

The NFL as a Mega-Crisis: Applications of Fractal Theory

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Abstract: The National Football League (NFL) is facing a reputation crisis—a serious problem for a powerhouse institution that airs its Super Bowl in 180 countries. Public and media scrutiny for its handling of domestic abuse cases and denial of concussions leading to Chronic Traumatic Encephalopathy (CTE) have left the NFL with a mega-crisis. Television ratings are down, player injuries are up, and fewer youth are participating in the sport. This research, presented at the International Crisis and Risk Communication conference, addresses the CTE and domestic abuse scandals in the NFL and details the League's responses to both high-profile cases. We provide an understanding of a mega-crisis and then introduce Fractal Crisis Theory as the foundation for an analysis of both situations. The theory provides a context for analyzing how the NFL managed these two crises and offers a unique approach to studying sport and crises. We conclude with recommendations for dealing with future mega-crises.

Keywords — CTE, Fractal Theory, Mega-Crisis, NFL

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INTRODUCTION

Over 90% of American football players suffer from chronic encephalopathy (CTE), according to Dr. Omalu Bennett, a pathologist who famously discovered and named the disease upon the death of Mike Webster, a retired Pittsburgh Steelers football player. Yet, for years, the NFL has denied a link of head injuries to this disease. To make matters worse, the NFL also has been keeping secrets. The NFL kept Statistics on domestic abuse since at least 2000, yet denied this information. It would only be a matter of time before these two serious social issues would erupt in a perfect storm, creating a mega-crisis for the NFL.

This article chronicles CTE and domestic abuse in the NFL and the League's response to media attention and public scrutiny and describes how these events became a mega-crisis. Fractal Crisis Theory is a unique framework applied to the study of crises in sport. Analyzing and understanding both situations provides context for managing the mega-crisis more effectively.

LITERATURE REVIEW

Several scholars over the last decade or so have described mega-crises citing financial and political meltdowns, environmental and natural disasters, global climate change, acts of terrorism, and overpopulation. Helsloot et. al. [1] offer a conceptual framework of this new crisis phenomenon, and associated management implications, threats, and vulnerabilities. Lagadec [1] additionally captures that crises, previously understood as localized emergency events or threats somewhat containable, have morphed significantly making leaps and bounds outside these acceptable understandings. Crises now have: a) larger scaled events, not only locally but globally, b) inconceivable impacts and devastations, c) networked webs of interconnectivity and interdependence in which shockwaves reverberate throughout the system, d) speed in the form of geographically narrowing of boundaries and increase in information flow, and e) capacity overload.

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Mega-crises represent nested events that are catastrophically larger, hypercomplex, and far reaching than has ever been imagined with local and global effects not bounded by the linear rationality crisis literature and theories seem to suggest. These leaps then breed a “liquefaction” or dislocation of usual response mechanisms in which crisis events jump over traditional containments/boundaries and become challenging to map and manage. Topper & Lagadec [2] advance the use of Fractal Crisis Theory in managing crises of this magnitude.

THEORETICAL FRAMEWORK

Enter Benoit Mandelbrot’s (1977) *The fractal geometry of nature*. One of the key elements of Mandelbrot’s theory is the fractal or an invariant, a common repeating pattern that exist in a system (nature, mathematics, financial transactions) that reflect the larger whole, regardless of scale. Invariants illuminate how a system or crisis event behaves, allowing individuals to predict or grasp tipping points [2]. When applied to crises, denial, “apologia and the stages of a crisis . . . may both be viewed as fractal patterns,” as these concepts repeatedly explain how a crisis unfolds or is managed [3].

Topper & Lagadec [2] identify invariants in crises within four dimensions: space, time, rank, and sense-making. Space indicates the expansion and ripple effect of a local event with global implications, with global meaning both the crossing of geographic boundaries and larger systemic structures. The Fukushima disaster not only affected Japan, but also impacted import and export regulations and nuclear energy policies in the U.S. Time dimensions have collapsed to an extent where a short-term event that occurs instantaneously (potentially via social media) leads to long terms impacts, like Hurricane Katrina or 9/11. Rank invariance implies a ripple or domino effect in which the impact on individuals locally also affects individuals globally [2]. The last invariant is sense-making and how information used in making decision can become blurred and distorted.

Such invariants within mega-crises indicate that one has the potential to manage the crisis dynamics more effectively by understanding how information is distorted interpreted and reinterpreted (sense-making) as it travels through time, space, and rank within the decision-making chains. “During a crisis event, one piece of information is received differently by the actors (partial transmission, mutation, distortion, etc.) and every single actor interprets it differently based on his local reality and acts differently” [2]. This leads to an information asymmetry in which no one has the full understanding of the information related to the crisis. Further, as information flows from top-down or bottom-up, and internally and externally within an organization, the usefulness of information becomes less coherent and less effective as it passes from person to person. As first responders are providing information from the field to the command structure or coordinating agencies, the affected organization is simultaneously pushing out information to audiences and stakeholders. The information is flowing in different directions at cross-purposes, when the goal should be to avoid contamination or distortion.

Topper and Lagadec [2] advocate for organizations to create an “information over-watch team,” to assist decision makers in creating responses that match the turbulent, volatile, and hypercomplex elements of the crisis. The next section will apply the ideas of a mega-crisis and fractal crisis theory to the National Football League’s response to parallel crises of concussions and domestic violence and conclude with lessons learned.

NFL MEGA-CRISIS AND FRACTALS

DENIAL FRACTAL

In 2013, brothers and ESPN reporters Mark Fainaru-Wada and Steve Fainaru published a book entitled *League of denial: The NFL, concussions and the battle for truth*, which chronicled the story of Mike Webster, former Pittsburgh Steeler’s player who died from repeated blows to the head suffered from playing pro-football. This book became a Frontline PBS documentary that publically exposed the denial patterns of the NFL, revealing “how the NFL, over a period of nearly two decades, sought to cover up and deny mounting evidence of the connection between football and brain damage” [4]. As an example of this pattern, NFL Commissioner Paul Tagliabue has been downplaying the issues of concussions since 1994 and responding in a way that “was outright flippant and dismissive that football had anything to worry about head injuries, blaming it on a form of media hysteria,” stating concussions are a “pack journalism issue,” [5], and the instances are low. Concussions incidences were fractals or prodromal warnings. Over two seasons 306 players suffered a combined 323 concussions [6]. Eventually, CTE was discovered in the brains of 131 of 165 players who, before they died, played football at some level, ranging from high school to professional [6].

The Washington Post reported, since 2000, arrest records for domestic abuse charges against 77 players across 27 of the League’s teams [11], and law enforcement authorities have pursued more than 50 domestic violence cases among players since September 2006. In 2014, three high-profile domestic abuse and sexual assault cases gained media attention, most notably the infamous viral video of Baltimore Ravens Running Back Ray Rice hitting his at-the-time fiancé in a casino elevator. Incidences of domestic violence reported since 1995 and denied by the NFL as it delayed enforcing punishments and policies.

TIPPING POINTS: SPACE, TIME, AND SENSE-MAKING INVARIANTS

On the surface, these two phenomenon can be conceptualized as independent events and can be localized to one or two individuals (Mike Webster and Ray Rice). The tipping point towards being a mega-crisis occurred when Nigerian-born forensic pathologist Bennet Omalu discovered during the autopsy of Webster a piece of information that suggested a link between repeated concussions and the development of CTE. Omalu published the results of his findings in *Neurosurgery* journal in 2005. This is exactly what should have happened when viewing this from a fractal perspective. As the individual closest to the cause of Mike Webster's death, "the one closest to the new information is the one that acts according to it . . . we need people who expect and embrace the new and novel. We need them to accept strange signals and 'impossible' scenarios, to enter strange seas without being paralyzed by the absence of maps" [2].

Rather than concede that this information was significant, Commissioner Tagliabue convened the Mild Traumatic Brain Injury (MBTI) Committee to re-evaluate Dr. Omalu's research, handpicking the individuals who would ultimately discredit him. Suddenly, this short-term event created a domino effect that rippled through not only the League itself, but also sent shockwaves through America's national pastime and its loyal fans and future athletes, through the medical community, and through the personal lives of Omalu and Dr. Anne McKee, another neuropathologist who researched CTE. This crucial piece of information represented both the rank and time invariance, catapulting the League into a mega-crisis and a spatial invariance as it tried to make sense of this information.

IMPACTS

Discrediting Omalu's research delayed the inevitable need for the NFL to address this crisis, temporarily; however, this moment impacted more than just the NFL. This bit of information crossed over into the larger systemic structure of the physically violent nature of sports in general, potentially impacting the decisions of parents with future, young, athletes.

Television ratings and viewership dropped by an average of 8 percent for the 2016 regular season—1.4 million fewer people than last season [8]. Player injuries are up as 87 percent of parents cannot define concussions, yet 32 percent fear their children will get them. Twenty-five percent will not let their children play contact sports because of these fears [9], and there has been a 25 percent drop in youth participation over the last six years, despite a modest 1.9 percent increase in 2015.

Individuals hit a capacity overload. There are uncertainties about the safety of the sport itself, and now uncertainties regarding other implications of brain injuries. The NFL investigated former player Junior Seau for domestic violence against his girlfriend. In 2010, he committed suicide in 2012. He suffered from CTE as well. Former players filed a class action lawsuit accusing the NFL of knowing the evidence and risks associated with traumatic brain injuries for many decades but deliberately ignored and actively concealed the information from players. The NFL settled in 2013 but admitted no liability.

THE NFL'S RESPONSE AND LESSONS LEARNED

The NFL has since branded itself as a leader against domestic violence and safety on the field, collaborating with several organizations and spending millions of dollars in outreach and safety programs. Three campaigns have emerged within the last five years: *Domestic Violence: No More*; *Concussions: Play Smart, Play Safe*; *Beyond the Game: The NFL Social Responsibility Report 2016 Season*. Additionally, Roger Goodell, the current Commissioner of the National Football League issued a rare apology through an online video related to domestic violence. Other decisions made include some sporting goods stores offering to exchange Ray Rice football jerseys, and EA Sports removed Rice from its Madden NFL 15 video game.

Goodell further issued a statement at a press conference in the Fall League Meeting in October 2015 claiming safety as the top priority and sent a letter to all 32 of the teams' owners "to assure them the league is at the forefront of the head trauma and concussion issue" [10]. Academics and practitioners have offered some advice and lessons to the NFL to manage this mega-crisis more effectively including, but not limited to: heeding prodromes, assess risks, conduct crisis inventories, and be proactive BEFORE a crisis occurs; apologize, take responsibility, and break denial; and lastly, involve and be concerned with stakeholders (families of players and community members), not just shareholders.

While the advice and lessons listed above are guides in managing mega-crises, at the very core is reputation management. In this case, lack of transparency was the downfall in both the CTE and domestic violence crises. As the NFL moves forward, it should understand that transparency is essential for rebuilding trust and maintaining healthy community stakeholder relationships. In being transparent, the NFL, or any organization facing a crisis, avoids the pitfalls identified in Fractal Theory information asymmetry as it travels through time, space, and rank within the decision-making chains.

Fractal Theory provided the lens for seeing how the CTE and domestic violence crises unfolded and managed ineffectively. The NFL needed to move past denial years before and take a proactive public stance in finding solutions to reduce injuries and to decrease domestic violence. Organizations that do not have crisis communication plans, or do not practice them, often find themselves floundering and facing uphill battles to regain credibility and public trust.

Credibility and trust speak to an organization's values. Its sets of beliefs guide an organization and provide a framework for making decisions.

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