

Sex At Dawn: The Fallacies of Simulated Science

(a.k.a. “The Seven Deadly SIMS”)

by T.Collins Logan

These observations have been brewing for some time, mainly as a vague dissatisfaction with the muddled soup of public discourse about science in general, but my thoughts have finally found a locus and catalyst in Christopher Ryan and Cacilda Jethá’s book *Sex at Dawn*. First I want to say that I enjoyed the entertainment value of the book. As thought-provocation it is a fun read, and I was exposed to some new and compelling ideas. But, in the ever-enlarging sphere of information, it is far more at the titillation end of the spectrum than the scientific one, and provides a well-written example of what I call *sensational, inchoate muddling*, or SIMming for short. I also like to use *simming* as a convenient abbreviation for “simulated science” as well. Although this criticism may seem both harsh and risky – I am a writer, after all, and so equally subject to outrageous critiques – what I want to describe is something very specific and practical. For if we present enough examples of simming, we can reason out a generality that differentiates scientific modes of thought from other modes of thought; we can build a practical tool for learning and organizing new information, and perhaps alleviate some small portion of ignorance in the world.

To illustrate the simming tendency of *Sex at Dawn*, I first considered slogging through every point in every chapter, but that would be as tedious for me to achieve as it would for you to read. So instead – again with the aim of creating a practical tool – I’ll cover some general principles and ask some questions, drawing examples mainly from *Sex at Dawn* and touching on one or two other simful sources as well. But why do I care about this? Well, I happen to believe that ignorance in various forms is one of the chief architects of suffering and destructive failure in the human species. So alleviating ignorance as a kind of noble hobby, one I hope will help me and my fellow humans

engineer a better life. Of course I myself still remain ignorant about lots of stuff – as well as making errors in judgment about lots of other stuff – so this diatribe is by no means meant to elevate my perspective to a singularly true or correct viewpoint. In fact, if you apply some of the tools we’ll be covering here, you can probably poke holes in this very essay and much of my other writing. I am a simmer, too. So the objective is to illuminate one dark corner of contemporary discourse, rather than celebrate the shortcomings of anyone’s work or in some way exonerate my own. In this spirit, I offer my heartfelt thanks to the authors of *Sex at Dawn* for providing such splendid material to dissect, and also to the friends and acquaintances who enthusiastically recommended this book to me. It does help to have a sense of humor about these things.

So what are the highfalutin information analysis standards I wish to promote? And where did they come from? I have no scientific training, after all. I don’t even have an undergraduate degree. I was accepted into Hampshire College in 1983, but when I brought the first tuition bill to my father, he took one look at it and burst out laughing. Subsequent attempts to study philosophy and drama at the University of Washington (after a year of living and working in the state to achieve residency) were met with a frustrating inability to remain poor enough for Pell Grants while still feeding and housing myself. I also think the large, impersonal classes (some exceeded 400 students), the dearth of passion in the professors teaching 100 level courses, and the preoccupation of my fellow students with elevating grades and obtaining degrees over actual learning, all conspired to disillusion me about higher education. So instead of railing against the goads, I dropped out of school and held a series of information technology jobs at the University. I did this mainly so I could still be near its libraries and stimulating atmosphere, while continuing my own research in various disciplines. But the main point here is that any critical thinking skills I now have are probably the result of chumming around with thoughtful, intelligent and frequently well-educated friends, coworkers, lovers and family members during my lifetime. They helped me see the error of my own simfulness, and I am indebted to them for their once-and-future tutelage.

Now on to the those pesky criticisms....

The Seven Deadly SIMS

First some half-formed definitions of some trouble spots I have identified in the mainstream discourse about science:

1. **Conflation:** Making various evidences seem the same or similar when they really aren't.
2. **Overconfidence:** Drawing hard and fast conclusions instead of what should be soft and malleable ones.
3. **Rigidity:** Cramming square data into a round hypothesis, instead of revising the hypothesis to suit the data.
4. **Denial:** Allowing the blind spot of bias to become blindness to all contrasting information.
5. **Insulation:** Dismissing or ignoring alternative explanations for the same data without thoughtfully or thoroughly considering them.
6. **Reduction:** Evaluating any event, interaction or correlation in isolation, rather than in relationship with the entire system in which it takes place.
7. **Conformance:** Allowing prevailing attitudes, assumptions and beliefs (of peers, values sub-culture, philosophical tribe, etc.) to undermine rigorous skepticism of one's own interpretation of the evidence.

The overarching thesis of *Sex at Dawn* is that instability and dysfunction within modern monogamous relationships is a result of a cultural disruption of natural, biological sexual appetites and behaviors. Personally I think this idea has some merit, and I'll offer some congruent opinions later in the article. The problem, however, is that very little of the evidence presented in the book supports this conclusion, and the smidgeon of useful data is undermined by faulty assumptions. To appreciate this, let's examine how each of the seven deadly sins is artfully represented in *Sex at Dawn*.

The most prolific sin of the book – one committed in nearly every chapter – is the sin of *insulation*. Here are a few examples:

- **Assertion:** Women's pendulous breasts are "utterly unnecessary for the breastfeeding of children," (p.13) and are therefore evidence of a natural and healthy female biological propensity for promiscuity. Why? Because the only other possible explanation, according to Ryan and Jethá, is that they signal female sexual receptivity and fertility *all the time*. **Insulation:** There are other explanations for this biology. For example, humans are the only primates whose nose protrudes substantially beyond their mouth. Thus anthropological biologists like Gillian Bentley have described one evolutionary advantage of pendulous breasts as keeping babies from suffocating. Bentley has been talking about this idea of comfort feeding for over a decade, additionally citing examples of cultures where female breasts are not sexualized to support her notions. But is this alternative explanation evaluated in *Sex at Dawn*? It's not even mentioned.
- **Assertion:** The decline of female social status in historical cultures directly correlates with the advent of agriculture, property ownership, and consequent concerns over paternity. This, the book explains, resulted in an end to centuries of equal female status, egalitarian sharing of all resources in a community, and open sexual relationships with lots of different partners in groups of hunter-gatherers. **Insulation:** Although this is certainly a wonderfully romantic view of pre-agrarian hunter-gatherer cultures, there are other perspectives that undermine

this view. A number of researchers who have examined historical, cross-cultural female social status have concluded that resource scarcity is likely a dominant factor in a female's value among hunter-gatherers (see Hayden, Deal, Cannon and Casey). For example, when food is scarce, or the wild game is large, or there are neighboring groups competing for the same hunting grounds, then men's roles tend to become more important, and women's tend to be devalued. Other research suggests that each culture, region or time period presents varied and unpredictable reasons for elevation or reduction in female social status (see Artemova). Does *Sex at Dawn* consider these alternate explanations for variable female status? Not even passingly, for again there is no mention of them.

- **Assertion:** Sexual possessiveness and jealousy are the consequence of concerns over paternity in property-owning agrarian cultures. **Insulation:** Anyone who has spent time around young children knows that possessiveness and jealousy are deeply reflexive responses in many if not most kids. All relationships are affected by these tendencies at a very young age – friendships, parent bonding, early “romantic” infatuations, etc. can all suffer from an I/Me/Mine protective hostility. And this applies to children from all walks of life and living environments as a hallmark of what most child development geeks consider “normal” development. To claim that a two-year-old has somehow been inculcated with agrarian paternity concerns (regardless of whether they were raised in a commune, by a single parent, or by a couple in a sexually open marriage) is...well, you get the picture.
- **Assertion:** A large penis and testes size in other primates correlates with promiscuity, and therefore the proportionally large penis and testes in humans must be biological evidence of the same natural propensity. **Insulation:** Yes, this could be one explanation for human biology. But there could be many others as well. For example, what if human biology reflects differences in overall sexual behavior patterns? Like the Bonobo (whose males also have relatively large genitalia), we have sex a lot more frequently, and in a much larger variety of positions, than other primates do. In addition, each human copulation lasts a lot

longer than the copulation of other primates, who tend to finish up in just a few seconds. In fact, humans spend more time overall having sex more than any other species. *Sex at Dawn*, even while enumerating some of these behavioral differences, refuses to entertain they might account for the variations in human biology, and instead relies on them to bolster its thesis.

- **Assertion:** Loud female vocalizations during sex are an invitation for other males in her group to mate with her. **Insulation:** Isn't it possible that the type of encouragement human female vocalization creates is for human mating in general? In other words, couldn't vocalizations that incite other males to mate be a benefit for the species as communal arousal for any mating pairs that hear it? The evolutionary advantages of encouraging procreation in everyone within hearing distance of such vocalizations seem obvious to me – the arousal benefits the species, not necessarily the individual who is vocalizing. This isn't really a stretch in logic...it's just an alternate viewpoint. And because valid alternate viewpoints are so lacking in *Sex at Dawn*, the credibility of its conclusions are (for me at least) severely eroded.

The sim of *insulation* is of course an excessive occurrence throughout our modern culture, especially in mass media. Something happens – a plane crashes under suspicious circumstances, a woman is found murdered in her secret lover's home, a politician is accused of some financial impropriety – and the court of public opinion comes down hard and fast with its confident conclusions. There is no room for any other explanation than the obvious but unproven one. This sensationalist bent is what journalists reliably capitalize on with inflammatory headlines and provocative questions, and so the general populace has been conditioned to reflexively embrace gossip as fact. In contrast, scientific inquiry isn't supposed to be interested in wild and titillating inferences. The idea is to hypothesize, then methodically gather data to test that hypothesis. Now it's understandably important to refine a scientific proposition so it isn't too broad or vague. But what if the data collected hints at other explanations? What if, in fact, those alternate

explanations actually make more sense than the original hypothesis? Shouldn't they be considered? Even a little...?

Close on the heels of *insulation* is the sim of *denial*, where any data that doesn't support the original thesis is rejected or overlooked. Here is one example:

- **Assertion:** Human beings are not fundamentally warlike or destructive, and it is mainly environmental stressors, property ownership and population density that causes them to behave this way. Although Ryan and Jethá do concede that “an innate capacity for love and generosity is at least equal to our taste for destruction,” (p. 212) they clearly hold a rosy view of early hunter-gatherer cultures, providing data that supports their view and poking holes in research that doesn't. **Denial:** However, what struck me as curious omissions in their analysis were some of the notoriously warlike Native American tribes. *Sex at Dawn* conveniently skews its data by focusing on what James Woodburn called “immediate-return” hunter-gatherer cultures. Woodburn defined these as innately egalitarian because everyone immediately benefits from the resources they share, rather than selectively accumulating such resources and creating dependencies between groups or individuals. However, Ryan and Jethá (like Woodburn) seem blind to Native American exceptions in their analysis, even though many of the nomadic Indian tribes fulfill all of the characteristics of immediate-return hunter-gatherers. Is this because we don't have good data on these cultures before their contact with Europeans, or before they began hunting with horses? Or because there is evidence that some of these hunter-gatherers may have been more settled and agrarian at an earlier time? Or is it perhaps because the sparsely populated, nomadic, resource-rich tribes like the Lakota, Apache and Cheyenne were so damn violent, brutal and warlike...? Well we can't know, because the book never discusses this seemingly aberrant data.

Now the sim of *conformance* is subtle and often hard to conclusively prove. We would need a lot more evidence about the beliefs Ryan and Jethá actually hold, as well as the

communities within which the authors habitually operate, to form an accurate picture of the social pressures to which they may have succumbed. What I can say is that the people I know who really love this book do fall mainly into one category – a category that celebrates the opinions of someone like Dan Savage, whose endorsement is on the cover. Now I happen to enjoy Dan Savage’s sense of humor, and have been reading his editorials since his early days at *The Stranger* in Seattle. However, Dan is not a very credible source of information about psychology, anthropology or biology. But he is a very reliable entertainer. So while we can be fairly sure that the scientific community was never the intended target audience for *Sex at Dawn*, it’s a pretty good bet that a progressive-minded population that likes to be entertained was the target. After all, why else include things like anecdotes about Victorian doctors who masturbated their “hysterical” female patients? And if entertainment was always the primary intent, why would these writers want to turn a critical, skeptical eye on any of the assumptions in their book?

The sins of *conflation* and *rigidity* are somewhat easier to recognize, and often go hand-in-hand. In fact their constant application of *rigidity* – forcing data to conform to a hypothesis – is how the *Sex at Dawn* authors reliably achieve a *conflation* of the facts. For example, they cite an AMA study indicating 42% of all women suffer from sexual dysfunction, grouping this data with the profitability of pornography and the pedophilia of Catholic Priests, all of which somehow proves human civilization’s “misguided rejection of basic human sexuality.” (p. 3) And what feels like such a sweeping and amorphous generalization in the beginning of the book never really gets resolved into specifics. There is never any clear definition of what female sexual dysfunction is, or what data supports a causal link between this dysfunction and cultural sexual suppression. And there is never any thoughtful examination of the causes of pornography or deviant sexual behavior, either. Nor is there even a small attempt to understand the plague of child-abuse that has infected the Catholic Church. These are all just ingredients that Ryan and Jethá combine into a tasty soup, which they then just keep force-feeding us throughout the book. But *tasty* soup does not necessarily correlate with *meaningful* soup.

It's a bit like listening to a conservative political pundit on FOX News waxing apoplectic over the demise of the American way of life, and in particular how "those damn liberals" are all to blame. You know...it's a "socialist agenda" and "the Constitution" and "freedom from unfair taxes" and "Christian values" and "the burden on our children" and "underserved entitlements" and "class warfare." Lots of soaring, predictable rhetoric that makes certain facts sound related, sparking a note of indignation and nationalism that solidifies conservative rage, but which really combines a bunch of gobbledygook that has no interconnection or relationship relevant to the ranters' point. Likewise, *Sex at Dawn* keeps trying to draw straight lines between disparate and often poorly defined datasets. But it never quite succeeds. Instead, it just keeps insisting that all this discrete information supports the main thesis, hoping that repeating such insistence and endlessly piling on unrelated facts will somehow entice a willing reader into agreement, or perhaps bully an unsympathetic reader into silence.

"If our distorted relationship with human sexuality is the source of much of this frustration, confusion, and ignorance, societies with less conflicted views should confirm the causal connection." This is on page 284, only 28 pages before the end of the book (the pages after that are notes and references). And how is this assertion then supported? By one meta-analysis from one researcher, James Prescott, in 1975. That's it. Pretty much the entire premise of *Sex at Dawn*, and all of its energetic conflation of unrelated data, is bolstered by one briefly quoted thirty-seven-year-old study. How could they get away with this? Because Dan Savage calls the book "The single most important book on human sexuality since Kinsey unleashed *Sexual Behavior in the Human Male...*"? It seems so. More soup, anyone?

But for me, the loudest and most uncomfortable simming in *Sex at Dawn* is its excessive *reduction*. The whole premise that all sexual dysfunction and failure in monogamous relationships is a result of culturally strained or suppressed biological design is a gross oversimplification of the human condition. What about the plethora of other factors that plague human civilization? What about the relentless influences of urbanity, pollution,

stress, capitalism, poor diet, mass media, sleep deprivation, drugs and alcohol, increased mobility, intrusive technology, lack of exercise, a proliferation of pornography, the erosion of social contracts, and the dominance of corporate culture? What about the ridiculous expectations placed on young couples by Hollywood's portrayals of romance? What about the supersonic evolution of a global village that blurs interpersonal boundaries, traditions and social mores? What about the changes in family dynamics created by the industrial revolution's bloated work ethic, the liberation of women from traditional roles, the incredible freedom of choice and numbingly excessive opportunities afforded any individual in the modern age? What about the rapid changes in sexual practices, attitudes, tolerance and expectations over the past hundred years? What about the explosive disintegration of so many cultural institutions that had previously endured for centuries? Couldn't some of these momentous developments have had an impact on human bonding, healthy sexual function, or the level of contentment found in any relationship? And then there is the simple fact that many monogamous couples are actually happy. Is this just an adaptive sublimation of what *Sex at Dawn* considers natural human propensities? Or is it in fact meaningful contrary evidence?

Beyond this, there is another fundamental assumption in the book that nags at my sensibilities. In the opening pages, there is a quote from Katherine Hepburn's character in *The African Queen*, which reads "Nature, Mr. Allnut, is what we are put in this world to rise above." The entirety of *Sex at Dawn* seems to take this sentiment to task. Of course we are not supposed to transcend our nature! Why should we? We are animals, and all of our social graces are just thinly disguised excuses to serve our animal nature. We have just gotten too far off-track by raising crops and farm animals, and so forgotten our innate biological functions. In contrast, as a mystic, my experience of personal discipline has proven to me that a modicum of self-control is actually a good thing. Bonobos like to have sex before they eat, while they eat, and sometimes even after they eat. But if they learned the value of fasting – how it clears the mind and opens up the senses to new and subtle information – perhaps they might also entertain the benefits of abstaining from both eating and sex for a while. In my firsthand experience – and in marked contrast to the assertions of *Sex at Dawn* – such periods of self-control have not

lead me into acts of violent aggression, but toward a deeper sense of compassion and commitment to fellow human beings. Bonobos may indeed attenuate aggressive tendencies through having lots of sex as proposed by some researchers, but as a human I can cultivate a sense of contentment, equanimity and love of my fellows through abstaining from sex altogether. How is this possible? Well, I would propose that human beings have a few additional tools that Bonobos don't possess. We can train our consciousness to transcend our animal impulses for the greater good. As distasteful as that may seem to Ryan and Jethá and their enthusiastic readership, this means that such transcendence may be a liberating process that benefits our species, rather than a destructive one that oppresses it.

I would also like to note at this point that all of the seven deadly sins are really interrelated and often overlap. For example, the sin of *overconfidence* occurs in nearly all of the other sinning instances described so far. The authors of *Sex at Dawn* convey their points in a style that is at times both cocky and snide. They tirelessly tilt at windmills to inflate the importance of their position. They use humor and flippancy to cajole their readers into sympathy. This makes for great theater, but, as we've already seen, becomes a bull in a china shop when trying to evaluate complex, subtle, interdependent data. There is simply no room allowed for self-doubt among the pages of *Sex at Dawn*, no critical self-analysis, and very little humility. Like the confident assertions of racy TV ads, or the promises of slick politicians, or the earnest pleas of teenagers who have cheated on their homework, the language of Ryan and Jethá bludgeons the reader with hubris. In combination with its other flaws, there is simply more bluster than substance in this book.

Did I appreciate or agree with any of the book's conclusions? Actually there was one section that resonated with my own thinking, and that was "The Tragedy of the Commons" (p. 169) Here the authors describe the challenge of a global society, where anonymity protects individuals from the shame that would regulate behavior in a smaller group. The suggestion is that we need to adapt to this new environment, and haven't yet done so. Although Ryan and Jethá don't develop this idea much further, it speaks

directly to my own work over the past decade, which in part has involved a conscious, transformational framework for moral development. Without such a framework, I believe the anonymity factor (among many others) will indeed continue to debilitate social cohesion and cooperative success. In any case I found this section very interesting, but, alas, it's only a few pages long.

So the seven sims represent tools we can use to evaluate any new information. The latest radio talk show; someone's tweet, Facebook post or blog; a TV documentary; a magazine article and so on. C.O.R.D.I.R.C. – *conflation, overconfidence, rigidity, denial, insulation, reduction* and *conformance* – are useful when sharing our own opinions or theories about anything, and need not be restricted to scientific inquiry. In the digital age, all communication develops and disseminates so quickly that it has become sorely difficult to differentiate propaganda, spin and gossip from accurate and useful information. Add to this the many pressures any information source may be subject to – internal corporate agendas, political affiliations, advertisers, customer bias, jittery shareholders, religious beliefs, litigation exposure and so on – and we have a perfect recipe for an incomplete story or outright disinformation.

For example, is there credible research that undermines scientific consensus about global climate change? No. There is only carefully crafted deception and dissent backed by millions of Exxon Mobile dollars and the inane utterances of conservative political puppets. Is Teflon safe? Of course not, but Dupont has rigorously suppressed the science, quietly settled several lawsuits out of court, and otherwise fiercely defended their brand. Does the U.S. pharmaceutical industry manipulate government and the media to market lethal or useless drugs directly to consumers? Of course it does, and so the advertising continues despite plentiful research showing how placebos outperform those drugs. And where we once might have been able to rely on certain broadcast journalism sources to provide alternate perspectives, even that privilege was revoked when Ronald Reagan (later seconded by G.W. Bush) dispensed with the FCC Fairness Doctrine. Every few months we see whistleblowers and activists – Bradley Manning, Linda Almonte, Julian Assange, Thomas Andrews Drake, Jeffrey Wigand, Robert Wright, Allan Kessing,

Pascal Diethelm, Jean-Charles Rielle, etc. – fired, discredited, threatened, vilified, persecuted and prosecuted when they try to expose the ugly underbelly of truth. So it is incumbent upon the information consumer to develop finely-tuned filter for all the rich cerebral fodder mass media delivers. We need to equip ourselves with sturdy and reliable bullshit detectors. I can only hope that C.O.R.D.I.R.C. can assist us in this.

To conclude, I mentioned at the onset that I do find validity in the idea that modern cultural attitudes have distorted healthy sexual function. For instance, why should a child ever feel guilty about masturbating? That's just silly. Why shouldn't teenagers be encouraged to explore sexuality with each other? That seems like an excellent idea, with many potential benefits to individuals and society, as long as the sex is "safe." Why should people who agree to have sexually open relationships be ostracized or devalued for their choice? Why should same sex couple not be allowed to marry? These are all important questions in my mind, and I would love to see some data that conclusively supports a more liberating path for sexuality in the modern world. However, I can't bring myself to endorse *Sex at Dawn* as a trustworthy source for that data. Instead, someone needs to dig deep in a scientific way, and do it soon. We need some real, non-simulated science on these issues, and, as avid consumers of mass media, we need to become a little more discerning regarding flagrant simming that appeals to our sensibilities but betrays sound reasoning.