

Gendered Shopping: A Seven Country Comparison

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Studies in Western countries have revealed that women spend more time shopping than do men with the exception of online shopping. To extend this finding to non-Western populations, the present study used identical methods of observing visitors to indoor shopping malls in seven different countries. Three of the countries were Western (Canada, Spain, and the United States) and four were non-Western (China, Laos, Malaysia, and Turkey). In all seven countries, the proportion of women significantly exceeded the proportion of men. Among children and adolescents, female also outnumbered their male cohorts in most of the seven countries, although the differences were not always statistically significant. Theoretical explanations for these findings are explored. Overall, we propose that the most credible explanation involves a combination of social, evolutionary, and neurohormonal variables.

Key Words: Sex differences; Shopping; Cross-cultural (Canada, China, Laos, Malaysia, Spain, Turkey, United States).

Strolling from store to store and occasionally making purchases – shopping – is a distinctly human activity that probably dates back to civilization itself (Dittmar et al., 2004). People sometimes shop alone, but often they do so with friends or relatives, giving the activity a distinctive social element. While shopping can be for life's near-necessities (e.g., groceries and toiletries), it is often for objects of

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beauty and luxury (e.g., clothing and jewelry).

Past Literature on Sex Differences in Shopping

For years, comedians in the West have lampooned the proverbial *woman shopper*, and, indeed, the available research has largely supported the stereotype (review by Ellis, Hershberger, Field, Wersinger, Pellis, Geary, et al., 2008, p. 728). A single exception involves *online* shopping, which appears to be more of a male than female activity (Korgaonkar & Wolin, 1999; Laroche, Saad, Cleveland, & Browne, 2000). Also, there may be some forms of so-called “brick and mortar” shopping – such as for automobiles and other high-technology items – that defy the general rule. These qualifications having been made, it should be added that online shopping appears to amount to less than 5% of the total retail sales (Wolfenbarger & Gilly, 2001), and shopping for high technology items occurs much less often than shopping for food, clothing, and the like.

In terms of time and money spent shopping, women have been shown to surpass the purchases made by men, at least in Western societies (Dholakia, 1999; Fischer & Arnold, 1990). This is true not only for food (Fram & Axelrod, 1990) but especially for clothing, cosmetics, and jewelry (Chen-Yu & Seock, 2009; Dholakia, 1999).

Furthermore, women report *enjoying* shopping more than do men (Alreck & Settle, 2002; Bellenger and Korgaonkar, 1980; Rook & Hoch, 1985; Seock & Bailey, 2008). A study by Swaminathan et al. (1999) indicated that men and women have different “orientations” to shopping. Basically, men are more oriented toward shopping if and where it is most convenient and least time-consuming; whereas women seem to savor prolonged shopping experiences, especially when they can share the experiences with others (Rook & Hoch, 1985).

Theoretically Explaining Sex Differences

Why would men and women differ in their tendencies to shop? Before giving serious attention to this question, it is

not unreasonable to ask “Why bother trying to find out?” There certainly are more important issues calling for scientific answers. Nonetheless, shedding light on why such a sex difference would exist could open windows into deeper and more consequential topics.

At least four plausible explanations for sex differences in time spent “brick-and-mortar” shopping can be offered. As elaborated below, they are (a) homemaker’s role influences, (b) social bonding influences, (c) evolutionary influences, and (d) neurohormonal influences.

Homemaker’s Role

Decades ago, Scanzoni (1977) asserted that as part of their homemaker’s role, women in Western cultures are expected to shop more than men, and, as a result, they are socialized to do so. Such an explanation would be consistent with evidence that women shop for food and other basic family necessities more than men do (Fram & Axelrod, 1990). However, it would be less relevant to the evidence that women are also the main shoppers for fashionable clothing, shoes, and jewelry (Chang, Burns, & Francis, 2004; Chen-Yu & Seock, 2009; Dholakia, 1999). This suggests that the homemaker’s role is at best only a partial explanation for the sex difference.

Communal Social Draw

A second possibility is that females shop more because shopping provides a venue for friendly language-based social interactions. Research conducted over several decades indicates that females spend more time socially communicating than do males (Lipman-Blumen, 1976; Richards & Larson, 1989; Rose & Rudolph, 2006). While shopping can be a solitary activity, its social aspects are especially apparent when two or more friends or relatives shop together. Even when shopping alone, individuals often interact with sales personnel and sometimes other strangers (Swaminathan et al., 1999). These observations would not only help to explain why women are more involved in

conventional forms of shopping but also why males are more drawn to online shopping, where direct social interactions are minimal (Browne 1998, p. 45; Rogers & Harris, 2003).

Of course, the social draw explanation leaves open the question of *why* females would be drawn toward friendly language-based social behavior more than males. More attention will be given to this issue in the discussion.

Evolutionary Influences

In recent years, efforts have been made to incorporate evolutionary concepts into the study of consumer behavior (e.g., Bowles, 2004; Leijonhufvud, 1993; Saad, 2004; Saad & Gill, 2000). In this regard, it is interesting to note that shopping has several elements in common with gathering activities among people living in foraging societies (Dennis & McCall, 2005; Draper, 1975; New, Krasnow, Truxaw, & Gaulin, 2007), and that food gathering is mainly a female activity among foragers (e.g., Hawkes, O'Connell, & Jones, 1995; Kruger & Byker, 2009). Therefore, the greater involvement of females in food shopping could be considered a contemporary expression of food gathering activities.

Another evolutionary basis for expecting sex differences in shopping stems from noting an apparent universal sex difference in criteria used in choosing mates. Numerous studies have shown that women are chosen more on the basis of their physical attractiveness (while men are selected more for their abilities to provide sustained family support) (e.g., Buss, 1989; Buunk, Dijkstra, Fetchenhauer, & Kenrick, 2002; Feingold, 1990). Thus, females who put efforts into enhancing their appearance are likely to attract more mates, and thereby successfully rear more offspring than females who pay little or no attention to their appearance (Cash & Henry, 1995; Pliner, Chaiken, & Flett, 1990). One could infer from this line of reasoning that shopping for clothing and other products that seem to flatter one's appearance would be favored in females more than in males.

Neurohormonal Influences

A fourth possibility is that sex hormones may alter the female brain in ways that incline them to shop. Supportive evidence comes from noting that the left hemisphere functions in ways that promote both language usage and friendly social interactions more than does the functioning of the right hemisphere (Berridge, 2003; Fox & Davidson, 1987; Fox, Rubin, Calkins, Marshall, Coplan, Porges, Long, & Stewart, 1995). Furthermore, research has shown that female brains are more left dominant (Harasty, Double, Halliday, Kril, & McRitchie, 1997; Wada, Clarke, & Hamm, 1975) and less laterally specialized than male brains (Kansaku, Yamaura, & Kitazawa, 2000; Saucier & Elias, 2001). As a result, female brains appear to focus more than male brains on friendly use of language (Ellis, 2006; Wager, Phan, Liberzon, & Taylor, 2003). Tendencies to spend leisurely time together shopping with friends and relatives might be one manifestation of how the female brain is functionally organized.

In recent years, numerous other neurological sex differences have been documented (Blum, 1998; Ellis et al., 2008, pp. 54-89; Hines, 2005), some of which involve responses to aesthetic stimuli (Cela-Conde, Marty, Maestú, Ortiz, Munar, Fernández, Roca, Rossello, and Quesney, 2004; Jacobsen, Schubotz, Höfel, & Cramon, 2006). Therefore, males and females may respond to colors, textures, and other aspects of aesthetics differently. For example, females appear to have a keener ability to detect fine variations in colors and textures (Bimler, Kirkland, & Jameson, 2004; Passig & Levin, 2000). These abilities could help to make shopping a more rewarding experience for women.

To summarize these introductory comments about theoretical explanations for gendered shopping, there are at least four distinguishable ways to account for why females spend more time shopping than males. As will be explained

more in the discussion, these explanations are not mutually exclusive. Thus, it may be possible to combine them to provide a more powerful explanation than any of them provide on their own.

Statement of the Problem

The present study was undertaken to shed light on the causes of sex differences in shopping behavior. We were especially interested in determining the extent to which these differences might be present cross-culturally rather than being limited to Western cultures. Obviously, if there is either an evolutionary or a neurohormonal basis for gendered shopping, one would not expect to find a sex difference limited to the West.

Methods

Direct observations were made in large indoor shopping centers in Chongqing, China; Lethbridge, Alberta, Canada; Kuala Lumpur, Malaysia; Ankara, Turkey; Malaga, Spain; and Mission Viejo, California, United States. In all seven cities, the observations were made in commons areas of indoor shopping malls. All observations were made on weekends or holidays so as to minimize the possibility of any sex differences being due to greater proportions of males than female having an employed work schedule.

Passersby were categorized according to their sex and three age groups: children, adolescents, and adults. Children too young to be walking were excluded from consideration.

Proportions of males and females in the three age grouping were calculated for each country separately. In order to identify proportional differences that were statistically significant, we used chi square. A t-test was used to determine if the average percentage of adult females in each of the three Western countries were significantly different from the average percentage for the four non-Western countries.

Results

Results are discussed first for the three Western countries. Then the findings for the non-Western countries (three from Asia and one from the Middle East) are given attention.

Western Countries

Tables 1 through 3 pertain to Canada, Spain, and the United States, respectively. Examining these tables reveals that among adults, significant sex differences were found in each country. The greatest sex difference was in Spain, with 65.2% of all shoppers being women, and the lowest was in Canada, where 56.1% of shoppers were women. Despite these between country differences, as other studies in Western countries (using both self-reports and direct observations) have all revealed, women spend more time shopping than men do.

Regarding children and adolescents, no significant sex differences were observed in Canada and Spain. However, in the United States, the presence of female children and of female adolescents was both significantly greater than the presence of their male counterparts.

Non-Western Countries

Findings regarding the four non-Western countries are shown in Tables 4 through 7. As was true for the three Western countries, women were observed in indoor shopping centers significantly more than men in China, Laos, Malaysia, and Turkey. Also, similar to what was found for the Western countries, few significant sex differences in the prevalence of children and adolescents were found. Only in China were significantly more female adolescents observed than male adolescents.

Table 1. The numbers and proportions of mall visitors according to sex and age grouping in Lethbridge, Alberta, Canada.

Age Groups	Males	Females	χ^2	P
Children	36 (52.9%)	32 (47.1%)	0.235	.628
Adolescents	23 (47.9%)	25 (52.1%)	0.083	.773
Adults	229 (43.5%)	297 (56.5%)	8.791	.003

Table 2. The numbers and proportions of mall visitors according to sex and age grouping in, Malaga, Spain.

Age Groups	Males	Females	χ^2	P
Children	18 (42.9%)	24 (57.1%)	0.857	.355
Adolescents	15 (51.7%)	14 (48.3%)	0.034	.854
Adults	208 (34.8%)	389 (65.2%)	54.876	.000

Table 3. The numbers and proportions of mall visitors according to sex and age grouping in Mission Viejo, California, United States.

Age Groups	Males	Females	χ^2	P
Children	20 (27.0%)	54 (73.0%)	15.622	.000
Adolescents	47 (37.9%)	76 (61.3%)	6.837	.009
Adults	219 (42.0%)	302 (58.0%)	13.223	.000

Table 4. The numbers and proportions of mall visitors according to sex and age grouping in Chongqing, China.

Age Groups	Males	Females	χ^2	p
Children	58 (44.3%)	73 (55.7%)	1.718	.190
Adolescents	113 (43.8%)	145 (56.2%)	3.969	.046
Adults	275 (43.7%)	355 (56.3%)	10.159	.001

Table 5. The numbers and proportions of mall visitors according to sex and age grouping in Vientiana, Laos.

Age Groups	Males	Females	χ^2	p
Children	25 (47.2%)	28 (52.8%)	0.170	.680
Adolescents	9 (33.3%)	18 (66.7%)	3.000	.083
Adults	186 (41.5%)	262 (58.5%)	12.893	.000

Table 6. The numbers and proportions of mall visitors according to sex and age grouping in Kuala Lumpur, Malaysia.

Age Groups	Males	Females	χ^2	p
Children	42 (45.6%)	50 (54.3%)	0.696	.404
Adolescents	52 (46.8%)	58 (52.2%)	0.327	.567
Adults	330 (41.9%)	458 (58.1%)	20.792	.000

Table 7. The numbers and proportions of mall visitors according to sex and age grouping in Ankara, Turkey.

Age Groups	Males	Females	χ^2	p
Children	45 (42.1%)	62 (57.9%)	2.701	.100
Adolescents	89 (43.6%)	115 (56.4%)	3.314	.069
Adults	412 (38.0%)	672 (62.0%)	62.362	.000

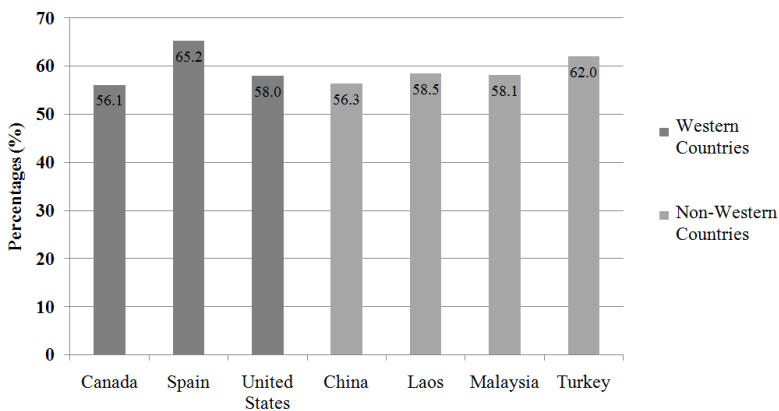


Figure 1. Percentage of adults present in shopping malls who were women in three Western and four non-Western countries.

Comparisons between the Western and Non-Western Countries

Similar sex differences were documented for all seven countries, particularly in the case of adults. To assess these patterns in greater detail, we examined the proportion of females present in shopping malls of each country, as shown

in Figure 1. Calculation of the average percent of female shoppers in the three Western countries ($M_W = 59.8\%$) and in the four non-Western countries ($M_{N-W} = 58.7\%$) revealed no significance difference between them ($t = .384$, $p = .717$).

Discussion

In contemporary societies, both sexes obviously have needs to shop. Nevertheless, consistent with prior studies suggesting that females spend more time shopping than males do (reviewed by Ellis et al. 2008, pp. 728), we found women to be significantly more prevalent in shopping malls than men in all seven countries sampled. While the numbers of children and adolescents observed were considerably fewer than adults (thus diminishing the chances of documenting any significant sex differences), in most cases they too exhibited higher proportions of females than males.

The most important finding of the present study involved the strikingly similar sex ratios in both Western and non-Western shopping malls. Obviously, this does not prove that biology has a role to play in accounting for gendered shopping, but it suggests that something beyond mere cultural traditions is involved. In other words, when similar sex differences exist across divergent cultures, one can *infer* that some underlying biological forces are operating (Eals & Silverman, 1994; Shackelford, Schmitt, & Buss, 2005). As stated by Kenrick and Keefe (1992, p. 76), “invariance [in sex differences] across cultures is evidence that supports a species-specific, rather than a culture-specific explanation”. Similarly, Lippa (2010, p. 621) noted that universal sex differences “may provide compelling evidence for biological causation”. Of course, this does not mean that sociocultural factors are unimportant, only that these factors are probably operating within some powerful biological constraints.

Theoretically Explaining Gendered Shopping

Readers will recall that four explanations for sex differences in shopping were explored in the introduction.

The first two were strictly cultural in nature – the homemaker’s role and the communal social draw explanations. The latter two were of a biological nature, although certainly not excluding sociocultural factors as influential – the evolutionary and the neurohormonal explanations. We would like to propose that all of these four explanations can be drawn together to derive a single theory of gendered shopping. This theory reflects the perspective that the most powerful theories of behavior will often incorporate both “ultimate” and “proximate” etiological concepts (Scott-Phillips, Dickins, & West, 2011).

The synthesized theory we proposed is called the *evolutionary neurohormonal theory* and has been described elsewhere to explain variations in behavior patterns, especially ones for which sex differences are apparent (Ellis, 2005, 2006, 2011). This ENA theory recognizes the involvement of sociocultural factors, while maintaining that biological variables are needed to fully account for gender differences in most forms of behavior. The evolutionary aspects of the theory are presented first, following by a consideration of the neurohormonal and sociocultural factors.

Evolutionary Aspects of Gendered Shopping. As noted in the introduction, two natural selection forces have favored female shopping behavior. The first of these forces was the tendency for females to concentrate on gathering edible fruits and vegetables as a low-risk means for obtaining food, while leaving high-risk hunting activities primarily for males. Such a sexual division of labor allowed females to concentrate on bearing and nursing offspring (Brightman, 1996). When agrarian and industrial societies emerged, females continued to engage in food shopping as an evolved remnant of their gathering heritage consistent with a heavy emphasis on nurturing children.

The above argument provides a reasonable explanation for why females would be the main shoppers for food other

than animal protein. However, it would not explain why females also predominate in shopping for apparel unless one asserted that it was simply a generalized “carry-over” from food shopping. While there could be such a carry-over effect, we believe another evolutionary force has been at play, as explained below.

Studies throughout the world have shown that males use physical attractiveness more than females do as a criterion for selecting mates (Buss, 1989; Singh, 1993; Sprecher, Sullivan, & Hatfield, 1994). Female responses to this male bias should include making substantial efforts to enhance their appearance. We hypothesize that these enhancement efforts have included taking a keen interest in clothing, makeup, and jewelry that help to flatter the wearer. Of course, males should not be oblivious to their personal appearance, but they should focus more on developing and demonstrating an ability to make a living, since females emphasize this as a criterion for mate selection more than do males (Regan, 1998; Wiederman & Allgeier, 1992).

Neurohormonal Aspects of Gendered Shopping. Studies have shown that on average male and female brains differ in numerous ways both anatomically and functionally (Baron-Cohen, Knickmeyer, & Belmonte, 2005; Dennis, 2004; Ellis et al., 2008, pp. 54-89). Presumably, most of these neurological differences have evolved because they have helped males and females effectively perform their respective reproductive roles. If so, and if shopping has promoted the female reproductive role (as argued above), it is reasonable to believe that sex differences in brain functioning are contributing to sex differences in shopping, as explained more below (also see Ellis, 2011).

From a physiological standpoint, sex differences in the brain are largely the result of genetic and hormonal factors. Genetically, all mammals are basically female (Dennis, 2004). To produce males, genes have evolved on the Y-chromosome to convert the would-be ovaries into testes

instead (Goodfellow & Lovell-Badge, 1993; Morais da Silva et al., 1996). Once the testes have formed, they produce relatively large quantities of testosterone and other “male sex hormones” collectively known as *androgens*. Androgens not only alter visible features of the body, such as enlargement of muscle tissue and the formation of the penis, but also the structure and functioning of the brain (Morris, Jordan, & Breedlove, 2004). Sex differences in the brain ultimately produce sex differences in behavior. Within this conceptual framework, we propose specific aspects of brain functioning likely produce sex differences in shopping and related behavior.

As noted in the introduction, females appear to be more sociable than males, especially in terms of communal linguistic interactions (also see Gleason, & Ely, 2002). Because shopping often entails such interactions, one can deduce that there is something about the average female brain that promotes communal interactions. We join others in believing that the tendency for female brain to be more left hemispheric dominant than the male brain is a major contributor to communal behavior and to the use of language (Baron-Cohen et al., 2005; Wildgruber, Ackermann, Kreifelts, & Ethofer, 2006). This reasoning allows one to deduce that sex differences in hemispheric functioning are partly responsible for women shopping more than men (Putrevu, 2001).

Another neurological sex difference that likely affects tendencies to shop involves how the brain processes sensory information. Studies have shown that females are more sensitive to colors and textures than are males (Nowaczyk, 1982; Olofsson & Nordin, 2004). This sensitivity could enhance their enjoyment of shopping (Citrin, Stem, Spangenberg, & Clark, 2003; Jansen-Verbeke, 1987). Also consistent with this line of reasoning, research has shown that sex hormones alter brain functioning in ways that affect visual and tactile sensitivity (Hausmann, Schoofs, Rosenthal,

& Jordan, 2009; Olofsson & Nordin, 2004).

Limitations

A primary limitation of the present study was that not all parts of the world were sampled. Most notably absent were countries from Africa and South America. Hopefully, others will verify and extend our findings based on samples drawn from these and other parts of the world.

Another limitation was that no attempt was made to assess the types of items purchased or the extent to which those present in the malls were actually shopping. Nevertheless, given the voluminous evidence from others of sex differences in shopping in Western cultures using a variety of research methodologies (Ellis et al., 2008), the fact that our comparison of Western and non-Western cultures resulted in nearly identical findings is difficult to attribute to the specific methods we employed.

Summarizing the Evolutionary Neurohormonal Theory

The evolutionary neurohormonal theory of sex differences in shopping argues that the brains of males and females have evolved somewhat differently. In particular, the female brain inclines individuals more sociable and linguistically oriented as well as more sensitive to colors and textures. Among the results of these neurologically-based differences is that females find greater pleasure in a wide range of shopping experiences.

From an evolutionary standpoint, a greater tendency for females to shop can be explained as partly the result of women being the primary gatherer of edible fruits, nuts, and vegetables for eons, leaving the killing of animals to men. In addition, females have been sexually selected more than males for paying close attention to their physical appearance in order to attract mates. Consequently, they spend more time seeking clothing and other apparel for bodily adornment.

Readers should note that the two strictly environmental explanations for sex differences in shopping (i.e., the

homemaker's role and the communal social draw) are not nullified by the evolutionary neurohormonal theory. One can account for females being more involved in homemaking as a response to evolutionary pressure for child care-giving. Furthermore, the special attraction that women have toward language-based communal social activities, which in turn helps to draw them into leisurely shopping activities, can be explained by noting that their cortexes are more left dominant than male brains.

Overall, this study of three Western and four non-Western countries supports the conclusion that the greater involvement of females in shopping appears to be a universal phenomenon. A theory was offered to explain why this universal difference would have evolved and even how it may have done so neurohormonally. To further test ENA theory, one could continue to search for cultures in which females do not spend more time shopping than males. There identification would begin to bring the theory into doubt. Another test of ENA theory would involve correlating androgen levels among persons who enjoy shopping the most and the least. Theoretically, even *within* each sex, individuals who enjoy shopping the most, especially for nonessential clothing, jewelry, and accessories, should exhibit lower androgen levels than those who find such activities least enjoyable.

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