

Nothing in Popular Culture Makes Sense Except in the Light of Evolution

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An evolutionary lens can inform the study of cultural forms in a myriad of ways. These can be construed as adaptations, as exaptations (evolutionary byproducts), as gene–culture interactions, as memes, or as fossils of the human mind. Products of popular culture (e.g., song lyrics, movie themes, romance novels) are to evolutionary cultural theorists what fossils and skeletal remains represent to paleontologists. Although human minds do not fossilize or skeletonize (the cranium does), the cultural products created by human minds do. By identifying universally recurring themes for a given cultural form (song lyrics and collective wisdoms in the current article), spanning a wide range of cultures and time periods, one is able to test key tenets of evolutionary psychology. In addition to using evolutionary psychology to understand the contents of popular culture, the discipline can itself be studied as a contributor to popular culture. Beginning with the sociobiology debates in the 1970s, evolutionary informed analyses of human behavior have engendered great fascination and animus among the public at large. Following a brief summary of studies that have explored the diffusion of the evolutionary behavioral sciences within specific communities (e.g., the British media), I offer a case analysis of the penetration of evolutionary psychology within the blogosphere, specifically the blog community hosted by *Psychology Today*.

Keywords: content analysis, human universals, song lyrics, collective wisdoms, cultural fossils

Are products of popular culture strictly powerful socialization agents bound to a particular time and place, or do they contain elements that are reflective of a universal human nature? Many lay people and scholars alike reflexively pit biology and culture against one another, as two mutually exclusive explanatory forces of the human condition. This dichotomy has many names including nature versus nurture, innate/instinctual versus learned, and genes versus the environment. Parrott, Silk, and Condit (2003) investigated how lay people assign relative causal influence to genes, environments, and personal behaviors when it comes to various issues including individuals' height, weight, contracting diseases, and various talents and mental abilities. Genes were ascribed a much greater weight for a morphological trait (height) than they were for idiosyncratic talents or mental abilities. In other words, respondents strongly believe that for many human traits, nongenetic factors are crucially important. If a similar exercise were carried out with cultural theorists whereby they were asked to ascribe the relative importance that biology plays in shaping products of popular culture, it is safe to assume that the net weight would be close to zero. If anything, the great majority of scholars who study popular culture define their areas of inquiry in juxtaposition to biology. In their eyes, what makes us unique within the animal kingdom (assuming that such scholars accept that we are animals) is our distinct capacity to transcend our biology.

In reality, nature versus nurture is a false duality because humans are an inextricable mix of their biological heritage and their unique talents and environmental contingencies. Our evolved cognitive blueprints do not operate in a vacuum; rather a wide range

of environmental inputs trigger them. Furthermore, many forces of socialization, including those found in popular culture, exist in universally recurring forms precisely because they are shaped by biological realities. In other words, much of nurture is dictated by nature or to quote the Harvard entomologist E. O. Wilson (1978, p. 167), “The genes hold culture on a leash. The leash is very long, but inevitably values will be constrained in accordance with their effects on the human gene pool.” In the current article, I argue that our genes hold popular culture on a leash. In other words, rather than viewing the human mind as a blank slate that is subsequently shaped by arbitrary (if not patriarchal and sexist) products of popular culture, I propose that many aspects of popular culture are invariant to time and place precisely because they are indicative of our evolved human nature (Saad, 2007, Chapter 5; Saad, 2011a, Chapter 6).

To demonstrate that universal themes exist within popular culture does not negate the importance of culture-specific traditions. If asked to identify cross-cultural differences as well as human universals, most individuals would have a much easier time listing examples of the former. One could easily generate endless examples of culture-specific foods, musical styles, clothing attire, cinematic genres, religious beliefs, dialects, artistic forms, and folkloric dance, to name a few examples. Notwithstanding the rich tapestry of countless culture-specific expressions, there exists an underlying set of human universals on which all such heterogeneity is expressed. In the same way that the existence of wildly different spoken languages does not negate the fact that humans possess a universal language acquisition system, the same applies for culture-specific instantiations of popular culture. It is indeed true that Hindi songs are stylistically very different from American R&B music; however, both genres contain lyrical content that is quite similar (e.g., men are much more likely to sing about women's beauty; women are much more likely to sing about the

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unattractiveness of low-status men; see the analysis of song lyrics, as one of the two case analyses below).

My objective in the current article is twofold. First, I offer content analyses of two instantiations of popular culture: song lyrics and collective wisdoms (e.g., proverbs and sayings), as a means of highlighting universal themes of evolutionary import. Table 1 lists various elements of popular culture that have been explored from an evolutionary perspective. My second objective is to demonstrate how evolutionary psychology (EP) has itself become part of popular culture. Few people are indifferent to EP be they academics or laypeople. Some individuals are immediately bitten by the evolutionary bug and accordingly feel liberated by its explanatory powers. Others detest the discipline for a wide variety of reasons, the most important of which I shall briefly enunciate. I discuss works that have tracked the public debates regarding the evolutionary behavioral sciences (sociobiology and EP) along with their subsequent diffusion within specific communities and intellectual niches. I conclude with a case analysis of the diffusion of EP within popular culture. Specifically, I highlight the prevalence of EP within the blogosphere, most notably via the number of evolutionarily informed blogs at *Psychology Today*, a premier dispenser of psychological knowledge to the masses.

Prior to tackling the latter two objectives, I offer a synopsis of various approaches for investigating culture via an evolutionary lens. These approaches are not mutually exclusive. They each offer unique and valuable insights into the evolutionary roots of human culture.

Evolutionary Approaches in Studying Culture

Most scholars who investigate culture via an evolutionary lens typically do so with an eye toward arguing that a given cultural

form is an adaptation or an exaptation. Whereas adaptations evolve via selection pressures because they yield survival or reproductive benefits, exaptations are byproducts of evolutionary processes (see Andrews, Gangestad, & Matthews, 2002 for additional details). For example, religion has been construed as an adaptation that confers a survival advantage (Wilson, 2002) or as an exaptation whereby cognitive systems that originally evolved for nonreligious purposes have since been usurped in the service of the religion memplex (Boyer, 2001; see Boyer & Bergstrom, 2008, and Pyysiäinen & Hauser, 2010, for reviews of evolutionary approaches in the study of religion). Miller (1999, 2000) has proposed that the creation and/or mastery of particular cultural forms serve as sexual signals in the mating market that confer reproductive rather than survival benefits (largely for men). Think of the increased mating opportunities that accrue to famous rock stars (e.g., Gene Simmons of the rock group *Kiss*), actors (e.g., Warren Beatty), or painters (e.g., Pablo Picasso). That said, fame could be potentially beneficial to women as well, perhaps in terms of increasing the quality of prospective suitors (rather than the overall number of suitors).

Gene–culture coevolution is another evolutionary-based approach for studying culture (Boyd & Richerson, 1985; Richerson & Boyd, 2005). The framework recognizes that humans are subject to the interactive and two-way causal forces of biological as well as cultural evolution. Within this theoretical framework, not only do our genes shape our environments including the various instantiations of culture but also cultural forms affect our genes (see Laland, Odling-Smee, & Myles, 2010 for a review of phenomena that are driven by gene–culture interactions). Perhaps the most famous example of a cultural practice shaping selection for particular genes is the distribution of the genes for lactose tolerance as

Table 1
Analyses of Various Forms of Popular Culture and Associated References

Popular culture	References
Advice columns (nonevolutionary analysis)	Gudelunas, 2008
Advertising content	Saad, 2004
Architectural, urban, and interior design (evolutionary and biophilic architecture)	Tsui, 1999; Kellert, Heerwagen, & Mador, 2008
Art (<i>Homo aestheticus</i>)	Boyd, 2009; Dutton, 2009
Celebrity gossip	De Backer et al., 2007
Consumer behavior (<i>Homo consumericus</i>)	Saad, 2007, 2011a
Culinary traditions (Darwinian gastronomy)	Sherman & Billing, 1999; Wrangham, 2009
Dance	Brown et al., 2005; Neave et al., 2011
Darwinian literary studies/evolutionary narratology	Gottschall & Wilson, 2006
Fashion	Heywood & Garcia, 2010
Films	Boyd, Carroll, & Gottschall, 2010; Grodal, 2004, 2007; Kramer, 2004
News headlines	Davis & McLeod, 2003
Personal ads	Campos, Ota, & Siqueira, 2002; Greenlees & McGrew, 1994; Wiederman, 1993
Pornography	Pound, 2002
Pottery	Hudson & Aoyama, 2006
Product design (biomimicry)	Benyus, 2002
Religious narratives	Betzig, 2005
Romance novels	Cox & Fisher, 2009; Salmon & Symons, 2003
Speed dating services	Kurzban & Weeden, 2005
Troubadours	Monson, 2011
Toys	Alexander, 2003; Alexander & Hines, 2002; Hassett, Siebert, & Wallen, 2008
Video games	Mendenhall, Saad, & Nepomuceno, 2010

a function of whether or not a culture has adopted pastoral subsistence (Beja-Pereira et al., 2003; Durham, 1991; Tishkoff et al., 2007). Chiao and Blizinsky (2010) recently applied a gene–culture coevolution framework in explaining the link between how 29 countries score on the individualism–collectivism cultural trait and the frequency of an allelic variant of the serotonin transporter gene (5-HTTLPR). In doing so, the researchers have highlighted how heterogeneity along a cultural trait is at times rooted in biological processes. Cataloging cultural diversity is a worthy endeavor. Identifying the genesis of such cross-cultural differences completes the story.

In Chapter 11 of his classic book *The Selfish Gene*, Dawkins (1976) introduced the term *meme* as a means of representing the unit of selection for cultural evolution (see also Aunger, 2000, 2002; Blackmore, 1999). A meme is any idea, belief, or other packet of information that can spread from one person’s brain to another. In other words, a meme is the cultural counterpart of the gene. For example, when reading a book, your brain is being infected by the author’s memes. Many elements of popular culture such as catchy advertising slogans (e.g., Wendy’s famous “Where’s the Beef” advertising campaign) can be construed as memes that spread virally within a population. The virulence of a meme or a memplex (a connected set of memes such as religion) varies depending on a host of variables. For example, Islam is a more “infectious” memplex than Judaism because it is composed of rules that greatly aid the transmission and spread of its memes (e.g., it is very easy to convert to Islam; death for apostasy; proselytizing and expansionism are inherent and central elements of its doctrines; criticism of Islam is forbidden). That memes might be diffused in a population via an evolutionary process is part and parcel of universal Darwinism (Cziko, 1995), which recognizes that variation, selection, and heredity need not be restricted to biological evolution, as evidenced in fields such as evolutionary epistemology (Heyes & Hull, 2001), Darwinian creativity (Simonton, 1999), cultural evolution (Mesoudi, 2011), and social and economic evolution (Hodgson & Knudsen, 2010).

The tree of life captures the relationships between species across deep evolutionary time. In such a visual depiction, the evolutionary closeness of two species can easily be gauged (e.g., humans are closer to chimpanzees than they are to rabbits). Could one generate a similar tree-like genealogy albeit for a particular cultural form (e.g., popular music)? Conceptually, this seems feasible as one could trace the historical connections (if any) between various musical genres (e.g., Disco is more closely linked to rap music than it is to American folk music). This still leaves the question of how do new musical genres arise? Martindale (1990) proposed that new movements within a given artistic form (e.g., painting) are “speciated” as a function of their distinctiveness from existing ones. In other words, the substrate of selection in the evolution of cultural forms is the quest for novelty, given the capacity of newness to arouse the senses of the consuming audience (see Bunzeck & Düzel, 2006 for a neuronal investigation of how the human brain processes novel stimuli). This is not unlike the ways by which teenagers in part establish their musical preferences, namely seeking to distance themselves from their parents’ favorite musical genres. It is also at the root of why people will marvel at a 1950s car on a contemporary street whereas no one might have batted an eye at that car during its time period.

Organic material does not fossilize well. Unlike paleontologists who utilize fossils and skeletal remains to study the evolutionary history of a species, evolutionary behavioral scientists must rely on other remains if they are to elucidate the evolutionary forces that have shaped the human mind (as brain tissue seldom fossilizes). Products of popular culture serve such a purpose in that they are creative vestiges of a universal and shared human nature steeped in a common biological heritage. The contents of a specific cultural product (e.g., a particular play, novel, song, movie, or poem) often contain universal themes that highlight features of the evolved human mind. It is in this sense that products of popular culture could be construed as *cultural remains* ripe for the appropriate content analysis. I next offer content analyses of two forms of popular culture, collective wisdoms (via famous quotes) and song lyrics, to demonstrate universally recurring phenomena steeped within a shared human nature.

Case Analysis I: Collective Wisdoms

The wisdom of the wise and the experience of the ages is preserved into perpetuity, by a nation’s proverbs, fables, folk wisdom, maxims, aphorisms and quotations.—William Feather, American publisher

Collective wisdoms, as captured by cross-cultural sayings, quotes, proverbs, or jokes, constitute an integral component of popular culture.¹ They are powerful repositories of universal truths rooted in a shared human nature. Take for example, the sexual dimorphism regarding the extent to which men and women are willing to engage in casual sex. Parental investment theory (Trivers, 1972) contends that for any sexually reproducing species, the sex that endures the greater minimal obligatory parenting cost will make more judicious mating choices. Of course, in the human context, women provide the greater minimal obligatory parental investment, and as such they are more likely to be sexually choosy. This reality is not specific to a particular time or place. Accordingly, one should find that collective wisdoms (quotes, sayings, or proverbs) would reflect this universal reality. Here are a few quotes that speak to that truth:

Women need a reason to have sex—men just need a place.—Billy Crystal, American actor and comedian, 1948–

Among men, sex sometimes results in intimacy; among women, intimacy sometimes results in sex.—Barbara Cartland, British author, 1901–2000

I think men talk to women so they can sleep with them and women sleep with men so they can talk to them.—Jay McInerney, American novelist, 1955–

When a guy goes to a hooker, he’s not paying her for sex, he’s paying her to leave.—Unknown author

Men place greater importance on physical attractiveness when judging prospective mates, and this holds true across cultural settings (Buss, 1994). Accordingly, numerous beauty-related quotes are reflective of this universal truth. Here are a few quotes that speak to this reality:

¹ The quotations cited in this article were obtained via several Internet repositories of quotes.

Beauty is the first present Nature gives to women, and the first it takes away.—George Brossin Méré, French moralist, 1610–1685

It sometimes happens that a woman is handsomer at 29 than she was 10 years before.—Jane Austen, British novelist, 1775–1817

When a man gets up to speak, people listen, then look. When a woman gets up, people look; then, if they like what they see, they listen.—Pauline Frederick, American actress, 1883–1938

A man falls in love through his eyes, a woman through her ears.—Woodrow Wyatt, British politician, 1918–1997

The chief excitement in a woman's life is spotting women who are fatter than she is.—Helen Rowland, American humorist, 1875–1950

She's beautiful, and therefore to be woo'd.—William Shakespeare, English playwright, 1564–1616

Beauty is the wisdom of women. Wisdom is the beauty of men.—Chinese proverb

Every time you see a beautiful woman, just remember, somebody got tired of her.—Unknown author

The last quote speaks to the Coolidge effect, namely men's more pronounced penchant for sexual variety (see Saad, 2011a, p. 244 for additional details regarding this effect).

Another universal mating reality is that women ascribe greater import to cues of social status in a prospective mate. The following quotes are demonstrative of this universal truth:

There are a number of mechanical devices that increase sexual arousal, particularly in women. Chief among these is the Mercedes-Benz 380L convertible.—P. J. O'Rourke, American satirist, 1947–

If women didn't exist, all the money in the world would have no meaning.—Aristotle Onassis, Greek shipping industrialist, 1906–1975

But there certainly are not so many men of large fortune in the world as there are of pretty woman to deserve them.—Jane Austen, British novelist, 1775–1817

These next two quotes recognize the power of female mate choice, as implicit in sexual selection:

It is the woman who chooses the man who will choose her.—Paul Géraudy, French poet, 1885–1983

When a man goes on a date he wonders if he is going to get lucky. A woman already knows.—Frederike Ryder, German poet, 1788–1866

Whereas I have thus far focused on mating-related quotes, other Darwinian processes are as poignantly captured in cross-cultural quotations. In Chapters 4 and 5 of *The Consuming Instinct* (Saad, 2011a), I offer the following cross-cultural proverbs that speak to the kin selection and reciprocity modules. In the latter case, reciprocity drives the need for close friendships, which are in part nurtured via various forms of gift giving and acts of hospitality (see quotes below):

Proverbs about kin:

Blood is thicker than water.

An ounce of blood is worth more than a pound of friendship.—Spanish

In time of test, family is best.—Burmese

Treat your family like friends and your friends like family.

Proverbs about reciprocity (nonkin friendships, gift giving, and hospitality):

A good friend is worth many relations.—global proverb

One good friend is more than nine relatives/A good friend is my nearest relation.—Estonian

Kind friends are better than unkind brothers.—Chinese

Small presents keep up friendship.—Western European, Islamic, and Older Asiatic (Orient)

The dish sent by a neighbor does not satisfy you, but increases goodwill.—Persian

Good accounts make good friends.—Greek

Hospitality asks for equal treatment in return.—Finnish/other Baltic sea cultures, European in general, sub-Saharan Africa, and older Asiatic (Orient) cultures

Courtesy on one side can never last long.—global

A proverb or saying would never be retained within the pantheon of collective wisdoms if it were not rooted in a universal human nature. Despite Margaret Mead's staunch effort to convince the world that human sexuality is culture-bound, no culture has ever been found with the following popular maxims: "Men need a reason to have sex—Women just need a place." or "Among women, sex sometimes results in intimacy; among men, intimacy sometimes results in sex." Collective wisdoms, as products of popular culture, are manifestations of our shared human nature.

Case Analysis II: Song Lyrics

Music must take rank as the highest of the fine arts—as the one which more than any other ministers to human welfare.—Herbert Spencer, British philosopher, 1820–1903

Music is the universal language of mankind.—Henry Wadsworth Longfellow, American poet, 1807–1882

I have my own particular sorrows, loves, delights; and you have yours. But sorrow, gladness, yearning, hope, love, belong to all of us, in all times and in all places. Music is the only means whereby we feel these emotions in their universality.—Harry Allen Overstreet, American psychologist, 1875–1970

All deep things are Song. It seems somehow the very central essence of us, Song; as if all the rest were but wrappings and hulls!—Thomas Carlyle, Scottish historian, 1795–1881

There is no truer truth obtainable by man, than comes of music.—Robert Browning, English playwright, 1812–1889

Countless philosophers, poets, and other intellectuals spanning diverse cultural settings and epochs have noted the universal import of music. It is not surprising then that music is at the forefront of contemporary popular culture. Of the world's top 20 most powerful celebrities (across genres) in 2011, 10 originate from the music industry (Lady Gaga, Justin Bieber, U2, Elton

John, Taylor Swift, Bon Jovi, Simon Cowell, Katy Perry, Black Eyed Peas, and Paul McCartney; <http://www.forbes.com/wealth/celebrities/list>). Music is a central element of most important rites of passages and defining moments of an individual's life. Many people remember the song that was playing during their first slow dance (mine was "Loving You" by Minnie Riperton). Newlyweds carefully choose which song they will play for their first wedding dance. Barry White's music is often referred to as the epitome of "baby making" music. We exercise to music; work at a café against the backdrop of ambient music; we become nostalgic whenever we hear a song that reminds us of some past moment or relationship (e.g., a "breakup song"). Ultimately, music moves us in ways that few other artistic forms can aspire to, in part because it is ubiquitous in our daily lives.

An evolutionary analysis of music can be tackled in the myriad of ways that I mentioned earlier (as an adaptation, as an exaptation, as a meme, as a sequence of speciated events; see Saad, 2011b for relevant references across the various Darwinian musicology research streams). I argue for yet another evolutionary-based approach, namely the thematic contents of song lyrics speak to universal mating preferences. If one wishes to understand sexual dimorphisms when it comes to human sexuality, there are few cultural fossils that are as enlightening as song lyrics, in part because the overwhelming majority of songs are about mating, love, and romance (Dukes, Bisel, Borega, Lobato, & Owens, 2003; Horton, 1957; Ostlund & Kinnier, 1997). The issues that men and women sing about are perfectly congruent with universal mating realities. For example, men are much more likely to use songs as a form of sexual signaling including via brand mentions of luxury items. Agenda Inc., a consulting firm, conducted a content analysis for 3 consecutive years (2003–2005) of the lyrics of top 20 billboard songs. Specifically, the study sought to establish the extent to which brands are mentioned, which brands are most frequently mentioned, and the extent to which male versus female singers engage in brand mentions. Across the 3 years of the study, 37.9% of the hit songs contained brand mentions (38.7%, 40%, and 34.9% in 2003, 2004, and 2005, respectively), with men comprising the great majority of artists who mentioned brands in their song lyrics. Finally, an overwhelming number of brand mentions dealt with luxury brands associated with conspicuous consumption. For example, cars constituted 23 of the 45 most mentioned brands, and not surprisingly these were for very high-end luxury automobiles (e.g., Bentley, Jaguar, Lamborghini, Maybach, Mercedes, Porsche, and Rolls Royce). Other brand mentions were for high-status clothes, shoes, watches, and alcoholic beverages (e.g., Gucci, Manolo Blahnik, Rolex, and Dom Perignon). Of note, there were also several mentions of guns (AK-47 and Beretta), meant to highlight men's readiness to respond violently to intrasexual challenges.

Numerous other universal mating realities could be identified via song lyrics including the differential import ascribed to social status and physical attractiveness by the two sexes. Women are much more likely to sing about the undesirability of low-status men who fail to provide the necessary resources ("Why Don't You Do Right" by Peggy Lee; "Go Away Little Boy" by Marlena Shaw; "Ain't Nothing Goin' On But the Rent" by Gwen Guthrie; "No Scrubs" by TLC; "Bills, Bills, Bills" by Destiny's Child; and "Tyrone" by Erykah Badu). It is no surprise then that the preoccupation with possessing great wealth (or wishing to obtain it) is

largely communicated by male singers ("Money Ain't a Thang" by Jermaine Dupri featuring Jay-Z; "Got Money" by Lil' Wayne; "Plenty Money" by Plies; "Billionaire" by Travie McCoy; "Make It Rain" by Fat Joe featuring Lil' Wayne). On a related note, in "Hit 'Em Up Style (Oops)!" Blu Cantrell reminds us that a poignant way of seeking revenge on a philandering man is to spend his money in a lavish manner. Hurt him where it counts—his wallet.

In line with evolutionary principles, men are also much more likely than women to sing about specific physical attributes ("Baby Got Back" by Sir Mix-A-Lot; "Rump Shaker" by Wrecks-N-Effect; "Brick House" by the Commodores; "Thong Song" by Sisqo; "Da Butt" by E. U.; "Whoot! There It Is" by 95 South; "Back That Ass Up" by Juvenile). There are many songs about women's behinds but few about men's penises (as sung by women). More generally, songs that refer to physical beauty are almost exclusively sung by men ("You Are So Beautiful" by Joe Cocker; "You're Beautiful" by James Blunt; "Beautiful" by Akon; "When You're in Love with a Beautiful Woman" by Dr. Hook and the Medicine Show; "The Most Beautiful Girl in the World" by Prince; "Nothin' on You" by B.o.B. featuring Bruno Mars; "Beautiful Girls" by Sean Kingston; "Beautiful" by Snoop Dogg featuring Pharrell and Uncle Charlie Wilson). When women sing about physical attributes, it is much more likely to be for the purpose of advertising their beauty rather than to refer to a man's beauty (e.g., "Bootylicious" by Destiny's Child). On occasion, a song captures multiple evolutionary themes, as is the case with "Beast of Burden" by the Rolling Stones. Mick Jagger proclaims to his love interest that she is very pretty and then wonders whether she is rejecting him because he is not sufficiently rich. Other evolutionary themes captured in song lyrics include paternity uncertainty ("Billie Jean" by Michael Jackson; "Gold Digger" by Kanye West; "Lil' Nigga Ain't Mine" by Jaheim; "That Baby Don't Look Like Me" by Shawty Putt featuring Lil' Jon; "Not My Baby" by Bone Thugs-n-Harmony), and sex differences regarding the judiciousness of mate choice ("Let's Wait a While" by Janet Jackson; "(When You Gonna) Give It Up To Me" by Sean Paul; "Don't the Girls All Get Prettier at Closin' Time" by Mickey Gilley; "Straight Up" by Paula Abdul).

It is worth reiterating that although I have offered examples largely stemming from American culture, I am arguing that these are representative of global realities. Ultimately, irrespective of the cultural origins of a particular song, it will contain contents that are universal. Evolutionary analyses of popular culture such as the ones discussed here are rarely conducted (but refer to Table 1 for examples). If so, what have been the dominant paradigms used by popular cultural theorists? In the ensuing section, I offer a synopsis of such modes of inquiry, collectively known as antiscience approaches.

Antiscience Approaches

In 2005, I attended the *National Meeting of the Popular Culture/American Culture Associations (PCA/ACA)*, which was held that year in San Diego, to present my paper titled "Understanding Popular Culture Via Evolutionary Psychology: The Case of Song Lyrics." This was my first and only attendance at an academic conference dedicated to the study of popular culture. The two characteristics of the conference that stuck with me were its sheer

size and the lack of unifying theoretical frameworks for understanding the extraordinarily wide range of cultural products that were investigated. Typical frameworks utilized by students of popular culture include Marxism, feminism, postmodernism, deconstructionism, and identity politics. These movements share one common theme: they are all distinctly antiscientific (see Gross & Levitt, 1994 for a trenchant criticism of such pseudointellectual fads, and Sokal & Bricmont, 1998 for a targeted attack on postmodernism). All such approaches are antithetical to an evolutionary analysis of popular culture because their ideological and epistemological posturing rejects the existence of biological-based human universals. A Marxist analysis of a cultural product will inevitably focus on class struggles. A feminist analysis purports that sex differences are socially constructed (in part via the use of cultural products) and are largely shaped by the conspiratorial and sexist agenda of the patriarchy. Identity politics presume that scholars' analyses of any cultural phenomenon are ultimately bound and constrained by their idiosyncratic identities (cultural, ethnic, religious, sexual orientation, and so forth). This is the reason why many cultural theorists will start off their analyses with an admission (confession?) of the likely biases due to their iden-

tity. A hypothetical but otherwise typical example might look as follows: "My analysis is shaped by the fact that I am a former Catholic Mexican American male but currently Latina transgendered anticapitalist feminist."

Table 2 contains a representative list of titles of talks that were presented at the recent PCA/ACA conferences (the first two are from 2009 and all others from 2010). Note how in many instances multiple identities are described within a given talk ("Polish Queer Lesbianism"; "Queer Fat Femmes"). Hence, cultural products are invariably analyzed through the lens of one's preferred political ideology (feminism, Marxism), epistemological ideology (postmodernism, deconstructionism), and/or defining identity (Chicano, lesbian, mulatto, fat). Such approaches are incongruent with a scientific analysis of popular culture. Instead, they typically constitute orgiastic attempts at either offering obscurantist verbiage and/or wallowing in the victimology ethos. I don't wish to imply that analyses that are culturally or temporally bound are inappropriate. For example, to explore how the depiction of women in American print ads has changed over the past 50 years is a perfectly laudable endeavor. As such, to delineate the scope of a content analysis of a product of popular culture to a specific time

Table 2
Titles From Recent PCA/ACA Conferences (2009 and 2010)

Marxism

- "Marx and the Motorcycle in the American Fifties" (2009)
- "Eat the Rich: Marx's *Sweeney Todd*" (2009)
- "The Marx of the Beast: Socio-Sacrificial Altars and Trickle-Down Theory in *The House Of The Devil*"

Feminism

- "Reading the Stiletto Heel: Post Feminist Walking Contradiction"
- "Sesame Street Ladybugs Examined Through the Lens of Symbolic Convergence Theory and Feminist Theory"
- "The Three Ps in *Coraline*: Postfeminist, Psychoanalytic, and Postmodernist Approaches to the Animated Film"
- "A Feminist Debate on Body Modification: Women's Liberation Versus the Continuation of Patriarchy"
- "Breaking the Boundaries: The Voices of Race and Feminism in *Dark Matter*"
- "Feminism, Comics, History, and Me: Framing Interdisciplinary Comics Scholarship"
- "Groundbreaking Narratives of Gender: Regression, Reformation, Resistance, or Rebellion?"

Postmodernism/Deconstructionism

- "Looking for the Man in the Mirror: Postmodern Narcissism and the Queer Semiotics of Michael Jackson"
- "The (Post)Modern Simpsons: Reading *The Simpsons* as a Modern and Postmodern Text"
- "Time Travel and The Postmodern"
- "Hollywood Sport Film: Deconstructing the Gender Binary?"
- "Bravo? Deconstructing Andy Cohen's Gay Male Archetype."

Race/Ethnic Identity

- "*Los 'Sharks' Hablan Español: West Side Story* and the Re-Exotization of the Latino Character"
- "The Black/White Narrative: A Critical Analysis of Rape and Race"
- "Tyler Perry and the Male-Caricaturization of Black Womanhood"
- "Painting the Mulatta Black: African American Female Spectatorship of Mixed Race Social Problem Films"
- "Butch Teen/Black Family: Analysis of Dee Rees' *Pariah*"
- "The Rape of a Nation": Conservative Radio and the [Black] Body Politic of Barack Obama"
- "Red as the New Black, Vampire as the New Negro: Exploring the Vampire as Visible Minority in HBO's *True Blood*"
- "*Something New*: Resisting the Coupling Convention in Contemporary Black Romantic Film"
- "Global Popular Culture and Class in Filipino Chick Lit"

Queer/gay identity

- "Un-queering Interior Design: Macho Men and the Heteronorming of HGTV"
 - "Femme on Wheels: The Performance of Queer Femininities [sic] in Women's Roller Derby"
 - "You Know It When You See It': Queer Fat Femmes and the Fantasy of Fixed Visibility"
 - "From Origin of Species to [a] Post-Gay [Closet?]"
 - "Polish Queer Lesbianism: Sexual Identity Without a Lesbian Community"
 - "The Possibility for a Post-Human, Technological 'Modest Witness': A Proposal for a Queer Identities Machine"
 - "The Vampire and The Queer: Interrogating Subjectivity, Advocacy, and Equality Through the *Southern Vampire Series*"
 - "Sex Positivity: The Class, Race and Gender Politics of Queer Fascism"
 - "The Possibility of a Lesbian Gaze in Film"
-

Note. The first two titles are from 2009 and the remaining from 2010. For PCA/ACA Conferences 2009 and 2010, see <http://pcaaca.org/conference/2009pcaacaprogram.pdf> and <http://pcaaca.org/conference/2010program.pdf>, respectively.

period and particular group is a legitimate exercise. However, such temporally or culturally bound analyses will remain incomplete at best, and grossly faulty at worst, if scholars do not recognize that some elements of popular culture serve as a window to a common human nature that transcends time or place.

I should mention that the 2010 conference had sessions titled “Homo scientificus” and “Literature & Science: Literature, Evolution, and the Brain,” respectively (the latter had Joseph Carroll, the prominent Darwinian literary scholar, as one of the speakers). Although this is encouraging, it is unclear that all participants were receptive to the evolutionary perspective, as evidenced by the following talk title: “For Women It’s Love, For Men It’s Sex: Stereotyping Sexual Activity in Science Fiction.” In the parlance of social constructivists, “stereotypes” amount to pejorative slurs that are to be combated; the possibility that so-called stereotypes might be grounded in a biological-based universal reality is summarily rejected.

Given the plurality of perspectives listed in Table 2, it is somewhat disconcerting to note the extent to which the evolutionary perspective is loathed. What are some factors that drive the antipathy toward evolutionary thinking within the social sciences in general and the study of popular culture in particular? In the next section, I briefly tackle this issue, and then proceed to a case analysis of how EP is oftentimes portrayed within popular culture using the recent debacle of Satoshi Kanazawa’s blogging career at *Psychology Today* (PT).

Resistance to Evolutionary Theorizing

EP triggers both fascination and animus among the public at large. The vociferous and at times heated debates regarding EP are not restricted to academics battling it out in the Ivory Tower (for caustic critiques of EP, as well as its intellectual predecessor sociobiology, see Buller, 2005; Dagg, 2004; Francis, 2004; Lancaster, 2003; and Rose & Rose, 2000). Generally speaking, the social sciences have been staunchly resistant to the incorporation of evolutionary theory within their theoretical toolboxes albeit some disciplines more so than others (cf. Barkow, 2006 for a discussion of the minimal diffusion of evolutionary thinking within sociology and sociocultural anthropology). Individuals who are not bound to particular ideological dogma (e.g., religion, social constructivism, postmodernism, or radical feminism) generally find the explanations provided by EP to be cogent, logically coherent, and parsimonious. On the other hand, those who have an ideological axe to grind are oftentimes vociferous in their hostility toward EP. Sociobiology faced the original onslaught of criticisms when it first gained international prominence in the mid-1970s (see Webster, 2007a for an analysis of citation trends for EP vs. sociobiology, as cataloged on Google Scholar for the years 1960–2003). The so-called sociobiology debate became part of the prevailing culture wars, which was brilliantly documented in the comprehensive treatise by Segerstråle (2001). The animosity unleashed toward sociobiologists, most notably on E. O. Wilson, was part and parcel of the greater cultural wars as largely waged by the New Left (Jumonville, 2002; on a related note, see Linke, 2011 for an analysis of the German press coverage of the sociobiology debate). In other words, many critics of sociobiology rejected its central tenets on political grounds, as was the case with Richard Lewontin and the late Stephen Jay Gould, both known to be

staunchly Marxist in their political bents. Not only is the infusion of political ideologies into science a dangerous endeavor (e.g., the disastrous consequences of Lysenkoism on agricultural policies in Russia) but also contrary to the New Left’s belief that evolutionary psychologists are right-wing zealots, in actuality they are progressive and liberal in their political views (Tybur, Miller, & Gangestad, 2007). Notwithstanding this reassuring reality, it is worth noting that a few evolutionary scientists have been accused of supporting nefarious political ideologies (e.g., Kevin MacDonald and Jean Philippe Rushton).

Some cultures are more amenable to an acceptance of evolution in general and EP in particular. In a letter to the French naturalist Jean Louis Armand de Quatrefages (circa 1869), Charles Darwin had remarked that his theory of evolution was differentially received across cultural settings (as quoted in Darwin, 1887, p. 118): “It is curious how nationality influences opinion; a week hardly passes without my hearing of some naturalist in Germany who supports my views, and often puts an exaggerated value on my works; while in France I have not heard of a single zoologist, except M. Gaudry (and he only partially), who supports my views.” In support of Darwin’s observation, Miller, Scott, and Okamoto (2006) reported the differential rate of public acceptance of evolution across 34 countries (32 European countries, Japan, and the United States). Only Turkey scored lower than the United States in its rejection of evolution. Of note, Turkey was the only Islamic country in the sample, which speaks to the unique barriers of entry of EP within Islamic societies (for recent studies exploring the resistance against evolution within Islamic societies, see Bou-Jaoude, Wiles, Asghar, & Alters, 2011; Hameed, 2008; Peker, Comert, & Kence, 2010).

Culture-specific analyses of the acceptance of sociobiology and EP abound. Scholars have explored the diffusion of sociobiology in China (Jianhui & Fan, 2003), Eastern Europe in light of the then prevailing political ideologies (Berezkei, 1993), German psychology and anthropology (Euler & Voland, 2001), and Japan (Sakura, 1998). Cassidy (2005, 2006, 2007) analyzed the dissemination of EP and associated principles within the United Kingdom mass media as well as via an assortment of popular trade books. Setälä and Väliaverronen (2011) investigated the acceptance of evolution and EP in Finland. Geoffrey Miller and Satoshi Kanazawa debated the future of EP in Asia (Miller, 2006a, 2006b; Kanazawa, 2006), whereas Wang and Su (2011) culled a collection of articles from leading evolutionary psychologists as a means of popularizing EP in China. It is incontrovertible that EP’s diffusion is affected in part by various facets of a culture’s ethos. That said, the barriers against a greater acceptance of EP within popular culture extend well beyond those erected within national boundaries.

The greatest obstacles facing the diffusion of EP lie in the frailties of human logic. In Chapter 1 of my trade book, *The Consuming Instinct* (Saad, 2011a), I provide a list of the most frequent and hopelessly ignorant concerns levied against EP. To summarize, evolutionary psychologists are not closeted Nazis, racists, eugenicists, or misogynists, who espouse genetic determinism via unsubstantiated just-so stories. They are not part of a secret conspiracy to come up with justifications for adultery, child abuse, and rape. Explaining a phenomenon is different from condoning it. They are not members of an antireligion crusade bent on advancing an atheist agenda (although it is certainly the case that most scientists are nonbelievers). Evolutionary psychologists do not

argue that humans are violent brutes void of kindness, empathy, and cooperation. Notwithstanding the import of human universals to evolutionary psychologists, both individual and cross-cultural differences are also within their theoretical purview. Critics of EP must also come to terms with the fact that evolution does not stop at the human head. The evolutionary forces that have shaped all living organisms do not mysteriously become irrelevant when dealing with the most complex computational system known to us: the human brain. They must also reject the astonishingly false premise that humans are born with blank-slate minds. They need to comprehend that population-level evolutionary principles are not falsified by the provision of individual-level data. Humans are a sexually reproducing species even though Catholic priests are chaste. Men are bigger than women even though some women are bigger than some men. Men prefer to mate with younger beautiful women even though you have a male friend who is dating an unattractive older woman. Women prefer high-status men as prospective suitors notwithstanding your girlfriend, who is hopelessly in love with an unemployed and lazy man. Finally, those hostile to EP must come to grips with the notion that humans do possess a universal human nature, part of which is its ability to display behavioral plasticity as a response to varying local niches. Cultural relativism, postmodernism, deconstructionism, radical social constructivism, and radical feminism obfuscate any genuine attempts to understand the human condition.

It took the Catholic Church several hundred years to recognize that Galileo's "heretical" theories were veridical. Today, few people contest his cosmological facts (e.g., that the Earth is not at the center of the universe) unless they belong to the flat earth society. Bad ideas and deeply rooted ideological positions are oftentimes hard to slay. This is what the EP discipline has been facing throughout its history and more so as it increases its presence and influence within the public's psyche. I genuinely believe that in the not-so-distant future, the key tenets of EP will be noncontentious and will constitute an important part of our popular culture. However, the intellectual battle will be a difficult one, as evidenced by the fact that members of the general public who support evolutionary theory were found to be less receptive to key tenets of EP (as relating to mating) than those who were opponents of evolu-

tionary theory (Ward, Wallaert, & Schwartz, 2011). Apparently, much work remains to be done to sway the public's opinion regarding EP, as exemplified by the case analysis discussed next.

EP in the Blogosphere: Opportunities and Potential Pitfalls

PT ranks as one of the most highly reputable and popular purveyors of psychological information to the masses. Accordingly, I was delighted to start my PT blogging career in November 2008, as I was afforded a powerful platform from which I could share my passion for EP (among other topics). A good way to gauge the penetration of EP within the public's psyche is to determine the extent to which PT blogs are evolutionarily informed. Until recently, my *Homo Consumericus* blog was one of 16 within the EP category although the PT editors have since removed Satoshi Kanazawa's controversial blog, *The Scientific Fundamentalist* (see additional details below regarding the Kanazawa affair), as well as Rebecca Searles's *The Stone Age Mind*. That so many EP-related blogs are included within this highly visited portal speaks to the diffusion of EP within the greater popular culture. Of 44 blog categories, the EP category ranks 22nd in terms of the number of blogs under its umbrella (see Tables 3 and 4; these counts were conducted in late June 2011). It has more blogs than the following categories: Addiction, Aging, Animal Behavior, Anxiety, Autism, Depression, Diet, Eating Disorders, Education, Ethics and Morality, Gender, Integrative Medicine, Intelligence, Law and Crime, Memory, Politics, Procrastination, Psych Careers, Race and Ethnicity, Sleep, Sport and Competition, and Stress. I should add that there are several other blogs that are not listed under "Evolutionary Psychology" that are nonetheless evolutionary-based (e.g., Emily Deans's *Evolutionary Psychiatry* blog).

A discussion of the Kanazawa blogging debacle is valuable in that it demonstrates how EP is discussed within the public sphere (especially in the viral environment afforded by the blogosphere). Kanazawa wrote a post in which he concluded, based on data collected via the Add Health project, that black women were perceived as unattractive. He then offered possible reasons for this finding including that black women might have greater basal levels

Table 3
Evolutionary Psychology Blogs at Psychology Today

Blog title	Author
<i>Ape Girl</i>	Catherine Salmon
<i>Caveman Logic</i>	Hank Davis
<i>Cupid's Poisoned Arrow</i>	Marnia Robinson and Gary Wilson
<i>From Darwin to Eternity</i>	Michael Price
<i>Homo Consumericus</i>	Gad Saad
<i>Humor Sapiens</i>	Gil Greengross
<i>Love's Evolver</i>	Maryanne Fisher
<i>Mind Design</i>	Robert Kurzban
<i>Sex, Murder, and the Meaning of Life</i>	Douglas Kenrick
<i>The Bottom Line</i>	Norman Li
<i>The How and Why of Sex Differences</i>	Michael Mills
<i>The Human Beast</i>	Nigel Barber
<i>The Me in We</i>	Molly Castelloe
<i>The Political Animal</i>	Laura Betzig
<i>The Stone Age Mind</i>	Rebecca Searles (removed in June 2011)
<i>The Scientific Fundamentalist</i>	Satoshi Kanazawa (removed in May 2011)

Table 4
*Alphabetical Index of Blogs at Psychology Today and the
 Number of Blogs Within Each Category*

Blog category	Number of blogs
Addiction	12
Aging	9
Animal behavior	10
Anxiety	3
Autism	8
Behavioral economics	17
Child development	25
Cognition	20
Creativity	21
Depression	8
Diet	12
Eating disorders	10
Education	8
Ethics and morality	6
Evolutionary psychology	14
Gender	9
Happiness	16
Health	19
Integrative medicine	5
Intelligence	4
Law and crime	9
Media	25
Memory	2
Neuroscience	27
Parenting	28
Personal perspectives	23
Personality	20
Philosophy	19
Politics	4
Procrastination	5
Psych careers	4
Psychiatry	21
Race and ethnicity	4
Relationships	52
Resilience	21
Self-help	47
Sex	19
Sleep	6
Social life	26
Spirituality	15
Sport and competition	4
Stress	6
Therapy	28
Work	32

of testosterone, in which case their faces would be more masculinized. Not surprisingly, his post drew ire from a wide range of sources, eventually leading the PT editors to remove the offending post. Kanazawa's post was problematic on two levels: (a) his conclusions and some of the associated logic seemed tenuous at best, and (b) his bombastic writing style offended many people. Rather than restricting their attacks to Kanazawa's post, many EP critics chose to castigate the whole field. The Kanazawa fiasco was used as an example of the supposed shoddy and outright racist research that defines the EP field (see e.g., Stanton Peele's post provocatively titled "Au Contraire: Satoshi Kanazawa IS Evolutionary Psychology" followed by the pull line: "Satoshi Kanazawa's racism perfectly embodies evolutionary psychology." [psychology-0\). P. Z. Myers, an evolutionary developmental biologist and author of the highly popular science blog *Pharyngula*, also weighed in on the Kanazawa affair. Here is the first sentence of his post: "Among the many reasons that I detest evolutionary psychology, one has a name: Satoshi Kanazawa." He concludes his post with the following charitable if not deeply patronizing comment: "I know that not all evolutionary psychologists are this bad; more of them need to stand up and repudiate this bigoted clown and his ridiculous interpretations of sloppy data." \(\[http://scienceblogs.com/pharyngula/2011/05/i_guess_even_psychology_today.php\]\(http://scienceblogs.com/pharyngula/2011/05/i_guess_even_psychology_today.php\)\).](http://www.psychologytoday.com/blog/addiction-in-society/201105/au-contraire-satoshi-kanazawa-is-evolutionary-</p>
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Critics of EP have the unsavory habit of generalizing from an individual to the relevant group, which is ironic in that this is precisely the cognitive trap that is at the root of racism and xenophobia, which apparently defines EP. Would such critics find it acceptable to conclude that if one Jewish individual were caught in a tax evasion scandal, this must imply that all Jews are money-grabbing people? Would they indignantly request, "Jews must repudiate this tax cheat"? I bet not. Yet, if a subpar EP paper is published, this is immediately taken as an indictment of the whole field. Similarly, if a single EP researcher writes a blog post that is construed as racist, this must imply that all EP research is racist. The irony of the critics' prejudices and bigotry is lost on them.

The blogosphere has revolutionized public discourse in at least three ways: (a) it has democratized participation in public debates. Individuals who might have never had an opportunity to communicate their ideas to the wider public can now easily do so via the blogosphere; (b) the rapidity with which such discourse is disseminated has increased drastically; and (c) the platform afforded by the blogosphere permits for the transmission of one's memes to an extraordinarily large readership (e.g., in 38 months of blogging, my blog has garnered more than 1.48 million total hits). As highlighted in this section, this offers both opportunities as well as possible pitfalls when it comes to the memetic diffusion of EP to the masses. I end this section by briefly mentioning the work of Baba Brinkman, a Canadian rapper and poet, who has created a new genre of popular music and theater singularly focused on evolutionary theory (and EP). Two of his most recent albums are titled "The Rap Guide to Human Nature" (2010) and "The Rap Guide to Evolution" (2009). Brinkman's work is very valuable in that it diffuses central tenets of EP using popular culture as the vehicle of transmission. Thus, not only is EP valuable in understanding popular culture, but also it has itself become a contributor to popular culture.

Conclusion

In my opening article to the special issue on the future of EP that I guest edited in *Futures*, I offered a long list of fields across the social sciences, the natural sciences, and the humanities that have witnessed an injection of evolutionary theory (Saad, 2011c, Table 1). Some scholars have sought to quantify the extent to which a given field has been "Darwinized" by conducting content analyses of leading journals within those fields (cf. Webster, 2007b, 2007c, for the diffusion of evolutionary principles in cognitive neuroscience, and personality and social psychology, respectively). Although it is clear that there is an increasing trend in the application of evolutionary principles across a myriad of academic fields, the study of popular culture remains largely removed from the natural

sciences in general and evolutionary theory in particular. Ultimately though, if we are to achieve consilience (Wilson, 1998) across the various academic faculties, it is inconceivable for disciplines to continue to operate in isolated silos vigorously protected by dogmatic and rigid paradigmatic barriers. By its very nature, EP promotes interdisciplinarity (Garcia et al., 2011). As such, the marriage of EP and popular culture is achievable, and such a union should be construed as complementary to existing approaches employed by popular culture researchers.

Webster, Jonason, and Schember (2009) conducted a content analysis of the flagship journals *Ethology and Sociobiology* (1979–1996) and *Evolution and Human Behavior* (1997–2008) to gauge the key issues that evolutionary psychologists have largely focused on over the past 30 years. Notwithstanding the broad range of tackled topics, popular culture has yet to attract much attention from evolutionary behavioral scientists. A fruitful endeavor for scholars steeped within the EP paradigm is to turn their attention to applied areas that have heretofore been largely disconnected from evolutionary principles. This is precisely what I have done throughout my career within the field of consumer behavior, and others have engaged in similar quests in medicine (Randy Nesse), law (Owen Jones), and architecture (Eugene Tsui). If we do not open up the evolutionary lens to new unchartered territories (e.g., popular culture), EP runs the risk of becoming stagnant. *The Evolutionary Review* (TER), a book series that was cofounded by Alice Andrews and Joe Carroll, is a perfect example of how EP might be applied in new areas. On its home page, TER is described as follows (<http://evolutionaryreview.com/ed.htm>; accessed on July 20, 2011):

Published by SUNY Press, *TER* provides a forum for evolutionary critiques in all the fields of the arts, human sciences, and culture: essays and reviews on film, fiction, theater, visual art, music, dance, and popular culture; essays and reviews of books, articles, and theories related to evolution and EP; and essays and reviews on science, society, and the environment. Essays in *The Evolutionary Review* implicitly affirm E. O. Wilson's vision of "consilience," that is, the unity of knowledge. They also give evidence that an evolutionary perspective can yield a richer, more complete understanding of the world and ourselves.

Consilience is achievable within the study of popular culture but only if we recognize that the dual forces of natural selection and sexual selection have shaped the brains that create such cultural forms. Popular culture exists in its various forms because of our biology. It does not exist outside of it. The diffusion of EP in popular culture, as well as resistance against its central tenets, can also be investigated via an evolutionary lens. In sum, the title of my article, a rephrasing of Dobzhansky's (1973) famous truism, poignantly captures the importance of exploring the evolutionary roots of popular culture.

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