From Fan To Fat?
Vicarious Losing Increases Unhealthy Eating But Self-affirmation is an Effective Remedy

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Watching Football: A Massive Social and Emotional Experience
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American Football

- The Super bowl has been the top TV audience of the year in the US since 2010.
- 115m viewers in 2013.

“Real” Football

- 2010 World Cup: 2.2bn viewers (620m just for the final).
- 50.4% of Italians watched Italy-Paraguay (group stage).

Talk radio call

Bill Shankly (coach of Liverpool): "Some people say that football is a matter of life and death. This is very disappointing. It is much more important than that."
Victories... ...defeats...
Sporting Events Are Great Exogenous Interventions for Quasi-Experimental Studies

“But that’s the beauty of the game. At this very moment, your absurd vicarious defeat is being perfectly counterbalanced by some opposing fan’s absurd vicarious triumph.”
Effects of Vicarious Defeats and Victories

Health effects of watching football

- More cardiac accidents after football defeats (Kloner et al., 2008, 2010, Carroll et al., 2002). No gender differences.
- More traffic fatalities after a close game (Wood et al. 2011).

Explanations?

Team identification

- Fans perceive their team’s losses and gains as theirs (Hirt et al. 1992).
- Identity threats leads to unhealthy eating as a way to escape self-awareness (Inzlicht & Kang, 2010).
- Conversely, victories boost ego, which helps resist temptations.
- Self affirmation restores personal and collective identity and reduces the effects of depleting tasks (Schmeichel & Vohs 2009).

Negative emotions?

- Comfort eating after negative emotions (Garg et al 2007), but evidence is really conclusive for restrained eaters only.

1. Can sport victories and defeats influence eating?
2. What moderates the effects?
3. What is the remedy?
Study 1

Monday Eating after a Sunday NFL Game
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NPD Food Diaries
- 726 people from 120 cities with data on Sunday, Monday, Tuesday during NFL season. 3,151 days.
- Diaries converted into daily sat fat & calorie consumption (normalized for each person).

4 groups
- Defeat on Sunday.
- Victory on Sunday.
- Control group 1: City with NFL team but no game that Sunday.
- Control sample 2: Large city with no NFL team.

NFL data
- 2 seasons of NFL games by 30 teams from 30 cities: 970 Sunday games (73% of total).
- We assume that people support local team and that people in NYC and SF support major local team.
- Actual scores + expected scores (bookmaker odds).
- Fan base identification: ESPN and Forbes ranking.
- Excluded games taking place during Thanksgiving, New Year’s eve, and Christmas eve.
Study 1

Defeats Increase Sat Fat Consumption, Victories reduce it. No anticipation or carryover.
Study 1

Same Pattern for Total Calorie Consumption

- Sundays: 0.96 (Victory), 0.97
- Mondays: 1.11** (Defeat)
- Tuesdays: 1.00 (No game), 1.03 (No team)

Calorie consumption index
Study 1

Stronger Effects for “Die-Hard” NFL Cities

Cities with strong fan base:
- 8 cities on both ESPN and Forbes lists of cities with most “Die-Hard” NFL Fans.

![Graph showing saturated fat consumption index for cities with strong fan base and other cities.]

- Victory: 0.96 (Other cities)
- Defeat: 1.09 (Cities with strong fan base)
- Victory: 1.28 (Cities with strong fan base)
Study 1
Stronger Effects for Evenly-Matched Games

Evenly-matched opponents

Lopsided game

Saturated fat consumption index

Calorie consumption index

Expected Spread (Absolute value)

Defeat
Victory

Expected Spread (Absolute value)
Study 1
Consumption is Least Healthy after Narrow Defeats, Healthiest after Large Victories
Study 2
Lab Study, Any Sport, Actual Consumption

Design

- 78 French participants asked to write a short paragraph on an impressive victory or defeat of your favorite team or athlete (used to measure spontaneous self-affirmation).
- Hidden Words task with positive and negative emotional words.

Consumption measures

- Actual consumption of 2 healthy food and 2 unhealthy foods while responding to a subsequent unrelated study.

Mood measures

- No mood effect, as measured by: valence of the words identified in the hidden word task or PANAS.
Study 2
Remembering a Sport Defeat Increases Intake of Unhealthy Calories

![Graph showing the increase in unhealthy calorie intake after a defeat compared to a victory.](image-url)
Study 2

Spontaneous Self-Affirmation Reduces Unhealthy Effects of Defeat

![Bar chart showing the reduction of unhealthy effects of defeat through self-affirmation.](chart)

- **Low Self-affirmation**
  - Victory: 116 Kcal
  - Defeat: 189 Kcal

- **High Self-affirmation**
  - Victory: 194 Kcal
  - Defeat: 231 Kcal

- **Calories from saturated fat and added sugar**
  - Low Self-affirmation: n.s.
  - High Self-affirmation: p<.03

Other calories:
- Low Self-affirmation: 114 Kcal
- High Self-affirmation: 131 Kcal
Study 3
Online Study, Football Videos, Food Preferences

Design: Victory vs. defeat vs. control

- 157 representative French people watched one of three 7’ videos

![Victory](Euro 2000 Final)

Victory
(Euro 2000 Final)

![Defeat](World Cup 2006 Final)

Defeat
(World Cup 2006 Final)

![Control](Standard de Liège vs. Anderlecht)

Control
Standard de Liège vs. Anderlecht

Self-affirmation manipulation

- Rank a list of values in order of personal importance, and write about the top-ranked value.
- Control: List the features of a chair.

Consumption intentions

- Intentions to eat unhealthy food (candies and potato chips) – intentions to eat healthy food (grapes and tomatoes).
France-Italy, 2000 Euro Final
Sylvain Wiltord equalizes with 1’ left in overtime
France-Italy, 2006 World Cup Final
David Trezeguet’s penalty kick hits the crossbar
Study 3
Self-Affirmation Reduces Unhealthy Eating After Watching Defeat

Consumption Intentions

No Self-Affirmation
Self Affirmation

Victory
Control
Defeat

Healthy
Unhealthy

-1.5
-1
-0.5
0
0.5
1
1.5

-1.21
-0.3
1.11
-1.43
-1.04
-1.2
Conclusions

Key results

- People eat less healthily after watching their local football team (study 1) or their national soccer team loses a game (study 2 and 3).
- Unhealthy effects of defeat are stronger than the healthy effects of victory (study 1 & 3).
- No evidence of anticipation or lagged effects (study 1).
- Unhealthy impact of defeats is stronger when the defeat is narrow and when the opponents are of equal strength (study 1).

Explanations?

- The role of identity: Spontaneous or directed self-affirmation eliminates the effects of vicarious defeats.
- Hormone results would have predicted the opposite.
- Role of emotions not ruled out.
- Same results whether consumption is measured via self-reports (Study 1), unobtrusively (study 2), or through intentions (study 3). Suggests that the effects are intentional.
Applications and Future Research

Micromarketing

Other vicarious defeats and victories
Thank You!
Study 2: Coding instruction for Spontaneous Self-Affirmation

We asked three coders to read carefully the written descriptions of defeats and victories and to answer the following question about the descriptions:

*Did the participant try to self-affirm, to affirm his/her identity and values, to give a positive self-image? Though it needs not be explicit, do you feel when reading the description that the participant wants to self-affirm? For example: he/she speaks a lot about him/herself and tries to put himself/herself forward, he/she mentions value which are dear to him/her, he/she expresses his/her national identity or any other identity important to the self.*

1. The participant is not at all trying to self-affirm.
2. The participant is moderately trying to self-affirm.
3. The participant is trying to self-affirm a lot.