BABA BRINKMAN

Reading Charles Darwin's dogma-killing 1859 book outlining his theory of evolution, what always strikes me is how easily his arguments about the origins of biological form map onto the lives of individuals and their personal struggles, and onto popular culture. For instance, here's Darwin asking a typically tantalizing and impish question—one for which he was fully aware that no person before him, ever, had anything but a shoulder-shrugging or woefully inaccurate answer:

Who can explain why one species ranges widely and is very numerous, and why another allied species has a narrow range and is rare? Yet these relations are of the highest importance, for they determine the present welfare, and, as I believe, the future success and modification of every inhabitant of this world.¹

Previous attempts to answer this question could be paraphrased as "the Lord works in mysterious ways," which could itself be paraphrased as "I have no idea" (and the naturalistic attempts, such as Lamarck's, turned out to be wrong). But here's an equally interesting and mysterious question: who can say why one genre of music ranges widely and is very popular, and why another very similar genre of music has a narrow range of appeal and is very rare? Or, for that matter, who can say why one particular artist is massively successful while others labor in obscurity, and why these relative poles occasionally reverse when the person dies, sometimes depending on how they die. Darwin's statement about the relevance of this question to the present welfare and future success and modification of species is no less true of individuals in the performing arts world.

The Notorious B.I.G. is widely (and justifiably) recognized as the greatest rap artist of all time, and in many of his songs he takes a stab at just such an explanation. The obvious example would be "You're Nobody ('Til Somebody Kills You)," but since that song—released shortly after his murder—helped to make him massively famous, it stands more as an act of uncanny prescience or self-actualization rather than an explanatory framework. On the other hand, in one of his first hit songs, "Juicy," he offers such naturalistic accounts of his

own success as "I let my tape rock 'til my tape popped" and "Now I'm in the limelight 'cause I rhyme tight." However, a Biggie skeptic might object that these are actually tautological explanations, akin to saying that evolution works through "survival of the fittest" where "the fittest" is defined as "whatever survives." Why did your tape pop? Because it rocked. What's the definition of a rockin' tape? Whatever pops. But what if there was a definition of tight rhyming that could be established independently of whatever happens to be in the limelight? It would almost certainly be a context-dependent definition rather than an absolute one (for instance, can you judge the tightness of rhymes in a language you don't speak?), but a working definition of tight rhyming could be phrased: "if the audience has specific expectations a, then tightness is defined as b, whereas if the audience has specific expectations x, then tightness is defined as y." If that were possible, then we could actually begin to make testable predictions about who would be the next to blow up and where, and Biggie's statement that "I'm blowin' up like you thought I would" might approach the status of a hypothesis empirically confirmed, the elusive holy grail of the social sciences. Music mavens and talent scouts trade in this currency on a daily basis, but the anthropic principle (winners appear predestined because losers are invisible) is at work in the music industry no less than everywhere else. Everyone who predicted that Biggie would never succeed promptly shut up when he did, and those who predicted his imminent ascent soon loudly proclaimed their pioneering early-adopter status and demanded their due props.

Of course, Darwin posed his pseudo-rhetorical question with a well-formulated answer in mind, or at least an explanatory framework, one that has become the generally accepted foundation of modern biology (and is now threatening to theoretically infiltrate the rest of the humanities, at least when it comes to explanations rather than critiques). Darwin drops his bombshell thus:

Although much remains obscure, and will long remain obscure, I can entertain no doubt, after the most deliberate study and dispassionate judgment of which I am capable, that the view which most naturalists entertain, and which I

formerly entertained—namely, that each species has been independently created—is erroneous. I am fully convinced that species are not immutable; but that those belonging to what are called the same genera are lineal descendants of some other and generally extinct species, in the same manner as the acknowledged varieties of any one species are the descendants of that species. Furthermore, I am convinced that Natural Selection has been the main but not exclusive means of modification. (*Origin*, 98)

Strangely enough, both the erroneous view that Darwin effectively demolished in 1859 and its cultural analogue remain widespread, but it is the latter I wish to focus on here.

In the music video for "Juicy," there is an introductory sketch in which a journalist asks Biggie, "Who influenced you as a rapper?" and his reply illustrates a form of "cultural creationism" that pervades the performing arts world. He says Ain't nobody really influenced me, you know what I'm sayin'?2 Then in the song he goes on to rap the opening bars: "It was all a dream, I used to read Word-Up magazine / Salt-n-Pepa and Heavy D up in the limousine." As tough as it might be to prove empirically that Biggie did indeed have influences (perhaps he had an identical twin who never listened to rap?), I can entertain no doubt, after the most deliberate study and dispassionate judgment of which I am capable, that the view which most artists entertain, namely, that their works are independently created, is erroneous, Rather, I contend that all musical and cultural genres, including rap, are the lineal descendants of some other and usually temporally extinct cultural forebear. Furthermore, I am convinced that a cultural analogue of natural selection has been the main but not the exclusive means of modification.

And what deliberate study and dispassionate judgment can I boast of that matches Darwin's? None so rigorous I'm afraid, but it is true that hip-hop culture has been my main obsession since I was old enough to know or care about what it means to be obsessed with something. As a result, I can say that I've been a lifelong student of hip-hop,

both as an observer and consumer of hip-hop culture and also as a participant, someone who makes a living rapping, performing, recording, and releasing rap records.

But if you saw me walking down the street tomorrow and didn't recognize me (which you almost certainly wouldn't since I'm not very famous), I guarantee you would not think to yourself "there goes a rapper." My style of dress is not particularly hip-hop, nor are my mannerisms or vocal inflections. I'm a white, freckle-faced, thirty-one-year-old Canadian, a former tree-planter with a master's in English literature, so you might say I'm not your typical rap artist.

Of course, for me to even make this prediction about what you would think if you saw me, I'm assuming you, the reader, have a picture in your mind right now of what it means to be "hip-hop," perhaps an image of brightly colored, ill-fitting sports paraphernalia, oversized jeans worn well below the waistline, perhaps adorned with sparkling jewelry and posing in front of a conspicuously expensive vehicle with elaborately ornamented hubcaps. Fifteen years ago I would also have predicted that the person you are picturing is ethnically black, but since Paul Wall, Bubba Sparxxx, Brother Ali, R.A. the Rugged Man, Everlast, and especially Eminem hit the scene, the idea of a white rapper has lost some of its absurdity. Also, depending on your level of familiarity with hip-hop culture, you may or may not recognize this general description of hip-hop fashion as a played-out cliché, and you may or may not be able to confidently say whether the expression "played-out" is itself played-out (Biggie was fond of it, but it's used a lot less lately). Indeed, even those with an intimate knowledge of hip-hop culture that exceeds my own will probably disagree over whether any of these cultural artifacts actually represents hip-hop or not, and whether there really is such a thing as a "typical rap artist." If such a thing existed, how would we define it? It might be especially challenging if rappers decide to self-define in a way that deliberately subverts attempts by "the critics" to pin them down, never mind ascribing influences to them. Jay-Z and Drake bring this kind of post-modern aesthetic to hip-hop when they rap, "Whatever you about to discover, we off that. . . . / Oversized clothes and chains, we off that. . . . / Cris, we off that; / Tims, we off that; rims we off that."3 If the most



Figure 1. Baba spreading Darwin's memes.

successful and widely imitated rappers in the game declare these time-honored articles of hip-hop fashion dead in a hit song, just imagine how much street cred they will have lost (the fashions, not Jay-Z and Drake) in the time between the release of the song (October 2009) and the publication of this article (next Spring is it?).

Did I say a "post-modern aesthetic"? What on earth does that mean? Despite its widespread ridicule and ban-ishment from virtually all academic disciplines, the phrase "post-modern" has found a comfortable niche in hipster slang as a semi-ironic expression for something that is difficult to define, or perhaps impossible to define, or at the very least something that carries the presumption or pretension of undefinability. If hip-hop culture falls into

that category then there's no point in going any further than head-nodding or crotch-grabbing in our attempts to comprehend or critically engage with it (except perhaps to offer the trite intellectual abdication: "the definition of hip-hop is that it's undefinable"). But Jay-Z's "post-modern" aesthetic could also be described, somewhat paradoxically, as a "biological aesthetic." The statement: "Whatever you about to discover, we off that" could be the boast of an anthropomorphized strain of HIV, confident that it will have mutated beyond all recognition before we even come close to developing a vaccine for it, never mind its many permutations. Snap!

Of course, there may come a time when scientists discover a way to effectively disable the virus in all of its relevant forms, so the epidemiological application of "Off That" is only post-modern in a de facto sense (which is why post-modernism is philosophically anathema to the sciences). But there is also a sense in which the song captures an essential biological reality: Darwin's mutability of species. Jay-Z and Drake are boasting that they are perpetually and by definition ahead of the fashion curve, and in fact that they are so influential that the fashion curve follows them instead of vice versa, so any attempt to "discover" their ultimate identity (at least as artists) is pointless. You can only say there's a present Jay-Z, and there was a 1996 Jay-Z, and you can look at how they differ (or don't differ) in terms of musical styles, fashions, self-proclaimed identity, behavior, values, politics, et cetera, but if you try to describe an essential Jay-Z with a single nature you will be confounded by counterexamples (especially since he released a song a few years ago with the chorus "I'll never change, this is Jay every day"). In this view, Jay-Z as a whole is a convergence of a particular set of biological and cultural circumstances, a public performance of a semi-persona by an organism with two parents, who themselves each had two parents, who themselves had two, and so forth, and his particular approach to rap, likewise, has forebears, antecedents, cultural ancestors. Of course, if this is true for Jay-Z then it is also true for me and for Biggie and for each of us, although the biological and cultural strands we trace will converge at a different locus for each of us at any given time.

So far, so post-modern, but the fact of this mutability does not preclude the possibility of identifying patterns, of trying to understand what is actually going on besides a great mystical mishmash. I have always been fascinated by the proliferation of biological metaphors of this sort in hip-hop. For instance, rap songs often take the form of cautionary tales warning aspiring rappers away from excessively arrogant or self-destructive behavior. This is the theme of Busta Rhymes' "Legend of the Fall Offs" and also of the Blackalicious song "Deception," which tells the story of an overnight success who "forgot to change with the moving times" because his fake new friends "gassed his head"—an object lesson culminating in the chorus: "Don't let money change ya!" Likewise, in "Lessons" R.A. the Rugged Man raps "Y'all be like HBO fighters, get the money and fame / and you get beat like . . . Prince Nasim / Yeah, you all turn pussy when you get that green." The charge that fame inevitably destroys motivation, integrity, and creativity is almost always directed at other (more famous) rappers, with the possible exception of Eminem, whose recent albums have taken to describing his own perpetual meltdown in exquisite detail. These insider accounts of hip-hop culture portray it as a social environment in which the upwardly mobile almost invariably implode as a result of their success, opening up the niche at the top of the rap food chain to further aspirants, a zero-sum game (if I win, you lose) that is less like a musical genre than a gladiator arena.

Whether or not this "gladiator model" is an accurate description of how hip-hop culture operates, it is certainly an accurate description of the way rappers *experience* it. It is also uncannily similar to the way Charles Darwin describes the process of biological change in the *Origin of Species*. When rappers describe their rivals as having lost their competitive edge, of going soft, they are accusing them of having been *domesticated* by fame. In the *Origin of Species* Darwin writes:

I find in the domestic duck that the bones of the wing weigh less and the bones of the leg more, in proportion to the whole skeleton, than do the same bones in the wild-duck; and I presume that this change may be safely attributed to the domestic duck flying much less, and walking more, than its wild parent. (*Origin*, 101)

This was Darwin's singular and utterly original insight, that living things can be observed to change over time in highly predictable and directional ways in response to environmental pressures—that species are mutable. A wild duck (following R.A the Rugged Man) could accuse a domesticated duck of "turning pussy" because of its diminished ability to fly, to which a domestic duck might reply: "So what? I get fed every day and you don't, bitch-ass player-hater." However, this is only a tenable argument as long as the domestic duck continues to get fed every day. On Christmas Eve, the wild duck might be having the last laugh, while quacking warnings to its con-specifics in the pond along the lines of "Don't let animal husbandry change ya!" Yet in the "currency" of natural selection—number of surviving descendants-domesticated animals and plants have made out like bandits (or pop stars), overwhelming their "underground" wild cousins. The total mass of all domesticated animals is currently estimated at roughly one hundred megatons of carbon, compared to a mere five megatons worth of wild land vertebrates.4 Of course, the example of domesticated animals was only a bridge for Darwin, a bridge to help us understand that the same process that slightly alters the relative bone weight in a duck's legs and wings is also capable of turning a pigeon into a waddling flightless dodo, given enough time, and on an even larger timescale is capable of turning a single-celled prokaryote into a human being.

As the evolutionary biologist David Sloan Wilson is fond of saying, "Evolution is fundamentally about the relationship between organisms and environments." In the case of domesticated plants and animals, the relevant environment is human selective breeding. The traits being selected, such as large udders in cows and a keen sense of smell in dogs, are chosen either consciously or unconsciously (through preferential treatment) by humans because of their utility. In the case of "domesticated rappers," the relevant environment is the music industry, and the changes take place

within a person's lifetime instead of over many generations, as hip-hop personas are selected by record labels and talent scouts, also for the sake of utility—in this case profitability (which is also a primary motive for animal breeders, since profits follow closely behind utility). Of course, selective breeding leaves domesticated animals woefully unprepared to compete in the wild if they are ever turned loose, and hip-hop contains some excellent parallel examples.

If there were a hip-hop bible, it would contain "The Parable of Vanilla Ice," about the foolish rapper who built his career on sand. At a 2006 speech to the Berklee School of Music in Boston, legendary Public Enemy front man Chuck D admonished young hip-hop fans not to forget about their cultural evolutionary roots:

"I know that even young people out there have Vanilla Ice and MC Hammer denial," he said at one point. "But somebody bought those records." He then contextualized his mention of Ice's name, explaining, "The Beastie Boys led to 3rd Bass, 3rd Bass led to Vanilla Ice, and Vanilla Ice led to Eminem. And don't forget that. Because evolution also teaches you what not to do."

Chuck D is alluding to Vanilla Ice's notorious sell-out to SBK Records, the ultimate act of domestication. Contrary to popular assumption, in the late 1980s Vanilla Ice was a relatively well-respected underground rapper who was building a reputation in the Southern USA as a talented up-and-comer, able to impress both black and white hiphop audiences. He toured with EPMD and Ice-T, and from the beginning Chuck D spoke highly of the white rap prodigy (he even did a guest rap on one of Ice's later albums). With support from influential rappers like Chuck D, Vanilla Ice had the potential to follow the Eminemstrategy of linking with a well-respected hip-hop label as a springboard. However, SBK Records (home of saccharine pop acts like Technotronic and Boy George) sat Vanilla Ice down in their offices with an offer he apparently couldn't refuse. Ice himself describes the decision like this:

They told me, we want you to wear these baggy pants because the young kids like it and it's all glittery and polished and everything, and I said, "Fuck no, I'm not wearin' this gay-ass shit," and they said, "Well here's a million dollars, man, will you do it?" And I said, "Fuck yes." And anybody would have done the same thing if they were given the same chance. I'd lick my mother's asshole for a million dollars.⁷

This was Vanilla Ice's speciation moment, which held the potential for him to evolve into one of two divergent niches: on the one hand Public Enemy and Def Jam (and hip-hop respect), and on the other Boy George and SBK and his mother's sphincter (and no respect, period). He took the check and the rest is hip-hop history. Vanilla Ice's debut album "To the Extreme" was number one in the Billboard charts, selling twelve million copies, the highest-selling rap album ever at the time. I remember when it came out, of course, because I was twelve years old and already an avid rap listener. I wish I could say I was savvy enough at twelve to recognize how wack Vanilla Ice was right from the get-go, but it would be a lie. I was the target audience that SBK Records correctly predicted would take to Vanilla Ice like a greyhound to a mechanical rabbit. I bought the tape and rocked it enthusiastically along with my DJ Jazzy Jeff and the Fresh Prince, Fat Boys, Slick Rick, Young MC, and Ice-T albums, telling anyone who would listen "and he's white!"

If you're only vaguely familiar with Vanilla Ice, you might not be aware that his name has become shorthand in hip-hop for "sell-out poseur," but you probably have some sense that he's a punch line rather than a contender. He was dissed by numerous other rappers, white and black, savaged by critics, and eventually found his niche making grunge rap metal albums, which he still produces and tours with, but there's no escaping your reputation. In a way I sympathize with him, because he is now making the kind of music he always intended to make (i.e., noncommercial music, which gets only as much attention as it can muster and no more), having publicly denounced SBK Records for exploiting and manipulating him. I sympathize because he

can't shed the baggage of his iconic cultural status as the wackest thing ever to happen to hip-hop, which stays with him like a bulging vestigial organ—he can't start over. But on the other hand, he took the check, and every white rapper for the next two decades suffered the consequences of being guilty by association. Why did Vanilla Ice fall off after his first album? He imploded not because of excessive arrogance or bad behavior, but because he allowed himself to be domesticated as an artist, and not just a little bit, but utterly, and by people who were grooming him for a very narrow purpose: short-term novelty appeal for immediate windfall profit. He triggered the hip-hop cheater-detection module like no other artist. If the audience's expectations are x, then tight rhymes are defined as y. But a toy poodle can't compete in the wild with wolves, even if they do share a common ancestor. Vanilla Ice also fell off because of an insufficient comprehension of evolution, which teaches you what not to do. If this isn't witnessed clearly enough by his career, he leaves no room for doubt later on in the infamous "what-I'd-do-to-my-mother-for-a-milliondollars" interview: "I'm not really religious. I just believe that there's a higher power and that we're not evolved or whatever. We didn't just come from the sand."

So here's the million-dollar question: Are these cultural analogies for evolution just metaphors, or not? It is very uncontroversial to say things like, "The music industry is like an ecosystem, with various participants representing various niches and links in the food chain, producers, consumers, scavengers, predators, parasites, etc." If these kinds of statements are just metaphors, then they are at the very least an effective way to illustrate how evolution works, by comparing natural processes to familiar examples from pop culture. How is a rapper's bling like a peacock's tail? Let me count the ways. On the other hand, if these kinds of statements are not just metaphors, then we can use them not only as illustrative examples to help us understand how evolution works; in this case we can also reverse the flow of illumination and say that the basic laws of evolution have shaped not only our opposable thumbs and binocular vision, but also our record collections and wardrobes, everything down to our choice of words and the way we pronounce them, literally everything. In my album and comedy rap theatre show The Rap Guide to Evolution, I take both approaches, using examples from hip-hop culture as bridges to understanding evolution, just as Darwin did with farm animals, and also looking at the ways in which we can use evolutionary theory (mainly meme theory and evolutionary psychology) to help us understand what hip-hop is, where it comes from, and especially why it is so popular, especially with young people. Although I am applying these ideas to rap as a specific cultural phenomenon, they are equally applicable to any genre or subculture or realm of human activity, and I hope you will think of ways to extend them into your own area of expertise, your own profession, your own life. I don't think the "metaphor vs. non-metaphor" question has been fully resolved by either the biological or social sciences (probably cognitive neuroscience will show us the way), but there are many people working on it, and it remains as tantalizing as ever to explore. Turn it over in your head for a moment. Is cultural evolution merely like biological evolution (which is obviously the case)? Or are they actually the same process operating on different kinds of things (which is probable but not certain)?

Luckily we don't need a definitive answer in order to proceed. We can remain as agnostic on the million-dollar question as Darwin was about the mechanism of inheritance (it's actually the same question, but with a different answer). We can say confidently that cultural practices do evidently evolve, as do languages, and reserve judgment as to whether the mechanism of cultural inheritance is one that works so similarly to genetic evolution that we can treat them as different manifestations of the same process, or whether they are parallel processes that would more accurately be called "similar but different," analogous rather than homologous. And just as Darwin's expertise on geology and biogeography were crucial to his understanding of natural selection, the emerging field of evolutionary psychology is mapping the fitness landscape against which cultural evolution unfolds: the human mind. Geneticists advance their understanding of how DNA influences behavior and anatomy by focusing on model organisms such as fruit flies, nematodes, and Zebrafish. My proposal is that hip-hop culture is the ideal

"model organism" for helping us understand cultural evolution. Zebrafish make an ideal model organism because they are transparent during early development, literally providing a window into their anatomy. Likewise, rap music offers us rare insights into cultural evolution because it so often takes its own proliferation as its explicit subject matter, arguably more so than any other cultural genre. Some would call this obsession with fame and success a "shallow" preoccupation of hip-hop, and others would call it an "honest" (or "transparent") preoccupation, depending on their ideology. But whatever your own relationship with the phenomenon of notoriety, it is important to note the crucial role it plays in cultural evolution. Since the differential replication of culture occurs primarily in human brains (and secondarily in texts and artifacts), the hard question in cultural evolution is this: what makes something (or someone) Notorious? Or, to phrase it in Dan Dennett's terms: first you rap, and then what happens?8 The examples I have provided from a handful of hip-hop artists are a mere surface scratching of the rich collection of data that exists, data in the form of personal testimonials set to music, which evolutionists can mine for clues that might throw light on that mystery of mysteries, that is, the origin and function of our creative endeavors.

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NOTES

1. Darwin, Origin of Species, 98; hereafter cited parenthetically as Origin.

- 2. Notorious B.I.G., Ready to Die, "Me & My Bitch."
- 3. For those with only a remedial level of hip-hop literacy, "Cris" is Cristal champagne, which Jay-Z decided to boycott in 2006 after negative comments made by one of the company's executives (see "Jay-Z Boycotts Cristal Champagne"); "Tims" is a reference to Timberland footwear.
 - 4. Smil, Earth's Biosphere.
 - 5. Wilson, Neighborhood Project.
 - 6. Coleman, Speech.
 - 7. Vontz, "Ice Capades."
 - 8. Dennett, Sweet Dreams, chap. 7.