rotate every minute or two regardless of the baby’s activity
 - —but no motion detectors.
- These other babies had no control over the movement of the mobile.
- They lay still, not moving, not cooing.
- They appeared bored.³
- Another psychologist, commenting on this study, remarked that
- [“infants, no less than we, prefer to exercise some control over their environments. . . . It appears that even a two-month-old infant wants to be master of its own fate.”](#)⁴

[If you tell a boy who has a generous dose of this kind of motivation to sit down, he’ll stand up. If you tell him to stand up, he’ll sit down.](#)

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- He doesn’t care so much whether he’s standing or sitting.
- But he needs to know, and
 - he needs you to know,
 - that he’s in charge of whether he stands or sits.
 - [He doesn’t want you to tell him what to do.](#)

Now of course many people will object and say,

- “I know girls just like that.
- I know women like that too.
- They don’t like to be told what to do.
- They like to be in charge.”

And that’s certainly true.

But [what distinguishes these boys from other boys and from most girls is that the will to power takes precedence over other drives and other perspectives.](#)

[For most girls and women, being well-liked or being well-thought-of counts for more than being in charge.](#)

- But some boys and some men would rather be in charge than be well-liked.
- That’s true for a few women, but not many.
- Again, I emphasize that I’m not making any sweeping statement about gender here.
- We all know women who want to be the boss, and we all know boys and men who are content to follow rather than to lead.

What I have found in my twenty-one years of medical practice, however, is that many of the boys who seem unmotivated, from our perspective, are actually motivated by the will to power.

- *The will to power is best understood perhaps not so much as a drive, [PER SE](#) but as a worldview, a way of valuing traits and characteristics.*
- Secretly, these boys often believe that they are special, that they are unique, that they have a destiny that will be revealed in time.
- [As a result, they believe that rules that apply to ordinary people don’t apply to them.](#)
- Their “destiny” matters more to them than friendship or academic achievement
 - —more than happiness, for that matter.
- [They often do not expect other people, including their parents, to understand them.](#)
- They may not even want other people to understand them, because they sense (correctly) that their worldview, with all its [megalomania](#), will appear [puerile](#) and egocentric to most adult eyes.
- Watch a teenage boy playing certain video games, particularly games in which the boy has to [shoot and kill his way to victory](#) such as [Halo](#) and [Grand Theft Auto](#).
- Such video games offer a [quick and easy fix for these boys](#).
- These games give the boys the feelings of power and control they crave:
 - the power of life and death.
- “It’s just a game”
 - —but watch the seriousness with which these boys play.

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What happens when you tell your son that he needs to stop playing those video games?

- You tell him that he won't be happy if he doesn't get into a good college and get a good job.
- He says he doesn't care about being happy.
- You tell him that he needs to grow up, put the games aside, and get a real life.
- He may reply, quoting Nietzsche
 - (but not aware that he is quoting Nietzsche):"This is what I am;
this is what I want;
you can go to hell!"⁵

Not all gamers are motivated by the will to power, of course, and not all video games are violent first-person-shooter games like *Halo*.

- Consider *SimCity* and its numerous *PROGENY*, all of which are games in which one constructs a city, landscape, worldscape, and more, according to **realistic rules and constraints**. *SimCity* and *The Sims* are not violent games, although they are games in which the player exercises great control over the lives and destinies of virtual people in a virtual world.
- **But I don't know many teenage boys who are addicted to playing *SimCity* or even *The Sims*.**
- What distinguishes the boy who's really addicted to video games, the boy for whom video games pose a real hazard, from the boy who plays occasionally but doesn't get hooked?
- Remember that the average teenage boy today spends more than thirteen hours a week playing video games, compared with five hours per week for the average teenage girl.⁶
- I know some boys who don't play video games at all.
- I know other boys who play more than twenty hours a week, more than three hours a day, every day, including school days
 - — which often means that their homework ends up being an after-midnight afterthought.

Throughout this chapter we will continually ask

"How much involvement in video games is OK for your son, and with what kind of video games?"

- We'll get to some specifics in a moment, but I can tell you right now that one key is balance.
- Moderation in all things is the key to good health.
- **If time spent on video games is crowding out time spent with friends or time spent on homework, then clearly too much time is being spent on video games.**

Video games aren't all bad.

- **I know families where video games bring parents and kids together, instead of separating them.**
- *SHAWN HIRSCH OF GAITHERSBURG, MARYLAND*, always considered himself an "anti-video game guy."
- Then he bought the *NINTENDO WII* system for his daughters.
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- Now he enjoys playing video game tennis and bowling with his daughters, especially his seven-year-old, with whom he plays almost every night after dinner.
- *THOMAS MORGAN OF POTOMAC, MARYLAND*, agrees that a good video game "absolutely reaches across the generation gap."⁷
- I've had this experience myself.
 - I own a *GAMEBIKE*.
- It looks like an ordinary exercise bike, but it plugs into a *PLAYSTATION* and functions just like a game controller
 - —except that if you want your virtual motorcycle to go faster, you don't press a button, you pedal faster.
- Kids around the neighborhood love to come over and play against *DR. SAY* on video games like *MTX MOTOCROSS* and *NASCAR: DIRT TO DAYTONA*.
- They always win:
 - they can push the buttons faster than I can pedal.
- But they have fun beating a grown-up, and I get a great workout.
- For a while we had two *GAMEBIKES*, which created a much more level playing field, because I can outpedal most of the eight- or nine-year-olds on the block.
- Then one of the *GAMEBIKES* died, so we're back to me on the bike and the kid pressing the button.

So video games *per se* aren't necessarily evil.

- Neither is the will to power.
- It's not hard to see how boys motivated by the will to power might have been successful in earlier generations.
- They might have grown up to be successful entrepreneurs, daring innovators, explorers, politicians, or soldiers.
- They could readily create a productive niche for themselves.
- Most young men I have known eventually outgrow this stage when maturity arrives around age thirty and they gain a broader, less egocentric perspective on life.
- But some men remain motivated by the will to power for their entire life.
 - General George S. Patton Jr. was certainly such a man, as was
 - Henry Ford,
 - Howard Hughes, and perhaps
 - Richard Nixon.

You may not like any of these men:

- they were all selfish,
- relentlessly self-centered and almost
- completely incapable of irony or of self-deprecating humor.

But they each played a substantive role, for better or worse, in American culture and history.

- If these men were reborn today, it is less likely that they would undertake a meaningful career.
- I suspect that a boy born today with the DNA of General Patton or Howard Hughes would more likely become a video game addict.
- He might have a job, but there's a real risk that his drive and his energy would be directed into the video games rather than into his career.
- If you haven't played video games in the past five years, you may not understand how addictive some of them can be, owing to advances in technology
 - —particularly for boys motivated by the will to power.

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Imagine that you are such a boy, the reincarnation of General [George S. Patton](#).

That boy can now play a video game in which

- he gets in a tank,
- hears the clang as he closes the hatch,
- feels the rumble (from three-hundred watt subwoofers) as his tank rolls over the rubble of a demolished house,
- and fires depleted uranium rounds at enemy outposts as he enjoys the thrill of victory
- —or the agony of defeat when three enemy tanks blast him almost simultaneously.
- But the agony of defeat is lessened by the comforting knowledge that he can just hit "Restart" and play it all over again . . . and again.

Today, any boy with a high-speed Internet connection can play in real time against another gamer across town or on the other side of the planet.

Sophisticated headsets allow boys to engage in simulated online combat in teams, arranging coordinated ambushes of enemy fighters using high-tech virtual weaponry.

After your son has spent two hours

leading a squad of fighters in a raid on terrorist headquarters, issuing commands through his headset-mounted microphone to his online comrades, and raced through a hail of virtual bullets to destroy the enemy power generator, well,

studying Spanish grammar from a textbook can seem hopelessly dull.

看吧!
所以重點跟本就是教材設計太差了呀!

The virtual world is

- fast-moving,
- interactive,
- collaborative,
- and fun.

The real world of homework and textbooks can't compete

—not, at least, for the boy who is motivated by the will to power.

When military combat gets boring, he can carjack some geek's [Corvette](#) and drive around an astonishingly detailed simulation of 1980s Miami, right down to the music he can play on the (virtual) car's in dash radio.

Your son drives around the city for a minute, then slams on the brakes, bringing his (virtual) car to a screeching stop.

- A pretty young woman is walking toward the car.
- She smiles and asks,
- “You want a good time?”
- She’s a prostitute.
- Your son lets her in the car and has (simulated) sex with her
- —then shoots her in the head with a pistol he stole earlier from a police officer he murdered.
- As she dies, blood pouring from her head, he retrieves the money he gave her.

After all, in [Grand Theft Auto: Vice City](#) (from which this scene is taken),

- the player gets extra points for shooting the prostitute and recovering the money.
- Megapoints are awarded for shooting police officers.

嚇死我了!

練習殺人

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In 2005, journalist [Steven Johnson](#) published [Everything Bad Is Good for You](#), in which he argued that today’s popular culture—including video games—

is actually making us smarter.⁸

- JOHNSON’s book enjoyed a short [stint](#) on the best-seller lists because his idea was just so [audacious](#).
- Video games don’t fry your brain, JOHNSON claimed.
- In fact, they make you smarter, he said
 - —including video games such as [Grand Theft Auto: Vice City](#).
- Reading books, on the other hand, is [overrated](#);
 - it dulls the senses, JOHNSON wrote.

JOHNSON was fully aware of the paradox of writing a book that disparages reading.

- On several occasions he teases the reader on this point.
- He very nearly says:
 - Why don’t you put down this book and go play a video game?
- JOHNSON’s book has a light touch and a tongue-in-cheek style.
- It’s a fun read, in part because the reader is never sure whether Johnson is being serious or just joking.
- Since his book appeared, however, other writers and researchers have followed up with books and articles supporting his position:
 - video games are good for you.

Video games help kids learn.

- This position is rapidly gaining adherents.
- The Federation of American Scientists
 - —which usually makes recommendations about terrorism and nuclear weapons—
- [recently suggested major investment from government and the private sector to explore the educational potential of video games.](#)
- The [JOHN D. AND CATHERINE T. MACARTHUR FOUNDATION](#) also has announced that it is spending fifty million dollars to support “the emerging field of digital media and learning,”⁹ specifically with regard to the potential of using video games in the classroom.
- In 2008, former Supreme Court Justice [SANDRA DAY O’CONNOR](#) announced her intention to help create an action-packed video game to teach civics to middle school students.
- She explained that her [grandchildren have taught her that technology is the best way to inspire children to learn.](#)
- With all due respect to [JUSTICE O’CONNOR](#), for whom I have great admiration, [I don’t agree that technology is “the best way to inspire kids to learn.”](#)¹⁰

[I believe that kids are more effectively motivated by interacting with the](#)

- [real world,](#)
- or by [team competition,](#)
- or by [some of the other approaches](#) we discussed in chapter 2.

Of course, JUSTICE O'CONNOR won't be writing the video games herself.

- She is collaborating with JAMES PAUL GEE, professor at ARIZONA STATE UNIVERSITY and author of What Video Games Have to Teach Us about Learning and Literacy.
- PROFESSOR GEE's book has an unreal quality to it:
 - he defends violent video games such as GRAND THEFT AUTO on the grounds that seeing the world from the perspective of a violent criminal helps the player to “transcend” one’s “narrow” societal values, recognizing that “general conceptions of good really just hide the narrow interests of particular groups in a society.”¹¹
- The MACARTHUR FOUNDATION has awarded PROFESSOR GEE and his associates three million dollars to bring video games into the classroom.¹²
- Another leading proponent of video games in the classroom is DAVID WILLIAMSON SHAFFER, author of How Computer Games Help Children Learn.
- PROFESSOR SHAFFER's book is more persuasive than PROFESSOR GEE's.
- Like me, SHAFFER points out that American education has shifted away from “knowing how”
 - experiential knowledge, *Kenntnis*
- and has placed too much focus on “knowing that”
 - didactic knowledge, *Wissenschaft*.
- He eloquently describes an unusual high school integrated into a large farm in Vermont.
 - “The students planted and harvested all of the school's produce.
 - They fed and mucked the cows, sheep, and chickens. . . .
 - The rhythms of nature and the realities of life on a farm deter mined the things that needed doing and the times they had to be done.”
- Paraphrasing JOHN DEWEY, SHAFFER writes that at this farm/school,
 - “these tasks were not about life, they were life itself.”¹³
- Then Shaffer makes a subtle shift.
 - Most of us don't live on rural farms anymore, he observes.
 - So what would education “based on life itself . . . look like in our high-tech, digital world?”

放屁
一個被少數軟體工程師架設的虛假世界

His answer is that video games can serve the same function for twenty-first-century kids that working on a farm would have done in previous generations.¹⁴

放屁，人被設計成有五官五感
電動遠遠比不上

照他這樣說，那吃飯大小便也只需要靠電動完成就好了

Video games are, he asserts, the best training to make kids smarter and better-prepared for the challenges they will face in the twenty-first century.*

*In defense of PROFESSOR SHAFFER, we should note

- that he is promoting a specific type of video game that few teenagers play
- —a kind of game he calls *epistemic*.

He provides five examples of such games, none of which are commercial successes or even widely available at this time.

不單如此，而且汰換時期短
你以為你訓練孩子
其實你讓他們走入小胡同
而且死的更快

However, the broad title of his book

—How Computer Games Help Children Learn—

and the PlayStation-style game controller on the jacket cover, conceal such subtleties.

SHAFFER mentions but never condemns or criticizes games with a much wider audience such as GRAND THEFT AUTO.

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Dumb and Dumber

Do video games actually make kids smarter?

It depends on what you mean by “smarter.”

If you ask,

“Do video games improve kids' reaction times, for example, if they're asked to push a button every time they see a flashing light?”

—then the answer is yes.

呵呵

Kids who play video games will be faster at such a task
—by **about two-hundredths of a second (0.02 seconds)**—
compared with kids who don't play video games.¹⁵

外國人沒有叫小孩彈鋼琴拉提琴
所以不知道練琴的話，只要有訓練，手指動作就會快
其實，揉麵糰，做花卷饅頭，挑螃蟹肉吃，做多了，手指一樣靈活

But if you ask the questions

“Do video games help kids to do better in school?
Do the games help improve their grades or their test scores?”

— then the answer is **no**.

是呀!

死胡同

這就是為什麼我拒絕和 Gary Brown 玩牌下西洋棋
因為所學技能無法轉用在其它生活機能

電玩差，傷害人腦的原因很簡單：
玩法被遊戲設計者限制
再怎麼玩，一切都是照標準程序走，
都無法使用「創造力」，
頂多只能說：「滿分一百」

不像數學物理，幫助人提昇到抽象思考的層次
而學習外語是輸入外國文化，思想模式的捷徑

除了爭奪有限的時間學習有益科目之外，
(學電動，思考模式和廣度被侷限)，更嚇人的是：
長期處在激活 Amygdala 的狀態，hippocampus 插不進學習，
大腦的物理結構被實質更動了

A series of studies over the **past seven years** has demonstrated clearly and unambiguously that

- *the more time your child spends playing video games,*
- *the less likely he is to do well in school*

— whether he is in elementary school, middle school, high school, or college.

This negative association between academic performance and playing video games remains strong even when investigators control for all possible confounding variables, such as personality traits.

- I regard this finding as “clear and unambiguous”
- because all studies of this question have yielded similar results.
- There are no studies pointing in the opposite direction.
- Every investigator who has correlated the amount of time that a child or adolescent or young adult spends playing video games with that student's academic performance has found a negative correlation.¹⁶

Is there a cause-and-effect relationship between playing video games and disengaging from school, or is the relationship merely an association?

- Maybe kids who are less motivated to do well in school are more likely to play video games.
- If this were the case, then playing video games might be a marker for lack of motivation, but the video games themselves would not be to blame for the lack of motivation.
- In a moment, we will consider other scholarly work suggesting that the link is in fact causal.
- Many parents and teachers with whom I've spoken get frustrated with the scholarly papers, however.
- “You don't need to tell us about all those academic papers to know that video games are having a negative effect on boys' motivation,” one parent told me.
- “Just listen to the teachers.” PATRICK WELSH has been teaching English at T. C. WILLIAMS HIGH SCHOOL in ALEXANDRIA, VIRGINIA, for more than thirty years.

He's "worrying about the young guys who spend so much time **DIVORCED from reality** and the life of the mind as they **zap away** the hours before their video screens."

- At first he was amused by the stories of how the boys camp out all night at the local Best Buy or Circuit City to purchase the latest version of *GRAND THEFT AUTO* or *HALO* on the day of its release.
- **MR. WELSH** continues:
 - But I didn't think it was so funny when some guys skipped school that day to stay home and try to beat the game.
- Senior **STEVE PENN** (who wasn't one of the skippers) told me that the following weekend, he played for six hours straight (minus bathroom breaks) at a friend's house.
 - When he got home at one a.m. on Sunday, he went at it for two more hours, fell asleep, got up at seven and fired up the game again.
 - "My mother had to remind me to change my clothes and take a shower," he said.

Football coach **GREG SULLIVAN**, **MR. WELSH**'s colleague, says that he sees fewer and fewer boys playing outside when he drives around northern Virginia.

- "They are inside playing video games," he says.
- **"More kids are finding real sports too demanding."**¹⁷
- I've talked with other football coaches who describe, with amazement, **teenage boys who think that because they can win at *MADDEN NFL*, they therefore know something about playing the real-life game of football.**
- "These guys are five-minute wonders," one coach told me.
- **"They get out on the field, run around for a few minutes, and then they're done.**
- **They have no endurance.**
- **They're in pathetic shape.**
- **And they don't want to do the work that they would have to do, to train the way they would have to train, to get in shape."**
- I don't think the blame can rest solely on the **scrawny** shoulders of these boys.
- They are the logical product of an educational system that conveys so little understanding of the distinction between *Kenntnis* and *Wissenschaft* that these boys truly believe that because they know something about football, that's the same as knowing how to play football.

So let's return to the question:

Do video games make kids smarter?

There's actually some disturbing evidence that **boys today, on average, are less intelligent**

—less able to understand and solve real-world problems—compared with boys just **fifteen years ago.**

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- **Professor Michael Shayer** and colleagues tested more than ten thousand girls and boys who were eleven and twelve years of age.
- They used a special test that measures how well a child understands
 - intuitive density,
 - internal volume,
 - conservation of liquids,
- and other concepts related to real-world science and math.
- This test, validated by **more than thirty years** of research with children, has been shown to be impervious to the so-called **Flynn Effect**
 - —the tendency of children's scores on IQ tests to improve over time.

When these tests were first conducted thirty years ago, there was a substantial gender gap in the results, with boys outperforming girls.

- When the researchers repeated the tests in 2005, they found that the gender gap had vanished.
- The gap didn't disappear because the girls were doing better.
- These researchers found that **girls are not doing better;** in fact, **the performance of eleven- and twelve-year-old girls in 2005 had deteriorated slightly** in comparison with the performance of eleven- and twelve-year-old girls **thirty years ago.**
- Instead, they found that the **boys' performance in 2005 was dramatically worse than it had been thirty years ago.**
- "This is a huge and significant statistical change," concluded **PROFESSOR SHAYER.**¹⁸
- **Boys who are nearly twelve years old "are doing [only] as well as the eight- to nine-year-olds in 1976,"** he observed.¹⁹

Why the drop?

PROFESSOR SHAYER suggested that "the most likely reasons are

- **the lack of experiential play [*Kenntnis*] in primary schools, and**
- **the growth of a video-game, TV culture.**

Both take away the kind of hands-on play that allows kids to experience how the world works in practice."²⁰

PROFESSOR SHAYER's study isn't the only one to document a recent decline in the intelligence of boys and young men.

- Norwegian

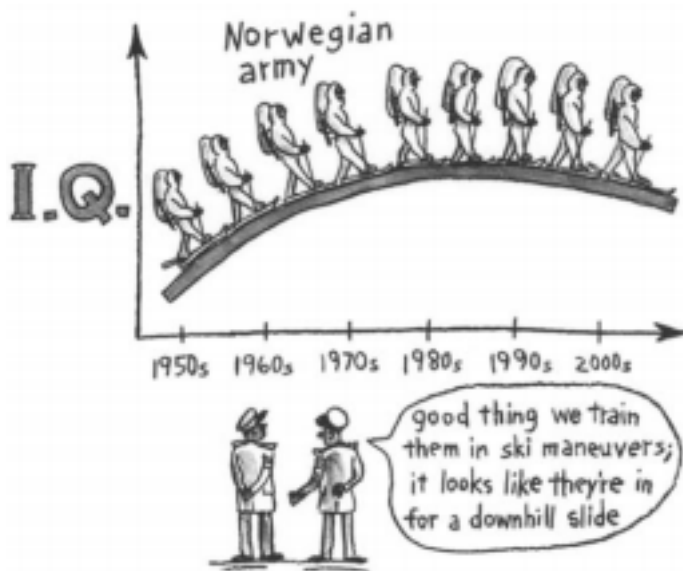
researchers published an analysis of test scores of Norwegian draftees between the 1950s and 2002.

- From the 1950s until the mid-1980s, test scores steadily improved, then leveled off, then began to decline in the early 1990s.²¹
- (Norway requires military service of all young men, so a selection bias can't explain this drop.)

- Denmark,

- like Norway, requires a brief stint of military service for all young men.
- Professor DAVID OWEN of BROOKLYN COLLEGE recently collaborated with Danish researchers to look for a similar phenomenon among Danish recruits.

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IQ scores of young men, after rising throughout most of the twentieth century, have now begun to decline, according to some studies. Tom Dunne

- Analyzing test scores for more than five hundred thousand recruits between 1959 and 2004, OWEN and his Danish counterparts found
 - a gradual rise in performance from 1959 through the 1980s,
 - a plateau into the early 1990s, and
 - a definite decline between about 1994 and 2004.²²

And what about preparing for the real world?

In the real world

— unless you're a fighter pilot or a Marine sniper—
being able to push a button 0.02 seconds faster than the other guy isn't such a valuable skill.

- Preparing teenagers for the demands of real life requires skills quite different from the cognitive and visuomotor skills required to master video games.

Finally!

Somebody has a brain!

- Imagine a young father, in his twenties let's say, trying to comfort his crying baby daughter.
- There are no buttons to push, no photon torpedoes to fire.
- The right thing to do may be simply to rock the baby and hum a lullaby.
- The chief virtue required may not be lightning virtuosity with a game controller, but merely
 - PATIENCE.

就是時間嘛！

像東坡肉，火候，下工夫，耐心練習

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- If you need to get along with a belligerent coworker, the chief virtue you need may not be lightning speed.
- In most video games, the best way to deal with difficult people is to vaporize them with photon torpedoes.

這不廢話嗎？

從頭到尾說來說去，

就是近朱者赤，近墨者黑

要養跟人在一起的小孩，就把他放著跟人養

要養跟電動在一起的小孩，就把他扔到電玩堆去

IN THE REAL WORLD, WHAT YOU NEED IS NOT HIGH-TECH VIRTUAL WEAPONRY, BUT PATIENCE.

- The stereotypical pastimes of boys and men in previous generations were pretty good at teaching skills like patience.
- Thirty years ago, and even more so fifty years ago, it was more common for boys and men to go hunting and fishing together.
- Boys who go fishing with an experienced fisherman soon learn that a good fisherman has to be able to wait patiently.
- That sort of patience might serve a young father well.

But video games do not teach that kind of patience.

So are boys getting dumber?

- Maybe.
- Are video games to blame?
- Perhaps in part.
- But I think we need to focus more on the *noncognitive* effects of video games.
- Instead of asking whether video games improve reaction times
 - (they do, slightly, at least in some studies),
- we should ask:
 - Do video games disengage boys from the real world?
 - Does playing video games make boys more violent?

Researchers at [YALE UNIVERSITY](#) recently reported that playing violent video games such as *Doom* clearly and unambiguously causes young men to

- have a more violent self-image and to
- behave more violently;

this report has not received any coverage in the media, to the best of my knowledge.²³

A comprehensive review of the research on video games recently demonstrated that playing violent video games leads directly “to

- aggressive behavior,
- aggressive cognition,
- aggressive affect,
- and cardiovascular arousal,
- and to decrease in helping behavior.

The linkage between the violent game and the boy’s antisocial behavior is unequivocally cause-and-effect, these researchers found; the end result is that boys who play these games are more likely to engage in “serious, real-world types of aggression.”

The more carefully researchers control for all the variables, the larger the effect size, suggesting that previous studies “underestimate the true magnitude of observed deleterious effects on behavior, cognition, and affect.”²⁴

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Moreover, researchers have found that

- playing violent video games has a substantially more toxic effect than watching equally violent television programs, probably because
- when a boy is watching a violent TV program he’s watching someone else commit the violent act, but
- when he’s playing *Doom* or *Grand Theft Auto* or *Halo*, he’s inflicting the death and destruction himself.²⁵

Video games also tend to teach the wrong lessons about masculinity.

A study entitled

“The Emotional Appeal of Violent Video Games for Adolescent Males”

found that boys prefer games that allow them to experience

“emotions that sustain dominant masculine identity,”

which sounds like something akin to the will to power.

These games are gratifying to boys, this study found, not only because the boys

- have the satisfaction of being the tough guy, but also because
- they are in charge of the game itself:
- they can turn it off any time they want to and
- move on to another game in another universe.²⁶

In real life, you can’t just walk away from the havoc you create.

In the world of video games, you can.

The destructive effects of video games are not on boys’ cognitive abilities or their reaction times, but on their motivation and their connectedness with the real world.

These boys may be highly motivated, but their motivation has been derailed:

I’ve seen boys who care much more about their success at *Halo* than about their grade in Spanish.

不只西班牙語，
他們連數理化生物歷史地理都不會
They’re motivated, but they’ve become disconnected from the real

world.

The video game world is more real to them than the world of homework and grades and college applications.

Violent video games in particular tend to promote this disconnection, precisely because of the unreality of the violence.

Your son knows that he doesn't get to fire photon torpedoes at the kids he doesn't like at school.

It's easy to see how some parents can be confused about video games.

The experts don't agree, as we've seen.

In my judgment, though, the research clearly indicates that boys who spend many hours each week playing violent video games are at greatly increased risk of disengaging from the real world.

One of the highly regarded researchers in this field, [PROFESSOR CRAIG ANDERSON](#), chairman of the department of psychology at the [IOWA STATE UNIVERSITY](#), has pointed out that the strength of the evidence **linking video games to antisocial behaviors is every bit as strong as the evidence linking second-hand smoke to lung cancer or lead poisoning in infancy to lower IQ scores.**

- [PROFESSOR ANDERSON](#) also notes that the controversy now surrounding video games is [REMINISCENT](#) of the controversy surrounding cigarette smoking in the **1960s** or lead poisoning in the **1970s**.

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- After all, most people who are exposed to cigarette smoke will never get lung cancer.
- And some people who get lung cancer are not smokers and have never been exposed to cigarette smoke.
- Likewise ([PROFESSOR ANDERSON](#) would argue) not all boys who play video games twenty hours a week will disengage from real life, and not all boys who disengage from real life are video game players.²⁷

So what rules should you lay down for your son?

- [PROFESSOR ANDERSON](#) has provided some practical guidelines based on the published research.²⁸
- He recommends first of all that you either play the game yourself or watch it being played.
- Then ask yourself these questions:
 - • Does the game involve some characters trying to harm others?
 - • Does this happen frequently, more than once or twice in thirty minutes?
 - • Is the harm rewarded in any way?
 - • Is the harm portrayed as humorous?
 - • Are nonviolent solutions absent or less "fun" than the violent ones?
 - • Are realistic consequences of violence absent from the game?
- If you answer yes to two or more of these questions, then [PROFESSOR ANDERSON](#) suggests that you reconsider whether your son should be allowed to play the game.

The first consideration should not be how many hours per day or per week your son is allowed to play these games.

- **The first question should be what kind of video games he is allowed to play at all.**
 - **Violent video games that reward antisocial aggression**
 - —games such as [GRAND THEFT AUTO](#) and [DOOM](#)—
 - **should not be permitted in the house.**
 - **Period.**
 - **"Antisocial aggression" means aggression**
 - —such as killing police officers or prostitutes—
 - that **runs counter to all acceptable social behavior.**
 - A game like [SPYHUNTER](#), on the other hand, in which
 - the player is rewarded for killing terrorists and (just as important)
 - penalized for any careless injury to innocent bystanders,
- is arguably less harmful
- —although it's still not as good a choice for your son, in my judgment, as racing his bicycle around a track.

Another consideration is what **activities** are **DISPLACED** by playing video games.

Opportunity Cost
損失做其它活動的時間

If your son is neglecting his friendships with non-gamer friends to spend more time playing video games, then he's spending too much time playing video games.

- If he refuses to sit down to dinner with the family because he's in the middle of a video game, then he needs some help from you getting his priorities straight.
- Or maybe there's a more complex dynamic at work.
- I've seen more than one family where Dad is fighting with Mom, **daughter** Emily is **perpetually angry** at both Mom and Dad
 - —and **son** Jared **just doesn't want to deal with it**.
 - So he uses video games as an escape and an excuse.
 - He just stays in his room with the door closed.
- So if your son seems to be using video games at least partly as an excuse to get out of family activities, you may have to ask yourself some hard questions about why that might be so.

I'm not the only person who's noticed how video games are displacing family activities such as having dinner together.

- **LITINOR OCHS** is a cultural anthropologist and director of **UCLA's CENTER ON EVERYDAY LIVES OF FAMILIES**.
- She has studied how the electronic culture is changing family life.
- She's videotaped what actually happens in middle-class suburban homes.
- She found that when a parent arrives home, the kids are so absorbed by what they're doing that they often barely even raise their heads from their electronic gadgets.
- The returning parent is greeted only about a third of the time, usually with a **PERFUNCTORY**
 - 'Hi.'
- "About half the time the kids ignored [the parent] or didn't stop what they were doing, multitasking and monitoring their various electronic gadgets," Ochs says.
- "We also saw how difficult it was for parents to penetrate the child's universe.
- We have so many videotapes of parents actually backing away, retreating from kids who are absorbed by whatever they're doing."²⁹

And what about teenage boys having relationships with girls?

- Surprisingly, especially to those of us over thirty, **many boys today seem to prefer playing video games to being with girls**.
 - **MR. WELSH**, the teacher at **T. C. WILLIAMS HIGH SCHOOL** that I mentioned earlier, has heard any number of stories along these lines.
 - Girls at his school have told him that at parties they "are often totally ignored as the guys gather around TV screens, entranced by one video game or another.
 - 'Girls sit around watching the guys play until they get fed up and drive off looking for something else to do,' says junior **SARAH KELL**, for whom the games range from 'stupid and boring' to 'disgusting.'
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- 'We try to tell them they're wasting their time, but they just keep going.
 - Some guys stay up playing until three in the morning on school nights, and then they try to do their homework."³⁰
 - Boys prefer video games over girls?
 - In the summer and fall of **2006**, the **NEW YORK TIMES** published a series of front-page articles entitled "*The New Gender Divide*."
 - One of these described how many young men seem more interested in playing their video games than in being with their girlfriends.
 - The reporter interviewed one young woman at college who had broken off her relationship with a young man, "in part out of frustration over his playing video games four hours a day.
 - 'He said he was thinking of trying to cut back to fifteen hours a week,' she said.
 - 'I said, "Fifteen hours is what I spend on my internship, and I get paid \$1,300 a month.
 - That's my **LITMUS** test now:
 - **I won't date anyone who plays video games.**
 - **It means they're choosing to do something that wastes their time and sucks the life out of them.**"³¹

A young man at college today has unprecedented sexual opportunities.

- Unlike his father or grandfather, he is likely attending a school where men are outnumbered by women.
- Even boys who are not the best-looking or particularly popular now have an excellent chance of finding a young woman to date.
- Nevertheless, as the *NEW YORK TIMES* reported in a recent front-page story, college administrators are reporting that
 - more and more young men show no interest in meeting young women
 - (or meeting other men for that matter).
- They don't want to meet anybody.
 - They just want "to stay in their rooms,
 - talk to no one, [and]
 - play video games into the wee hours. . . . [They] miss classes until they withdraw or flunk out."³²



To summarize, here are some basic guidelines for the appropriate use of video games:

• Content:

- I strongly recommend you not allow your son to play video games in which the player is rewarded for killing police officers or noncombatant civilians.
- The video game industry itself provides a rating system for games, assigning an "M" for mature to this kind of antisocial violence.
- "M" games should not be sold to or used by anyone under eighteen years of age.
- But just because a game is rated "T" for teen doesn't guarantee that it's appropriate for your son.
- Familiarize yourself with the T-rated games.
- Even games rated "E" for "Everyone" cannot be assumed to be safe.
- In fact, Professor ANDERSON's team has found that some of the E-rated games were more violent
- —and ENGENDERed more violent behaviors—
- than some explicitly violent "T" games.
- ANDERSON and colleagues "... were somewhat surprised to find that even cartoonish children's violent games seemed to have the same short-term effect as the most graphic T-rated violent games. . . . what seems to matter is
 - whether the game includes aggressive content,
 - not how realistic or graphic the violence is."³³

• Time:

- NO MORE THAN FORTY MINUTES a day on school days,
- one hour a day on other days
 - —and that's only after home work
 - and household chores have been completed.

• Activities displaced

Make sure your son knows where his priorities should be.

- Family comes first;
- schoolwork comes second;
- friends come third;
- video games are last.

If your family is one of the fortunate few in which most family members still sit down to share a common evening meal, then

- sitting down to dinner with the family is
- more important than playing a video game,
- more important than talking on the phone with a friend,
- more important even than finishing a homework assignment.

Homework is

- more important than talking with friends or playing a video game.

Taking a phone call from a friend should be

- a higher priority than playing out a video game, though.

The Polar Bear Club

If you've followed my argument about the will to power, you'll understand that **just restricting your son's access to video games is at best only half the challenge.**

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You want to help find a constructive outlet for your son's need to conquer.

- In some cases, competitive sports and a more competitive academic format
 - —such as the team competitions discussed in [CHAPTER 2](#)—might provide such an outlet.
- What kind of free-time activities and hobbies would be the best choice for this kind of boy?
- How can he best satisfy his need to be tested and to triumph?
- Let me give you one example, from the [boys' school](#) near [Edmonton](#) that I mentioned earlier.
- At that school, every boy is required to participate in the Outdoor Challenge Exercise, which varies from year to year.
- One year, the Outdoor Challenge consisted of each boy having to take a swim in the frigid waters of the North Saskatchewan River in early spring.
- As one observer wrote:
 - The water was frigid, with the ice breaking up only a week earlier.
 - I could see the new boys' anxiety rise as time neared for them to tip their canoes over and **take a swim in the 1° C water.**
 - Some chatted incessantly about being too young to die and how they were sure they would never have children, while others were [sullen](#). . . .
 - Canoes were dumped one after the other and, [IN DUE PROCESS](#), its former occupants were hauled into a "rescue canoe" and taken ashore to dry off.
 - Every one of those boys arrived on shore with their chests puffed out, feeling like a man.
 - Each boy claimed victory over the chilly waters of the [North Saskatchewan](#).
 - [They also stated that no one at their old school has tried or would dare to try such an experience.](#)³⁴
- In my firsthand experience, this sort of [TRIAL BY FIRE](#) is **immensely satisfying**, particularly for boys who are addicted to video games.
- It suddenly dawns on them:
 - this is the real thing.
 - **The video games are just a simulation.**
 - This is reality.

Once a boy achieves that insight, video games often lose much of

their power over him.

- The story of the canoe-dumping exercise in Saskatchewan reminds me of the experience of one of my own patients.
- At age twelve,
- AARON GROSSMAN was an avid video game player.
- His behavior bordered on addiction.
- The defining characteristic of addiction, incidentally, is **loss of control**:
- the boy knows that he shouldn't be spending so much time playing video games, he may not even want to play that much, but he just feels that he can't help it.

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BOYS ADRIET

- So AARON was spending three or four hours a day playing video games, mostly sports games like MADDEN NFL.
- When his parents asked him whether he'd like to try playing real football, though, he said no.
- He wasn't interested.
- His mom and dad, JENNIFER and DAVID, decided to sign AARON up for football anyway,
 - POP WARNER FOOTBALL
 - (a nationwide football organization for youth founded in 1929).
- They didn't ask AARON.
- They just told him that he was going to play.
- I've found that **parents can do this kind of compulsory sign-up for a boy only up to about age twelve or maybe age thirteen but generally no later.**
- If you drive a fifteen-year old boy to an activity he doesn't want to attend, he may simply get out of the car and walk away.
- But AARON's parents judged correctly that their son was still young enough to go to the practice on their say-so.
- Once AARON was surrounded by the other boys who were doing their best to run, kick, throw, and catch, he joined in.
- After all, the format of the first day of POP WARNER FOOTBALL isn't much different from gym class at school.
- It's not unfamiliar.

- On the drive back home that first day, JENNIFER wisely did not ask whether AARON had a good time.
- Asking whether AARON had a good time would have been very nearly equivalent to asking him to admit he was wrong and his parents were right.
- Instead, she just said,
 - "Practice tomorrow starts at eleven a.m., right?"
- He nodded.
- The practices were every day, Monday through Friday, sometimes lasting several hours.
- It was hot.
- The second week, the boys put on their equipment:
 - helmets,
 - shoulder pads,
 - the whole deal.
- Mom gasped the first time she saw another boy knock AARON to the ground.
- But AARON got up immediately and trotted back to where the coach was explaining the next drill.
- The next day was the first **scrimmage**.
- AARON was knocked down several times, one time pretty hard.
- It was a hot, **muggy** August day.
- On the ride home, AARON was visibly flushed and tired.
- After driving in silence for several minutes, his mom finally said,
 - "AARON, if you want to quit, it's OK.
 - Daddy and I appreciate your making an effort."
- AARON shook his head "no."
 - "Coach can kick me off the team if he wants to," he said,
 - "but I'm not quitting."
- The words were so **CORNY**, so **REMINISCENT** of RICHARD GERE's line to LOUIS GOSSETT, JR., in An Officer and a Gentleman, that Mom almost laughed.
- But then she realized that her son had almost certainly never seen An Officer and a Gentleman.
- He was serious.

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- AARON stopped playing video games altogether during football season.
- When the season ended in November and his team didn't make the play-offs, he said "Maybe next year."
- He started playing MADDEN NFL again, on and off, after the season ended, but seldom more than thirty minutes a day.
- "It's nothing like the real thing,"
看吧！
he told his mom spontaneously one day.
- That's the closest he ever came to thanking his parents for signing him up for real-world football.

In March 2006, I wrote an op-ed for the *Washington Post* about the growing problem of unmotivated boys.

We'll return to that op-ed, and the response it elicited from readers, in CHAPTER 6.

For now I just want to share with you an e-mail I received from a parent in NORTH CAROLINA:

Dear Dr. Sax,

I read your article in the *Washington Post*.

I'm not an expert, just a Mom.

I have my own theory.

I think video games are the main culprits in this phenomenon [of unmotivated boys].

I wish I had somehow shielded my son from such games or at least put a strict limit on them.

When I see guys in their twenties who are totally unmotivated, mooching on someone else and lack any social skills that will benefit them in the workplace or in life, I've noticed a common thread:

an obsession with video games.

Video games teach these boys that if you manipulate things a certain way, you will get an easy win.

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These boys have little interaction with people during the years when such interaction is crucial in developing the skills they need to handle themselves as an adult.

They shut themselves off to the real world and get caught up in their fantasy worlds.

After a while, they prefer their fantasies to the real world.

In the real world, things are not so easy to control.

- They can't rule with a joystick.
- In the real world they have to talk to people.
- They have to work.
- That brings up another point.
- Laziness.

A guy addicted to video games can waste hour after hour after hour without doing anything productive.

- Playing games is easy.
- Studying is hard.
- Taking care of daily chores is hard.
- Working on a real job is hard.

We parents are to blame for some of this because it started out as a way to entertain our kids.

We justified it by saying they were developing their hand/eye coordination.

彈鋼琴就好了

They were home,

- we knew what they were doing,
- they were out of our hair and not causing trouble.

Now they are in their twenties and we are scratching our heads wondering,

"What's their problem?"

I think if you were to research the growing popularity of video games and compare it to the growing number of young men living at home, you would find a parallel.

I know that sounds simplistic, but sometimes the answers to complex questions are as plain as the nose on our face.

Cheryl M.
North Carolina

In this chapter,

I've argued that video games are one factor derailing many boys.

In the previous chapter,

I suggested that changes in the education system

—including **the shift away from competitive formats in school—**

constitute another factor.

But those changes aren't the whole story.

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I can think of plenty of boys who aren't motivated to succeed but

- who don't play video games and
- who don't thrive on competition.

They're not motivated by the will to power.

- **They're just not motivated, period.**
- What's their story?