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# How Testosterone Influences Men's Preferences for Luxury Products



By Hilke Plassmann , INSEAD Chaired Professor of Decision Neuroscience; , INSEAD Associate Professor of Marketing; and Gideon Nave, Assistant Professor of Marketing at The Wharton School

## **A man's testosterone level can tell you the type of products he may gravitate towards.**

In most cultures, social hierarchies are ubiquitous and deeply permeate consumer behaviour. They not-so-subtly extend throughout differences in cultural, social or economic capital across social groups and this is often reflected in luxury consumption.

In the animal kingdom, every species has its own unique emblems of dominance, such as the peacock's feathers or the stag's majestic antlers. Previous research showed that nature's trigger for these displays of superiority is the male sex hormone, testosterone. During mating season, rising testosterone levels are known to promote antler growth in stags, tail height in peacocks, and many other adaptations designed to lure the opposite sex. The male [bowerbird's testosterone-triggered mating](#)

**ritual** involves constructing an elaborate love nest – up to a metre high – decorated to entice the female eye. In light of these examples, we wondered: Could differences in testosterone also trigger status-seeking among humans and influence consumers' desire for luxury?

Our recently published paper in *Nature Communications* (co-authored by Amos Nadler of Ivey Business School, David Zava of ZRT laboratories in Oregon, and Colin Camerer of California Institute of Technology) is the first to demonstrate a direct causal link between testosterone levels and the preference for luxury consumer goods in men.

### **Preferences for luxury brands**

To test our hypothesis, we recruited 143 men, most of whom were students at a private college in southern California. About half were given a single commonly prescribed dose of a leading-brand testosterone gel (more than six million American men have tried some form of testosterone replacement therapy to date); the remaining men applied a placebo gel. After four and a half hours – the amount of time necessary for the supplemental testosterone to fully enter their bloodstream – participants were shown five separate pairs of branded logos. For each pair, they were asked to indicate which one they preferred.

The pairs were composed of brands that were pretested to have polarised social rank associations. That is, one brand was seen to lift its owner much higher in the social hierarchy (e.g. Calvin Klein) than the other (e.g. Levi's). Importantly, all paired brands were of the same perceived quality.

We found that the testosterone-dosed men exhibited a greater preference for the high-rank brands compared to the placebo group. Following the task, we conducted a manipulation check to ensure that our results reflected participants' brand preference, as opposed to a change in brand perception somehow brought about by testosterone use. For all but one of the brands, the testosterone and placebo groups expressed comparable perceptions. Thus, testosterone had not changed participants' perceptions of the brands; rather, it shifted their sensitivity to luxury brands.

When we factored in participants' baseline (i.e. pre-treatment) testosterone levels, we found a similar correlation with social-rank preference among brands, suggesting that the effect is not contingent upon a sudden, externally induced spike in testosterone levels as occurs with the hormone

gel.

## **Power vs. status signals**

If increasing participants' testosterone levels produced a heightened focus on hierarchy, it was important to pin down how the brands that seemed more exclusive were able to tap into that. Prior research shows there are two primary ways in which brands position their products to claim social rank benefits: either by speaking to consumers' power (i.e. control over valued resources) or consumers' status (i.e. respect in the eyes of others). This may seem a subtle distinction, but it has marked implications for branding campaigns.

In a subsequent task, we wrote three distinct descriptions for six brands (resembling magazine ad copy) – one designed to emphasise product quality, one emphasising power, and another centring on status. For example, our mock ads variously described Mont Blanc pens as “an instrument of persistence and durability” (quality), “mightier than the sword” (power), or “the internationally recognised symbol among the influential” (status).

We asked the same two groups of men to judge the differently advertised products. The testosterone group reported more positive attitudes toward products that promised to elevate their status, but the hormone did not affect attitudes towards products positioned as high-quality or power-enhancing.

## **What can brand strategists learn?**

Although our methodology involved tracking participants' hormonal levels using saliva samples – which would be impractical in actual consumer contexts – our findings have clear implications for luxury brands and policy makers alike.

The testosterone levels of male consumers systematically fluctuate as a function of the season (the low ebb usually taking place in the summer), age, etc. More importantly, they are receptive to external events. For heterosexual men, the sight of an attractive woman may trigger a hormonal floodtide. Becoming a father, on the other hand, can cause the tide to recede. These levels can even be influenced by competitions such as by [the outcome of a sports match](#) on television – rising by as much as 20

percent when a man sees his favourite team win, and sinking by roughly the same amount in the case of a loss. At a time when we have **tools with a greater ability to quickly adapt changes** in context such as Facebook Ads could be pivotal in tapping into customers' life experiences in real time.

In particular, we help to shed light on how socio-environmental factors may trigger preferences for luxury brands and ultimately guide consumers' choice from a **biological perspective** – with meaningful consequences at a time when the luxury industry is **profoundly changing**.

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