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Sex Differences in Customer Retaliatory Behaviors: the Role of Oxytocin?

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This paper aims to investigate the hormonal underpinnings of retaliatory behaviors in a consumer setting. Using breastfeeding women as proxy for exogenously applied oxytocin, we conducted an online survey using a vignette that described a service failure. Breastfeeding women were less prone to retaliate than men than their non-breastfeeding counterparts.

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Sex Differences in Customer Retaliatory Behaviors: The Role of Oxytocin?

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EXTENDED ABSTRACT

Customer retaliation is meant to punish a firm for perceived grievances (Grégoire & Fisher, 2008), a topic of much practical importance and yet that is understudied in marketing journals (Grégoire & Fisher, 2006, 2008). Customer advocacy websites and online protection agencies are usual outlets for retaliation from dissatisfied customers. The economic impact of dissatisfied customers is quite substantial, as a one star increase in yelp.com ratings leads to a 5 to 9% increase in revenue (Luca, 2011).

Grégoire and Fisher (2006) propose that following a service failure a customer can restore the balance of the relationship either by demanding reparation from the firm or by retaliating against it. Retaliation has a negative connotation and is defined as “a customer’s effort to punish and make a service firm pay for the damages it has caused” (Grégoire & Fisher, 2006, p. 32).

In the current work, we focus on sex differences in retaliatory behaviors but more generally on its potential hormonal driver as captured by oxytocin colloquially referred to as the “love hormone.” Of note, this hormone has greater neural effect on women, as it helps lactation and facilitates attachment with offspring (Ellenbogen et al., 2012; Kosfeld et al., 2005; Young & Alexander, 2012). Breastfeeding women serve as a group of particular interest when studying the effects of oxytocin, as they are under its influence. Breastfeeding significantly alters the physiology and the psyche of women (Dermer, 1998). It is a common practice and according to the World Health Organization (2014), 40% of Brazilian, 14.4% of Canadian and 14% of American women (the selected sample for this study) exclusively breastfeed their children until 6 months of age. Dermer (1998) adds that breastfeeding increases women’s self-confidence and reduces their responses to stress. For firms that specialize in baby products or maternal care it is important to know whether or not breastfeeding can affect their customers’ behaviors. More generally though, firms stand to benefit in knowing the role that hormones play in the consumer setting. As it stands, very little research has examined the effects of oxytocin in the marketing or economic arena (but see Zak, 2011 for an exploration of how participants who were administered oxytocin were less prone to punish a partner after trust violation during an economic game).

METHODOLOGY AND FINDINGS

This research explores the effects of oxytocin on retaliatory behaviors using breastfeeding women as a “proxy” manipulation since they are under the influence of oxytocin due to lactation. Participants with this profile were recruited via Facebook groups that support breastfeeding and/or deal with motherhood in Brazil, Canada and United States of America. Furthermore, an online platform similar to Amazon’s Mechanical Turk, Crowdfunder (Crowdfunder, 2014) was used to collect data from participants originating from the same three countries.

We recruited 362 participants. After excluding missing values and following the Norwegian Social Sciences Data Services (2013) protocol for excluding repeated measures (if more than 80% of the answers of a given participant were the same, this data were excluded), the final sample consisted of 196 participants, of which 36 were breastfeeding women (BF), 59 were women (W) who were not breastfeeding when they took the survey, and 101 men.

Using a scenario-based vignette (Rungtusanatham, Wallin & Eckerd, 2011) we tested if there were any differences in retaliatory behaviors between these three groups. The vignette described a scenario in which the participant had a long-term relationship with a bank and one of its account managers. After the birth of his/her child, he/she asked the account manager for advice regarding the child’s education fund. The manager suggested a supposed guaranteed investment of \$10,000, subsequent to which the participant trusted the advice in question. But after one month, the participant and his/her spouse found out that all the money had been lost.

Using previous work from Grégoire and Fisher (2006, 2008) we selected seven measures to capture the multifaceted components of retaliatory behavior. The attitudinal measures were: *desire for retaliation* (6 items, e.g., indicate to which extent you would want to do something to the organization), *patronage reduction* (4 items, e.g., indicate to which extent you would want to spend less money in this business), *negative word-of-mouth* (3 items, e.g., indicate to which extent you would want to denigrate this organization to friends), and *third party complaining* (3 items, e.g., indicate to which extent you would want to take legal action against the firm). The emotional measures were: *perceived betrayal* (5 items, e.g., through the service failure I felt cheated), *dissatisfaction* (3 items, e.g., through the service failure I felt displeased), and *anger* (3 items, e.g., through the service failure I felt outraged). Scale end points ranged from 1 = strongly disagree to 7 = strongly agree. We conducted a one-way ANOVA to check for differences between the three groups. Table 1 summarizes the findings.

Table 1. Results

Measures	Cronbach’s Alpha	Mean (BF)	Mean (W)	Mean (Men)	P-value
Attitudinal					
Desire for retaliation	0.887	3.33	3.88	4.03	0.037*
Patronage Reduction	0.806	5.73	5.37	4.93	0.006*
Negative WOM	0.808	4.80	4.86	4.39	0.108
Third Party Complaining	0.789	3.50	3.76	3.78	0.647
Emotional					
Perceived Betrayal	0.882	5.35	5.19	4.53	0.001*
Dissatisfaction	0.919	6.11	5.53	4.81	0.000*
Anger	0.872	4.50	5.20	4.61	0.016*

The Bonferroni method revealed that breastfeeding women are less prone to retaliate than men even though the vignette recounted financial harm to their children. On the other hand, they had greater means than men for patronage reduction, perceived betrayal, and dissatisfaction. Oxytocin may lead breastfeeding women to adopt a flight instead of a fight strategy (Taylor et al, 2000) when facing a service failure, as their strategy is to adopt an “indirect” strategy (patronage reduction) instead of retaliating directly as was the case for men. Anger was the sole variable that yielded a difference between the two groups of women (lesser for breastfeeding women). This suggests that the “proxy” manipulation for oxytocin was perhaps not very successful. The oxytocin effect could be more accurately and directly tested in a more controlled environment. Accordingly the next step is to conduct a laboratory experiment in which we will present a series of vignettes to participants, whilst also administering intranasal oxytocin in a double-blind manner, as has been done by

Ellenbogen et al. (2012), Kosfeld et al. (2005), and Zak (2011), in order to explore a possible causal relationship between oxytocin and retaliatory behaviors.

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APPENDIX

Scales used in the survey (Grégoire & Fisher, 2006, 2008)

1. Attitudinal Measures: Indicate to which extent you would want (scale end points: 1 = strongly disagree to 7 = strongly agree)

1a. Desire for Retaliation

- To do something to the organization
- To take actions to get the organization in trouble
- To cause inconvenience to the organization
- To punish the organization in some way
- To make the organization get what it deserves
- To get even with the organization

1b. Patronage Reduction

- To spend less money at this business
- To stop doing business with this firm
 - To reduce the frequency of interaction with the firm
 - To bring a significant part of my business to a competitor.

1c. Negative Word-of-Mouth

- To spread a negative word-of-mouth about the organization
- To denigrate this organization to friends
- To tell my friends to not do business with this firm, when they are looking for a similar service

1d. Third Party Complaining

- To take legal action against the firm
- To report their behavior to a consumer governmental agency
- To contact the media to denounce their behaviors.

2. Emotional Measures: Through the service fail I felt (scale end points: 1 = strongly disagree to 7 = strongly agree)

2a. Perceived betrayal

- Cheated
- Betrayed
- Lied to
- The bank did not intend to take advantage of me. (Reverse)
- The bank tried to abuse me

2b. Dissatisfaction

- Dissatisfied
- Displeased
- Discontented

2c. Anger

- Outraged
- Resentful
- Angry