

NFL CONCUSSIONS

THE CURRENT SITUATION
AND POLICY IMPLICATIONS



A Section 6, Frontier Torts White Paper
December 2, 2012



Caleb Barker
Ben Bastomski
Amy Bond
Samantha Caravello
Cathleen Chang
Jay Cohen
Hakim Effiom-Dauw
Morgan Everhart
Deena Greenberg
Christopher Han
Iram Huq
Jessica Jung
Jiha Ko
Nicholas Kypriotakis
Jaimie McFarlin
Kevin Neylan
Seth Packrone
Eliseo Puig
Nader Rousta
John Schoettle
Amish Shah
Abhishek Banerjee-Shukla
Loly Sosa
Sam Wheeler
Alex Zabierek

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Executive Summary

The National Football League (NFL) is currently at a crossroads, facing a master complaint (“the Master Complaint”) consolidating 85 suits involving over 3,400 former NFL players and their families with claims ranging from negligence, fraud, and wrongful death to civil conspiracy, all related to head trauma suffered while playing professional football.¹

The NFL is actually a conglomeration of the thirty-two teams that play in the league. The NFL exists for the sole purpose of managing the mutual efforts of the teams. The NFL is unincorporated and has federal nonprofit status despite generating \$9.5 billion in revenue. Any liability assigned to the NFL would presumptively be assumed jointly by the thirty-two teams that comprise it but could be distributed to individual teams in alternative fashions. An example of contracting to distribute liability includes allocating liability based on revenue generation of each team.

Three terms have frequently been associated with head injuries in the NFL: mild traumatic brain injury (mTBI), concussion, and, most recently, chronic traumatic encephalopathy (CTE).² The modern public discussion of head trauma revolves around the term “concussion,” the short-term brain injuries of mTBI cause by a bump, blow, or jolt to the head,³ but the discussion implicitly includes the long-term symptoms of CTE. Dissimilarly, the Master Complaint draws attention to the long-term “pathological and debilitating effects” of repeated head trauma but distinguishes sub-concussive, or minor, hits from major, concussive hits.

The traditional view of the person in law and public policy is rooted in

dispositionism, the conception of the human being as a rational actor who uses thoughts and preferences to act in a manner that serves those preferences.⁴ Until recently, media coverage of football was predominantly dispositionist, positing that football players are aware of and assume the risk of concussion, head trauma, and injury when choosing to play the sport. The alternative view is situationism, which holds that individuals are more influenced by external factors and situations than naive psychology may assume.⁵ Though not a majority view, the situationist view of football has gained some prevalence in the concussion discourse. Rather than looking to the players, the situationist view focuses on the owners, the NFL, and the sport as a whole in trying to understand the situation regarding concussions and possible policy implications.

Football has been constantly evolving since its creation. As a sport that has its roots in rugby and soccer, football has transformed from a niche sport played by weekend warriors⁶ to the NFL, a \$35 billion organization that employs some of the greatest athletes in the world. Part of this evolution has involved changes to the rules.⁷ Given the sport’s violent nature and propensity to leave players injured,⁸ there have been efforts to protect players. Historically, these efforts have been focused on equipment, rule changes, and the overall culture underlying the game.⁹

Three key interest groups, the NFL, the NFL Players Association (NFLPA), and the cable sports network ESPN, drive the conversation and public perception concerning concussions in the NFL. These same interest groups are driven by powerful

situational forces, including motivational attributions (such as bracketed morality)¹⁰ and economic forces.¹¹ The relationship between these groups becomes problematic when covert situational forces move the groups that are controlling the conversation, making decisions concerning the players and creating new policies.

Aside from tort litigation, currently three categories of policy alternatives are on the forefront: NFL's policy aimed at reducing concussions, contractual mechanisms, and federal and state legislation. In light of the growing media coverage of concussions, the NFL has employed a two-pronged policy response that includes rule changes and medical research investments and is aimed at precluding future litigation. Also, because current player contract schemes may incentivize NFL players to withhold concussion symptoms for fear of losing their jobs, the Collective Bargaining Agreement (CBA) between NFL team owners and the NFLPA provides an alternative arrangement to balance the bargaining power between the two parties. Following this trend, there also has been a growing body of federal and state legislation addressing concussions.

In addition to those responses to the tort litigation, there are various policy proposals that focus on the broader categories of equipment changes (safer helmets, helmet sensors), public education (concussion counters during broadcast, concussion counts on player statistics, generally informing the public about NFL players), NFL rule changes (elimination of contact practices, cap on total play time, elimination of protective equipment), reporting incentives (independent doctors, mandatory tests for borderline hits, paying concussed players), and penalties (strict liability for concussion-causing player, strict liability for concussion-causing team,

strict liability for NFL, trust fund to benefit concussed players). These proposals address the various factors within NFL football that lead to the problem of concussions. Though each has its strengths and weaknesses, by implementing a combination of the changes, we predict that NFL players and the sport itself will benefit in the long run, thereby preserving this national pastime.

Introduction

On February 6, 2011, the Green Bay Packers defeated the Pittsburgh Steelers in Super Bowl XLV by a score of 31-25. The game was watched by 111 million viewers in the U.S. alone, making it the most-watched Super Bowl and the most-watched program of any kind in the history of American television.¹² The television broadcast of the game generated \$195 million in revenue from advertisements.¹³

Eleven days later, Dave Duerson was found dead in his home in Sunny Isles Beach, Florida with a gunshot wound to the chest.¹⁴ Mr. Duerson was a standout defensive back for the Chicago Bears who, over an eleven-year career, won two Super Bowls, was selected to four consecutive Pro Bowls, and was named the 1987 NFL Man of the Year.¹⁵ After his retirement, Duerson remained active in the NFL Players' Union advocating for current and former players.¹⁶ In the moments before his death, Mr. Duerson exchanged text messages with his family asking that his brain be studied for the type of damage that had recently been identified in the autopsies of other former players. He explained that he planned to shoot himself in the chest rather than in the head to preserve his brain for science.¹⁷ His final note to family members said, "Please, see that my brain is given to the NFL's brain bank."¹⁸ Three months later, Boston University researchers concluded what

Mr. Duerson had suspected after months of headaches, blurred vision, and compromised memory: his brain tissue showed signs of significant, repeated trauma.¹⁹ At the time of his death, Dave Duerson was only 50 years old.

Duerson's story and countless others reveal the pragmatic aspect of concussions in the NFL, a frontier tort. NFL players, while viewed as famous media figures and entertainment giants, are fathers, brothers, sons, and uncles. Duerson's story is not only an account of the relationship between the human brain and actions on a playing field but also an account of death after a heavily-endorsed greatness.

The long-term neurological effects of both concussive and sub-concussive hits are on the frontier of both science and tort law. When controlling for age and life expectancy, NFL players are three times as likely to develop Alzheimer's.²⁰ However, the combination of both sub-concussive and concussive hits that can lead to mild traumatic brain injury (mTBI) and then, possibly, to chronic traumatic encephalopathy (CTE)²¹ are not necessarily the focus of public discussion. The discussion concerning concussions would necessarily include a discussion of CTE, but the media, interest groups, and public are framing the crisis as the fallout from injury and debilitation from concussions without thoroughly resolving the long-term implications of a career filled with

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sub-concussive hits. Policies that address concussions will implicitly address CTE, but, in the future, more can be done to explicitly address long-term damage. Distinguishing between sub-concussive hits and concussive hits and thoroughly investigating the possibility that the two types of hits are equally harmful could yield more

drastic policy reforms. As such, our discussion and policy recommendations will implicitly include both concussive hits and the long-term effects of sub-concussive hits but will frame the discussion through the term “concussions.” Future discussion should reconsider that assumption.

Eagles Safety Andre Waters, 1988, with “A Reputation as One of Football’s Hardest-Hitting Defensive Players,” Later Found to Have Brain Damage



Source: Alan Schwarz, *Expert Ties Ex-Player’s Suicide to Brain Damage*, N.Y. TIMES, Jan. 18, 2007, available at http://www.nytimes.com/2007/01/18/sports/football/18waters.html?pagewanted=all&_r=0.

The long-term neurological effects of both concussive and sub-concussive hits are on the frontier of both science and tort law.

Defining Brain Injuries

Defining the types of head injuries NFL players suffer and the biological effects upon their lives is an integral part of addressing the current issue of head injuries and lawsuits in the NFL. Three terms have frequently been associated with head injuries in the NFL: mild traumatic brain injury (mTBI), concussion, and, most recently, chronic traumatic encephalopathy (CTE).

Mild traumatic brain injuries (mTBI) have no standard definition,

relying on conceptual and operational definitions.²² The conceptual definition provides criteria to identify mTBI based on clinical signs, observed symptoms, and neuroimaging; the operational definition is based on medical records, surveys, and personal interviews.²³ Symptoms for both include self-reported or observed disorientation, impaired consciousness, a period of amnesia around the time of injury, and loss of consciousness for 30 minutes

or less. Physical manifestations include headaches, dizziness, irritability, fatigue, and poor concentration.²⁴

As defined by the Center for Disease Control (CDC), concussions are a type of mTBI caused by a bump, blow, or jolt to the head.²⁵ Symptoms are comparable to mTBI but also include altered sleeping patterns.²⁶ Problematically, the majority of concussions in the NFL do not occur with loss of consciousness, so athletes may not acknowledge or realize that they have experienced a concussion.²⁷ As a result, since 2010, the NFL has instituted safety measures to minimize concussions and publicize information about them, distributing brochures and information posters in which concussions are defined similarly to CDC's definitions.²⁸

Chronic traumatic encephalopathy (CTE) refers to the

chronic cognitive and neuropsychiatric symptoms of chronic neurodegeneration following a single episode of severe traumatic brain injury or, more commonly, repeated episodes of mild traumatic brain injury.²⁹ Whereas mTBI and concussions rely on self-reported symptoms and physical manifestations for diagnoses, CTE can only be diagnosed with direct tissue examination.³⁰

These head injuries are commonplace in contact sports such as American football, and recent studies have shown significant latent physical and mental effects on NFL athletes. Those studies have demonstrated a significant correlation between these head injuries and depression, dementia, and mild cognitive impairment in NFL players. Retired NFL players who had three or more mTBI incidents were three times more

LONG TERM EFFECTS OF A CAREER IN THE NFL

- Life Expectancy
 - Average male: 77
 - NFL Player: 55
 - 1 year on NFL roster: -3 years of life expectancy
 - 1 year smoking a pack of cigarettes a day: -2 months of life expectancy
- ALS and Alzheimer
 - 4x General Public (Based on that life expectancy and therefore controlling for age)



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likely to be diagnosed with clinical depression than were players who had limited to no history of recurrent mTBI.³¹ The study also discussed the psychosocial effects of recurrent mTBI that could have themselves induced clinical depression, such as disruption of social relationships, occupational problems, and substance abuse.³² Perhaps the most critical study to have emerged regarding NFL players and depression involved brain autopsies of four former NFL players done by neuropathologist Bennet Omalu. Omalu and others reported a correlation between the structural

changes to the brain following recurrent mTBI (CTE) and major depression. All four of the former NFL players in the study committed suicide or had several suicide attempts and signs of cognitive impairments.³³

Additionally, former NFL players with three or more mTBI incidences were five times more likely than those with none to exhibit symptoms of dementia.³⁴ After controlling for confounding variables, NFL players also scored in the bottom 50 percent on all measures of cognitive functioning except for spatial processing and reaction time.³⁵

The History of NFL Concussions

Concern over football-related injuries dates back to the game's origins but has mounted in recent years with growing evidence of a strong causal link between football concussions and chronic degenerative conditions. Traditionally, attempts to protect players from injury have taken one of three distinct approaches: improving protective equipment, modifying the game's rules, and altering the culture underlying the game. The demand for change has not stopped there, however. Today, the NFL is at a crossroads, facing litigation from former players as well as internal and external calls for further changes to the game—this time for changes intended to address the problem of concussive injuries in particular.

The improvement of equipment, most notably helmets, was a sustained project in football's earlier years. In 1943, the NFL began to require helmets.³⁶ The helmets were originally leather, but leather was soon replaced by plastic and then more robust polymers as technology and design advanced. Improvements in helmet design have slowed as the technology has matured, but even today helmet model selection is a matter of controversy in the NFL.³⁷

Rule modifications out of concern for safety date back at least to 1894, when Harvard's signature flying wedge formation was banned due to its association with serious injuries.³⁸ Subsequent rule innovations such as the ten-yard first down and the forward pass were intended to reduce

the close quarters and constant contact of the game.³⁹ Even today, rule proposals such as the elimination of kickoffs reflect an ongoing fight over the safety of the game's rules.⁴⁰

Today's players are bigger, stronger, and faster than their earlier counterparts,⁴¹ raising the stakes in the game's collisions and their contribution to the incidence of concussions. In part for that reason, recent years have witnessed an expanding critique of the violent culture of the game itself, with accompanying expansions in media attention to the concussion problem.

Recent campaigns for change have focused specifically on concussions. Around 2007, the reports of serious negative effects of concussions among NFL players began to generate significant media attention. Medical studies began to strongly corroborate the link between concussions and long-term adverse effects for players. For example, a study released in 2007 reported that retired NFL players who suffered at least three concussions tripled their risk of clinical depression.⁴² The same year, forensic pathologists concluded that a young player's suicide may have been caused by concussion-related brain damage.⁴³ In 2009, another study indicated that linebackers routinely showed early signs of Alzheimer's disease.⁴⁴ After several stories linking ex-players' deaths to concussions, a "growing chorus" of ex-NFL players and members of Congress stated that the NFL needed to do more to address concussions.⁴⁵

After years of denying a

connection between blows to the head and early-onset dementia, the NFL abruptly changed course in 2007 and began posting concussion warning notices in locker rooms.⁴⁶ The same year, the NFL initiated a fund that provides financial assistance to retirees receiving care for dementia but claimed that its purpose was unrelated to increased media attention about concussions.⁴⁷ The NFL also commissioned a study about the long-term effects of concussions, which reported in 2009 that former NFL players are diagnosed with memory-related diseases such as Alzheimer's at nineteen times the normal rate.⁴⁸ In 2010, the NFL announced new penalties for violent hits after a number of helmet-to-helmet blows resulted in concussions.⁴⁹

There are approximately 140 individual lawsuits brought on behalf of over 3,300 former NFL players seeking relief for alleged concussion-related injuries sustained during their playing careers currently pending against the NFL and National Football League Properties (NFLP).⁵⁰ In a Master Complaint filed by these litigants, attorneys have argued that the NFL has a "duty to provide players with rules and information to protect the players as much as possible from short-term and long-term health risks."⁵¹ The Complaint also states that the NFL had a duty to "take all reasonable steps necessary to ensure the safety of players, including a duty to advise plaintiffs that the repeated traumatic head impacts the plaintiffs endured while playing NFL football were likely to expose them to excess

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risk of neurodegenerative disorders.”⁵²

Most conspicuously, the Master Complaint alleges that the NFL misled the plaintiffs and “willfully and intentionally concealed from them the heightened risk of neurodegenerative disorders and concealed from then-current NFL players and former NFL players the risks of head injuries in NFL games and practices, including the risks associated with returning to physical activity too soon after sustaining a sub-concussive or concussive injury.”⁵³ In response to the Master Complaint, the NFL and NFLP filed a motion to dismiss on August 30th, 2012.⁵⁴

Tort scholars will recognize the strong parallels between the posture of the plaintiffs in the instant case and that of the plaintiffs in the landmark tobacco cases of the 1990s, where the willfully deceptive practices of an industry played the critical role in the outcome of the litigation.⁵⁵ The NFL claims that any allegations of

deliberate deception of players concerning the risks, treatment or management of concussions are without merit.⁵⁶ While the NFL has made some policy changes to address the issue of concussions, the widespread view remains that “you don’t want it to be flag football. At some level, they’ve got to find a steady median . . . to make it safer but also to keep it exciting.”⁵⁷ The resolution of the issue of deliberate deception will undoubtedly play an equally central role in the resolution of NFL concussion litigation.

Big Tobacco	Concussions
hiding the risks (1920's)	hiding the risks (early 1950s to 1994)
willful deception (doctor's who smoke)	knew and tried to deceive the players (concussion pamphlets)
switch from deception to "safety"	MBTI Committee

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Media Coverage of Concussions Trending Towards Situationism

The media has taken three distinct approaches in framing the topic of NFL concussions. The first has been descriptive, alerting the public of players’ concussions and their inability to play. This approach primarily serves as a vehicle to inform

the reader or viewer about factors that may affect a team’s performance. Though these notifications are still widely used, they comprised the vast majority of media coverage regarding football concussions before 2007.⁵⁸ The second avenue has been the

dispositionist perspective, positing that football players are aware of, and voluntarily assume the risk of, concussions, head trauma, and injury when choosing to play the sport.⁵⁹ The third and final framing of this topic in the media is the situationist outlook, which forks into two main subcategories. The first subcategory describes the danger of concussions as a symptom of poor coaching and game preparation. This view seeks a “silver bullet” solution, focusing on helmets and training methods as the best ways to prevent, or at least alleviate, head injury.⁶⁰ The second subcategory places the blame on football as a sport—it characterizes football as a bloodthirsty endeavor comparable to dogfighting.⁶¹

Early Articles: Descriptive and Dispositionist

The few pre-2007 articles relating to football concussions are mainly descriptive and dispositionist. During this time, for example, *The New York Times*’ coverage centered primarily on a player’s inability to play in a game and the potential effect this had on a team’s overall performance and ranking within the NFL.⁶² ESPN, on the other hand, took a dispositionist perspective. It published articles that framed injuries as challenges inherent to the sport and, while underscoring that injuries are a part of the game, stressed that training allowed football players to instinctually know how to protect themselves during tackles.⁶³ Additionally, in response to early scientific articles uncovering the

dangers of concussions, ESPN published an article revealing that most serious head injuries are not reported to trainers and reporters.⁶⁴ Instead of focusing on factors creating the concussion problem, this dispositionist attitude reframed the discussion around a player’s responsibility to be aware of his own well-being. From 2003-2006, ESPN also ran a segment on its *Monday Night Football Countdown* program that was called “Jacked Up!” and featured commentators counting down the hardest hits of the week. This segment displayed and glorified the major hits players encountered, reinforcing the perspective that injuries were an inherent feature of the sport.⁶⁵

A Shift Towards Situationism

On January 18, 2007, *The New York Times* propelled a major shift towards a situationist view in media coverage when it printed the front-page article “Expert Ties Ex-Player’s Suicide to Brain Damage from Football.”⁶⁶ Alan Schwarz, a baseball writer, described University of Pittsburgh neuropathologist Dr. Bennet Omalu’s study of former Philadelphia Eagles football player Andre Waters’ brain.⁶⁷ Omalu found that Waters’ brain tissue looked like that of an 85-year-old man and had similar characteristics to the brain tissue of those with early stage Alzheimer’s disease. Omalu concluded that Waters’ brain damage was “either caused or drastically expedited by [the] successive concussions Mr. Waters, 44, had sustained playing

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football.”⁶⁸ The following day, ESPN published a similar story.⁶⁹ Schwarz published another front-page piece two weeks later, on February 2, 2007, addressing the effects of concussions on other NFL players.⁷⁰ Moving farther away from the dispositionist viewpoint, this article focused on former New England Patriot’s player Ted Johnson’s ignorance of the long-term effects of his injuries. Johnson is quoted saying, “I didn’t know the long-term ramifications. You can say that my coach didn’t know the long-term [effects], or else he wouldn’t have done it. It is going to be hard for me to believe that my trainer didn’t know the long-term ramifications, but I am doing this to protect the players from themselves.”⁷¹ The following day, Schwarz co-wrote an article faulting the game’s “culture of toughness” for obscuring responsibility in light of new evidence on the health impact of concussions.⁷² By 2011, Schwarz had published more than 121 stories about the effect on a player’s health of prolonged injury throughout their football careers.⁷³

This move towards situationism reflected a shift in public perception of football players from being in people’s out-group to being in people’s in-group. During the pre-2007 era, the public viewed football players as overpaid athletes who were aware of the consequences of their actions.⁷⁴ Thus, the public would attribute football players’ – out-group members’ – outcomes to their disposition. However, as people learned more about the long-term consequences of football concussions,

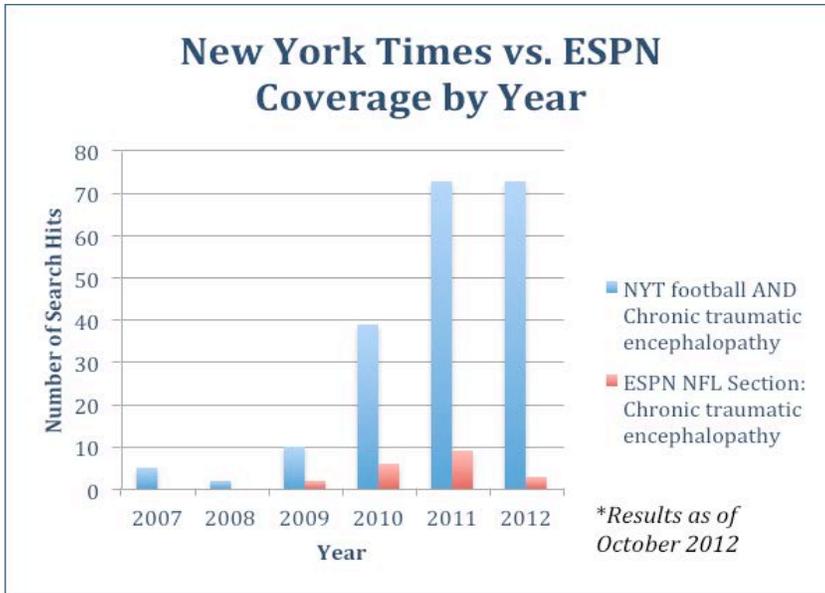
the effects these injuries have on football players’ families, and players’ difficulty coping with the effects of their concussions, people began to view football players as members of their in-group.⁷⁵ Therefore, people would view players’ outcomes as products of their situation and look to situationist solutions to address football concussions.⁷⁶

Current Trends

Since Schwarz’s articles, the overall media coverage of football concussions has increased dramatically. A search of the term “concussion” on *ESPN.com*’s NFL page yielded 1,155 results in the five years between January 19, 2007 (the day after Schwarz published his article “Expert Ties Ex-Player’s Suicide to Brain Damage”) and January 19, 2012 —nearly eight times the 146 articles ESPN published in the five years prior to Schwarz’s first article.⁷⁷ In addition, ESPN now has a “topics” page on its website, one of which is dedicated to tracking the issue of concussions.

ESPN stopped running “Jacked Up” in 2006, and in August 2012, it ran a five-day cross-program series entitled “Football at a Crossroads,” in which it examined the future of football in light of information on the long-term damage caused by concussions. This shift demonstrates a move away from a focus on players’ decisions, instead favoring a discussion of broader factors contributing to concussions. ESPN commentator Howard Bryant takes a larger situationist view, suggesting that while the NFL can make changes to

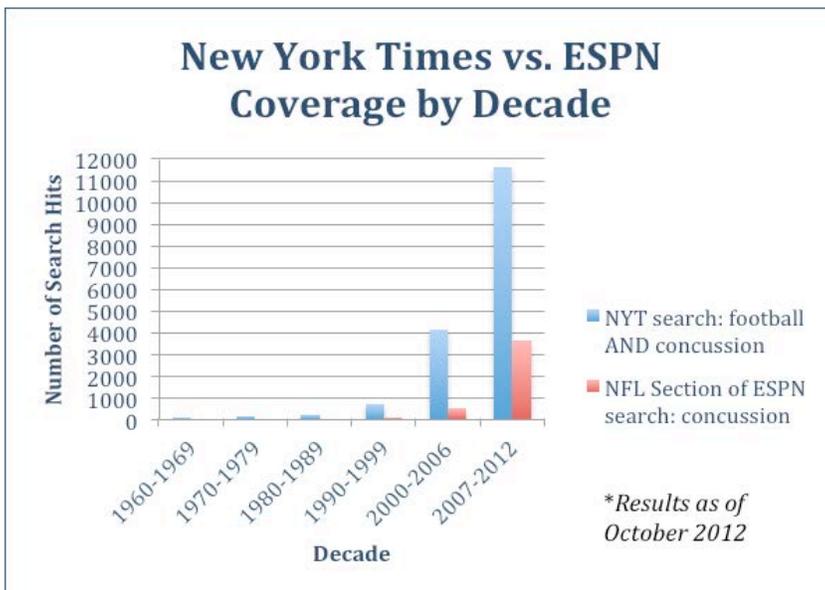
However, as people learned more about the long-term consequences of football concussions, people began to view players’ outcomes as products of their situation and look to situationist solutions to address football concussions.



improve player safety by changing NFL rules, this type of remedy runs contrary to the public's desire for violence in the sport.⁷⁸ Fans' demand for violence was also discussed in a *DiscoveryNews* article arguing fans "have a thirst for violence and studies show that, within limits, as aggression goes up, so does viewership."⁷⁹ This article also included an argument from sports economist R. Todd Jewell that, not only will violence in football

continue due to fan demand but also that football is popular precisely because it is violent.⁸⁰

In recent years, the discussion on the issue of concussions has extended well beyond the sports media. *The New Yorker* has run a few well-publicized pieces, including the influential 2009 article by Malcolm Gladwell.⁸¹ Gladwell's article is representative of a news media that is beginning to struggle with the concept



Some argue not only will violence in football continue due to fan demand but also that football is popular precisely because it is violent.

An internal dissonance remains as the public copes with the reality that any significant action to alleviate the problem of football concussions would require serious alteration of a beloved American sport.

of football as an inherently dangerous sport.⁸² Gladwell looks at proposals for making the game safer, including incorporating better helmets but is not convinced that these changes would do enough for player safety. This situationist viewpoint moves blame away from the player and his decision to participate, and it questions the very nature of the game itself.

It is noteworthy that ESPN has direct ties to the NFL through its contract to broadcast Monday Night Football. Additionally, ESPN database searches yielded varying results based on search criteria. Searching within the NFL section of the website for “concussion” yielded more results than searching the entire site for “football concussion.”

Conclusion

Alan Schwarz’s 2007 article in *The New York Times* presented a pivotal moment in the media’s coverage of football concussions. Prior to it, concussions were mostly either descriptively discussed as related to team ranking or presented in a dispositionist framework that blamed the football players for assuming the risk of potentially damaging impacts to the head. The 2007 article, however, catalyzed a trend towards analysis focusing on football players’ surrounding circumstances and pressures to conform to a “warrior” mentality, not just raising concerns over their health.

At a deeper level, that trend also reflected society’s newfound willingness to empathize with athletes undergoing a serious health condition.

As the public gained exposure to the long-term consequences of football concussions, the players’ confusion and difficulty coping with the issue, and the impact this wrought on players’ families, the plight of the football player no longer seemed to be the consequence of an overpaid athlete’s poor decisions. Rather, society was able to empathize with the struggle and begin to view athletes as part of an in-group—resulting in widespread serious concern over the issue of football concussions.

Despite this trend, an internal dissonance remains within the public, as it copes with the reality that any significant action to alleviate or solve the problem of football concussions would require a serious alteration of a beloved American sport. As many commentators have argued, viewers expect and even demand levels of violence in the sport that will only serve to perpetuate the problem.

The Current State of Litigation: The Master Complaint

In early 2012, a Master Complaint filed in a U.S District Court in Philadelphia consolidated the claims of 85 separate cases, representing over 2,000 former NFL players, into a single document alleging that the NFL and other equipment makers (most notably helmet-maker Riddell) are liable for head trauma suffered by players while playing the game. This section will examine the tort doctrines underlying the claims made in the Master Complaint and will advocate for a strict liability standard for both the NFL and each of its 32 teams in order to more effectively allocate liability and create stronger incentives to prevent concussions.

Negligence

The Master Complaint separates accusations of negligence into pre-1968 and post-1968, with the pre-1968 count alleging negligence on the part of the NFL by failing to properly study the issue and failure to properly alter game rules and equipment to minimize possible harm to the players.⁸³ The post-1968 count argues that the NFL acted negligently in promoting the sport as violent and by failing to form an effective and honest committee to study the issue.⁸⁴ A separate count of negligent hiring argues that when the NFL did form a committee to study the issue, they staffed it with unqualified and biased researchers, who were not in a position to properly and honestly study the issue.⁸⁵

Negligence occurs when an individual or organization fails to exercise care that a reasonable person would exercise in similar circumstances. In tort law, a negligence claim consists of four elements: 1) duty, 2) breach, 3) causation, and 4) damages. The main issue from a doctrinal standpoint is whether the NFL did indeed have a duty to its players. While a general duty of reasonable care would find that there is a duty not to place others at a foreseeable risk of harm, there are also limitations on duties based on special relationships, in this case a business relationship. While the general duty standard would be fulfilled if it were determined that concussions were foreseeable as a result of the NFL's conduct, a successful claim must also establish that there is not a special business relationship between the NFL and its players.

While the three different counts of negligence are important, it is unlikely that the case will ultimately hinge on any of them. All three allege that the NFL should have recognized that concussions among players could be a problem; however, none of the counts contain any implied malice on the part of the NFL. It is likely that in order to meet even the general duty standard for negligence, it will have to be proved that concussions were foreseeable results of the NFL's conduct, something that will be difficult to do if the current attributional schemas are used.

A strict liability standard for both the NFL and each of its 32 teams would more effectively allocate liability and create stronger incentives to prevent concussions.

Because there is such a strong presumption that the players chose to play voluntarily, arising out of a dispositionist view of the situation, it is likely that there would need to be some implicit or explicit malice in the NFL's actions in order to change this attributional schema to one in which the NFL would be considered responsible and held liable for the concussions of past, present and future players. For the NFL to be liable, the court would have to view the case in a significantly more situationist light, viewing the players not as voluntary actors but as victims of the situation in which they were placed. This shift will likely take place only if it can be proven that the NFL acted with malice and played a significant role in creating a situation that has resulted in head trauma of this magnitude.

Of course, even if the plaintiffs were able to prove duty, the NFL will surely contest causation. Indeed, it may be difficult for the plaintiffs to prove that concussions sustained playing football while employed by the NFL caused their long-term injuries. One potential difficulty is that nearly every NFL player had a long history of youth football, through high school and college, and may have received concussions at that stage in life. The NFL is likely to use players' past history to cast doubt on the causal connection between playing in the NFL and players' current woes.

Rather, the most important count seems to be negligent misrepresentation, which alleges that the NFL had a "duty to the players to disclose accurate information to [NFL

players]."86 This count of negligence bears a striking resemblance to several other fraud counts contained in the complaint, and does contain an implicit malicious intent on the part of the NFL.

Fraudulent Concealment

The Master Complaint reveals that the players are suing the NFL for negligent and fraudulent concealment of facts and nondisclosure. The maker of a fraudulent representation should be liable not only to those persons he directly addressed or intended to influence but also to the entire class of persons he intends or has reason to expect will rely upon the representations.⁸⁷ Intentional concealment is an active misrepresentation and is a form of fraud.⁸⁸ Negligent nondisclosure can operate like an active misrepresentation.⁸⁹ One party to a transaction who by concealment or other action intentionally prevents the other from acquiring material information is subject to the same liability for pecuniary loss as though he had stated the nonexistence of the matter that the other was thus prevented from discovering.⁹⁰ One who fails to disclose to another a fact that he knows may justifiably induce the other to act or refrain from acting in a business transaction is subject to such liability if, but only if, he is under a duty to the other to exercise reasonable care to disclose the matter in question.⁹¹ As per the Restatement (Second) of Torts, a party is under a duty to exercise reasonable care if it is in a fiduciary or other similar relation

It is likely that there would need to be some implicit or explicit malice in the NFL's actions in order for the NFL to be considered negligent and held liable for the concussions of past, present and future players.

of trust to the plaintiff, or if the plaintiff is going to act in reliance on the facts.⁹²

The Master Complaint argues that between the early 1950s and 1994, the NFL knew that repetitive head impacts in football games and full-contact practices created a risk of harm to NFL players. It was cognizant of medical literature, dating from as early as the 1920s, stating that there is a serious risk of short-term and long-term brain injury associated with repetitive traumatic impacts to the head. During that time period, the NFL concealed from the players the risks of head injuries from games and practices, including the risks associated with returning to physical activity too soon after sustaining a sub-concussive or concussive injury.

From 1994 through June of 2010, the NFL voluntarily funded and produced its own scientific research through the Mild Traumatic Brain Injuries (MTBI) Committee.⁹³ The MTBI Committee was set up to examine the dangers and consequences of head injuries to NFL players, to report on its findings, to provide information and guidance from its research and studies concerning concussions to teams and players, and to make recommendations to lessen the risks of concussions.⁹⁴

The NFL's MTBI Committee published articles and a "concussion pamphlet,"⁹⁵ all of which concealed and minimized the risks of repetitive brain impacts. In 2010, Dr. Ira Casson, the chairperson of the MTBI, affirmed this position, providing oral and written testimony at congressional

hearings in which he continued to deny the validity of other studies.⁹⁶ Dr. Casson also denied the link between repetitive brain impacts and short- and long-term brain damage in public interviews.

Those MTBI studies and representations have been heavily criticized as inaccurate and misleading. In addition, the pamphlet was worded in such a way as to create reliance: it assured the players that they were receiving comprehensive and up-to-date information about the effects of concussions. Finally, the plaintiffs have alleged that the assertions of the MTBI committee were widely published so as to "populate" the scientific literature relating to concussions.

The plaintiffs claim that as a result of the NFL's conduct, they have suffered and will continue to suffer substantial injuries, emotional distress, pain and suffering, and economic and non-economic damages that are continuing in nature.

Products Liability

Plaintiffs in the Master Complaint bring products liability charges against the equipment manufacturer Riddell. The Complaint alleges strict liability for design defects and manufacturing defects, a general negligence claim, and failure to warn. As explained below, the design defects claim might be of the most avail. Also, it may be in the plaintiffs' interest to consider pressing a breach of warranty claim against Riddell, even though this falls within contract rather than tort law. Claims

The NFL's MTBI Committee published articles and a "concussion pamphlet," all of which concealed and minimized the risks of repetitive brain impacts.

Riddell repeatedly made false or misleading claims about the safety of the Riddell Revolution helmet, which was designed in 2002 specifically to reduce the risk of concussions.

made by plaintiffs in *Enriquez v. Easton-Bell Sports & Riddell Sports*, No. 1:12-CV-20613 (S.D. Fla. filed Feb. 14, 2012), a separate class action suit brought in federal court in Florida, may prove helpful in this respect.

Strict Liability

For strict liability, plaintiffs must prove that Riddell's products were defective, and that the defective products caused their injuries.⁹⁷ A promising approach would be to pursue a design defects claim. A design defect is found where the product is in the condition intended by the manufacturer but is designed in such a way as to present an undue risk. Plaintiffs can prove a design defect under the "consumer expectation" test—that is, if they can prove that the product did not perform as safely as an ordinary consumer would have expected.⁹⁸ Although there are several other ways to establish a design defects claim, the "consumer expectation" test might be the best avenue because the plaintiffs might be able to prove that Riddell's products did not meet their expectations and their expectations were reasonable in light of Riddell's marketing.

Causation is established if the defect was a substantial factor in bringing about the injuries.⁹⁹ Causation may be a difficult element to prove, for, like most medical conditions, concussions and their long-term effects result from a host of complex factors. Also, even if Riddell's helmets were not as effective as advertised (which could give rise to a breach of warranty claim separate

from a tort claim—see below), Riddell might assert that no helmet can fairly remove all risk of concussive injury. By that logic, defects in the helmets do not create any substantial or heightened risk because the risk would have been high in any event. The defect itself was immaterial. However, it could also be argued that Riddell helmets were defective relative to the quality Riddell advertised. Moreover, false beliefs that Riddell helmets afforded extra protection may have encouraged players to engage in more serious hits. Thus, plaintiffs could argue that the helmet defects actually did contribute to at least some of the injuries in a significant way.

Even if products liability tort claims fail—even if its products are not considered defective for purposes of tort law—Riddell can still be held liable for breach of warranty under UCC §§ 2-313 and 2-315: express warranty, if the product was not as represented, or implied warranty, if the product may do harm even in normal use.¹⁰⁰ Pertinent here are claims asserted in *Enriquez*. According to plaintiff's complaint, since at least 2003, Riddell repeatedly made false or misleading claims about the safety of the Riddell Revolution helmet, which was designed in 2002 specifically to reduce the risk of concussions. Based on a 2003 University of Pittsburgh Medical Center study, Riddell claimed that the Revolution helmet reduced concussions by 31%.¹⁰¹ However, at least one of the study's authors has acknowledged that these assertions are lack credibility,¹⁰² and Riddell likely either knew or should have known that

the study was severely flawed and representations made on the basis of it were likely to be misleading. These severe methodological flaws may help establish Riddell's liability in a contract suit for breach of express or implied warranty.

The Case for Strict Liability for Excessive Violence on the Field

The NFL is a tax-exempt, non-profit organization which consists of thirty-two football teams.¹⁰³ Each team is a privately owned franchise and contributes 70% of its revenues to be used for the benefit of all the teams in the NFL.¹⁰⁴ In this way, each team in the NFL hedges against bad seasons, and the financial certainty keeps the team values high.¹⁰⁵ The NFL's management is primarily responsible for organizing sporting events and ensuring an equitable share for each team in the sale of TV rights and other publicity-related ventures.¹⁰⁶ Significantly, the NFL also lays down the rules of the game – every player and team must abide by them on the field.¹⁰⁷

According to the Second Restatement of Torts, strict liability is likely to be imposed if the defendant's activity (a) creates a high risk (b) with a likelihood of great harm (c) that cannot be avoided by reasonable care, and if (d) the activity is uncommon and (e) inappropriate at the particular site.¹⁰⁸

There is, as we highlighted already, considerable evidence that concussions received by NFL players

result in those players' lowered overall life expectancy, as well as serious decline in their mental and physical health. Players cannot avoid receiving concussions unless the fundamental rules of the sport are changed. While the violent nature of the sport is often taken for granted, the level of violence encouraged by team ownerships is often far greater than the level required to win the game. Incentives are created for players to engage in levels of violence that are inappropriate for the circumstances and that greatly increase the physical harm suffered by other players. Thus, it is apparent that there is a plausible argument in favor of imposing strict liability in order to correct the perverse incentive structures that perpetuate excessive violence.

While the most obvious targets of the strict liability regime are the team owners, the NFL itself should also be held responsible for excessive player violence. While team ownerships are vicariously liable for the excessively violent acts of players, the NFL's relationship with the players is indirect. However, it does exercise control over the players in two ways: it exercises financial control over the team ownerships, and it prescribes the rules that players must respect on the field. Thus, the NFL is in a position to restrict player violence and therefore reduce the occurrence of concussions. Because of their level of control, the legal-theoretic case for the excessively violent acts of players would seem to apply liability to both the team ownerships and the NFL.¹⁰⁹

Both team ownerships and the NFL are in a position to restrict player violence and therefore reduce the occurrence of concussions.

“[T]he causes and pervasiveness of these football [head] injuries warrant Federal scrutiny.”

Interest Groups and Public Choice

There are countless organizations and individuals that have an interest in football concussions, including the National Collegiate Athletic Association (NCAA), Pop Warner Youth Football, EA Sports, the video gaming industry, and parents. The NFL, the NFLPA, and ESPN, however, are the groups with the largest influence on how policymakers and the public view and approach the problem.

*The NFL*¹¹⁰

As the National Football League is a monopoly by way of congressional sanction in 1970 . . . the causes and pervasiveness of these football [head] injuries warrant Federal scrutiny. I say this not because of the impact of these injuries on the 2,000 current players and 10,000 retirees associated with the football league and their families, I say it because of the effect on the millions of players at the college, high school, and youth levels. My 13-year-old-son plays a game at 4:30 at Cranbrook today. The questions before us are several. How serious is the problem? What can be done about it? And where do we go from here?¹¹¹

On October 28, 2009, the House Judiciary Committee held a hearing titled “Legal Issues Relating to Football Head Injuries.”¹¹² Researchers, doctors, players, the NFLPA, and the NCAA, testified on whether there was a need for greater

concussion regulation in both the NFL and football in general.¹¹³ With public concern about the sport’s safety reaching a level that warranted a Congressional hearing, the NFL found it necessary to push back.

Roger Goodell, the Commissioner of the NFL, testified about the “millions of dollars [the NFL] spen[t] on prevention, treatment and research of injuries,” the pension, medical, and disability benefits it provides its retired players, and the changes in game rules “to sharply reduce contact to the head and neck.”¹¹⁴ He emphasized that the NFL held conferences to educate team doctors on how to better diagnose and treat head injuries and that the NFL’s endowment of USA Football “educat[ed] youth coaches about concussions.”¹¹⁵ He also cited an NFL survey as evidence that the aftereffects of concussions were not impacting the lives of most retired players, who “are better insured, have higher incomes, are more attached to their communities and have longer marriages than the population at large.”¹¹⁶ Finally, he described the NFL’s commitment to paying for any medical expenses related to traumatic head injuries.¹¹⁷

The NFL did not simply influence Congress through the testimony of its representatives. It also spent \$1.6 million on lobbying in 2011,¹¹⁸ a number that has steadily increased since the NFL’s testimony in 2009. NFL owners and players also attempted to influence individual

THE NFL

- \$9.5 billion revenue
- Average NFL team
 - \$1.1 billion
- Lambeau Field: \$282 million in output, 2,560 jobs, \$15.2 million in tax revenue
- 54% of U.S. identifies as football fans
- 21 of 46 most watched U.S. programs were Super Bowls



members of Congress. For example, owners and players affiliated with Junior Seau's former team, the San Diego Chargers, have contributed over \$2.4 million to elections since 1991.¹¹⁹

Finally, the NFL has released television advertisements that attempt to directly influence public opinion. In a recent advertisement, Tom Brady is seen answering a mother's questions about the safety of football. He touts the efforts that the NFL has taken to mitigate the effects of concussions. Ironically, the end of the advertisement reveals that the woman is actually the mother of NFL linebacker Ray Lewis -- a player who has probably given many NFL players concussions throughout his career.¹²⁰

The NFL thus spends a considerable amount of money with the aim of influencing the political commentary that surrounds it and steering the discourse in a direction that portrays it favorably.

The Players

Demaurence Smith, Executive Director of the NFL Players Association, took a firm stand in favor of the players as he testified in a House of Representatives Judiciary Committee Hearing regarding the effects of traumatic brain injuries in concussion. Addressing the Chairman of the Committee, Smith said:

To everyone here, to the retired players, to those who are watching us across the country, the players of the National Football League will not bargain for medical care. We will not bargain for health and safety. We will not bargain for basic provisions of the law as patients. We will continue to work with the league, but medical care is not and will never be just a collective bargaining issue.¹²¹

Smith's stance marked the beginning of a transition for players, who have joined with the NFL Alumni

The NFL thus spends a considerable amount of money with the aim of influencing the political commentary that surrounds it and steering the discourse in a direction that portrays it favorably.

Association and other retired members of the league to address the increasingly pervasive reality of the dangers associated with the game.

While the Players Association as a whole has taken a stand on the issue, most individual players' attitudes and actions have yet to reflect the concerns of the group. The general public is largely unaware of the efforts of the Players Association and is more often bombarded with images of players "shaking it off" after they have just "had their bell rung."¹²² Players' individual efforts to appear strong and immune to the dangers posed by concussions affect public perception of the issue. Younger football players are exposed to the attitude of current athletes, who sacrifice everything, including their future mental health, for the sake of the game. Young players absorb these attitudes, and it contributes to the cycle of players' warrior mentalities in the institution of football, whether it is under the Friday night lights in high school, in a college bowl game, or in the NFL. In Mike Freeman's article, one player who wished to remain anonymous said, "Players are still hiding concussions because they want to protect their careers. In some cases, teams know a player is concussed and let it go."¹²³ Players have taken to blaming themselves for concussions, attributing no responsibility to the NFL itself.

The players' failure to hold the NFL accountable is a direct result of the power imbalance between players and the NFL. Players spend a lifetime training to play professional football and play each game knowing it could

be their last. Their opportunities to demonstrate their skill and ability on the field are so limited that they are reluctant, if not outright opposed, to sit out a quarter, let alone the rest of the game.¹²⁴ This leads players to lie about their symptoms to avoid medical treatment. Additionally, the focus of the Players Association on current players often does not consider the rights of future and former NFL players. This leads to goals that maximize the gains of current players, to the detriment of NFL alums and the next generations of players who will inherit this power structure.

ESPN



ESPN's coverage is dominant within the market for broadcasting football.¹²⁵ Its screenings often attract the highest number of viewers out of all television shows which are broadcasted on that day.¹²⁶ Monday Night Football, shown exclusively on ESPN, has the highest ratings of any show on cable television.¹²⁷ ESPN not only broadcasts games, it also provides opinionated commentary about football-related issues. The general public consequently forms opinions about football concussions in a way

The players' failure to hold the NFL accountable is a direct result of the power imbalance between players and the NFL.

that is colored by the information that ESPN chooses to broadcast and the attitude which TV presenters adopt towards these injuries.

Keen on helping the public “understand this story a bit better,”¹²⁸ ESPN ran a five-part series entitled, “The Concussion Crisis,” that focused on NFL players who sustained neurological injuries. The series included players discussing the hazards of the game and featured Chad Diehl, an undrafted Clemson fullback who suffered a concussion in the Super Bowl and quit the game after suffering another at a Ravens preseason mini camp.¹²⁹

However, the broadcast was generally skeptical about the severity of the problem and the existence of a causal link between the NFL's structure and the injuries sustained by players. In the “Concussion Connections” segment of the series, ESPN discussed the idea that injuries acquired while playing in the NFL could lead to a downward spiral of depression and suicide later in life. However, viewers were cautioned against jumping to conclusions. ESPN found any causal link to be spurious and suggested a range of other factors which could explain the hardship of former players. ESPN also suggested that football is enmeshed in the fabric of American society, embodying equal opportunities, meritocracy, and bravery. Implied in this narrative is the idea that football players who are wary of head injuries or who advocate greater precautions are somehow weak or un-American. ESPN spoke highly of the Canadian Football League,

where even though players suffered concussions, the league was not hounded by a pack of aggressive attorneys seeking to bring class-action suits against it.¹³⁰

ESPN thus seems to propagate the view that concussions are not attributable to NFL policies and that discussion of the problem is to be avoided since it criticizes a much-loved American institution. However, ESPN may have biased motivations for portraying the NFL so favorably.¹³¹ Since it relies on the NFL to award it broadcasting rights for football games, ESPN may have a conflict of interest that prevents it from reporting the concussions story in a more balanced way. If this conflict exists, a nexus between the NFL and media coverage could synergize, resulting in a significant barrier to the general public holding the NFL at least partly responsible for the football concussions that its players suffer.

ESPN may have biased motivations for portraying the NFL so favorably.

Bracketed morality entails greater willingness to justify aggressive behavior and a lower, “less principled” moral reasoning in sport-specific situations that can lead to a “greater likelihood of legitimizing injurious aggression.”

Frontier Torts Terminology

Dispositionism is an attributional approach that explains human behavior and outcomes as primarily the result of individuals’ thoughts, preferences, and will. Dispositionism presumes that a person’s behavior reflects decisions and choices that reflect that person’s beliefs, attitudes, preferences, personality, thoughts, and intentions, the details of which he is generally conscious. The dispositionist model assumes a person’s preferences are revealed through his choices, since the actor has the will to choose his actions.

Naïve psychology is a model of human thinking and behavior that posits people are aware of, and able to explicate, the forces motivating their decisions and behaviors. The dominant naïve psychology model, particularly in western cultures, is dispositionism. That naïve model is found also at the foundation of law and in many of the most influential legal theories, including law and economics.

Situationism is an attributional approach that explains behavior, outcomes, and events by looking at situational influences—that is, non-salient internal and external forces operating within and around individuals. Situationism is informed by social science—particularly social psychology, social cognition, cognitive neuroscience and related fields—and the discoveries of market actors devoted to influencing consumer behavior—such as marketers and public relations experts. Situationism is premised on the social scientific insight that the naïve psychology—that is, the highly simplified, affirming, dispositionist model for understanding human thinking and behavior—on which our laws and institutions are based is largely wrong. In explaining human behavior, situationism looks to nonconscious psychological forces and non-obvious contextual behavioral constraints that might shape people’s behavior.

The Power of the Situation

Social Psychology and Internal Motivational Factors: Bracketed Morality

Anyone who has participated in sports at any level will have experienced, to different degrees, a mindset where one views opponents in a different way than one normally would outside of the competitive setting.¹³² This concept of bracketed or differentiated morality is a persuasive partial explanation for the dangerousness of professional football and the injuries arising from it.

What is bracketed morality? The premise is simple – football players’ standards of morality in daily

life are different than the standards by which they abide in a competitive setting. Usually, this entails greater willingness to justify aggressive behavior and a lower, “less principled” moral reasoning in sport-specific situations.¹³³ A lower standard of moral reasoning can lead to a “greater

**“Kill the head and the body will die.”
- Greg Smith**

Defensive Coordinator, New Orleans Saints

Jan 13, 2012

Recorded By Sean Pamphilon

<http://www.youtube.com/watch?v=H3V149Nyjag>

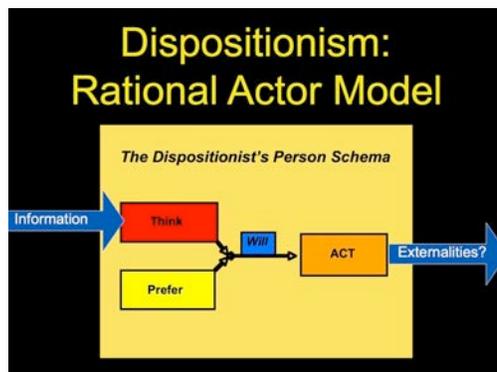
likelihood of legitimizing injurious aggression.”¹³⁴

There are two kinds of aggression employed in sport-specific settings: instrumental aggression and hostile aggression. Instrumental aggression is aggressive behavior that is undertaken for the purpose of achieving a goal or purpose, such as winning a game. Contact sports such as football have internalized instrumental aggression as a fundamental part of themselves. Hostile aggression, on the other hand, is aggression that serves the purpose of inflicting pain or injury on opposing players. Hostile aggression “usually involves frustration or anger along with the intent to harm or injure another,” while instrumental aggression is “focused more on the aspects of the game.”¹³⁵

Studies based on questionnaires of college athletes in various contact and noncontact sports generally yielded findings supporting the idea that sports not only allow but even can encourage an altered and differentiated morality for participants. Contact-sport athletes agreed with the use of hostile aggression more than noncontact or semi-contact sport athletes, and they considered this intentional form of aggression to be “tantamount” to intense competitive play.¹³⁶ Furthermore, athletes did not significantly differentiate the two concepts of aggression (intentional and hostile) in the study, even though they initially viewed them as two distinct concepts. Joseph Mintah et al. takes this to mean that all athletes were “essentially neutral” on the use of

hostile aggression, while being “slightly in favor” of instrumental aggression.

However, since being intentionally aggressive is frowned upon in everyday life, athletes must find some way to rationalize or justify their actions to themselves. One theory of how players justify their actions of hostile aggression suggests that this form of intentional aggression may be the “edge” that brings about desired results in a contact sport, where instrumental aggression is standard and baseline. Players, in attempting to achieve their objectives, use hostile aggression as a way to overcome their opposition. They subvert hostile aggression under monikers of “playing harder,” “never giving up,” or “leaving it all on the field.”



Another idea suggests that the desire for approval from extrinsic parties, such as coaching staff, management, and fans can play a role in encouraging a legitimized exercise of hostile aggression. Players play not only for themselves, but for recognition from their teammates, coaches and fans. Fans and the media, for example, prefer the player who makes the flying helmet-to-helmet hit over the player who makes an equally

Contact-sport athletes agreed with the use of hostile aggression in addition to instrumental aggression, and they considered this intentional form of aggression to be “tantamount” to intense competitive play.

There are many factors in the external situation that shape player morality. For example, the coach-formed team motivational climate is instrumental in players' understanding of "what constitutes appropriate or inappropriate sports behavior."

effective but less glamorous wrap-around tackle.¹³⁷ Such incentives drive players to contribute visibly in some way to the team, whether through making a big hit that injures an opposing player or putting one's body on the line to complete a risky play.

Finally, the very nature of a contact sport may also come into play. Participating athletes may not feel the need to justify or defend aggressive behavior if it is such an integral part of the game.¹³⁸ In other words, the low moral standard that exists in the sport-specific context becomes a nonexistent standard where hostile aggression becomes the norm. This may lead to predictable outcomes such as the trivialization of injuries and the lack of incentive to refrain from hostile aggression. When combined with the uniforms and helmets that hide from view the person underneath, the lowered moral standard essentially allows for the dehumanization of opposing players.

The discussion above might seem to support a model of behavior that focuses primarily on players' dispositions. However, there are many factors in the external situation that shape player morality. For example, a study by Blake Miller, et al. suggests that the coach-formed team motivational climate is instrumental in players' understanding of "what constitutes appropriate or inappropriate sports behavior."¹³⁹ It can also be argued that the speed of the modern football game simply does not allow the time or space for the kind of internal decision-making process inherent to a dispositionist

model of thought. Other situationist factors will be discussed in the following section.

External Situationist Factors

NFL players are subject to a variety of social, cultural, and economic pressures which may influence their decision to keep playing and sustain repeated head trauma, ultimately resulting in a higher risk of concussions. First, the potential for high financial gain may influence players to keep playing despite the risks. The NFL consistently ranks as one of the top four most profitable sports leagues in the world and, in 2010, grossed over \$8 billion in revenue.¹⁴⁰ In 2011, the TV networks paid a collective \$24.4 billion to broadcast NFL games through the season.¹⁴¹ Furthermore, compared to other sports leagues, the NFL has a relatively low financial risk for team owners. The small number of home games results in an inelastic demand for tickets, and revenue-sharing schemes between teams throughout the league further reduce the financial risk for specific teams, regardless of how well the teams are run.¹⁴²

However, the financial gains are still weighted towards the most competitively successful teams. For example, the difference in revenue between the most valuable and least valuable NFL team in 2011 was \$262 million.¹⁴³ Given the high financial reward, NFL players may be pressured by the owners, the fans, and their own personal ambition to produce competitive results despite the

physical risks. For example, a player, knowing the high-stakes financial gains that ride on a single game, may be motivated to play with an injury despite a high risk of suffering a concussion. As the implications of bracketed morality indicate, this motivation is amplified for the best players. These players receive the most media attention, are the most targeted players on the field, and arguably, may be at the highest risk for injury.¹⁴⁴

In addition to the economic factors, NFL players, despite their fame and wealth, hold relatively little power compared to the team owners. The players are given a guaranteed share of the overall revenues, but in exchange they have very little control over where, when, and for whom they play. Players are drafted into teams and may be traded or cut at will.¹⁴⁵ Furthermore, the average career length of an NFL athlete is 3.2 years, one of the shortest in professional sports.¹⁴⁶ The creation of the NFL Players Association has given the players more leverage as a collective body, but no other interest group represents the interests of future players, further widening the power disparity between players and owners. For example, the owners are still free to implement institutions such as the salary cap system as they see fit. The owners allege that the salary cap system ensures parity across the teams and allows smaller teams to better contend, but research has shown that salary caps do not always promote parity, and further, that parity does not always result in greater popularity.¹⁴⁷ The

owners demonstrated this power disparity by locking players out of team facilities and shutting down league operations in order to gain a favorable revenue distribution in the new Collective Bargaining Agreement.¹⁴⁸ Thus, despite making substantial salaries and being prominent public figures, NFL players have relatively little power and agency when compared to the NFL ownership.

The third, and perhaps the most significant, factor which may affect players' judgment is the culture of the sport at all levels. Players, often beginning at pre-school age, are conditioned to perpetuate and accept acts of violence. Similarly, the danger of participating in football gradually increases as players age and become larger, stronger, and faster. Players lack an unbiased extrinsic support network to aid in weighing the potential rewards and costs of playing with a concussion. Parents are torn between the health of their child and the potential of significant financial incentives, including tuition assistance and a NFL salary. Beginning at the high school level, if not earlier, amateur coaches have significant financial incentives to win. For example, some high school coaches in states with large football followings earn six figure salaries.¹⁴⁹

Finally, the trainers charged with looking out for players' health are influenced by the athlete's desire to compete as well as the pressure from coaches and owners to allow the participant to return to the field as quickly as possible. A 2005 self-reported survey of 2,750 certified

Players lack an unbiased extrinsic support network to aid in weighing the potential rewards and costs of playing with a concussion.

trainers revealed that only three percent were following the concussion evaluation protocol recommended by the National Athletic Trainers Association.¹⁵⁰ Thus, while players take the risk of participating in a dangerous sport, they likely do not fully comprehend the extent of the risk. This, combined with pressure and a lack of a support network, likely contributes to players returning from concussions too early.¹⁵¹

Moreover, a strong culture of machismo motivates players to brave the possibility of life altering injury in order to further the group goal of winning. Coaches and fellow team members often use a “masculinity-establishing discourse” to punish players who violate team norms by labeling them as feminine or homosexual.¹⁵² Players seeking sufficient recovery time following a concussion must overcome the disapproval of their teammates and the threat to their identity as a superior male. The sports media establishment is overwhelmingly male and enforces this discourse in a subtle way by glorifying the toughness of athletes.¹⁵³ An analysis of ten major sports media outlets revealed little coverage of Green Bay quarterback Aaron

Rodgers’s decision to sit out for a concussion.¹⁵⁴ However, NFL Pro-Bowler James Harrison’s criticism of the NFL’s crackdown on helmet-to-helmet hits was widely circulated.¹⁵⁵

Overall, these forces create powerful external restraints on players seeking to rehabilitate following a concussion. They also may explain why players act against their collective interests by intentionally injuring members of other teams.¹⁵⁶

The most effective long-term solution to the NFL concussion problem may be to alter the culture of machismo. Players must accept changes in the style of play and short-term absences from the field in order to protect their health. Such significant cultural changes will likely be an organic process that occurs over several years. The NFL can play a role by having prominent coaches and former players directly and publicly challenge efforts to portray concussed players as less than the masculine ideal. Public awareness campaigns highlighting the devastating mental impacts of concussions on former NFL legends likely would be an effective mechanism for conveying the gravity of the problem and changing player attitudes.

A 2005 self-reported survey of 2,750 certified trainers revealed that only three percent were following the concussion evaluation protocol recommended by the National Athletic Trainers Association.

The Economy of Concussions in the NFL

From an economist’s point of view, liability should be placed on the party that is best positioned to avoid the activity where possible and

purchase the cheapest insurance for unavoidable activities. In both cases, the NFL appears to be in the best position to be the least cost avoider of

concussions. Also, traditional law and economic principles suggest that a mutual benefit exists when parties contract. In contracting between teams and players absent transaction costs, contracts should lead to efficient allocation of services and costs. In effect, a player, operating under the dispositionist schema, is assuming the risk of playing. This perspective may neglect market failures such as information asymmetries between the League and its players, time inconsistency between the benefits and costs of playing football, and a lack of cost internalization by the player making the hits.

Liability

The NFL is in the best position to both take steps to prevent concussion-inducing hits and provide insurance for retired players' concussions. The NFL may be the party that can prevent concussions at least cost because it has the ability to institute systematic preventative measures that are far less expensive than paying for medical procedures after head injuries have already occurred. Indeed, the NFL has broad authority to induce such preventative measures. For instance, the NFL can mandate the use of helmets that measure the g-forces of head collisions. Players can then be removed from play if the g-force of a particular hit exceeds a pre-defined threshold. As a volume buyer with specialized business expertise, the NFL may be able to obtain such equipment at a lower cost than individual players. Furthermore,

economic doctrines such as risk aversion and the decreasing marginal utility of money suggest that total utility may increase if the large costs currently placed on some individuals were dispersed among a larger player population.

Market Failures

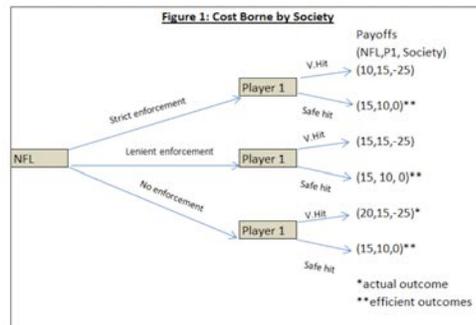
Hard-hitting players not internalizing the costs they inflict upon others represents a clear market failure. Currently, only the players being hit bear the costs of overly violent tackles. It is impractical for hard-hitting players to pay damages to their opponents because the effects of their hits are realized far in the future. Therefore, it is difficult to establish a causal relationship between specific collisions and their resulting injuries because players may take hundreds of equally violent hits over the course of their careers. These negative externalities can be remedied by the use of fines for helmet-to-helmet contact or overly violent hits. This would increase the cost of administering late hits, shifting the supply curve upward (and the actual quantity supplied downward).

Even though worker's compensation insurance is available, much of the cost of this insurance is ultimately borne by society since the insurance is so restrictive. As a result, society is bearing a large portion of the cost. Figure 1 below shows the inefficient outcome that exists when society is bearing the cost. When neither the player nor the NFL is liable for the extra societal cost incurred from a violent hit, the actual outcome

The NFL is in the best position to both take steps to prevent concussion-inducing hits and provide insurance for retired players' concussions.

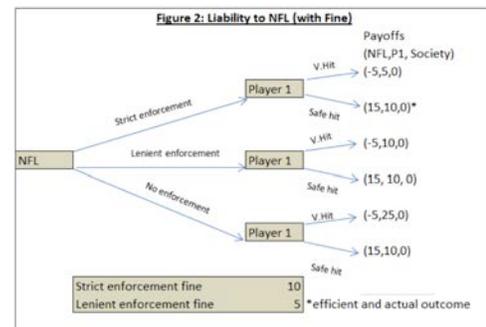
When neither the player nor the NFL is liable for the extra cost incurred from a violent hit, society will bear the cost.

will be no enforcement and a violent hit. Currently, players are incentivized to make violent hits because more violent hits lead to more fame and higher pay. The NFL's payoffs when a player makes a violent hit decrease as enforcement gets stricter because of punishment and monitoring costs of the player who made the violent hit. As a result, the NFL will opt for no or little enforcement after recognizing that the player is incentivized to routinely make violent hits to maximize his own payoff. The problem is that this outcome does not consider the cost to society which outweighs the benefit to the NFL and the player. The efficient outcome would therefore be for a safe hit to occur so that society incurs no loss.



A possible solution to this problem is to make the NFL liable for the costs of the hit (-25 as shown in Figure 1, which depicts the current structure of cost-bearing) which is subtracted from its payoffs. This solution is illustrated below in Figure 2. With such cost incurrence, it would no longer pay for the NFL not to enforce because the Player, with the same incentives, will still pick to hit violently. One possible action that the NFL could take, as seen in Figure 2, is to place fines on the player for a

violent hit (represented in Figure 2 as 10 and 5 for the strict enforcement and lenient enforcement, respectively). Under the strict enforcement scheme, if the player pays a fine (subtracting from his payoff) to the NFL (adding to its payoff), the player will no longer be incentivized to make a violent hit. He will be incentivized instead to make a safe hit, because it would result in a payoff of 10 rather than the violent hit's payoff of 5. However, this efficient outcome is only reached under a strict enforcement regime; lenient enforcement, as seen in Figure 2, does not adequately change the incentives of the game.



Attributional Schemas

The existence of concussions in NFL football is not what economists would deem Pareto efficient, because parties cannot improve their respective positions without simultaneously worsening the positions of opposing parties. Put another way, players who sustain concussions are left in far worse physical, mental and financial states than the players who are paid to administer them. This is not to say that NFL concussions are inefficient by every standard, however. The Kaldor-Hicks model of economic efficiency is an example of an alternative

framework that may be applicable to NFL concussions.

An outcome is Kaldor-Hicks efficient when the party whose position improves from a given transaction has the ability to compensate the party whose position worsens, while still deriving a net benefit from the transaction. Thus, if the salary earned by the average NFL player sufficiently offsets his risk of sustaining a career-ending concussion, a Kaldor-Hicks efficient outcome can be achieved. This outcome is not reflected in the current NFL salary structure, however. One issue is that there is no clear positive correlation between the positions that endure the most hits and the positions that receive the highest salaries. For example, running backs endure the most severe hits while linemen endure the most frequent hits.¹⁵⁷ Neither of these positions is compensated at a consistently higher level than any others. To the contrary, running backs are – on average – some of the lowest paid players on the field.¹⁵⁸ Furthermore, the players who receive the worst injuries are not necessarily the same players who find the most lucrative jobs after they retire from the NFL. This is unfortunate because the income gap between NFL players and NFL retirees is drastic with 78% of retirees divorced, bankrupt or unemployed just two years after leaving the game.¹⁵⁹

This situation begs the question of whether the NFL, which benefits from the hard-hitting brand of football it promotes, should use its profits to compensate concussion victims. The

answer to this question hinges on which attribution schema we apply to NFL football. Currently, the NFL is not responsible for paying the medical bills of concussed athletes. Instead, the NFLPA and individual teams provide coverage for players who sustain injuries while playing.¹⁶⁰ This effectively transfers the costs of injuries to the players themselves. This arrangement comports with a dispositionist attribution schema where players are essentially viewed as singularly responsible for the consequences of their actions. By stepping out onto the field, NFL players are thought to assume the risk of any injuries they ultimately sustain. After all, even if the risks of injury vastly exceeded any benefits, NFL players would not necessarily demand the enforcement of stringent safety standards or abandon the League. In a 2009 study, more than 70 percent of retired NFL players above the age of 50 rated their experience in the NFL as “very positive.”¹⁶¹

Looking at NFL concussions from a situationist perspective significantly alters our blame attribution. NFL football players are financially dependent on the NFL. Many players come from disadvantaged economic backgrounds where excelling at sports is seen as one of very few ways to provide a better lifestyle for their families.¹⁶² “It’s ghetto economics,” said Roman Oben, a 12-year NFL veteran. “Guys have been poor for so long that they have to show people how much money they make.”¹⁶³

If the salary earned by the average NFL player sufficiently offsets his risk of sustaining a career-ending concussion, a Kaldor-Hicks efficient outcome can be achieved. This outcome is not reflected in the current NFL salary structure, however.

Players do not recognize the full consequences of making these hits.

Even during their careers, many retirees reported that they worked at other jobs during the off-season. For retirees above the age of 50, 75% report working at another job in the offseason, and 23% of retirees between 30-49 reported working during the off-season.¹⁶⁴ If players are indeed relying on the NFL to finance their livelihoods, are they truly in a position to assume sole responsibility for their injuries?

Successful football players like Tom Brady and Bart Scott have already admitted that, knowing what they know now, they would not let their own children become involved with competitive football.¹⁶⁵ Perhaps this is one early indication that the choices and preferences of NFL players are altered when economic dependency on the NFL is removed.

Assumption of Risk / Asymmetric Information

As discussed in the liability sections, many football players are financially dependent on the NFL both for a living and for social mobility for those from poor backgrounds. The main issue here is that players do not recognize the full consequences of making these hits.¹⁶⁶ According to CBS report quoting the St. Petersburg Times, “for every season a player spends on an NFL roster, his life expectancy decreases by almost three years.”¹⁶⁷ Even though it is becoming more apparent how many years are being taken off these players’ lives, the

effects are being brushed under the carpet. CBS further claims that players are not considered “people” to NFL owners – they are simply commodities being bought and sold, acquired, and released.¹⁶⁸

Although more information for players regarding the detriment to their health is becoming available, the fame that is attached to the big hits and the bright lights encourages players to cause even more concussions. Similar to the idea of bracketed morality, NFL players love the media coverage of their “debilitating” hits being flashed on sports channels such as ESPN and the NFL network.¹⁶⁹ While the trend of media coverage of effects of these hits is growing, media coverage still places more emphasis on the big hits rather than the negative effects. The jobs of these networks are to boost their TV ratings and give the people what they want to see. Media encourages the big hits for their storylines. There is little demand for these networks to be constantly reporting on the negative effects of concussion-causing hits.

At the same time, players are often tolerant of pain and prone to being macho. Risk is efficiently allocated because they are making enough money to compensate their health costs. The argument is that if the players have these monetary resources and truly do know that playing in the NFL is reducing their life expectancy, then it is considered efficient. Yet even if we consider this efficient, it may not be equitable.

Responses Outside of Litigation

This section explores three groups of policy alternatives to tort litigation: the NFL's policy aimed at reducing concussions, contractual mechanisms (contracts, collective bargaining, and insurance), and federal and state legislation.

NFL Policy

The NFL has employed a two-pronged policy response to the recent crisis of concussions and overall player safety facing the NFL: rule changes and medical research investments made in the hope of preventing concussions rather going to court over them. The NFL's response can be found on www.nflevolution.com, a website designed to highlight the changes made to equipment and rules in order "to better protect players."¹⁷⁰ The site catalogs such changes, from the introduction of leather helmets in the 1920s to the 2012 rule change which mandates that the play ends when a player loses his helmet.¹⁷¹ A "Health and Safety" memorandum has a particular focus on concussions and head injuries, documenting three "NFL Concussion Guidelines." The first discusses a uniform concussion exam to be administered on the sidelines by each team.¹⁷² This rule change aims to address the problem of sports teams' medical staff having perverse incentives that may compromise their medical ethics.¹⁷³ Furthermore, before this standardization, different teams used

different procedures, and the NFL hopes this policy will help to both protect against more severe head injuries and produce more accurate numbers on the amount of concussions that do occur.¹⁷⁴ The second policy, nicknamed the "Madden Rule," mandates that once a player is diagnosed with a concussion, he must leave the field accompanied by medical staff and cannot return to the game under any circumstances.¹⁷⁵ Finally, the third provision advises medical staff to err on the side of caution when removing players from games for a concussion.¹⁷⁶

In addition to the more cautious medical approach to diagnosing concussions, the NFL has implemented more general rule changes to better protect its players. From the aforementioned helmetless player rule to the 2010 change that the ban on helmet-to-helmet contact "is strictly enforced and heavily fined," the NFL has put its players' money on the line.¹⁷⁷ In the section on player safety in the NFL's "League Policies for Players," the NFL reserves the right to impose more severe penalties, such as suspensions and increased fines for repeat offenders.¹⁷⁸

To complement its rule changes and better inform future reforms, the NFL is heavily investing in medical research on head injuries and general sports safety. The NFL recently announced a \$30 million gift to the National Institutes of Health, the biggest donation in NFL history.¹⁷⁹

The NFL has employed a two-pronged policy response to the recent crisis of concussions and overall player safety facing the NFL: rule changes and medical research investments made in the hope of preventing concussions.

This money will be directed towards researching concussions and many other sports-related injuries.¹⁸⁰ At the same time, the NFL is partnering with the U.S. Army on a research program focused on “traumatic brain injuries.”¹⁸¹ In NFL Commissioner Roger Goodell’s opinion, these investments do not represent a shift in NFL policy or even a reaction to the current lawsuits and public environment surrounding the NFL. According to Goodell, “We’ve been working on this for a long time. We’ve funded research going back into the ‘90s, well before any of that litigation.”¹⁸² However, considering recent revelations that the NFL retirement board paid \$2 million in disability benefits to retired players, “concluding that football caused their crippling brain injuries . . . even as the league’s top medical experts for years consistently denied any link between the sport and long-term brain damage,” critics will likely question the veracity of Goodell’s statements and the credibility of the NFL in its policy reform efforts.¹⁸³

Contracts / Bargaining / Insurance

Troublingly, the contract scheme for current players may provide a financial incentive for NFL players to withhold concussion symptoms for fear of losing their jobs.¹⁸⁴ Contracts do not guarantee players payment beyond the season in which an injury occurs, and contracts can be terminated at will if management feels another player can better contribute to the team’s success.¹⁸⁵ Players who divulge

concussion symptoms to trainers or team management may face termination or be forced to accept less lucrative contracts.¹⁸⁶ Restructuring contracts to guarantee players’ job and financial security and increase their post-concussion bargaining power relative to management would reduce the incentive to conceal concussions.

The Collective Bargaining Agreement (CBA) between NFL team owners and the NFL Players Association (NFLPA), the players union, may provide a way for injured players to seek assistance. The CBA allows a player who is terminated for inability to perform due to an employment-related injury (e.g., a concussion) to file an injury grievance with his former team.¹⁸⁷ However, the team may raise a variety of defenses to this claim, including that the player withheld information about his physical condition.¹⁸⁸ Given the likelihood that players have previously withheld information about their concussions, these defenses diminish the potential effectiveness of the injury grievance provisions as currently written.

The CBA is particularly important with regard to tort litigation because, by virtue of being an agreement between team owners and a union, it is governed by federal labor law.¹⁸⁹ Section 301 of the federal Labor Management Relations Act (LMRA) preempts state law tort claims that arise out of rights created by CBAs,¹⁹⁰ such as, in the case of the NFL-NFLPA CBA, injury grievances and workers’ compensation disputes. Additionally, the CBA stipulates

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mandatory arbitration for these types of disputes.¹⁹¹ The resulting implication for concussion litigation is that the LMRA will likely preempt lawsuits based on such claims and instead require mandatory arbitration consistent with the CBA and provisions contained therein.¹⁹²

Players, including retired players suffering from concussion-related complications, may also be able to find recourse in state workers' compensation systems, which "compensate and provide medical expenses for employees who suffer work-related injuries and diseases."¹⁹³ In most states, professional athletes are considered employees and are covered under these systems;¹⁹⁴ where they are not, the CBA requires that a team provide equivalent coverage.¹⁹⁵ The laws that govern workers' compensation and the benefits available to professional athletes vary from state to state,¹⁹⁶ but they may provide a very useful alternative to tort law. Since the violent nature of football is considered to be in the scope of employment of NFL players, employers may not assert assumption of risk as a defense to paying workers' compensation,¹⁹⁷ as they might in tort litigation.

Federal and State Legislation

In recent years there has been a growing emphasis on addressing concussions through the more traditional policy means of federal and state legislation. There has been an explosion of state concussion legislation, with forty states having passed concussion bills since 2009.¹⁹⁸

The House and Senate increased their focus on concussions at the same time. However, federal legislative proposals thus far have focused on concussions at the youth level and have not yet proposed any legislation aimed specifically at NFL concussions. In addition, despite repeated attempts, Congress has failed to pass any kind of national concussion legislation, likely due to Congressional gridlock. Gridlock on the federal level leaves the burden of concussion legislation to the states and makes it unlikely that Congress will pass NFL concussion legislation in the foreseeable future.

Legislation has taken both an ex ante and ex post approach to addressing the issue of concussions. The ex ante policy approach aims to improve concussion prevention efforts by addressing the conditions that result in concussions. An example of such a policy approach is the Children's Sports Athletic Equipment Safety Act (CSAE), which was introduced in the U.S. House of Representatives in March 2011.¹⁹⁹ Current helmet standards are voluntary and allow manufacturers to conduct their own equipment safety testing. The CSAE proposes to develop consumer product safety rules for new and reconditioned youth football helmets, mandate third-party testing of youth football helmets, and implement FTC regulation regarding the marketing and advertising practices of youth helmet manufacturers.²⁰⁰ After being introduced, the bill was referred to committee but has not moved since.²⁰¹

Rather than focusing on prevention, ex-post policy approaches

In recent years there has been a growing emphasis on addressing concussions through the more traditional policy means of federal and state legislation.

Legislative policy solutions to concussions are currently taking place only on the state level. Given the gridlocked and partisan nature of Congress, it is unclear how feasible a national concussion law is, or if passed, how effective such a law would be.

focus on improving diagnosis and treatment of concussions after they have already occurred. The Concussion Treatment and Care Tools Act (ConTACT) takes such an approach.²⁰² ConTACT proposes national mandatory injury guidelines for youth ages 5-18. It also calls for convening a panel of experts to recommend nationwide guidelines for managing concussions in athletes in all youth sports and determining when a concussed athlete can return to play. The bill was passed by the U.S. House in September 2010 but was never passed by the Senate. The bill's sponsor has reintroduced the bill in every House session since 2008, but to no avail.

Another piece of legislation that takes an ex-post approach is the Protecting Student Athletes from Concussions Act.²⁰³ This bill proposes similar measures as ConTACT, such as mandatory concussion management and return-to-play guidelines.²⁰⁴ The act was referred to committee in January 2011 and has stalled ever since. Many expect the bill to be combined with ConTACT before further action is taken.

The NFL has been active in encouraging youth concussion legislation at both the state and federal level.²⁰⁵ Washington was the first state to pass comprehensive concussion legislation in 2009, and the NFL has commended this legislation as a model for other states to follow. Commissioner Goodell has publically announced the NFL's goal of having all 50 states pass concussion legislation.²⁰⁶ The commissioner has

been active in lobbying governors and state politicians to pass concussion legislation modeled on Washington's law.

Conclusion

While these existing policy mechanisms have their limits, each provides insight into an alternative approach to solving the concussion and player safety crisis facing the NFL. Legislative policy solutions to concussions are currently taking place only on the state level. Given the gridlocked and partisan nature of Congress, it is unclear how feasible a national concussion law is, or if passed, how effective such a law would be. In addition, tort lawsuits may be preempted by the Collective Bargaining Agreement between the NFL and the players union, which would require mandatory arbitration of grievances. Players with concussion-related diseases may be able to seek recourse from state workers' compensation systems. The NFL, focusing on prevention of concussions in both its on-the-field rules and off-the-field investments, is attempting to avoid the courtroom altogether.

Policy Proposals on the Table

The concussion epidemic in the NFL is a widespread, devastating issue that needs to be addressed immediately. Numerous impetuses can play a role in effectuating change, including the NFL itself and tort litigation.

Ideally, the best solution would be for the NFL to self-regulate. The NFL is responsible for the rules of professional football, for football's salary and incentive structures, and for the marketing and distribution of football. Given this position, the NFL is undeniably in the best position to effect actual, lasting change in the game of football.

However, the likelihood is low that the NFL will engage in widespread self-regulation. At the moment, the NFL is a \$9.5 billion industry with incredible incentives to stay the course and pursue short-term profits. Absent a paradigm shift in the public's conception of professional football and elevated concern for its adverse effects on players, the NFL can continue to operate and maintain its position as an extremely lucrative business without adequately altering policy to protect NFL players.

Despite the unlikeliness of extensive change, the NFL might be motivated to make some progress toward player safety as a reaction to tort litigation. The impending tort litigation has already caused the NFL to address the concussion epidemic more seriously through the imposition

of fines, player education, and more intensive monitoring, and further changes are possible. Thus, while tort litigation may not be a panacea, it has steered and may continue to steer the NFL in a more progressive direction.

Our approach to policy proposals focuses on practical and implementable changes that range in the effects they would have on football. We grouped the various policy proposals under the broader categories of: Equipment Improvements, Public Education, NFL Rule Changes, Incentives for Reporting Concussions, and Penalties. The class then discussed the potential benefits and drawbacks of each proposal. These policy proposals are set forth in detail below.

The Voting Procedure

The vote on policy proposals took place at the conclusion of each group's ninety-minute presentation and class discussion. Those presentations and discussions were informed by each group's draft white paper, which all students were assigned to read, and by a one-hour talk delivered by a guest speaker who was expert on the underlying topic. The discussion and voting process lasted between fifteen and thirty minutes. Voting took place in an open forum, and students voted by raising their hands – with outcomes determined by majority rule. The policy proposals recommended in each of the Frontier Torts white papers reflect a class vote and not necessarily the views or recommendations of each white paper's authors.

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Inclusion of sensors in helmets could alert a team's medical staff to a player's increased likelihood of a concussion.

The class voted on the various policy proposals, and the results are as follows: (1) The class favored all proposals for equipment improvements; (2) the class supported generally informing the public about NFL players but disfavored the inclusion of concussion counters in NFL broadcasts or alongside player statistics; (3) the class disfavored any proposals that involved NFL rule changes; (4) the class favored all proposals aimed at incentivizing the reporting of concussions; (5) the class disfavored holding individual players strictly liable for causing concussions but favored penalizing both teams and the NFL as a whole for concussions.

Equipment Improvements

Safer Helmets

One straightforward way of decreasing the number of concussions would be to increase the quality of the helmets players wear. Currently, the NFL does not mandate a certain type of helmet.²⁰⁷ The only requirement that the league sets is that the helmet must be certified by the National Operating Committee on Standards for Athletic Equipment.²⁰⁸ However, critics of this system have noted that the standards upon which certification is granted focus mainly on preventing catastrophic injuries, like skull-fractures, and do not necessarily aim to decrease the likelihood of concussions.²⁰⁹

Thus, one possible change the league could make would be to mandate that all players wear the safest helmet available. Such safety ratings are available; Virginia Tech, for

example, evaluates models currently available based on each helmet's ability to prevent concussions.²¹⁰ The NFL could use this sort of independent rating system as a guide in its implementation of stricter helmet policies.

While the proliferation of safer helmets would almost certainly decrease the risk of concussions, it is unclear how significant the impact would be. Other, less foreseeable factors might come into play. For instance, any sort of helmet mandate might be met with resistance from players who would prefer to choose their own helmets based on other features such as appearance.

Helmet Sensors

Another helmet-related policy proposal is the inclusion of sensors in helmets that would alert a team's medical staff to a player's increased likelihood of a concussion. The sensor would gauge the severity of the blows a player receives to the head by measuring the g-force of each hit. Teams could then remove players from the game before severe brain trauma occurs or escalates.²¹¹ Implementation of this policy is a real possibility. The Army currently uses this technology, and NFL Commissioner Roger Goodell met with the Army in May 2012 to discuss the possibility of bringing it to the NFL.²¹² In addition, The Arena Football League has experimented with similar technology.²¹³

While the ability of the sensors to actually decrease the number of concussions remains unclear, the

information gathered would certainly be useful. In addition, one potential drawback is the possibility that stadium noise could affect the accuracy of the sensors.²¹⁴

Public Education

Concussion Counter During Broadcast

Increasing public awareness of the issue of player safety might create pressure for change, which pressure could be an integral part of effecting change. One possible way to raise awareness of the issue would be to publicize a concussion count. This “concussion counter” could take the form of counting the number of concussions suffered over the course of a season and displaying the count during every NFL broadcast.

While the concussion counter might serve to remind the public of the dangers of football, it might instead serve to fetishize concussions. The unintended consequence of this policy, therefore, actually could be an increase in fans’ demands for violence, rather than a heightened awareness of the need to reduce injury.

Concussion Counter with Player Statistics

It is also possible to go one step further in publicizing information about concussions: The NFL and the media could begin to include a player’s personal concussion count with his professional statistics. Thus, for example, the number of concussions would be included next to the statistics for height, weight, touchdowns, or yards gained.

Similar to the concussion counter during broadcast, the counter with player statistics might serve to create public awareness about the dangers players face on the field. Again, a potential drawback would be the aggrandizement of concussions—players, for example, could begin to view their concussions as a badge of honor. In addition, making the information more accessible might cause teams to be even less likely to sign a player with a history of concussions, which would create the adverse effect of incentivizing players to hide concussions.

Informing the Public About NFL Players

A general awareness campaign to inform the public about the realities of life as an NFL player could serve to educate the public about the dangers of the game. Media stories devoted to in-depth analysis of players’ lives would humanize football players in the minds of the public. The corresponding increase in empathy could increase the public’s concern about the care given to football players post-retirement and ultimately could push the public to appreciate the players’ situation rather than focusing on players’ disposition and assumption of risk.

The potential downside of such a campaign would be the possibility that the public could have difficulty relating to the football players. The public instead might end up viewing the players as an out-group, attributing their outcomes to their disposition.

Increasing public awareness of the issue of player safety might create pressure for change, which pressure could be an integral part of effecting change.

Because of how deep-rooted the warrior culture is, players themselves may reject suggested rule changes.

NFL Rule Changes

Currently, player safety and a culture of machismo in the NFL directly conflict. Bracketed morality perpetuates a team culture where the assumption of risk, the downplay of risk, and the opportunity to take risks are rewarded. While leaving behind this machismo or warrior culture would surely be beneficial and though rule changes could possibly mitigate this culture, rule changes mainly have a different aim. They are directed responses to structural concerns with the game, intended to create incentives for individuals and teams to act differently within the confines of the game, and they are critical for ameliorating the problem of concussions at its core.

Because of how deep-rooted the warrior culture is, players themselves may reject policy recommendations. To accept such policies would be a fundamental change to the sport into which they entered. Indeed, evidence of such resistance can already be found. “I think the safest thing to do is leave the game alone,” said Ravens linebacker Ray Lewis. “The game will take care of itself. It always has. Should we be aware of these things? Absolutely. But when you adjust so many [rules], sometimes it makes it worse.”²¹⁵ Acknowledging this internal resistance to incorporating more safety measures within the sport is integral to the evaluation and implementation of the following policy recommendations.

Decreasing or Eliminating Contact Practices

Currently, the NFL allows up to 14 full-contact practices per team per season with a maximum of one full-contact practice per week. A reduction in the number of practices or elimination of full-contact practices would decrease the opportunities to receive concussive hits. This cutback would not only limit the chances for brain injuries to in-game situations; it also offers the additional advantage of not changing the rules that apply during an actual game.

Because players would not be able to get as much full-contact experience, the reduction of practice time may impede the progress of less-experienced players or cause them to learn the game at a slower pace. In addition, this proposal might affect the overall quality of the game because full contact would be simulated less frequently or might not be simulated at all before the live game experience.²¹⁶

Decreasing or Capping the Total Playing Time of Individual Players

In a similar effort to limit the opportunities for harmful physical contact, the NFL might consider decreasing the amount of playing time clocked by individual players over the course of the season. This change may be achieved by shortening the length of each game (e.g., reducing the length of a quarter to 10 minutes from 15 minutes), by reducing the number of overall games in a season (e.g., eliminating preseason games), or by capping the number of games in which a player may participate. Such policies

would work to reduce the amount of physical trauma, and, in turn, the probability for “big hits,” which may cause concussions.

The drawbacks of these policies include players getting less experience over time, which may cause newer players to learn the game at a slower pace. In addition, an overall reduction in the number of games played may reduce the league’s revenue, which may be problematic for implementation. On one hand, for example, Roger Goodell has discussed tinkering with the pre-season format, including cutting the pre-season in half, decreasing the number of games from four games to two games.²¹⁷ On the other hand, however, the NFL owners aspire to add more games to a season in hopes of increasing revenue, aiming to convert the current sixteen-game regular season into an eighteen-game regular season.²¹⁸ Finally, measures capping the number of games in which individual players are eligible to play seem to have a very narrow appeal. While they have been proposed, they were suggested for introduction with an extended regular season only.²¹⁹

Eliminating Protective Equipment

One policy option may be to change the game so that dangerous head-on collisions are no longer so commonplace. Eliminating protective equipment could be a way to implement such a policy, fundamentally altering football itself. Players would have to learn to tackle properly (e.g., leading with the shoulder instead of leading with the

head), which may lead to an overall safer game. Rugby leads as an example of a tackling sport with minimal protective gear.

However, this drastic change also carries consequences. In terms of practical implementation, learning to play football without protective equipment would take players a long time. Some players may simply disregard the changes and continue to make dangerous plays and risk injury. Additionally, even if the change were to reduce concussions, other injuries, such as spinal cord injuries, may increase.²²⁰ Furthermore, in the short term, the number of injuries sustained may increase due to the learning curve of players.

Other parties may be resistant to change as well, making implementation difficult. It is predictable that manufacturers of protective equipment would lobby against such changes. Also, the significance of the change may affect the overall strategy, flow, and excitement of the game, which may in turn anger fans and have an undetermined effect on revenue generation for the league.

Incentives for Reporting Concussions

Mandatory Independent Doctors

One possible policy aimed at encouraging the reporting of concussions would be mandating examinations of potentially concussed players by independent doctors, after the players are taken off the field immediately following a play. Currently, NFL teams employ their own doctors and pay their salaries.

Currently, NFL teams employ their own doctors and pay their salaries. This structure obviously raises questions of biases and conflicting interests.

Having the NFL pay players for each concussion received seems counterintuitive at first. However, this policy could almost completely eliminate players' incentives to hide concussions.

This structure obviously raises questions of biases and conflicting interests, even with the rule changes regarding medical responses to concussions the NFL has already made, as pressure from the employing team remains a factor in the diagnoses that the doctors issue. The use of independent doctors would mitigate a substantial portion of this conflict of interest. Because they would not be on the payroll of any one team they would thus have less incentive to under-diagnose or otherwise place the team's interest before the player's.

This policy proposal has a number of shortfalls. Variation among assigned doctors could require establishing certain standards for assuring the uniformity and satisfactoriness of diagnoses and other medical treatment, which requirements could further increase costs. While the increase might not be significant if shared among the 32 teams, any cost increase will likely be met with resistance. Furthermore, independent doctors may not enjoy the same level of familiarity and trust with the players that team doctors do. Less disclosure or dishonesty by players may affect the ability of the doctors to make accurate diagnoses.

Mandatory Tests for Borderline Hits

In another attempt to increase the reporting of concussions, the NFL could mandate testing for any borderline hit. A borderline hit is one that does not necessitate that a player leave the field but still may require further investigation based on the expertise of a doctor as observer.

Borderline hits are currently considered below the threshold for investigation and are thus not investigated adequately; players are taken off the field for testing only when they are left visibly injured at the conclusion of play. A lowering of the testing threshold primarily serves to prevent under-diagnosing potential concussions and head injuries that may go unnoticed when players appear completely fine to the untrained observer. This policy will ensure that doctors, acting based on their expertise, will be able to test any player that has taken a potentially injurious hit.

Drawbacks of this policy are primarily related to cost. The lower threshold might create more work for doctors, which could cause an increase both in compensation rates and in medical costs for testing. Furthermore, this testing could slow the game down significantly and have an adverse impact on the game's enjoyment for some viewers. On the other hand, however, more stoppages and extended medical review could be beneficial to sponsors and advertisers.

Payments to Players for Concussions

One policy proposal, having the NFL pay players for each concussion received, seems counterintuitive at first. However, this policy could almost completely eliminate players' incentives to hide concussions. One of the primary reasons for players' current reluctance to report concussions is the fear of a cut in future salary and playing time, and compensation could offset this

fear. In practice, players would be compensated if they were found to have received a concussion, either through conventional post-play testing or via voluntarily testing.

Financing the implementation of such a policy could be difficult for the NFL. NFL teams derive most of their revenue through ticket sales, merchandise and television rights rather than through a standardized or centralized system, and some teams earn much more than others. Unless teams devise a way to share the costs of the policy, the less endowed teams in the league will be hit harder as they will likely pay the same amount to players for concussions while operating on less revenue than other teams.

Penalties

Strict Liability for the Player who Causes the Concussion

Lawmakers might consider imposing strict liability on NFL players who cause concussions that lead to long-term medical conditions. The most obvious benefit is that this policy may incentivize those players to avoid making dangerous hits. If NFL players are held financially liable or face the threat of suspensions from future games for the consequences of their actions on the field, they will at least partially internalize the costs of dangerous hits.

However, there are several problems with adopting a strict liability regime for players who inflict dangerous hits. First, it is doubtful that players can control their actions on the field adequately enough to warrant

strict liability. NFL players move at extremely high speeds and make decisions in seconds. A hit can go from being legal and clean to illegal and dangerous based on a wide variety of external factors, such as a change in the other player's head placement at the last instant. Second, it is almost impossible to determine causation. Professional football players may suffer hundreds of dangerous hits over their careers; holding players strictly liable for concussions risks simply putting all of the cost on the last known offender. Perhaps most importantly, imposing strict liability on players who cause concussions dispositionalizes the problem. It reinforces the conception of NFL concussions as problems that are simply caused by bad actors and ignores the larger situational forces at work.

Strict Liability for the Team that Causes the Concussion

Instead of holding the individual responsible, lawmakers might consider holding the team of the offending player strictly liable for the concussions caused by its player. While this policy does not solve the problems with control and causation, holding the teams strictly liable shifts the burden of changing player behavior away from the players that are on the field. This policy represents a more situationist approach to the problem. Instead of assuming that players are completely responsible for every action they commit on a football field, strict liability for NFL teams encourages the organization to alter

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the nature of the game. If an NFL team knows that it will be held strictly liable, it has a profound incentive to encourage players to play safely and hit legally. Given the deeply situational forces that motivate NFL players, this policy, which encourages wholesale changes in the game itself, is more likely to have a lasting benefit for NFL players.

Strict Liability for the NFL

Imposing strict liability on the NFL itself for concussions and concussion-related injuries to NFL players can perhaps address the problem even more effectively than imposing strict liability on teams. The biggest drawback of imposing strict liability on the NFL is also the very thing that makes it likely to work: crippling cost. Concussion-related head trauma is an epidemic affecting an extremely high percentage of current and former NFL players. The Master Complaint alone has already consolidated the claims of 2,000 former players. Forcing the NFL to bear the financial cost of these individuals and any others who are injured could jeopardize the viability of professional football. However, the threat to the NFL's viability may be necessary in order to inspire aggressive, wholesale change. The NFL, responsible for setting league rules and policy, is in the best position to make fundamental changes to professional football, and the possibility of facing liability for every permanently injured player could be the impetus it needs to enact injury-reducing changes.

Fines from Penalties Put into Trust Fund to Benefit Concussed Players

A fairly straightforward policy proposal would mandate that all funds collected as fines against the NFL, NFL teams, and players go directly into a trust fund to benefit players suffering from the consequences of head trauma. While at face value this policy seems completely reasonable, there are hidden drawbacks. Most importantly, an institutionalized system of transferring money from offenders to victims could contribute to the conception of NFL concussions as a problem caused by dispositionist actors. Additionally, having a trust fund has the potential of defraying the cost of the strict liability regimes described above. For example, if the NFL is held strictly liable for concussion related injuries, a trust fund will externalize part of the cost assigned to the league.

Conclusion

For twenty-three weeks every year, millions of people spend their Sundays watching football. Children born in America grow up with the NFL; it is an institution passed down from generation to generation. This romanticized notion of “America’s Game” colors every possible solution to the immense challenges presented by head injuries in professional football.²²¹ Adequately addressing the problem requires confronting the fact that, in order to make football safe for those who play it, one must seek to fundamentally alter the most popular sport in the United States.

Head trauma is certainly not a problem unique to football and the NFL. The National Hockey League (NHL) suffers from many of the problems that are outlined in this analysis, problems complicated by institutionalized fighting within the framework of the sport.²²² Soccer has initiated widespread efforts to encourage proper technique for heading at the youth level. However, none of the cases are completely analogous. Perhaps most importantly, these sports lack the widespread popularity among the American people, a popularity that highlights the problem and cuts against several policy options aimed at fixing the problem.

This analysis has widespread implications not just for football, but for the role of sports in American culture. The policy recommendations outlined above are, at best, a way to

mitigate the damage caused by America’s national pastime. In the end, the only way to affect meaningful, lasting change that will adequately protect athletes in all sports, at all levels, is a shift in the way that we, as consumers, participants, and administrators, conceptualize sports. There is some evidence that the ground is already shifting and that the American public is viewing the issue of concussions as a situational, systematic problem. In his Friday column, Bill Simmons, the most widely read sportswriter in America, wrote of the 2012 NFL season:

Just know that we'll remember the lingering effect of concussions — and how it affects the way we watch football — over everything else that happened this season. The sport changed, and it continues to change, and really, I don't know where we're going anymore... So it isn't just football that's changing. We're changing.²²³

In the end, the only way to affect meaningful, lasting change that will adequately protect athletes in all sports, at all levels, is a shift in the way that we, as consumers, participants, and administrators, conceptualize sports.

- ¹ NFL Players' Concussion Litigation Master Complaint, WASHINGTON POST, June 7, 2012, available at www.washingtonpost.com/wp-srv/sports/nfl-master-complaint.html.
- ² Boston University Center for the Study of Traumatic Encephalopathy, What is CTE?, <http://www.bu.edu/cste/about/what-is-cte/> (last visited Feb. 06, 2013) (“Chronic Traumatic Encephalopathy (CTE) is a progressive degenerative disease of the brain found in athletes (and others) with a history of repetitive brain trauma, including symptomatic concussions as well as asymptomatic subconcussive hits to the head. CTE has been known to affect boxers since the 1920s. However, recent reports have been published of neuropathologically confirmed CTE in retired professional football players and other athletes who have a history of repetitive brain trauma. This trauma triggers progressive degeneration of the brain tissue, including the build-up of an abnormal protein called tau. These changes in the brain can begin months, years, or even decades after the last brain trauma or end of active athletic involvement. The brain degeneration is associated with memory loss, confusion, impaired judgment, impulse control problems, aggression, depression, and, eventually, progressive dementia.”).
- ³ Centers for Disease Control and Prevention, Concussion and Mild TBI, <http://www.cdc.gov/concussion/> (last visited Jan. 11, 2013).
- ⁴ Jon Hanson & David Yosifon, *The Situational Character: A Critical Realist Perspective on the Human Animal*, 93 GEORGETOWN L.J. 1 (2004).
- ⁵ *Id.*
- ⁶ Roger Allaway, Were the Oneidas Playing Soccer or Not? (Feb. 14, 2001), <http://homepages.sover.net/~spectrum/oneidas.html>.
- ⁷ Christina Settini, *The NFL's Best Fans*, FORBES, Sept. 7, 2012, available at <http://www.forbes.com/sites/christinasettini/2012/09/07/the-nfls-best-fans/>.
- ⁸ NFL, Injuries, <http://www.nfl.com/injuries> (last visited Feb. 6, 2013).
- ⁹ Rule modifications out of concern for safety date back at least to 1894, when Harvard's signature flying wedge formation was banned due to its association with serious injuries. See College Football Encyclopedia, Introduction: A Brief History of College Football, <http://www.footballencyclopedia.com/cfeintro.htm> (last visited Jan. 11, 2013).
- ¹⁰ See *infra* pp. 22-24.
- ¹¹ See *infra* pp. 24-26.
- ¹² Mark Sweney, *Super Bowl 2011 Draws Highest Ever Audience for US TV Show*, GUARDIAN, Feb. 8, 2011, available at <http://www.guardian.co.uk/media/2011/feb/08/super-bowl-highest-ever-audience>.
- ¹³ *The Most Valuable Superbowls*, FORBES, <http://xfinity.comcast.net/slideshow/sports-themostvaluable/bowls/9/> (last visited Feb. 6, 2013).
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- ¹⁵ Dave Duerson, <http://www.pro-football-reference.com/players/D/DuerDa00.htm> (last visited Feb. 6, 2013).
- ¹⁶ *Id.*
- ¹⁷ Alan Schwarz, *Before Suicide, Duerson Said He Wanted Brain Study*, N.Y. TIMES, Feb. 19, 2011, available at <http://www.nytimes.com/2011/02/20/sports/football/20duerson.html?scp=1&sq=dave%20duerson&st=cse>.
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- ²² NATIONAL CENTER FOR INJURY PREVENTION AND CONTROL, REPORT TO CONGRESS ON MILD TRAUMATIC BRAIN INJURY IN THE UNITED STATES: STEPS TO PREVENT A SERIOUS PUBLIC HEALTH PROBLEM 1 (2003), available at <http://www.cdc.gov/ncipc/pub-res/mtbi/report.htm>.
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- ²⁹ Bennet I. Omalu et al., *Chronic Traumatic Encephalopathy, Suicides and Parasuicides in Professional American Athletes*, 31 AM. J. FORENSIC MED. PATHOLOGY 130, 132 (2010).
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⁸⁷ DAN B. DOBBS ET AL., *THE LAW OF TORTS* § 680 (2d ed. 2011).

⁸⁸ *Id.* at §682.

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¹⁰⁸ Dobbs, *supra* note 87, at § 442.

¹⁰⁹ A doctrinal examination of the counts set forth in the Master Complaint suggests that the case will likely rest on fraudulent concealment component of the claims made in the complaint.

¹¹⁰ The term "NFL," throughout this portion, refers to the non-profit organization that represents the interests of all owners throughout the league.

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¹¹³ *Id.*

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