

## SEX DIFFERENCES IN THE TOPICS OF BATHROOM GRAFFITI

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### ABSTRACT

*Several researchers have reported their attempts to document and analyze graffiti that appears in relatively private locations, such as public bathrooms. However, most reports have been sociological or descriptive in nature, and none have seemingly examined Canadian bathrooms. Given that graffiti have existed throughout human history and is readily apparent across cultures, we propose that an evolutionary perspective may be advantageous for understanding the content of graffiti. To explore this possibility, we examined the themes that emerge in the graffiti of men's versus women's bathrooms in order to investigate evolved sex differences, as evidenced in content. We propose that the sex differences in graffiti reflect those that may be expected due to intrasexual competition and mate preferences. The graffiti in men's bathrooms included far more "tagging" (i.e., signatures or personal logos), potentially indicating territoriality or self-proclamation of status, while the graffiti in women's bathrooms focused on love and relationships. We conclude with directions for future research based on an evolutionary perspective that may further contribute towards an understanding of graffiti.*

**Keywords:** *Sex differences; Territoriality; Thematic analysis; Sex; Alliances*

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### INTRODUCTION

Graffiti "refers to any kind of crude or casual drawings, slogan, inscription, or writing scratched or scribbled on buildings, walls, fences, or other public surfaces" (D'Angelo, 1976, p. 102). Indeed, graffiti can be found almost anywhere that one can draw or write, which suggests that it may exist across all cultures and during all of human history. As D'Angelo (1976) outlines,

*... the word graffiti... was originally used by archaeologists to describe the kind of casual writings and drawings found on the walls of ancient buildings in Pompeii, as well as in Roman catacombs and on ancient Egyptian monuments. These graffiti were scratched on plaster and limestone surfaces with sharp instruments or written on walls with charcoal and red chalk by schoolboys, common citizens, and travelers (p. 102).*

The history of graffiti has a very early origin; Reisner (1971) posits that the first examples are cave drawings of deer and bison in Europe, leading to graffiti expressed via Egyptian, Mayan, Aztec and Incan hieroglyphs, to Latin phrases, then expressed as drawings and etchings in Christian churches, monasteries and dungeons of Medieval Europe, through to European wall graffiti and into the graffiti we see today.

Interestingly, to the best of our knowledge, there has been little ethological study of graffiti, despite its popularity, with most attention instead from sociologists. Graffiti as a sociological research topic was particularly popular in the 1970s. For example, Ley and Cybriwsky (1974) examined autographical graffiti in Philadelphia, presumably written by gang members, as territorial markers. More recently, Brown (1995) outlined how her students (who collected the data in order to remove her own biases in interpretation) explored Hungarian graffiti. The students began the project with the belief that graffiti would be humorous, political, and philosophical, and instead found that it contained sexual references, profanity, references to Western popular music, and what they considered obscure English phrases.

### ***Past Studies on Bathroom Graffiti***

One must note the distinction between graffiti that are written for a more private audience (e.g., those who will read the graffiti individually in a bathroom) versus a more public one (e.g., on the side of a crowded New York subway train) (Erickson, 1987; see also the distinction between 'tourist graffiti' made by tourists to commemorate a visit, 'inner-city graffiti' to mark a territory, and 'toilet graffiti', Anderson & Verplank, 1983). We are certainly not the first to have an interest in bathroom graffiti, as scholars have expressed a long-standing interest in the topic. For example, Kinsey, the well-known sexologist, attributed the fact that men's bathrooms contained more graffiti than women's bathrooms to women's respect for property. He (and his colleagues) documented that approximately 90% of men's bathroom graffiti were erotic, with the majority containing homosexual references, while only around 25% of women's graffiti were sexual, and rarely homosexual (Kinsey, Pomeroy, Martin, & Gebhardt, 1953; but see also Teixeira, Otta & Siqueira, 2003 for discussion on cultural variation). The issue of homosexual content was revisited by Sechrest and Flores (1969) who examined bathroom graffiti in the United States versus the Philippines and found that it was abundant in the USA content (42%), and rare in the Philippines (2%). Their interpretation was that in the Philippines, homosexuality is more tolerated, and thus, less of an issue for discourse, while Americans are dealing with private conflicts with homosexuality. Sechrest and Olsen (1971) then examined bathrooms in

American trade schools and colleges, revealing the least racial graffiti to be in professional colleges and the most racial graffiti in trade schools, which they suggested reflected the students' various socio-economic classes.

As may be inferred, these findings have led some to propose that bathroom graffiti acts as a barometer of social change, in that the content reflects the social issues citizens are grappling with at that point in time. However, others have proposed that it is a reflection of people's true thoughts, in reaction to social change, causing them to express their opposition in private (see Erickson, 1987, p. 19 for a review).

More recently, bathroom graffiti have been documented for the purposes of providing humor: C. J. Phillips has published three separate volumes of *America's Funniest Bathroom Graffiti*. It has also been documented for voyeurism; there are active websites where people record the graffiti they encounter: <http://www.thewritingsonthestall.com> and <http://www.graffitiproject.com> (which is specifically dedicated towards recording the world's bathroom graffiti). From the viewpoint of research, these websites contain no context or descriptions and hence, the graffiti are not useful for empirical purposes. This same issue plagues the former published collections we located. For example, Reiser (1971) includes 80 pages of typed graffiti grouped according to themes, spanning history (e.g., historical eras, Pompeii, old England, through to the late 1960s), countries, and venues (e.g., bathrooms, buttons, public walls). He calls this section, "Collector's choice: a compendium of selected works" (p. 119), such that the reader cannot ascertain the context, how often particular themes emerged, or in many cases, why some graffiti were placed within one theme and not several others.

### ***The Current Study***

Although past research on graffiti has been informative, there is a lack of systematic study on the topic, particularly as it applies to Canadian bathrooms. Moreover, most accounts we located were descriptive or sociological, which limits any deeper understanding about why individuals write about certain theme and not others. Therefore, we had two goals within the current study. First, we sought to undertake a systematic analysis of bathroom graffiti, such that we would be able to determine which themes are the most prevalent. Given that humans across time and location have been reported to produce graffiti, we proposed an evolutionary framework may be useful in predicting the content of graffiti. Thus, our second aim was to explore the usefulness of relying on an evolutionary perspective to understand the content of graffiti. To meet these goals, we opted to examine sex differences, with the general prediction that the graffiti created by each sex would align with evolutionary interests. We expected that, due to women's higher parental investment (Trivers, 1972), women's graffiti would involve issues such as romance (see also Cox & Fisher, 2009), derogating of potential rivals (presumably for intrasexual competition for the function of acquiring and retaining mates, Fisher, 2013), and sharing information about potential mates (similar to gossip, DeBacker, Nelissen, & Fisher, 2007). Likewise, we expected men's graffiti to include issues about locating potential casual sex partners (as part of a male mating

strategy, e.g., Buss & Schmitt, 1993), sharing information about resources to attract mates (Buss, 1991), and derogating potential rivals.

Given that graffiti is anonymous, we could not accurately determine what graffiti were created by a female versus a male. Therefore, we used the proxy of sex-specific bathrooms, with the assumption that graffiti in men's bathrooms would be primarily (or exclusively) written by men, while that in women's bathrooms would be created by women. Previously, Little and Sheble (1987) documented that the sexes did not differ in the amount of graffiti they produced, so we did not predict any sex difference in quantity, but rather, predicted differences due to content.

## **METHODS**

We used a thematic analysis approach, whereby graffiti in men's and women's bathrooms were photographed with a iPhone 4 camera and grouped according to emergent themes, and then checked for reliability by a second coder. To obtain samples, we collected graffiti from 20 establishments in Toronto, Canada that varied in the intended clientele. The locations included music clubs, bars (not aimed at a college-aged clientele), college bars, restaurants, lounges, and gay and lesbian establishments. We went to popular, mainstream establishments to collect our sample, as anecdotal evidence suggested that these locations yielded the highest likelihood of actually having graffiti present. Data collection occurred between December 31<sup>st</sup> 2012 - January 31<sup>st</sup> 2013. We note that several of the establishments, especially family restaurants and gay/lesbian-oriented bars, did not have bathroom graffiti (see Table 1). We inquired how often graffiti were removed, and ensured those bathrooms included in the study had not had graffiti removed in the past week. If a bathroom had no graffiti or if it washed off and could only faintly be seen on the wall, we did not include these establishments.

### ***Procedure***

We entered each establishment and asked permission to photograph female and male bathrooms (including the stalls) for a research project on graffiti. Once permission was granted, we went into the bathrooms and photographed every area of the bathroom. We first photographed the main (bathroom) doors, walls, floors, sinks, ceilings, toilets and mirrors. Subsequently, we went into the stalls and photographed all graffiti, systematically working from the left to the right walls, then the floor, and where applicable, the ceiling. We made sure no person was in any of our photographs; if someone entered the bathroom we would halt data collection and in many cases leave temporarily.

Once we had photographed graffiti in the establishments listed in Table 1, we examined the photographs on a laptop using thematic analysis. We relied on the thematic analysis approach used by Chang, Fisher and Meredith (2012) in their study of the topics of women's paintings. We did not note details regarding the style (e.g., the colors used, the font style), or in the exact content (i.e., who's name was signed, whether or not an expletive was included), because we aimed to arrive at general, readily apparent themes.

**Table 1.** List of establishments and presence of graffiti (yes or no)

Type of establishment	Name	Women's bathroom	Men's bathroom
Restaurant	Boston Pizza	No	No
Restaurant	Pickle Barrel	No	No
Restaurant	Garden Gate	Yes	No
Restaurant	Imperial Pub	No	Yes
Bar/restaurant	Green Room	No	No
Bar	Andy Pool Hall	No	No
College bar	Madison	No	No
College bar	Rye and Ram	Yes	Yes
Lounge/bar	The Lab	Yes	Yes
Music club	Horseshoe	Yes	Yes
Music club	Lee's Palace	Yes	Yes
Music club	Rivoli	Yes	Yes
Music club	Sneaky Dee's	Yes	Yes
Gay bar	Woody's	No	No
Gay bar	Zippers	No	No
Gay/lesbian bar	Slack Alice	No	No
Gay/lesbian bar	Crew's and Tango	No	No

## RESULTS

In Table 2, we present the various themes observed in the bathrooms. Note that we counted tagging in men's bathrooms to be in the excess of 400 individual occurrences, but for statistical analyses, we approximate the occurrence of graffiti fitting this theme as 400. Therefore, we recorded a total of 420 individual pieces of graffiti in women's bathrooms and 504 in men's bathrooms. Note that we decided that images (e.g., drawings) were too subjective to include; many images appeared to be doodles, or were too vague to clearly determine the topic. Thus, for the analyses below, we included 371 graffiti items for women's bathrooms, and 479 for men's bathrooms.

### *Themes in Women's Bathroom Graffiti*

The five most prominent themes of graffiti found in women's bathrooms were love, heterosexual sexual behavior (including reference to men's sexual skills or anatomy), alliances, competition, and references to same-sex sexual behavior. Two other themes that we noticed but appeared far less often were degradation of men and philosophy/politics. Two examples of male degradation were, "Elliot Jones has a tiny cock" and "Rob is a cheater." An example of political graffiti was, "anti-fascist for life" and a philosophical

example was, “I was the last one left on the planet.” However, the writings were minimal and consequently, we did not include them in the analysis.

**Table 2.** List of themes in women’s vs. men’s bathroom graffiti

Theme	Description	♀	♂	Chi-square
<i>Tagging</i>	Content of a particular writing style that typically contains a person’s name/nickname, thought to indicate territoriality or a self-proclamation of status.	25 (5%)	> 400 (84%)	$\chi^2 = 70.12$ , p < .0001
<i>Love</i>	Statements about being in love, falling love, loving someone forever, as well as initials with a heart around them	106 (29%)	9 (2%)	$\chi^2 = 23.52$ , p < .0001
<i>Competition</i>	Derogations about same sex other’s appearances, negative comments about other’s sexuality, content that includes mentions of having sex with same sex other’s mate or jealousy invoking images	56 (15%)	15 (3%)	$\chi^2 = 8.00$ , p = .004
<i>Heterosexual sexual behavior</i>	References to sexual acts with opposite sex, opposite sex’s anatomy and sexual skills	55 (15%)	20 (4%)	$\chi^2 = 6.34$ , p = .01
<i>Alliances</i>	Content includes mention of friendships, advice for same-sex others, or feelings of camaraderie with others	52 (14%)	0	$\chi^2 = 14.00$ , p < .001
<i>Same-sex sexual behavior</i>	Sexual references about same sex other’s body parts, and sexual activity	40 (11%)	10 (2%)	$\chi^2 = 6.23$ , p = .01
<i>Degradation of opposite sex</i>	Content includes negative descriptions of opposite sex’s anatomy, and descriptions of their behavior such as infidelity	11 (3%)	1 (0%)	$\chi^2 = 3.00$ , p = .08
<i>Philosophy/politics</i>	Philosophical content consisted of existential angst and feelings about the world, while political references included references to democracy, rights, and politicians	26 (7%)	19 (4%)	$\chi^2 = .82$ , p = .37
<i>Sports</i>	References to a sports team	0	5 (1%)	$\chi^2 = 1.00$ , p = .32
<i>Drawings</i>	Miscellaneous drawings and cartoons without clear content	49	25	N/A

*Notes:* Theme percentages are approximate due to rounding. Tagging in men’s bathrooms was too numerous to accurately count. Chi square results refer to differences in % of graffiti between sexes per individual theme. As can be observed in Table 2, the sexes were distinct in the topics of their bathroom graffiti.

*Theme 1: Love.* The first theme we found was love, which women wrote about in various ways. Often proclamations of love were written such as “I love him” or “I think I am in love” (see Table 2 for all descriptions). There were many examples of women writing a name with a plus sign with another name for example “Jane + John.” Often the heart shape was drawn around the love graffiti, and in general, the heart shape appeared frequently. Women also wrote about failed love experiences such as “I wish for a second chance” with a giant heart shape underneath. Another prominent love theme was commentary about love in general where one woman wrote, “love is wildlife and we are endangered.” Compared to the other themes, women’s graffiti included more references to love than any other topic, see Table 2.

*Theme 2: Competition.* The second, third and fourth theme appeared with approximately the same frequency in the graffiti. The second theme was that of female competition, such that women wrote about other women in negative ways. This graffiti focused on one of three sub-themes. First, it included references to another woman’s physical appearance; for example, “this bitch must be fat.” It also contained content about women’s sexual behavior, such as stating someone was a “whore” or “slut.” Third, women wrote about having sex with another woman’s boyfriend; for example “trust no one, if you trust your boyfriend trust that I fucked him.” Given that the target of graffiti such as seen in this example was other women, we classified it as competition, rather than heterosexual sexual behavior (see below). In addition to this written content, some women drew pictures relating to female competition; one example was a drawing of a woman having sex with a man with the caption “wish this was you hoe?”

*Theme 3: Heterosexual Sexual Behavior.* The third theme was heterosexual sexual behavior. Women provided many descriptions of sexual behavior, anatomy, experiences and what they enjoyed doing sexually with members of the opposite sex. Some examples were “Brandon fucks like an animal,” or very explicit writing such as “I love hot dicks in my butt” and “cum in my crack.”

*Theme 4: Alliances.* The fourth theme was alliances, which typically described a friendship. Similar to graffiti about love, women wrote their names such as “Anna + Maria = BFF” (i.e., BFF representing Best Friends Forever) with a heart around the names. Some content also contained advice to other women, for example on raising children, and graffiti about supporting single mothers was common, such as “love to you single mothers.”

Note that when the graffiti was obviously not about a romantic relationship, it was not included in the theme of “love” but rather placed in the theme that best captured the overt sentiment (e.g., if graffiti stated A + M in a heart shape, it would be placed in the love theme; if instead it was A + M = BFF, it would be placed in the alliance theme).

*Theme 5: Same-Sex Sexual Behavior.* The fifth theme was same-sex sexual behavior, and included comments about women interacting sexually with other women, or making references to women's anatomy in a sexual manner. For example, some women wrote about liking women's body parts (e.g., "I love Indian nipples" and "I love pussy"). There were also proclamations of "lesbian sex is better" and "eat pussy."

### ***Themes in Men's Bathroom Graffiti***

There were four themes found in the graffiti in men's bathrooms. The vast majority of graffiti was tagging, with the other themes being heterosexual sexual behaviour, philosophy/politics and competition with other men. Given that we were not able to obtain an accurate count for the tagging theme (see below), our data in Table 2 must be viewed as approximate. Although the themes of heterosexuality, philosophy/politics and competition occurred relatively infrequently (i.e., each comprising less than 5% of all graffiti in men's bathrooms), we describe them briefly for the sake of thoroughness.

*Theme 1: Tagging.* Sanborn (2011) reports that the graffiti style of "tagging" emerged in the 1990's as a symbol or signature used to denote territory, although Lindsey and Kearns (1994) propose that recent usage is not to signify territoriality but rather self-proclamation for status. It originally was observed as part of gang culture and then was absorbed by the mainstream community. Unless one is familiar with the style of writing, it can be challenging to decipher the letters. Tagging can often be done very quickly with a variety of mediums, and while mural graffiti usually has an artist's signature tag, the bathroom graffiti we observed was composed only of tags. With respect to frequencies, we attempted to count each occurrence of an individual tag. However, in many establishments (particularly the music clubs) this exercise was futile, as tags appeared in a layered fashion, as though the most recent "tagger" was leaving their mark that this was a place they had been, which aligns with the self-proclamation rather than territoriality interpretation discussed later.

*Theme 2: Heterosexual Sexual Behavior.* The second theme was about opposite-sex sexual behavior and included references to women's anatomy, various sex acts, or acts involving specific individuals.

*Theme 3: Philosophy and Politics.* Themes of philosophy and politics were observed in men's (and women's) bathrooms, however they were not numerous as compared to tagging. See Table 2 for a description. Note that there was not a significant sex difference for this theme.

*Theme 4: Competition.* This theme included derogatory statements about other men. Statements tended to reference a specific male's sexuality (e.g., poor sexual skills), or references to engaging in sex with another man's mate.

## DISCUSSION

The results of our study reveal substantial differences in the graffiti contained in men's versus women's bathrooms. Graffiti in women's bathrooms primarily contained mentions of love, competition with women, friendships and alliances with women, and same-sex sexual behavior. In stark contrast, graffiti in men's bathrooms tended to be tagging, which may be used to indicate territoriality or be a self-proclamation of status, with themes related to philosophy/politics, heterosexual sexual behavior and competition occurring far less frequently.

Unbeknownst to us at the time of our data collection, our approach was not truly novel. Matthews, Speers and Ball (2012) collected graffiti (including nonverbal) from a random selection of female and male bathroom stalls in a midwestern American city. They found men composed more sexual, homosexual, and 'presence identifying' graffiti than women, and women composed more romantic, interactive and insulting graffiti. These findings were grounded in "Literature based on evolutionary psychology ... males should be more likely to discuss their success at sex as evidence of their successful mating strategy. Conversely, females should be more likely to avoid authoring messages involving sex due to their motivation not to appear sexually promiscuous." Moreover, to explain why females in particular graffiti about romantic relationships, they propose "Females commonly make relationships public to inhibit their partners' ability to take on additional mates." Tagging was viewed as "marking one's territory to deter rivals." In contrast to their findings, we found far more tagging in men's bathrooms, and more emphasis of same-sex sexual behaviour in women's bathrooms. The authors do not mention any reference of competition or alliances in their coding scheme, which was limited to entertainment (e.g., movies, television shows), love/romance, physical-presences (e.g., tagging), scatological, sexual, socio-political, or other. Interestingly, there is mention of insults, but the explanation seems posthoc. The authors did find that females stated more insults than males, which was not predicted, and is in keeping with our results. More generally, based on the coding scheme, it appears that a qualitative approach was not used, which means that topics were not included unless they matched the themes that were set *a priori*. In contrast, in our study, we examined existing graffiti to arrive at the categories using a grounded theory approach. Another explanation for the difference in findings is that we examined bathrooms in total, not just the inside of stalls. This wider scope includes graffiti that one may be caught creating (e.g., if someone was to walk into the bathroom) which may influence the content.

If one assumes that the authors of the graffiti found in the men's versus women's bathrooms are men and women, respectively, the findings are well aligned with predictions grounded in evolutionary psychology. Similar to Matthews et al. (2012), we had predicted that, due to women's higher parental investment, women's graffiti would involve issues such as romance, derogating potential rivals, and sharing information about potential mates. As

discussed below, we supported this prediction although we found limited information being shared about potential mates (i.e., the information tended to be statements about sexual activity), and instead found more references to same-sex sexual activity than expected. We predicted men's bathroom graffiti to include issues about locating potential mates, sharing information about resources to attract mates, and derogating potential rivals. Instead, we found the vast majority of graffiti to involve tagging, with little graffiti about any other topic.

We supported the hypothesis that women's graffiti would contain content about romantic relationships, as found by the prevalence of comments to love. Other researchers have documented women's interest in romance; for example, in their analysis of Harlequin Romance novel titles, Cox and Fisher (2009) found love was the most frequently appearing word. The results also support the prediction that derogating rivals would be a theme within graffiti, in that women wrote negative comments about other women's appearances and sexuality, which is very much in keeping with strategies women list as a way to compete with rivals (Fisher & Cox, 2011), or drew attention to the possibility that they (the writer) had sexual relations with the reader's boyfriend, or created potentially jealousy-invoking images.

We did not propose that women would create graffiti about heterosexual sexual activity, men's sexual skills or anatomy. However, if one views one of the outcomes of romantic relationships as sexual access, this finding is sensible in light of the amount of graffiti about love. A more plausible explanation, though, is that the creator was aiming at shock value, in that they wanted to surprise or shock the reader. Alternatively, if Sechrest and Flores (1969) are correct in that graffiti are a way to engage in discourse about sensitive topics, the amount of content devoted to sexuality is logical. If one also considers the negative stereotypes women face about their sexuality, especially if it involves preferences for casual sex (e.g., Conley, Ziegler, & Moors, 2013), then graffiti would be an outlet for women to express these desires.

While we did not find much sharing of information about potential mates, we did find content addressing female alliances, friendships and the sharing of advice to other women, or statements of support for women. The importance of friendships to women has been supported by the literature, including the finding that women, but not men, tend to treat friends in the same way to how they treat kin (Ackerman, Kenrick, & Schaller, 2007).

We also had not predicted that women would create graffiti about sexual activity with other women. Compared to Little and Sheble (1987; see also Matthews et al. 2012) who found that men generated more homosexual graffiti, mostly in a derogatory manner, than women, our results suggest the opposite, as we found women wrote more about same sex behavior than men. Women did not accuse others of being lesbian but instead expressed positive experiences about lesbian sex, while there were few examples of men writing positively about same-sex behavior. One reason for this discrepancy may be the nature of female sexuality. Females more than males have been found to be sexually fluid, meaning a tendency to be aroused by the same sex as well as the opposite sex, and are more likely to engage in same sex behavior at some point in their lives (see for a review Diamond, 2008). One explanation is that women's sexual fluidity might be linked to the formation of

alloparenting relationships which would be key for offspring survival (Kuhle & Radtke, 2013). Although some women who produced graffiti about same sex behavior may have been lesbian, the establishments we visited and that had graffiti in the bathrooms included those aimed at a broad clientele.

The abundance of tags in male bathrooms was tremendous, to the extent that we must conclude that the primary content of men's graffiti is that expressed via tags. Tags were written over tags and the process repeated until the entire bathroom was only covered in tags. Given that the bathrooms were not located in a gang territory, and the location was private rather than public (i.e., a bathroom and not a wall on a street), we contend that tagging was probably performed as a self-proclamation of status, in keeping with the work by Lindsey and Kearns (1994). Moreover, as Halsey and Young's (2006) interviews with taggers reveals, the heart of tagging is that it is an illicit activity and is intimately tied to the search for identity for many creators. They further report that many who create graffiti do so to attain status, although issues such as pleasure are also important. Those who tag do so because they perceive it as social, in that they are part of a community who tags, take pride in their activity (especially if the tag has been laborious to produce), and a strong desire for recognition. Therefore, in this sense tagging is a way to display one's skills to other men and be recognized, which may be tied to gaining social status within a group. Given that women desire men with high social status, as can be seen in how they manipulate language to indirectly determine the social standing of a potential mate for example (Gal, 1978), men who tag and increase in social status among other men may be perceived as more desirable by women and gain more reproductive success.

As mentioned earlier, it is possible that using the sex of the bathrooms actually accurately aligned with the sex of the individuals creating the graffiti. Reiser (1971) reports, "Sex messages in ladies' room have been found, in some cases, to have been done by janitors or custodians" (p. 4). However, Reiser does not provide any citation, nor an estimate of the frequency with which this behavior occurs. In the future, determining basic demographics of the creators of graffiti would be useful, although obtaining this data is problematic, in that creators may not wish to be identified.

### ***Future Directions***

One of the most obvious areas for future research is to document the cross-cultural nature of bathroom graffiti. If these differences do reflect evolved sex differences in territoriality, status, romantic relationships, and sexual competition, then they should be readily apparent across various nations. We do note, though, that graffiti may be used to also express disagreement to prevailing cultural norms, and hence, there may be some minor deviation from these themes. Research indicates some strong cultural similarities that agree with the patterns documented here, at least among Italy, Germany, the United States, Spain and Brazil (Teixeira, Otta & Siqueira, 2003). For example, in each of these five countries women's romanticism was clearly evident in their graffiti.

Another topic that warrants attention is to use an evolutionary lens to examine public graffiti, such as seen on subways, walkways, or on the sides of buildings. Researchers have documented how the content of this graffiti is distinct to more private areas, such as bathrooms (Erickson, 1987). However, there appears to be no evolutionary-based investigations on the topic. We would predict that much of the graffiti would pertain to establishing in-group loyalties (e.g., gang-based tagging to document territories) or be used to reflect dominance hierarchies (e.g., the name of the person who remains is the most socially dominant in that surrounding geographic area). As well, it may be used to bring particular issues to attention of the public, by way of political commentary, especially by those who may feel that they are submissive and would not be heard otherwise.

## CONCLUSIONS

Graffiti have existed throughout human history and across cultures, and therefore, are a potentially valuable tool towards understanding humans' interests. In the current study, we analyzed the content of men and women's bathroom graffiti with the prediction that the content would map onto evolutionarily-relevant, sex-specific themes. Our findings show that women tend to write about love and romance, while men tend to engage in tagging, which we conclude is a way to gain status.

## REFERENCES

- Ackerman, J. M., Kenrick, D. T., & Schaller, M. (2007). Is friendship akin to kinship? *Evolution and Human Behavior*, 28(5), 365-374.
- Anderson, S. J., & Verplank, W. S. (1983). When the walls speak, what do they say? *The Psychological Record*, 33, 341-359.
- Brown, J. C. (1995). The writing on the wall: The messages in Hungarian graffiti. *Journal of Popular Culture*, 29(2), 115-118.
- Buss, D. M. (1991). Do women have evolved preferences for men with resources? A reply to Smuts. *Ethology and Sociobiology*, 12(5), 401-408.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100(2), 204-232.
- Chang, R., Fisher, M., & Meredith, T. (2012). Evolutionary perspectives on what women paint. *Journal of Social, Evolutionary, and Cultural Psychology*, 6(4), 442-452.
- Conley, T. D., Zielger, A., & Moors, A. C. (2013). Backlash from the bedroom: Stigma mediates gender differences in acceptance of casual sex offers. *Psychology of Women Quarterly*, 37(3), 392-407.

- Cox, A. & Fisher, M. (2009). The Texas billionaire's pregnant bride: An evolutionary interpretation of romance fiction titles. *Journal of Social, Evolutionary, and Cultural Psychology*, 3, 386-401.
- D'Angelo, F. J. (1976). Fools' names and fools' faces are always seen in public places: A study of graffiti. *The Journal of Popular Culture*, 10(1), 102-109.
- DeBacker, C., Nelissen, M., & Fisher, M. (2007). Let's talk about sex: A study on the recall of gossip about potential mates and sexual rivals. *Sex Roles*, 56, 781-791.
- Diamond, L. (2008). *Sexual fluidity: Understanding women's love and desire*. Cambridge, MA: Harvard University Press.
- Erickson, P. A. (1987). *Graffiti Halifax style*. Hantsport, NS: Lancelot Press.
- Fisher, M. (2013). Women's intrasexual competition. In M. Fisher, J. Garcia, & R. Chang (Eds.), *Evolution's Empress: Darwinian perspectives on the nature of women* (pp. 19-42). New York: Oxford University Press.
- Fisher, M. & Cox, A. (2011). Four strategies used during intrasexual competition for mates. *Personal Relationships*, 18, 20-38.
- Gal, S. (1978). Peasant men can't get wives: Language change and sex roles in a bilingual community. *Language and Society*, 7(1), 1-16.
- Halsey, M., & Young, A. (2006). Our desires are ungovernable: Writing graffiti in urban space. *Theoretical Criminology*, 10(3), 275-306.
- Ley, D., & Cybriwsky, R. (1974). Urban graffiti as territorial markers. *Annals of the Association of American Geographers*, 64(4), 491-505.
- Kuhle, B., & Radtke, S. (2013). Born both ways: The alloparenting hypothesis for sexual fluidity in women. *Evolutionary Psychology*, 11, 304-323.
- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhardt, P. H. (1953). *Sexual behavior in the human female*. Philadelphia, PA: W. B. Saunders.
- Lindsey, D. G., & Kearns, R. A. (1994). The writing's on the wall: Graffiti, territory and urban space in Auckland. *New Zealand Geographer*, 50(2), 7-13.
- Little, R., & Sheble, M. (1987). Graffiti vandalism: Frequency and context difference between the sexes. *American Journal of Criminal Justice*, 11, 217-226.
- Matthews, N., Speers, L., & Ball, J. (2012). Bathroom banter: Sex, love, and the bathroom wall. *Electronic Journal of Human Sexuality*, 15. Retrieved from <http://www.ejhs.org/volume15/Banter.html>
- Phillips, C. J. (1998). *America's funniest bathroom graffiti*. Grand National Press.
- Reisner, R. (1971). *Graffiti: Two thousand years of wall writing*. Cowles Book Company.
- Sanborn, J. (2011). *Tagged: The history of graffiti writing*. New York: Lulu Press.
- Sechrest, L., & Flores, L. (1969). Homosexuality in the United States and the Philippines: The handwriting on the wall. *Journal of Social Psychology*, 79, 3-12.

- Schrest, L., & Olsen, A. K. (1971). Graffiti in four types of institutions of higher education. *The Journal of Sex Research*, 7(1), 62-71.
- Teixeira, R. P., Otta, E., & Siqueira, J. O. (2003). Between the public and the private: Sex differences in restroom graffiti from Latin and Anglo-saxon countries. Universidade de Sao Paulo, Working Paper number 03/007. Retrieved May 27, 2014 from <http://www.ead.fea.usp.br/wpapers/2003/03-007.pdf>
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man 1871-1971* (pp. 136-179). Chicago: Aldine Publishing.