



# Advertised Waist-to-Hip Ratios of Online Female Escorts: An Evolutionary Perspective

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## ABSTRACT

*The Web's global reach provides evolutionary behavioral scientists unique opportunities to investigate human universals steeped in a common and evolved human nature. In the current article, it is argued that many forms of online sexual communication are indicative of our evolved mating minds, including the manner by which female escorts are "advertised" online. It is demonstrated that online advertisers provide a restricted set of morphological cues whilst advertising female escorts, these being congruent with men's evolved aesthetic preferences. Specifically, it is shown that irrespective of cultural setting, online escorts advertise waist-to-hip ratios (WHR) that are in line with the near-universal male preference for women that possess WHRs of 0.70.*

*Keywords: evolutionary psychology; female escorts; online advertising; waist-to-hip ratio*

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## INTRODUCTION

The Internet's ubiquitous and global reach provides scholars with countless new opportunities to study evolutionary-based human universals. Perhaps the most obvious of these is the study of human sexuality in the online setting. The importance of sex within the Web manifests itself in a myriad of ways. Cooper (2004) reported that the most searched subject matter on the Internet was sex, and added that online

dating constituted the most profitable instantiation of paid content on the Internet. Cronin and Davenport (2001) discussed the importance of pornography within the greater phenomenon of e-commerce. They stated (p. 41), "Certainly, it is universally acknowledged by information technology experts that the adult entertainment industry has been at the leading edge in terms of building high-performance Web sites with state-of-the-art features and functionality."

Stern and Handel (2001) raised the same point in their historical analysis of sexual content in various forms of mass media. Spink, Jansen, Wolfram, and Saracevic (2002) used *Excite* query data from 1997, 1999, and 2001 to determine the general topics that were most often searched on the Internet. "Sex and pornography" was ranked in the top five categories in each of the latter three data sets. Using an *Excite* query data set from 1999, Spink, Ozmutlu, and Lorence (2004) found that 15.9% of all queries were sex-related. Li (2000) divulged that online revenues originating from adult websites for the years 1998 to 2001 represented more than two-thirds of the aggregate online revenues. In light of all of these disparate facts, it is not surprising that Peter and Valkenburg (2006, p. 178) concluded, "More than any other medium, the Internet is a sexual medium."

Of relevance to the current article are forms of online sexual communication that are demonstrative of the Darwinian forces that shape human sexuality. Loosely speaking, online sexual communication can take place either between groups of Internet users (e.g., via online personal ads, in chat rooms, or at [www.myspace.com](http://www.myspace.com)) or between companies and prospective online customers (e.g., spam, Internet pornographic sites, or online escort services). In the current article, I explore a ubiquitous instantiation of online business-to-consumer communication, namely, the manner by which online advertisers and related professional communicators (e.g., pornographers) advertise female escorts. Not surprisingly from an evolutionary perspective, men constitute the majority of consumers that are targeted by such ads. More generally, there exists a strong male effect across a wide range of online sexual

activities. Using longitudinal data from the General Social Survey, Buzzell (2005) found that irrespective of the technology (movie theaters in 1973, movie theaters or VCRs in 1994, and Internet in 2000), men outnumbered women by significant amounts as the consumers of pornography. In the online setting, men were more than six times as likely to have visited a pornographic Web site. Cooper, Delmonico, and Burg (2000) found that men constituted the overwhelming proportion of sexually compulsive (88%) and cybersex individuals (79%). Additionally, they propose that men are more likely to use visual images in their online sexual pursuits while women make greater use of chat rooms in their attempt to form and develop relationships. Cooper, Delmonico, Griffin-Shelley, and Mathy (2004) replicated the general pattern of findings, albeit they proposed that differential socialization of the two sexes is the explanatory mechanism (i.e., innate biological forces that shape sex-specific sexual phenomena were not recognized). Using a college sample, Goodson, McCormick, and Evans (2001) concluded that men are more likely to search for sexual images on the Internet while Philaretou, Mahfouz, and Allen (2005) recognized that men constitute the substantial majority of Internet sex users. Finally, Vartti (2001) investigated various types of German matchmaking Web sites and concluded that women constituted well over 99% of the "advertised" individuals. In other words, it is seldom the case that women are seeking men via these online mediums. This universal and robust male effect is demonstrative of evolutionary-based sex differences in human sexuality.

In the remainder of the article, I report the results of a content analytic study that was conducted to explore the manner by which female escorts are "advertised" on-

line. I demonstrate that male customers seek universal cues of beauty whilst foraging online for prospective escorts (see DiClemente & Hantula, 2003; Rajala & Hantula, 2000; and Smith & Hantula, 2003, for evolutionary approaches to online foraging albeit in non-pornographic contexts). Prior to doing so, I provide a brief discussion of three theoretical ideas relevant to the content analysis namely media richness/media naturalness, ecological rationality, and the Savanna Principle.

### **MEDIA RICHNESS/ NATURALNESS, ECOLOGICAL RATIONALITY, AND THE SAVANNA PRINCIPLE**

The notion of media richness is pivotal to many computer-mediated communication (CMC) research streams. One of the central tenets of media richness theory is that various media can be mapped onto a “rich to poor” continuum as a function of the amount of information and the meaning that they transmit. For example, face-to-face interactions are generally richer than phone conversations as they contain greater amount of information (e.g., nonverbal cues). Of relevance to the current context, Cronin and Davenport (2001, see Figure 1, p. 40) mapped various pornographic services along a two-dimensional space of interactivity versus media richness. When it comes to online pornography, I propose that the two sexes experience the “richness” of the medium differentially because of their sex-specific evolved sensorial preferences. That said studies that have explored sex differences in the media richness literature have been typically void of Darwinian-based theorizing. For instance, Dennis, Kinney, and Hung (1999) found that women’s performance (but not men’s)

improved with richer media. Guadagno and Cialdini (2007) investigated sex differences in the extent to which online persuasion (via e-mail) was effective. Sussman and Tyson (2000) explored sex differences in cybertalk including the length of an entry and how opinionated the entry was. Finally, Hess, Fuller, and Mathew (2003) studied sex differences in user involvement with a computerized interface. While all of the latter studies are valuable, they do not provide an ultimate account as to why and when sex differences should manifest themselves in CMC settings.

Ned Kock is one of the few scholars to have incorporated Darwinian notions within the media richness literature. For example, Kock (2001, 2005a) relied on Darwinian principles in arguing that when interacting in lean mediums, individuals oftentimes adapt their behaviors by compensating for the poorer environments (e.g., they rise to the occasion by engaging in greater effort). This compensatory adaptation (a term used by Kock) explains why poorer mediums might, at times, yield superior performance. See also Spink and Cole (2006) for a recent attempt to “Darwinize” human information behavior (e.g., in the library sciences). I take a somewhat different perspective in the current work, namely, I propose that the Internet is perceived as a rich medium by men when seeking short-term mates as it provides the necessary cues when judging the attractiveness of prospective mates (especially for short-term mating). In other words, in the current context the Internet’s media naturalness (see Kock, 2005b) makes it particularly enticing as a sexual medium for men, an empirical fact that has been repeatedly found as mentioned earlier (see Costa, Braun, & Birbaumer, 2003 for sex differences in physiological responses when viewing nude images). Hence, men

need not engage in compensatory adaptation when foraging online for prospective mates, as the informational structure of this medium is “natural” to them in this particular domain-specific pursuit.

Gigerenzer, Todd, and the ABC Research Group (1999) have proposed that human decision-making adheres to ecological rationality, an evolutionarily grounded definition of rationality. Specifically, they posit that the human mind has evolved domain-specific fast and frugal heuristics that, in most instances, yield accurate results whilst requiring a “bearable” level of cognitive effort (i.e., no explicit tradeoff is assumed between the cognitive costs and associated benefits/accuracy of particular decisional strategies). How is ecological rationality relevant to the current online context? Within the mating domain, individuals have evolved fast and frugal heuristics for gauging the physical attractiveness of prospective suitors (cf. Maner, et al., 2003; Olson & Marshuetz, 2005). In the online context, men are faced with a computationally difficult problem, namely, to identify a desirable short-term mate amongst a very large set of available options. Given the intractable nature of the task at hand (i.e., choosing an escort amongst hundreds, if not thousands, of available prospects) and, in light of the male-based penchant to engage in rapid visual evaluations of key physical attributes, it is, perhaps, not surprising that the main attributes advertised by female escorts adhere to men’s evolved visual aesthetic preferences.

Kanazawa (2004) proposed the Savanna Principle as means for determining the veracity of a proposed theory. Specifically, he argued that a theory that is incongruent with the phylogenetic history and evolutionarily relevant ancestral reali-

ties of *Homo sapiens* would eventually be falsified. A concrete example might clarify the epistemological value of the Savanna Principle. The sex makeup of a dyad within the Ultimatum Game yields differential results as a function of the experimental setup in which the game is played (Saad, 2007, chapter 7). Specifically, sex differences in the Ultimatum Game are profoundly altered as a function of whether the game is played face-to-face (experimental setup that is congruent with the Savanna Principle) or via the use of computers wherein the players are anonymous to one another (experimental setup that is incongruent with the Savanna Principle). Humans have evolved in small bands wherein daily repeat interactions were the norm. As such, individuals have evolved both emotional and social intelligence as a means of managing their reputations. Clearly, a behavioral economic game that is played face-to-face mimics the evolutionarily-relevant environment that we have evolved in whilst the anonymity afforded by computer-based interactions does not. In a sense, the Savanna Principle is congruent with media naturalness in that it recognizes that novel technological settings vary in terms of their congruence with evolved sensorial preferences. To the extent that the Internet is a visual medium, and given that men’s foraging behaviors when seeking short-term mates are largely driven by attributes that are visually gauged (e.g., physical attributes, and not personality), the Savanna Principle would propose that the Internet provides a “natural” medium for this particular pursuit.

In the next section, the near-universal male preference for women possessing a waist-to-hip ratio (WHR) of 0.70 is briefly discussed. This is followed by the results of a content analysis wherein it is shown that where as little information is provided when

advertising the profiles of online female escorts, their WHRs are almost always listed with these being congruent with the latter near-universal preference of 0.70.

## **EVOLUTIONARY-BASED MATING PREFERENCES**

Evolutionary psychologists have amassed substantial evidence that numerous mating preferences are universal because they correspond to adaptive solutions to mating problems of evolutionary import (for reviews, see Buss, 1994; Gangestad & Scheyd, 2005; Sugiyama, 2005; Symons, 1979). For example, facial symmetry, skin condition, height (in men), and WHR are some of the key morphological traits used in evaluating prospective suitors. As mentioned earlier, I wish to demonstrate that online escort services use the near-universal male preference WHR of 0.70 when “advertising” their female escorts. I restrict my analysis to female escorts, as these constitute the overwhelming majority of escorts “advertised” on the Internet (recall Vartti, 2001). The evolutionary psychologist Devendra Singh has been at the forefront of the WHR literature. He has firmly established the evolutionary reasons that drive men to hold a near-universal preference for women possessing a WHR of 0.70 (the preference typically varies between 0.68 to 0.72), these being linked to cues of health and fertility (see Singh, 1993, 2002a, 2002b). Not surprisingly, cultural products (e.g., statues, fashion shows, advertisements) that are meant to serve as realistic representations of the ideal female form adhere to this near-universal 0.70 WHR preference (see Saad, 2004 for a discussion of WHR in the advertising context, and Singh, Frohlich, & Haywood, 1999 for a WHR analysis of sculptures).

Note that the near-universal preference of 0.70 recognizes the fact that the preference can be adjusted as a function of idiosyncratic ecological niches. For example, in environments that might be defined by greater caloric scarcity and/or caloric uncertainty, males might prefer slightly higher female WHRs (cf. Sugiyama, 2004; Westman & Marlowe, 1999; see also several chapters in Swami & Furnham, in press, for a discussion of the universality versus cultural specificity of the WHR, as well as discussions of the differential importance of WHR versus a woman’s body mass index in judgments of attractiveness).

## **CONTENT ANALYSIS: WHRS OF ONLINE FEMALE ESCORTS**

A research assistant surfed the Internet and identified Web sites/portals from around the world wherein female escorts were being advertised (note that the sampling procedure used varied across the Web sites<sup>1</sup>. The overriding sampling objective was to obtain a manageable data set from a heterogeneous set of countries). Subsequently, the research assistant transcribed various advertised metrics including waist, hip, and bust sizes, height, weight, and age. Data was obtained from Europe (25 countries;  $n = 491$ ), Asia (13 countries;  $n = 160$ ), Latin America (6 countries;  $n = 100$ ), North America (Canada and the United States;  $n = 214$ ), and Oceania (Australia and New Zealand;  $n = 103$ ). Hence, in total, the sample size was 1,068 (including a very few transsexuals) and covered 48 countries from around the world. The mean WHRs were 0.70, 0.75, 0.71, 0.76, and 0.69 for Europe, Oceania, Asia, North America, and Latin America, respectively. The global mean (i.e., across all 48 countries) was 0.72, which is slightly



higher but, nonetheless, very close to the near-universal preference of 0.70. Given that the data is comprised of WHRs, the standard assumption of normality is tenuous and, hence, required explicit testing. A visual inspection of the data (via histograms) along with an investigation of the skewness and kurtosis measures did confirm that the data was right-skewed and hence required a transformation. Typical transformations for right-skewed data include  $1/x$ ,  $\sqrt{x}$ , and  $\log(x)$ , all of which were attempted in the current analysis. One-sample t-tests were conducted, using both the original data as well as the transformed data, on each of the five regions as well as on the total sample, using 0.70 as the test mean. The pattern of findings for the transformed data was almost identical to that of the untransformed data<sup>2</sup>. As such, the findings of the untransformed data are solely reported for expository clarity (see Table 1). The mean WHRs for Europe and Latin America were equal to 0.70 with the remaining four means being statistically different from the test mean. The latter one-sample t-tests are perhaps too stringent given that evolutionary psychologists recognize the near-universal and, hence, malleable nature of the WHR preference (e.g., it typically varies between 0.68 to 0.72). In other words, it is undoubtedly

too conservative to expect that the sample WHRs will adhere to an exact value (i.e., 0.70) rather than falling within 0.68 to 0.72. With that in mind, Table 1 reports the 95% confidence interval for each of the six WHR means. The mean for the total sample as well as those of three of the sampled regions, namely, Europe, Asia, and Latin America, overlapped with the prescribed range. On the other hand, the mean WHRs for North America and Oceania fell outside the expected WHR range.

## DISCUSSION

Much of the academic research that has explored pornography has done so with a near-complete paucity of Darwinian-based theorizing (but, see Malamuth, 1996; Pound, 2002; Saad, 2007, chapter 6; Shepher & Reisman, 1985; and Symons, 1979, for evolutionary approaches). Within the growing research streams investigating online pornography and/or online sexuality, evolutionary-based work is equally rare. For example, Fisher and Barak (2001) discussed Internet pornography from a social psychological perspective without ever recognizing that Darwinian forces shape the consumption of online pornography. In the current article, I have argued that one form of online sexual communication, namely,

*Table 1. Summary of Findings*

Region	n	Mean WHR	s.d.	p-value	95% Confidence Interval
Europe	491	.703	.080	> 0.10	.696, .710
Asia	160	.712	.065	< 0.02	.702, .722
Oceania	103	.750	.094	0.00	.731, .768
Lat. America	100	.691	.067	> 0.10	.678, .705
Nor. America	214	.763	.100	0.00	.749, .776
TOTAL	1,068	.720	.086	0.00	.714, .725

the manner by which pornographers advertise online female escorts, cannot be fully explained without the explicit recognition of the Darwinian mating forces that shape the male mind. Specifically, the advertised WHRs of online female escorts (spanning 48 countries in the content analysis) adhere to men's near-universal evolved sensorial preference of a WHR of 0.70. As discussed earlier, commercial sexual content has driven a substantial share of online revenues since the advent of the Internet. Hence, the individuals mandated to create online advertisements within the sex industry constitute some of the most powerful professional communicators to be found on the Internet. Not surprisingly, online pornographers are fully aware of the advertising copy that is required to yield maximally efficacious results in reaching their largely male target market.

One of the longest standing, and yet unresolved, debates in international advertising has been to determine which of two approaches, namely, standardization or adaptation, is optimal within a given context (see Agrawal, 1995; Ryans, Griffith, & White, 2003; Theodosiou & Leonidou, 2003, for reviews). In other words, should an advertising campaign be universally the same in its execution or should it be tailored to idiosyncratic cultural settings? Saad (2007, chapter 4) has argued that evolutionary psychology can inform the latter debate given its ability to catalogue human universals versus culture-specific phenomena. In the current context, where as many aspects of Web design are shaped by cultural settings (cf. Singh, Fassott, Zhao, & Boughton, 2006), I have argued here that the online advertising of sexuality contains universal elements that transcend

cultures (but see Moss, Gunn, & Heller, 2006, for an exploration of sex differences in the preferences for specific Web design albeit from a non-evolutionary perspective). Hence, whereas online professional communicators navigating within an international sphere need to address a myriad of culture-specific issues in designing efficacious Web sites, these concerns are of lesser importance when selling sexuality, as shown in the current article.

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## ENDNOTES

<sup>1</sup> The Web site portal [www.escorttown.com](http://www.escorttown.com) was used for Europe, Asia, Oceania, and North America, with specific country and region links chosen from within. For Latin America, the following sites/portals were used: <http://www.openadultdirectory.com/>, <http://www.tangoescorts.com>, <http://www.vicesisters.com>, <http://www.sexoplexo.com>, <http://www.pimp.com.br>, <http://www.dreamsmaster.tk/>, <http://www.vipmodelsr.com>, <http://www.exoticretreat.net>, [www.cancunfemaleescorts.com](http://www.cancunfemaleescorts.com) and <http://www.chicasindependientes.com/>. Additional portals used for Oceania (Australia) include [www.openadultdirectory.com](http://www.openadultdirectory.com), [www.mensguide.com.au](http://www.mensguide.com.au), and the Web sites [www.femaleescorts.com.au](http://www.femaleescorts.com.au), [www.ntynikki.com](http://www.ntynikki.com), [www.taraportman.com](http://www.taraportman.com).

<sup>2</sup> The inverse transformation yielded two different findings from those obtained for the untransformed data namely the mean WHR for AsiaInv became equal to 0.70 while that for LatinInv was no longer equal to 0.70. There was only one change between the results of the log transformation and the untransformed findings namely the mean WHR for AsiaLog was equal to 0.70 ( $p = 0.056$ ). Finally, the pattern of findings for the square transformation did not yield any results that were different from those of the untransformed data.

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