

## A Hormonal Account of Spectators' Status-Seeking Behavior

Yonghwan Chang, University of Minnesota  
Daniel Wann, Murray State University

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25-minute oral presentation  
(including questions)

### Introduction

In the field of consumer behavior research, contemporary studies have paid attention to the fundamental motive of desire for both status and its stability (Griskevicius & Kenrick, 2013). As such, the biosocial theory of status (Matson, 1985) may provide a fundamental understanding of fan behavior in the context of spectator sports. We attempt to examine (1) the effects of game outcome in conjunction with status instability and (2) the moderating role of implicit team identification (*i*Team ID) on spectators' status-seeking behavior. The current study contributes to the existing sport consumer behavior and spectatorship literatures by illuminating the seeming paradox (i.e., reversed winner-loser effects due to status instability) of game outcomes through the application of the hormonal account, which is a nascent theoretical approach in the field of consumer behavior.

### Theoretical Background

The major tenet of the biosocial theory of status is that changes in levels of testosterone correspond to the outcomes in a competition. In general, according to this theory, winning a competition (which extends beyond individual victories to include vicarious victories) results in an increase in level of testosterone, whereas losing a competition produces no such increase (Ligneul et al., 2016; Zilioli et al., 2014). For example, in a study focused on sport participation, players on winning female soccer teams showed sudden increases of testosterone level, whereas the losing team displayed a decrease in levels of testosterone. Similarly, in the context of spectator sports, fans who rooted for the winning team when watching a World Cup match exhibited an increase in testosterone and status-seeking behavior after the match, relative to spectators who favored the losing team (Bernhardt et al., 1998).

The biosocial theory of status may be useful in understanding dichotomous game outcome effects in sports spectatorship. However, applied on its own, this theory may obscure the complexities of the various events that transpire throughout the course of a game. The status instability concept included in the biosocial theory of status (Matson, 1985) asserts that the extent to which competition results are decisive or close could alter the predictions of the outcome effects of the competition. More specifically, in stable environments in which outcomes are certain, experiencing victories helps produce testosterone, and higher concentrations of this hormone have been positively associated with the subjective enjoyment of a competition (Welker et al., 2015). On the other hand, status instability may induce contradictory winner-loser effects. In the case of close victories, for example, the winners' higher status position is unstable given that this higher status was narrowly attained (Mehta et al., 2008). This insecure sense of dominance is likely to hinder concentrations of testosterone (Zilioli et al., 2014), which in turn, encourages individuals to actively avoid further competitions and other status-seeking attempts as a means to protect their higher, yet still susceptible, social standing (Mehta et al., 2008). Inversely, attaining an unstable lower dominance position (i.e., a close loss) has paradoxically been found to increase levels of testosterone (Zilioli et al., 2014) and status-seeking tendencies (Oliveria et al., 2009).

**Key Hypothesis:** Decisive victory and close loss positively influence spectators' status-seeking behavior; on the other hand, decisive loss and close victory negatively influence spectators' status-seeking behavior.

### Methods

This experiment used a 2 (game outcome: victory vs. loss)  $\times$  2 (status instability: decisive vs. close)  $\times$  2 (*i*Team ID: high vs. low) between-subjects design. By following the existing guideline (Cornil & Chandon, 2013), four games of a professional American football team were identified and classified as a close victory (2<sup>nd</sup> game, +2 points), close loss (10<sup>th</sup> game, -5 point), decisive loss (3<sup>rd</sup> game, -21 points), and decisive victory (14<sup>th</sup> game, +28 points). We recruited consumer panels through Qualtrics (<http://www.qualtrics.com/>). The experience sampling approach was utilized. Also, participants responded to the proxy measures of status-seeking behavior (e.g., purchase premium seats and purchase merchandise featuring a large image of the team mascot).

## Results and Discussion

A final sample of 379 was included for data analysis. The status instability manipulations were checked; the two conditions of close victories ( $M = 2.71$ ) and close losses ( $M = 2.43$ ) revealed significantly different perceptions of uncertainty compared to the two conditions of decisive losses ( $M = 4.01$ ) and decisive victories ( $M = 4.28$ ), respectively;  $F(3, 375) = 94.82, p < .001$ . A series of between-subjects ANOVAs were conducted. The results revealed significant main effects of game outcome on all of the DVs. Most interestingly, status instability (i.e., the “close” conditions) reversed this straightforward tendency of the effects of victories and losses. That is, compared to a close victory, a close loss produced significantly greater levels of status consumption ( $M_{\text{close loss}} = .30$  and  $M_{\text{close victory}} = -.35, p < .001$ ) as well as greater intentions to attend future games ( $M_{\text{close loss}} = .36$  and  $M_{\text{close victory}} = .03, p = .02$ ).

Generalized linear models along with ANOVA were utilized. The results revealed that iTeam ID (implicit team identification) significantly influenced status consumption ( $\beta = .75, SE = .24, t = 3.15, p = .002$ ). Also, the stronger the participants' iTeam ID, the higher their likelihood to seek a higher status (e.g., premium seats for future games:  $\beta = 1.39, SE = .55, t = 2.53, p = .01$ , close victory). However, the influence of iTeam ID on DVs in the decisive loss condition were either non-significant (e.g., attend future games:  $\beta = .12, SE = .35, t = .36, p = .72$ ) or negatively significant (e.g., large mascot merchandise:  $\beta = -1.31, SE = .38, t = -3.85, p < .001$ ).

Understanding how spectators interpret the outcome and process of sporting events is important to sport marketers because it allows them to better understand ways in which their product is being consumed. In this respect, the findings from this research suggest specific conditions where spectators' intentions for future attendance and desire for status consumption are enhanced. Further theoretical and practical implications associated with biosocial theory of status (Matson, 1985) and unconscious consumer judgement (Geniole et al., 2016) will be discussed.