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NFL Takes a Page from the Big Tobacco Playbook: Assumption of Risk in the CTE Crisis

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NFL TAKES A PAGE FROM THE BIG TOBACCO PLAYBOOK: ASSUMPTION OF RISK IN THE CTE CRISIS

ABSTRACT

Traumatic brain injury in sports, once considered an injury you could “rub some dirt on” and get back in the game after, has risen to the level of a public health epidemic over the past decade. Most public attention to the issue is connected to high-profile National Football League (NFL) athletes, increasing numbers of whom are diagnosed post-mortem with chronic traumatic encephalopathy (CTE), a progressive neurological disorder with symptoms akin to Alzheimer’s. With gridiron giants like Mike Webster, Terry Long, Andre Waters, and Junior Seau sleeping on train station floors and drinking anti-freeze, their greatest legacy may no longer be the things they gave to the game of football, but what the game of football took from them.

As research connecting CTE with repeated blows on the football field grows, the NFL faces litigation concerning its role in preventing or raising awareness of this issue. In response, the League has taken a page from the tobacco industry playbook by employing the same strategies used during decades of litigation surrounding the adverse health consequences of smoking cigarettes. Accordingly, this Comment explores the utility of using Big Tobacco as a predictive template for future NFL/CTE litigation by unpacking the historical parallels and distinctions between these two industry giants, especially as pertains to an assumption of risk defense. Ultimately, this comparative analysis informs litigation strategy by outlining the unique pressures and structures faced by NFL plaintiffs such that they should overcome an assumption of risk defense in CTE cases. While their circumstances are fundamentally different, NFL athletes face the same institutional complicity and orchestrated denial as did tobacco users, only this time, all of America has a Sunday ticket.

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INTRODUCTION

On April 19, 2017, former New England Patriots tight end Aaron Hernandez¹ hanged himself with a bed sheet in a Massachusetts prison.² Hernandez was serving a life sentence for the 2013 murder of Odin Lloyd and had been acquitted of two other murders just days earlier.³ Suspecting neurological problems, Hernandez's family donated his brain to the CTE Center at Boston University, where top neuropathologists discovered classic markers for chronic traumatic encephalopathy (CTE): an abundance of abnormal protein tau in the frontal lobe and around small blood vessels.⁴ His hippocampus and fornix (responsible for memory) and amygdala (responsible for emotional regulation, fear, and anxiety) were also severely affected.⁵ This led head researcher Dr. Ann McKee to conclude that at the age of twenty-seven, Hernandez had the most severe case of CTE the CTE Center had ever seen in someone his age, with "damage . . . akin to that of players well into their 60s."⁶ While McKee declined to use pathology as a way to retrospectively explain or excuse Hernandez's murderous behavior, she stated that "in our collective experience . . . individuals with CTE—and CTE of this severity—have difficulty with impulse control, decision-making, inhibition of impulses for aggression, emotional volatility, [and] rage behaviors."⁷

In response, Hernandez's estate filed a federal lawsuit on behalf of his four-year-old daughter, Avielle, against the National Football League (NFL) and the New England Patriots. The suit seeks \$20 million in damages to compensate Avielle for the deprivation of "love, affection, society and companionship of her father while he was alive."⁸ The complaint alleges that both the NFL and the

¹ See generally S.I. Wire, *Key Moments in the Life of Aaron Hernandez*, SPORTS ILLUSTRATED (Apr. 19, 2017), <https://www.si.com/nfl/2017/04/19/aaron-hernandez-timeline-career-life> (outlining highlights of Hernandez's athletic, personal, and criminal experiences).

² Adam Kilgore, *Aaron Hernandez Suffered from Most Severe CTE Ever Found in a Person His Age*, WASH. POST (Nov. 9, 2017), https://www.washingtonpost.com/sports/aaron-hernandez-suffered-from-most-severe-cte-ever-found-in-a-person-his-age/2017/11/09/fa7cd204-c57b-11e7-afe9-4f60b5a6c4a0_story.html.

³ Ken Belson, *Aaron Hernandez Had Severe C.T.E. When He Died at 27*, N.Y. TIMES (Sept. 21, 2017), <https://www.nytimes.com/2017/09/21/sports/aaron-hernandez-cte-brain.html?mcubz=3>.

⁴ Kilgore, *supra* note 2.

⁵ *Id.*

⁶ Belson, *supra* note 3; see also Kilgore, *supra* note 2 ("In a diagnosis that linked one of football's most notorious figures with the sport's most significant health risk, doctors found Hernandez had Stage 3 CTE, which researchers had never seen in a brain younger than 46 years old, McKee said.")

⁷ Kilgore, *supra* note 2.

⁸ Rick Maese et al., *NFL Says it Will 'Vigorously' Fight CTE Lawsuit Filed by Aaron Hernandez's Family*, WASH. POST (Sept. 22, 2017), https://www.washingtonpost.com/news/early-lead/wp/2017/09/21/aaron-hernandez-was-suffering-from-advanced-form-of-cte-family-files-suit-against-nfl/?utm_term=.1e5752b96c79.

Patriots were aware of the neurological harm that would occur from repetitive impact on the field but did not do enough to protect Hernandez from that harm.⁹

Hernandez's complaint, insofar as it links CTE to NFL play, is nearly identical to the complaint issued by a class of retired NFL players in *In re National Football League Players Concussion Injury Litigation*, which the NFL settled in 2016.¹⁰ The temporal relevance of Hernandez's case reveals an underlying question that all cases brought by NFL players after the 2016 settlement will also pose: *did he assume the risk of CTE by continuing to play in the face of nearly conclusive scientific evidence that it would result in his eventual cognitive demise?*¹¹

This is the same question faced by plaintiffs when bringing suit against Big Tobacco¹² companies after the Surgeon General officially linked cigarettes and cancer in 1964¹³: *did smokers assume the risk of lung cancer by continuing to use tobacco in the face of scientific recommendation against doing so?* This overlapping legal question is not the only parallel between CTE and cigarettes, as both public health crises arose following decades of denial by the responsible industry (NFL and Big Tobacco, respectively) such that tobacco litigation provides a useful template for projecting what the legal future of CTE claims may look like.¹⁴ Although there is much we can learn from the history of Big

⁹ Belson, *supra* note 3.

¹⁰ *In re Nat'l Football League Players Concussion Injury Litig.*, 821 F.3d 410, 421 (3d Cir. 2016) (stating that “[f]ootball puts players at risk of repetitive brain trauma and injury because they suffer concussive and sub-concussive hits during the game and at practice” and that “[p]laintiffs alleged that the NFL had a duty to provide players with rules and information to protect them from the health risks—both short and long-term—of brain injury[,]” including “a recently identified degenerative disease called chronic traumatic encephalopathy”).

¹¹ Although Hernandez's case is an imperfect illustration of this question, given that his three seasons of NFL play (2010–2012) occurred *prior* to this landmark settlement and prior to the July 2017 Boston University study revealing CTE in the brains of 110 of 111 former NFL players, his participation in the NFL did occur *amidst* general public recognition and substantial scientific evidence linking football to CTE. See Jesse Mez et al., *Clinopathological Evaluation of Chronic Traumatic Encephalopathy in Players of American Football*, 318 JAMA 360, 362 (2017).

¹² This term refers to the historically largest and most powerful tobacco companies in the United States: Altria, R.J. Reynolds Tobacco, Lorillard, and Philip Morris USA.

¹³ Tobacco companies continued to deny the link as late as 1998, however. Bryce A. Jensen, Note, *From Tobacco to Health Care and Beyond—A Critique of Lawsuits Targeting Unpopular Industries*, 86 CORNELL L. REV. 1334, 1340 (2001).

¹⁴ While there has been significant legislative and judicial action regarding concussions and neurotrauma among youth and college athletes, this Comment focuses narrowly on the NFL context. The decision to do so is one of precision, but also reflects the fact that NFL precedents and attitudes trickle down to lower, younger levels of play such as the NCAA and Pop Warner. This is consistent with the proposal that the “way in which player health is protected and promoted at the top echelons of the sport will influence policies, practices, and culture all the way down the line, influencing the health not only of future NFL players but also the vastly larger pool of Americans who will play football and never make it to the NFL.” Glenn Cohen et al., *A Proposal to*

Tobacco litigation, critical distinctions also exist surrounding the CTE crisis which must be taken into account.

This Comment argues that although the NFL responded to CTE litigation by deploying the same strategies that proved successful for Big Tobacco, the assumption of risk defense should not be applied to the NFL in the same way that it was to the tobacco companies. In particular, it informs litigation strategy by highlighting the unique social and structural pressures NFL plaintiffs face such that they may prove successful against the assumption of risk defense where tobacco litigation plaintiffs failed. To unpack these crucial distinctions, this Comment begins in Part I by outlining the medical intricacies of CTE and presenting a timeline of the NFL's responses to developing connections between football and CTE. Next, Part II unpacks the assumption of risk defense and how it functions in the context of sports. This Part also provides a historic timeline of tobacco litigation, with an emphasis on the eras in which Big Tobacco successfully employed the assumption of risk defense. Finally, Part III discusses the overlapping strategies between tobacco industry giants and the NFL, then demonstrates how the NFL situation is different from tobacco litigation such that the assumption of risk doctrine should not apply. This Part will close with presentation and response to several counterarguments.

I. NATIONAL FOOTBALL LEAGUE AND CHRONIC TRAUMATIC ENCEPHALOPATHY

Understanding the experiences of Aaron Hernandez and the hundreds of other NFL players diagnosed with CTE requires a thorough examination of the medical and historical contexts through which their debilitating neurological disease arose. Accordingly, this Part provides the contextual framework in which to situate the assumption of risk doctrine. First, section A offers a medical overview of CTE, including its symptoms, diagnostic complications, and the unique susceptibility of professional football players. Next, section B chronicles how the NFL responded to an increasing body of scientific literature linking CTE to football—from creating committees on concussion safety with the goal of fostering confusion to rule changes that were largely symbolic and offered little protection to athletes most at risk for CTE. Finally, it sketches the current context of the CTE crisis, noting the minimal progress since the early 2000's, when traumatic brain injury first took the spotlight.

A. *Introduction to Chronic Traumatic Encephalopathy*

Chronic traumatic encephalopathy is a progressive neurological disease found in people with a history of repeated brain trauma.¹⁵ First identified in 2002 following the autopsy of former Pittsburgh Steeler Mike Webster, CTE is similar to dementia pugilistica (“punch-drunk syndrome”), a disease identified in professional boxers since the 1920s.¹⁶ CTE presents clinically as dementia, with symptoms including memory loss, confusion, impaired judgment, impulse control problems, aggression, depression, suicidality, and parkinsonism.¹⁷ However, CTE is only diagnosable by postmortem brain scans, where it is characterized by tangles of the abnormal protein tau near small blood vessels, usually in deep folds of the cortex.¹⁸ Unlike a healthy brain, which sends healthy cells to destroy proteins that form around affected areas following a brain injury,¹⁹ a brain with CTE has so much protein buildup that the healthy cells are overwhelmed and the blood vessels in the brain are essentially strangled.²⁰

While CTE is often found in athletes who suffered multiple concussions throughout the course of their careers, the principle cause of CTE is repeated subconcussive head trauma: blows to the head that do not rise to the level of concussion symptomology.²¹ This is evidenced by the 2010 autopsy of University of Pennsylvania offensive lineman Owen Thomas, which revealed severe CTE despite Thomas never being diagnosed with a concussion.²² Linemen, like Thomas, are most vulnerable to subconcussive trauma, as they

¹⁵ *Frequently Asked Questions About Chronic Traumatic Encephalopathy*, B.U. ALZHEIMER’S DISEASE CENT., <https://www.bu.edu/alzresearch/ctecenter/chronic-traumatic-encephalopathy-faqs/> (last visited Nov. 25, 2018).

¹⁶ Stephanie A. Murray, Note, *The Misnomer of the NFL’s “Concussion Crisis”: Don’t Count on the NFL to Solve Football’s Biggest Problem—and OSHA Regulation May Not Save the Game Either*, 56 WASHBURN L.J. 181, 186 (2017).

¹⁷ *Frequently Asked Questions About Chronic Traumatic Encephalopathy*, *supra* note 15. Parkinsonism refers to symptoms of Parkinson disease that are caused by a different condition, including “tremors that occur when muscles are relaxed, stiff muscles, slow movements, and problems with balance and walking.” Hector A. Gonzalez-Usigli & Alberto Espay, *Parkinsonism*, MERCK MANUAL, <https://www.merckmanuals.com/home/brain,-spinal-cord,-and-nerve-disorders/movement-disorders/parkinsonism> (last visited Nov. 25, 2018).

¹⁸ Meredith Wadman, *Ninety-nine Percent of Ailing NFL Player Brains Show Hallmarks of Neurodegenerative Disease, Autopsy Study Finds*, SCI. (Jul. 25, 2017, 11:00 AM), <http://www.sciencemag.org/news/2017/07/ninety-nine-percent-ailing-nfl-player-brains-show-hallmarks-neurodegenerative-disease>.

¹⁹ Murray, *supra* note 16, at 185.

²⁰ Sarah James, Note, *Ringling the Bell for the Last Time: How the NFL’s Settlement Agreement Overwhelmingly Disfavors NFL Players Living with Chronic Traumatic Encephalopathy (CTE)*, 11 J. HEALTH & BIOMED. L. 391, 398 (2016).

²¹ Murray, *supra* note 16, at 187.

²² Caleb Daniloff, *CTE Found in Dead College Football Player: First Evidence of Brain Disease in Athlete with No Concussions*, BU TODAY (Sept. 14, 2010), <https://www.bu.edu/today/2010/cte-found-in-dead-college-football-player/>.

experience around 1,000 to 1,500 hits per year at a force averaging 20G or more (“the equivalent to driving a car at 35 mph into a brick wall”).²³ Thomas’ case also emphasized how early CTE can begin, even without a history of documented concussions.²⁴

Also medically relevant to the CTE conversation is second impact syndrome, a condition that occurs when an athlete returns to play before resolving symptoms of a prior concussion.²⁵ When a concussed athlete returns to play before full recovery, his brain is in a particularly vulnerable state and could fatally herniate upon receiving even a trivial second blow.²⁶

*B. Timeline of CTE Scientific Developments and NFL Responses*²⁷

The NFL has been on notice of the possible connection between head injury on the field and debilitating neurological damage since 1952, when an article published in the *New England Journal of Medicine* recommended the NFL implement a “three-strike rule” wherein a player must retire after suffering three career concussions.²⁸ However, the modern era in the NFL concussion conversation did not begin until 2002, ushered in by the autopsy of former Pittsburgh Steeler “Iron” Mike Webster. While Webster’s official cause of death was heart attack,²⁹ stories of his fall from fame to madness (including fits of rage, memory loss, the habit of leaving unintelligible notes, and tazing himself to fall asleep) prompted Nigerian pathologist Bennet Omalu to closely examine Webster’s brain.³⁰

What Omalu discovered were clusters of tau protein, typically found among boxers and elderly individuals but unprecedented for someone Webster’s age,

²³ James, *supra* note 20, at 392 n.1.

²⁴ Daniloff, *supra* note 22.

²⁵ Daniel J. Kain, Note, “*It’s Just a Concussion*”: *The National Football League’s Denial of a Causal Link Between Multiple Concussions and Later-Life Cognitive Decline*, 40 RUTGERS L.J. 697, 702 (2009).

²⁶ Mitch Kocerginski, *Who Is at Fault When a Concussed Athlete Returns to Action?*, 47 VAL. U. L. REV. 63, 63 n.2 (2012).

²⁷ See generally Lauren Ezell, *Timeline: The NFL’s Concussion Crisis*, PBS FRONTLINE (Oct. 8, 2013, 9:57 PM), <https://www.pbs.org/wgbh/pages/frontline/sports/league-of-denial/timeline-the-nfls-concussion-crisis> (providing a dual chronology timeline, with one column outlining scientific concern about the link between football and brain disease and another column including the NFL’s public statements on the issue from 1994 to 2013).

²⁸ James, *supra* note 20, at 405 n.51.

²⁹ Kain, *supra* note 25, at 734 n.218.

³⁰ See generally MARK FAINARU-WADA & STEVE FAINARU, LEAGUE OF DENIAL: THE NFL, CONCUSSIONS, AND THE BATTLE FOR TRUTH 14–30, 46–62 (2013) (providing an overview of Webster’s rise, legacy, and fall).

just fifty.³¹ In 2005, Omalu published his findings in *Neurosurgery*, claiming that Webster's brain damage had been caused by "'repetitive concussive brain injury' from playing football."³² As the first to formally evidence the link between football and CTE, Omalu sparked a firestorm from the NFL and a slew of other neuropathological studies by independent scientists.³³ Over the next five years, evidence supporting the connection between CTE and football mounted, including the results of several more autopsies by Omalu (those of Terry Long³⁴ and Andre Waters)³⁵ and the work of CTE's new leading lady, Dr. Ann McKee of Boston University (B.U.). McKee's research emphasized "[t]here is overwhelming evidence that [CTE] is the result of repeated sublethal brain trauma."³⁶

The NFL responded by denying and discrediting Omalu's findings. After calling for Omalu to retract his article in *Neurosurgery*, the NFL's Mild Traumatic Brain Injury (MTBI) Committee³⁷ accelerated their own publication efforts. By exploiting industry connections, the MTBI Committee circumvented the normal peer review process³⁸ and published sixteen articles between 2003 and 2009 in that very same journal.³⁹ "The MTBI Committee's research [by and large] claimed that concussion rates in the NFL were extremely low, that the number of concussions suffered by a player bears no relation to future injuries, and[] that there is no link between football and brain damage."⁴⁰ Most importantly, the MTBI Committee's research was used to support a 2007 NFL press release of concussion protocol, which purported that (1) there is no

³¹ Murray, *supra* note 16.

³² Christopher R. Deubert et al., *Protecting and Promoting the Health of NFL Players: Legal and Ethical Analysis and Recommendations*, 7 HARV. J. SPORTS & ENT. L. 1, 176 (2016).

³³ Joseph M. Hanna & Daniel Kain, *NFL's Shaky Concussion Policy Exposes the League to Potential Liability Headaches*, 28 ENT. & SPORTS LAW. 9, 9 (2010).

³⁴ FAINARU-WADA & FAINARU, *supra* note 30, at 193–94.

³⁵ Hanna & Kain, *supra* note 33; see also Jarryd Werts, Note, *Ringing the Bell on Concussions: The Rise of Head Injuries and Cognitive Decline in Football Players, and the NFL's Obligation to Improve Safety Measures*, 11 CARDOZO PUB. L. POL'Y & ETHICS J. 173, 175 (2012).

³⁶ Hanna & Kain, *supra* note 33 (emphasis omitted).

³⁷ The NFL founded the MTBI Committee in 1994 in response to growing awareness surrounding the dangerousness of head injury on the field. Murray, *supra* note 16, at 189. However, the committee was chaired by a rheumatologist (the New York Jets club doctor, Elliot Pellman) and included only one neurosurgeon with previous ties to the NFL and one neurologist, further calling their research and recommendations into question. Deubert et al., *supra* note 32, at 175–76.

³⁸ See FAINARU-WADA & FAINARU, *supra* note 30, at 6 ("The league used that journal, which some researchers would come to ridicule as the 'Journal of No NFL Concussions,' to publish an unprecedented series of papers, several of which were rejected by peer reviewers and editors and later disavowed even by some of their own authors.").

³⁹ Deubert et al., *supra* note 32.

⁴⁰ *Id.* at 177.

evidence that “having more than one or two concussions leads to permanent problems if each injury is managed properly”; (2) “there is no ‘magic number’ for how many concussions is too many”; and (3) “[p]layers should not be at a greater risk of further injury once they receive proper medical care for a concussion and are free of symptoms.”⁴¹

Wary of the NFL’s tactics in the face of mounting scientific evidence, a 2009 House Judiciary Committee hearing on brain injury and player safety called in NFL Commissioner Roger Goodell.⁴² During the hearing, Goodell diminished the independent studies and instead emphasized the NFL’s commitment to research and education on brain injuries, new guidelines for return to play, and increased benefits for former players.⁴³

Bad press and congressional pressure after the 2009 hearing necessitated an overhaul by the NFL that was nearly a decade overdue.⁴⁴ The NFL renamed the MTBI Committee to the “Head, Neck and Spine Committee” and hired prominent neurologists with no prior NFL ties to chair the Committee.⁴⁵ They also paired with the Centers for Disease Control and Prevention (CDC) to generate a locker room poster, which made no mention of CTE, but instead stated:

[T]raumatic brain injury can cause a wide range of short or long-term changes affecting thinking, sensation, language, or emotions. These changes may lead to problems with memory and communication, personality changes, as well as depression and early onset of dementia. Concussions and conditions resulting from repeated brain injury can change your life and your family’s life forever.⁴⁶

This era also ushered in an explosion of rule changes by the NFL,⁴⁷ nearly all of which protected players in marquee positions such as receivers from incurring the drastic, stars-around-the-head type of concussions, which, though

⁴¹ J. Brad Reich, *When “Getting Your Bell Rung” May Lead to “Ringing the Bell”: Potential Compensation for NFL Player Concussion-Related Injuries*, 12 VA. SPORTS & ENT. L.J. 198, 201 (2013) (emphasis omitted).

⁴² Hanna & Kain, *supra* note 33, at 9–10.

⁴³ Deubert et al., *supra* note 32, at 177.

⁴⁴ Koczerginski, *supra* note 26, at 75.

⁴⁵ Deubert et al., *supra* note 32, at 178 (“According to Mitch Berger, a prominent San Francisco neurosurgeon who joined the Committee at that time, the Committee ‘essentially started from zero.’”).

⁴⁶ Hanna & Kain, *supra* note 33, at 14.

⁴⁷ *See generally* Werts, *supra* note 35, at 195 (discussing rule changes designed to prevent head injuries and protect particular positions, stating that “additional changes to the return-to-play policy were likely a result of the hearings before the House Judiciary Committee in 2009 regarding the NFL’s handling of brain injuries”).

problematic, are not the principal cause of CTE.⁴⁸ Further, they prompted inclusion of a neuro-disability benefit to the 2011 NFL Collective Bargaining Agreement,⁴⁹ supplementing the “Section 88” plan that, under the 2006 Collective Bargaining Agreement, afforded former players up to \$88,000 a year for medical claims related to dementia.⁵⁰

While it seemed as though the NFL was taking a step in the direction of transparency, safety, and responsibility, the April 2016 class action *In re National Football League Players Concussion Injury Litigation* halted this trend. In this case, which ended in settlement, retired football players alleged that the NFL failed to take reasonable actions to protect players from chronic risks created by head injuries, and concealed those risks from players.⁵¹ However, the settlement failed to include CTE in a list of diagnoses for which players could recover. Families of players who died with CTE from 2009 to 2014 can recover millions, but the hundreds of players who will presumptively die with CTE outside that narrow date range cannot recover anything.⁵² Instead of mentioning CTE, the settlement agreement included (1) a \$75 million Baseline Assessment Program that provides eligible retired players with free baseline assessment examinations of their objective neurological functioning; (2) an uncapped, sixty-five year Monetary Award Fund that provides compensation for retired players who submit proof of certain diagnoses; and (3) a \$10 million Education Fund to instruct football players about head injury prevention.⁵³

The deficiencies of the settlement are particularly relevant in light of the July 2017 study by researchers at B.U. published in the esteemed *Journal of the American Medical Association (JAMA)*, which revealed evidence of CTE in 99% (110 of 111) of studied brains from former NFL players.⁵⁴ The B.U. study concluded that “players of . . . [f]ootball may be at increased risk of long-term

⁴⁸ See Malcolm Gladwell, *Offensive Play: How Different are Dogfighting and Football?*, NEW YORKER (Oct. 19, 2009), <https://www.newyorker.com/magazine/2009/10/19/offensive-play>.

⁴⁹ Deubert et al., *supra* note 32, at 180–82.

⁵⁰ See *id.* at 181–82 (illustrating the NFL’s responsibility to fund both the Neuro-Cognitive Disability Benefit and “The 88 Plan (2006)” in the 2011 Collective Bargaining Agreement); see also Kain, *supra* note 25, at 726 (describing the “Section 88” plan).

⁵¹ 821 F.3d 410, 421–25 (3d Cir. 2016).

⁵² James, *supra* note 20, at 409–10; see also Dom Cosentino, *The NFL Concussion Settlement Keeps Failing People It’s Supposed to Help*, DEADSPIN (June 29, 2018, 4:26 PM), <https://deadspin.com/the-nfl-concussion-settlement-keeps-failing-people-its-1827239759> (reporting instance of former NFL player’s family missing deadline to file CTE diagnosis and having lawsuit dismissed).

⁵³ James, *supra* note 20, at 416–18.

⁵⁴ See Mez et al., *supra* note 11.

neurological conditions, particularly [CTE].”⁵⁵ This study represents the most conclusive and comprehensive analysis of brain trauma among football players in nearly thirty years. Its closest predecessor was a cohort study that focused on neurodegenerative causes of death among NFL players.⁵⁶ That cohort study followed 3,439 NFL players with at least five pension-credited seasons from 1959 through 1988, and concluded that “the neurodegenerative mortality [of this cohort] is [three] times higher than that of the general [U.S.] population These results are consistent with recent studies that suggest an increased risk of neurodegenerative disease among football players.”⁵⁷ While the 2017 B.U. study has a markedly smaller sample size, composed only of brains donated by family members who may have done so because they had reason to suspect CTE, it is the largest scale study of football players to focus exclusively on CTE as opposed to depression or other neurological diseases.⁵⁸ Other studies have demonstrated the correlation between the rate of depression and concussions sustained by former NFL players⁵⁹ and discovered increased problems with behavioral regulation, apathy, and executive function among athletes who began playing tackle football before the age of twelve.⁶⁰

The NFL has not issued a formal response to the B.U. study, continuing instead to spend more money and introduce more safety technologies in hopes of preserving the game. In 2012, the NFL donated a \$30 million “unrestricted gift” to the National Institutes of Health in support of brain injury research, but later tried to improperly divert those funds from use in developing a CTE test for living players.⁶¹ In 2013, the NFL paired with General Electric and Under Armour to launch the Head Health Challenge, a program that awards \$60 million in total grant money for research and development of head injury solutions.⁶²

⁵⁵ *Id.* at 369.

⁵⁶ Everett J. Lehman et al., *Neurodegenerative Causes of Death Among Retired National Football League Players*, 79 *NEUROLOGY* 1970, 1971 (2012) (describing 2012 study on mortality from neurodegenerative conditions among NFL players).

⁵⁷ *Id.* at 1971–72.

⁵⁸ Wadman, *supra* note 18; see Alexandra Sifferlin, *Degenerative Brain Disease Found in 87% of Former Football Players: Study*, *TIME* (July 25, 2017), <http://time.com/4871597/degenerative-brain-disease-cte-football/>.

⁵⁹ Werts, *supra* note 35, at 179–80.

⁶⁰ Ken Belson, *Playing Tackle Football Before 12 Is Tied to Brain Problems Later*, *N.Y. TIMES* (Sept. 19, 2017), <https://www.nytimes.com/2017/09/19/sports/football/tackle-football-brain-youth.html>.

⁶¹ Erin Schumaker, *What You Need to Know About CTE This NFL Season*, *HUFFINGTON POST* (Jan. 29, 2017, 5:26 PM), https://www.huffingtonpost.com/entry/nfl-cte_us_57d03775e4b06a74c9f1e8f1 (quoting a House Energy and Commerce Committee report stating that “[t]he NFL attempted to use its ‘unrestricted gift’ as leverage to steer funding away from one of its critics”).

⁶² Daniel Roberts, *Here’s How the NFL Might Combat Concussions*, *FORTUNE* (Dec. 31, 2015), <http://fortune.com/2015/12/31/nfl-concussion-technology/>; see also Ben Liebenberg, *What is the Head Health*

Funded proposals include blast-resistant mats that underlie the turf to soften impact and a rate-dependent strap that prevents the head from snapping back abruptly after a hard hit.⁶³ Other concussion-reducing technologies include the Gladiator Helmet, esteemed for a soft exterior comprised of reaction-molded polyurethane, a material similar to that used in car bumpers,⁶⁴ and Riddell Sports' HITS (Head Impact Telemetry System).⁶⁵ HITS is a series of sensors placed inside helmets that measures the force and location of every blow to the head, allowing trainers and researchers to analyze possible injuries in real time.⁶⁶ So far, HITS data suggests that the cumulative exposure to head trauma during practices (approximately 1000 hits per season for an average NFL lineman) is as dangerous as exposure during games and should be the new focus of traumatic brain injury prevention efforts.⁶⁷ However, expansion of technology is ultimately counterintuitive to the goal of protecting player health, because it breeds a sense of invulnerability and encourages athletes to play more recklessly.⁶⁸

Thus, in 2018, the current landscape of the NFL concussion debate is marginally different than it was in the days of Mike Webster. Despite the NFL publicly acknowledging in 2009 that concussions can have long-term effects,⁶⁹ and a top league official admitting in 2016 that there is a link between CTE and football,⁷⁰ those admissions are a flash in the pan and do not indicate a shift in attitudes inside the NFL. In fact, in April of 2018, the NFL selected Nicholas Theodore—a Johns Hopkins neurosurgeon who co-authored a 2016 paper, entitled *Football and Chronic Traumatic Encephalopathy: How Much Evidence Actually Exists?*, to chair the Head, Neck and Spine Committee.⁷¹ Thus, while active participants can almost guarantee their eventual development of CTE, any NFL response to research that runs counter to its business interests is still a day

Initiative?, NAT'L FOOTBALL LEAGUE: PLAY SMART, PLAY SAFE (Sept. 14, 2016), <https://www.playsmartplaysafe.com/focus-on-safety/advanced-technology/head-health-initiative/>.

⁶³ Roberts, *supra* note 62.

⁶⁴ Ben McGrath, *Does Football Have a Future?: The N.F.L. and the Concussion Crisis*, NEW YORKER (Jan. 31, 2011), <https://www.newyorker.com/magazine/2011/01/31/does-football-have-a-future>.

⁶⁵ Kocerginski, *supra* note 26, at 94–95.

⁶⁶ See McGrath, *supra* note 64.

⁶⁷ See Gladwell, *supra* note 48.

⁶⁸ McGrath, *supra* note 64.

⁶⁹ Alan Schwarz, *N.F.L. Acknowledges Long-Term Concussion Effects*, N.Y. TIMES (Dec. 20, 2009), <https://www.nytimes.com/2009/12/21/sports/football/21concussions.html>.

⁷⁰ Ken Belson, *N.F.L. Official Affirms Link Between Playing Football and C.T.E.*, N.Y. TIMES (Mar. 14, 2016), <https://www.nytimes.com/2016/03/15/sports/football/nfl-official-affirms-link-with-cte.html>.

⁷¹ Rick Maese, *New Head of NFL Safety Committee Posed Question About CTE in 2016 Paper*, WASH. POST (Apr. 19, 2018), <https://www.washingtonpost.com/news/sports/wp/2018/04/19/new-head-of-nfl-safety-committee-questioned-cte-in-2016-paper>.

late and a dollar short. Most importantly, the NFL has yet to explicitly accept that “CTE is a very real consequence of an NFL career.”⁷²

II. ASSUMPTION OF RISK

With this historical context in mind, a salient question arises: did professional football players assume the risk of CTE by choosing to continue playing despite evidence of near-certain neurological harm? Addressing this question, this Part unpacks the assumption of risk doctrine, its historical use by Big Tobacco, and its application in sports torts cases. First, section A provides a definitional introduction to the doctrine, including instances where it can be overridden. Next, section B outlines how tobacco companies applied assumption of risk during three waves of tobacco litigation, highlighting the contexts in which it was most successful. Finally, section C addresses assumption of risk in the sports context and identifies criteria for defendants to avoid liability in sports torts cases.

A. *Introduction to the Doctrine*

Assumption of the risk is a fundamental tort defense that functions as a complete bar to a plaintiff’s recovery.⁷³ The *Restatement (Second) of Torts* defines the general principle of assumption of risk: “A plaintiff who voluntarily assumes a risk of harm arising from the negligent or reckless conduct of the defendant cannot recover for such harm.”⁷⁴ Traditionally, a defendant must make out two elements for the defense to apply.⁷⁵ First, he or she must prove that the plaintiff had actual knowledge of the danger involved and appreciation for its magnitude.⁷⁶ Second, he or she must prove that the plaintiff nonetheless voluntarily proceeded in the face of the known risk.⁷⁷ The defense will be overridden if the court finds that the plaintiff’s assumption of a given risk was not fully informed, not fully voluntary, or not adequately particularized.⁷⁸

The doctrine is subdivided into express and implied assumption of risk in previous sections of the *Restatement*. Express assumption of risk occurs when

⁷² Thomas A. Drysdale, *Helmet-to-Helmet Contact: Avoiding a Lifetime Penalty by Creating a Duty to Scan Active NFL Players for Chronic Traumatic Encephalopathy*, 34 J. LEGAL MED. 425, 426 (2013).

⁷³ Keya Denner, *Taking One for the Team: The Role of Assumption of the Risk in Sports Torts Cases*, 14 SETON HALL J. SPORTS & ENT. L. 209, 210 (2004).

⁷⁴ RESTATEMENT (SECOND) OF TORTS § 496A (AM. LAW INST. 1965).

⁷⁵ Denner, *supra* note 73, at 210–11.

⁷⁶ RESTATEMENT (SECOND) OF TORTS § 496D.

⁷⁷ *Id.* § 496E.

⁷⁸ *Id.* § 496D–E reporter’s note.

“a plaintiff who by contract or otherwise expressly agrees to accept a risk of harm arising from the defendant’s negligent or reckless conduct cannot recover for such harm, unless the agreement is invalid as contrary to public policy.”⁷⁹ Correspondingly, implied assumption of risk occurs when a plaintiff voluntarily enters into a relationship with a defendant that involves a known risk of potential injury and, in doing so, tacitly relieves the defendant of a duty of care otherwise owed to the plaintiff.⁸⁰

Implied assumption of risk can be further dissected into primary and secondary based on the relationship between plaintiff and defendant. Implied primary assumption of risk occurs when the parties are co-participants in the activity that causes harm, such as hockey players on the ice.⁸¹ On the other hand, implied secondary assumption of risk arises when, “due to a special relationship” between the two parties, the defendant owes the plaintiff a duty of care, typically found in coaches, schools, or organizations.⁸²

While assumption of risk is traditionally a complete defense, many states have absorbed implied assumption of risk into a comparative negligence theory of analysis.⁸³ Under this theory, total recovery is reduced relative to the culpability of the plaintiff.⁸⁴ In cases involving professional sports, the plaintiff’s level of “negligent contribution to his own injuries turns on his knowledge of the risk he assumes by participating.”⁸⁵

B. The Doctrine as Employed in Tobacco Litigation

1. Introduction

Assumption of risk was a popular defense for Big Tobacco companies during decades of litigation concerning the health consequences of smoking cigarettes. Legal scholars divide the history of tobacco litigation into three temporal waves, delineated by the prevailing plaintiff legal theory employed in each.⁸⁶ Each successive wave arose in response to strategic failures from the prior era and relied on scientific and contextual developments surrounding the addictive and

⁷⁹ *Id.* § 496B.

⁸⁰ *Id.* § 496C.

⁸¹ Denner, *supra* note 73, at 213–14.

⁸² *See id.* at 216.

⁸³ Koczerginski, *supra* note 26, at 93.

⁸⁴ *Id.* at 92.

⁸⁵ *Id.* at 93.

⁸⁶ Jensen, *supra* note 13, at 1338.

carcinogenic characteristics of cigarettes.⁸⁷ Thus, each preceding wave constituted a cautionary tale and produced a changing legal climate within which the next wave could occur.⁸⁸

2. *First Wave (1950s–1960s)*

Although the first reports connecting smoking cigarettes to cancer were published in 1950, litigation against Big Tobacco companies in the United States did not begin until 1954, after a 1953 *Reader's Digest* report made it common knowledge among the American populace that smoking could kill.⁸⁹ During the first wave, about 150 cases were filed, where plaintiffs brought claims of deceit, breach of warranty, and negligence, but only ten made it to trial.⁹⁰

In both the trial and pretrial phases, individual plaintiffs were unprepared for the myriad of defenses prepared by Big Tobacco.⁹¹ In cases that did go to trial, tobacco companies relied on foreseeability, asserting that without evidence that the seller knew the product would cause harm, the seller could not be held liable for breach of warranty.⁹² Even if juries concluded that smoker deaths were caused by the tobacco company's product, plaintiffs were incapable of supporting the stance that tobacco companies knew their product could and would cause smokers to contract cancer.⁹³ Tobacco companies also successfully employed the “king of the mountain” strategy, leveraging their vast financial advantage by filing motion after motion, taking countless depositions, and pursuing every legal avenue, with the goal of bankrupting their opponent during lengthy pretrial stages.⁹⁴ Other defense strategies included outright denial that tobacco was harmful, proposing that plaintiffs’ “cancer was caused by other factors[,]” and arguing that “smokers assumed the risk of [harm] when they decided to smoke.”⁹⁵

⁸⁷ See Kathleen Michon, *Tobacco Litigation: History and Recent Developments*, NOLO, <https://www.nolo.com/legal-encyclopedia/tobacco-litigation-history-and-development-32202.html> (last visited Nov. 25, 2018).

⁸⁸ See generally CLIVE BATES & ANDY ROWELL, TOBACCO EXPLAINED: THE TRUTH ABOUT THE TOBACCO INDUSTRY . . . IN ITS OWN WORDS 1–12, <http://www.who.int/tobacco/media/en/TobaccoExplained.pdf> (presenting a blow-by-blow account of scientific research and industry responses from the 1960s to present).

⁸⁹ Tucker S. Player, Note, *After the Fall: The Cigarette Papers, the Global Settlement, and the Future of Tobacco Litigation*, 49 S.C. L. REV. 311, 312–13 (1998).

⁹⁰ Jensen, *supra* note 13, at 1338–39.

⁹¹ See Ingrid L. Dietsch Field, Comment, *No Ifs, Ands or Butts: Big Tobacco Is Fighting for Its Life Against a New Breed of Plaintiffs Armed with Mounting Evidence*, 27 U. BALT. L. REV. 99, 101 (1997).

⁹² Player, *supra* note 89, at 313.

⁹³ Dietsch Field, *supra* note 91, at 105.

⁹⁴ Jensen, *supra* note 13, at 1339.

⁹⁵ Michon, *supra* note 87.

With a wide range of defenses available and a clear financial advantage, tobacco companies were uniformly victorious during the first wave.⁹⁶ The end of the first era was marked by publication of the *Restatement (Second) of Torts* which essentially codified the popular tobacco company defense by commenting: “[g]ood tobacco is not unreasonably dangerous merely because the effects of smoking may be harmful.”⁹⁷

3. *Second Wave (1980s)*

Several contextual developments contributed to plaintiffs’ new litigation strategies in the 1980s. The most influential developments came in 1964, with the Surgeon General’s report that smoking was “incontrovertibly a threat to health,” leading to the Cigarette Acts of 1965 and 1969.⁹⁸ The 1965 Federal Cigarette Labeling and Advertising Act, as the first congressional response to the Surgeon General’s report, required manufacturers to place warning labels on cigarette packages that read, “Caution: Cigarette Smoking May Be Hazardous to Your Health.”⁹⁹ Correspondingly, the Public Health Cigarette Smoking Act of 1969 banned all cigarette advertising on radio and television.¹⁰⁰

Plaintiffs’ attorneys in this wave crafted legal strategies in response not only to contextual developments, but also to failures from the first wave.¹⁰¹ First, to remedy the “king of the mountain” problem, they pooled resources.¹⁰² Second, to combat the tobacco companies’ foreseeability claim, they shifted from breach of warranty to strict tort liability. Strict tort liability allowed plaintiffs to emphasize the unreasonably dangerous nature of the product without needing to prove foreseeability.¹⁰³ Specifically, plaintiffs utilized risk-utility theory, wherein a manufacturer is liable when injuries caused by its product outweigh the beneficial effects of said product.¹⁰⁴ When applied to tobacco cases, this meant weighing the limited pleasure of smoking against the resulting health care costs.¹⁰⁵ Third, to bypass the assumption of risk defense, plaintiffs relied on the developing doctrine of comparative fault and argued addiction.¹⁰⁶ Comparative

⁹⁶ See Dietsch Field, *supra* note 91.

⁹⁷ Jensen, *supra* note 13, at 1340.

⁹⁸ *Id.*

⁹⁹ *Id.*; see also Player, *supra* note 89, at 315.

¹⁰⁰ Player, *supra* note 89, at 315.

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ Dietsch Field, *supra* note 91, at 107.

¹⁰⁴ Player, *supra* note 89, at 315.

¹⁰⁵ Jensen, *supra* note 13, at 1341.

¹⁰⁶ Player, *supra* note 89, at 317.

fault allowed partial recovery in instances of shared negligence, so although plaintiffs assumed some risk in deciding to smoke, they asserted that tobacco companies also shared in responsibility.¹⁰⁷ The argument that addiction precluded plaintiffs' autonomous capacity for choice was bolstered by the 1988 classification of nicotine as an addictive substance by the Surgeon General.¹⁰⁸

In response, tobacco companies continued their efforts to elongate the pretrial period but now incorporated preemption alongside their characteristic “king of the mountain” tactics.¹⁰⁹ This defense was strengthened by reference to the Cigarette Acts of 1965 and 1969, which courts found “impliedly preempted state tort claims based on the duty to warn” because they ensured consumers' knowledge of the dangerousness of cigarettes.¹¹⁰ A notable illustration of preemption in the second wave was the landmark case *Cipollone v. Liggett Group, Inc.*, in which the Third Circuit reversed a jury verdict in favor of the plaintiffs on the grounds that all common law damage claims were preempted.¹¹¹

Tobacco companies also leveraged application of the consumer expectations test, under which a plaintiff cannot recover if he or she knew the product was harmful to his or her health.¹¹² Further, they successfully advocated in many states for “common knowledge” statutes, requiring courts to apply the consumer expectations test.¹¹³ On the limited chance that a case made it to trial, tobacco companies also engaged in “character assassination” of plaintiffs, emphasizing personal shortcomings in light of their choice to engage in the demonstrably dangerous practice of smoking.¹¹⁴

Big Tobacco also sought to counter the Surgeon General's report by creating its own industry research group, the Council on Tobacco Research, which published studies disputing any connection between smoking and illness.¹¹⁵ Combined with the ongoing successes of assumption of risk doctrine, the “king of the mountain” strategy, and preemption defense, tobacco companies were as overwhelmingly successful in the second wave as they had been in the first.¹¹⁶

¹⁰⁷ *Id.* at 317–18.

¹⁰⁸ SURGEON GENERAL'S REPORT, U.S. DEP'T OF HEALTH & HUMAN SERVS., THE HEALTH CONSEQUENCES OF SMOKING: NICOTINE ADDICTION iii (1988).

¹⁰⁹ Player, *supra* note 89, at 318.

¹¹⁰ Dietsch Field, *supra* note 91, at 110.

¹¹¹ Jensen, *supra* note 13, at 1342–43.

¹¹² Player, *supra* note 89, at 317.

¹¹³ *Id.*

¹¹⁴ *Id.* at 316.

¹¹⁵ Jensen, *supra* note 13, at 1340–41.

¹¹⁶ *Id.* at 1340.

4. *Third Wave (1990s—Present)*

The third wave was ushered in by an explosion of information exposing the tobacco industry's awareness of the addictive qualities of their product and potential harm to users' health. First, in 1994 came the "Cigarette Papers," the quintessential smoking gun document that proved that tobacco companies had affirmative knowledge since the 1960s that nicotine was addictive and that tobacco use directly linked to cancer.¹¹⁷ Soon after, in 1997, the Liggett Group, a small tobacco company on the brink of bankruptcy, offered to settle with states' attorneys general, including assisting in discovery proceedings against non-settling tobacco companies and effectively opening the floodgates on decades of industry secrets.¹¹⁸

Yet, it was not only the magnitude of tobacco industry knowledge that changed in the third wave, plaintiffs themselves changed too. While suits in prior eras were typically brought by pioneer plaintiffs and "frontiersmen," or lone personal injury attorneys,¹¹⁹ the third era was characterized by class actions, state actions, and "blameless"¹²⁰ non-smoking plaintiffs. The first tobacco class action lawsuit, *Castano v. The American Tobacco Co.*, was filed in 1993, on behalf of "all nicotine dependent people in the United States," and supported by over sixty law firms.¹²¹ While this case did not go to trial, it paved the way for the application of newly incriminating information about the tobacco industry in the interest of millions of smokers.

State actions also arose around this time, beginning in 1994 when Mississippi sued to recover Medicaid funds used to treat smoking-related illnesses as a result of the tremendous burden cigarettes placed on its public health system.¹²² Following suit, over forty states brought antitrust and consumer protection suits,¹²³ successfully avoiding the problem of a "blameworthy plaintiff"¹²⁴—one responsible for his own ill health by deciding to smoke—and refocusing attention on the bad conduct of Big Tobacco.¹²⁵

¹¹⁷ Player, *supra* note 89, at 322.

¹¹⁸ *Id.* at 329.

¹¹⁹ Dietsch Field, *supra* note 91, at 114.

¹²⁰ Jensen, *supra* note 13, at 1343–47.

¹²¹ Dietsch Field, *supra* note 91, at 115.

¹²² *Id.* at 116–17.

¹²³ Michon, *supra* note 87.

¹²⁴ Dietsch Field, *supra* note 91, at 119.

¹²⁵ *Id.*

Ultimately, state claims by forty-six states¹²⁶ were settled in 1998 via the Master Settlement Agreement, pursuant to which four of the largest tobacco companies agreed to refrain from marketing to children, pay annual sums totaling \$206 billion to compensate states for tobacco-related health costs, create and fund the National Public Education Foundation with the mission of reducing youth smoking, and dissolve three of the biggest tobacco industry organizations.¹²⁷

Alongside states, another example of “blameless plaintiffs” from the third wave were persons affected by secondhand smoke. Similar to states, the tobacco industry could not use their freedom of choice or assumption of risk defense against these plaintiffs because they suffered health consequences of tobacco yet did not “willingly expose[] themselves to harm.”¹²⁸ One such group was a class of 60,000 flight attendants who did not themselves smoke but nonetheless became ill due to smoke they inhaled on the job.¹²⁹ By banding together to finally quell the financial disparities of earlier eras, and structuring recovery theories that shifted attention to newly exposed scandals of the tobacco industry and away from individual smokers’ choices, plaintiffs finally prevailed over tobacco companies in the 1990s.¹³⁰

Another recent development in the history of tobacco litigation is a 2006 Florida Supreme Court decision to decertify a class of 700,000 smokers and their families, necessitating each case be litigated and proven on an individual basis.¹³¹ Plaintiffs who chose to bring claims after decertification of the class are referred to as “*Engle Progeny*” after the Miami Beach pediatrician, Howard Engle, who initially filed the class action suit in 1994.¹³² As of June 15, 2015, 63.8% of the 141 verdicts issued in *Engle Progeny* trials were for the plaintiffs, while 36.2% were issued in favor of tobacco companies. However, many of

¹²⁶ The four states who did not partake in the Master Settlement were Minnesota, Mississippi, Texas, and Florida, all of whom previously negotiated their own settlements, totaling over \$40 billion collectively. Jensen, *supra* note 13, at 1335 n.1.

¹²⁷ *Id.* at 1335; see also David M. Cutler et al., *The Economic Impacts of the Tobacco Settlement*, 21 J. POL’Y ANALYSIS MGMT. 1, 4 (2001); Walter J. Jones & Gerard A. Silvestri, *The Master Settlement Agreement and Its Impact on Tobacco Use 10 Years Later: Lessons for Physicians About Health Policy Making*, 137 CHEST 692, 692–97 (2010) (analyzing impact of Master Settlement Agreement and offering the common critique that it was too generous to Big Tobacco).

¹²⁸ Jensen, *supra* note 13, at 1343.

¹²⁹ Dietsch Field, *supra* note 91, at 115.

¹³⁰ Jensen, *supra* note 13, at 1343–47 (“As the truth about cigarette makers came to light, juries no longer viewed smokers as the only culpable party, but saw them rather as victims of a manipulative and deceptive industry.”).

¹³¹ Michon, *supra* note 87.

¹³² Tobacco Control Legal Consortium, *What is the “Engle Progeny” Litigation?*, PUB. HEALTH L. CTR., <http://www.publichealthlawcenter.org/sites/default/files/resources/tclc-fs-engle-progeny-2015.pdf> (last visited Nov. 25, 2018).

these verdicts are in the appeals process.¹³³ The results of the *Engle* Progeny cases appear to represent the general trend toward Big Tobacco losses in the current decade, as companies like R.J. Reynolds and Philip Morris attempt to ward off age-old claims brought by new plaintiffs. For example, the federal government filed a Racketeer Influenced and Corrupt Organizations (RICO) Act suit against Philip Morris and eight other tobacco companies in 2000, alleging that they had engaged in a conspiracy to conceal evidence about the addictive nature of cigarettes.¹³⁴ The initial suit was resolved in favor of the federal government, but appeals and ongoing litigation in the same case have continued into 2018.¹³⁵

While persisting in the fight against old claims, Big Tobacco companies have simultaneously turned their attention to a new frontier: looming e-cigarette litigation. After the FDA issued a final “deeming rule” in May 2016, extending the FDA’s regulatory authority over tobacco products to include electronic nicotine delivery systems, such as e-cigarettes, as well as other new products designed for the delivery of nicotine,¹³⁶ tobacco companies have questioned the constitutionality of the rule¹³⁷ and begun to push back on compliance deadlines set for 2019.¹³⁸

C. *The Doctrine as Applied to Sports Torts*

In a sports context, the general assumption of risk doctrine applied is “that athletes generally assume the risk of sports injuries that are the known, apparent,

¹³³ *Id.* at 4 (“Many of these verdicts were appealed and some were overturned, reduced, remanded for further proceedings, or dismissed.”).

¹³⁴ *United States v. Philip Morris USA, Inc.*, 801 F.3d 250, 252–53 (D.C. Cir. 2015) (“Fifteen years ago, the United States filed this suit in the U.S. District Court for the District of Columbia alleging that Philip Morris and eight other cigarette manufacturers violated the [RICO Act], 18 U.S.C. §§ 1961–1968, by engaging in a then still-ongoing conspiracy to deceive the American public about the health consequences and addictiveness of smoking cigarettes.”).

¹³⁵ *See United States v. Philip Morris USA, Inc.*, 298 F. Supp. 3d 131 (D.D.C. 2018) (illustrating that litigation on this particular case has continued well into 2018); *United States v. Philip Morris USA, Inc.*, 449 F. Supp. 2d 1, 26–27 (D.D.C. 2006) (delivering the district court’s initial verdict in favor of plaintiffs).

¹³⁶ The full title of the final rule is as follows: “Deeming Tobacco Products to be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Restrictions on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Purposes; Final Rule.” 21 C.F.R. pts. 1100, 1140, 1143 (2016).

¹³⁷ *Hoban v. FDA*, No. 18-269, 2018 WL 3122341, at *1 (D. Minn. June 26, 2016) (“On January 30, 2018, Plaintiffs filed a Complaint against Defendants challenging the constitutionality of the FDA’s ‘deeming rule.’”).

¹³⁸ *See Tobacco Control Legal Consortium, U.S. E-Cigarette Regulation: A 50-State Review*, PUB. HEALTH L. CTR., <http://www.publichealthlawcenter.org/sites/default/files/E-Cigarette-Legal-Landscape-50-State-Review-September-2018.pdf> (last updated Sept. 15, 2018).

and reasonably foreseeable consequences of athletic participation.”¹³⁹ As Judge Cardozo famously posited:

One who takes part in such a sport accepts the dangers that inhere in it so far as they are obvious and necessary, just as a fencer accepts the risk of a thrust by his antagonist or a spectator at a ball game the chance of contact with the ball.¹⁴⁰

A similar sentiment was expressed in *Turcotte v. Fell*, where the court held that “[i]f a participant [in a sporting event] makes an informed estimate of the risks involved in the activity and willingly undertakes them, then there can be no liability if he is injured as a result of those risks.”¹⁴¹ Both quotes speak to implied assumption of risk, although it is notable that defendants can avoid liability in sports torts cases if either (1) “the plaintiff has expressly relieved the defendant of liability” or (2) “if the injury was caused by a risk inherent in the activity.”¹⁴²

III. COMPARABLE AND CONTRASTING STRATEGIES AND SUCCESSES

Given the contextual background on both the NFL and Big Tobacco, two industries burdened by possible responsibility for causing public health epidemics, this Part contemplates the usefulness of Big Tobacco as a predictive template for future NFL litigation. To do so, section A compares the two, outlining three strategies used by both Big Tobacco and the NFL when faced with condemning research and public outcry. However, to show that these similarities are not determinative of how CTE cases will or should turn out, section B offers contrast. This section demonstrates three unique pressures and structures faced by NFL players and argues that these differences are sufficient for CTE plaintiffs to succeed against an assumption of risk defense in instances where tobacco plaintiffs failed. Finally, section C includes several counterarguments to the assertion that the NFL situation is sufficiently different from the tobacco situation such that players will overcome an assumption of risk defense, and responses to those counterarguments.

¹³⁹ Alexander N. Hecht, *Legal and Ethical Aspects of Sports-Related Concussions: The Merril Hoge Story*, 12 SETON HALL J. SPORT L. 17, 32 (2002).

¹⁴⁰ *Murphy v. Steeplechase Amusement Co.*, 166 N.E. 173, 174 (N.Y. 1929) (Cardozo, J.).

¹⁴¹ 502 N.E.2d 964, 967 (N.Y. 1986).

¹⁴² Alexander J. Drago, *Assumption of Risk: An Age-Old Defense Still Viable in Sports and Recreation Cases*, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 583, 608 (2002).

A. *Overlapping Strategies*

To avoid and confront litigation surrounding head injury on the field and neurodegenerative health, the NFL borrowed three strategies from the tobacco industry playbook: (1) denial; (2) creation of independent research groups to conduct and publish research that protected its business interests; and (3) emphasizing personal responsibility. Dr. Joseph Maroon, the team neurosurgeon for the Pittsburgh Steelers and infamous CTE naysayer,¹⁴³ described the NFL's reaction to the reality of brain damage into stages: "active resistance and passive resistance, shifting to passive acceptance and, finally, in the past few months, active acceptance."¹⁴⁴

Denial is the most salient of these stages and is the one that prompted Representative Linda Sanchez of California to analogize the NFL to Big Tobacco in a 2009 hearing in the House Judiciary Committee.¹⁴⁵ In her remarks to NFL Commissioner Roger Goodell about the causal link between concussions and cognitive decline, Representative Sanchez stated: "It sort of reminds me of the tobacco companies pre-90s when they kept saying 'No, there's no link between smoking and damage to your health' . . . and they were forced to admit that that was incorrect through a spate of litigation in the 1990s."¹⁴⁶ Sanchez is referring to the fact that tobacco executives denied the addictiveness of nicotine as late as 1994,¹⁴⁷ when the Cigarette Papers revealed executives had been aware of the addictive nature of nicotine since the 1960s.¹⁴⁸ For the NFL, aside from indirect concessions (such as through the 2009 locker room poster¹⁴⁹ and granting benefits for mental disability from football head trauma),¹⁵⁰ and an isolated comment in 2016 by Jeff Miller, Senior Vice President of Health and Safety Policy,¹⁵¹ the institution has chronically denied any connection between

¹⁴³ Ryan Van Bibber, *The Doctor Who Says CTE Is "Exaggerated" Hid NFL Affiliation in Published Study*, SBINATION (July 24, 2015, 1:53 PM), <https://www.sbnation.com/nfl/2015/7/24/9031863/nfl-concussions-cte-doctor-conflict-of-interest>.

¹⁴⁴ McGrath, *supra* note 64.

¹⁴⁵ Koczerginski, *supra* note 26, at 75 n.68.

¹⁴⁶ *Football Player Head Injuries*, C-SPAN (Oct. 28, 2009), <https://www.c-span.org/video/?289685-1/football-player-head-injuries> (quote transcribed from video).

¹⁴⁷ David S. Cerra, *Unringing the Bell: Former Players Sue NFL and Helmet Manufacturers over Concussion Risks in Maxwell v. NFL*, 16 MICH. ST. U. J. MED. & L. 265, 286 (2012).

¹⁴⁸ Player, *supra* note 89, at 322.

¹⁴⁹ Hanna & Kain, *supra* note 33, at 14 & n.100.

¹⁵⁰ Steve Fainaru & Mark Fainaru-Wada, *NFL Board Paid \$2M to Players While League Denied Football-Concussion Link*, PBS FRONTLINE (Nov. 16, 2012), <http://www.pbs.org/wgbh/frontline/article/nfl-board-paid-2m-to-players-while-league-denied-football-concussion-link/>.

¹⁵¹ Belson, *supra* note 70.

football and CTE.¹⁵² NFL executives also denied ever working alongside tobacco companies in lobbying efforts¹⁵³ after a *New York Times* investigative piece accused them of sharing lawyers, lobbyists, and consultants with Big Tobacco.¹⁵⁴

Representative Sanchez also brought up the second overlapping strategy between the NFL and Big Tobacco during the same 2009 congressional hearing, when she accused the NFL of “muddying the waters through private studies.”¹⁵⁵ Just as tobacco companies created and funded the Tobacco Industry Research Committee, responsible for publishing and disseminating material to confuse the populace about the dangers of cigarettes and addictive qualities of nicotine,¹⁵⁶ the NFL created the MTBI Committee to publish academic material protecting their product: professional football.¹⁵⁷ While on the surface both research groups utilized scientific methodologies to reach different conclusions than the scientific canon of the time, their research practices have come into question.¹⁵⁸ A 2016 *New York Times* investigation revealed that “more than 100 diagnosed NFL concussions [(more than 10%)] were omitted from the [MTBI] studies.”¹⁵⁹ The NFL issued a two-page public statement in response, explaining that the MTBI Committee analyzed and drew conclusions based on concussions diagnosed by team medical staff from 1996 through 2001, but that participation by teams in submitting concussion data was “strongly encouraged by the league but not mandated.”¹⁶⁰ This included omission of all concussions by the Cowboys during the five-year study range, despite quarterback Troy Aikman suffering four very public concussions.¹⁶¹ The NFL nonetheless stood by the study and its subsequent publication in *Neurosurgery* that suggested that football did not cause long term harm to players.¹⁶²

¹⁵² Alex Reimer, *The NFL's Crusade to Mask the Dangers of Head Trauma Looks Worse Than Ever*, SBNATION (Mar. 28, 2016, 9:00 AM), <https://www.sbnation.com/nfl/2016/3/28/11250362/nfl-concussions-cte-connection-roger-goodell-comments>.

¹⁵³ Matthew Perlman, *NFL Defends Concussion Data, Denies Ties to Big Tobacco*, LAW360 (Mar. 24, 2016, 6:32 PM), <https://www.law360.com/articles/775941/nfl-defends-concussion-data-denies-ties-to-big-tobacco>.

¹⁵⁴ Alan Schwarz et al., *N.F.L.'s Flawed Concussion Research and Ties to Tobacco Industry*, N.Y. TIMES (Mar. 24, 2016), <https://www.nytimes.com/2016/03/25/sports/football/nfl-concussion-research-tobacco.html>.

¹⁵⁵ Cerra, *supra* note 147, at 287.

¹⁵⁶ *Id.*

¹⁵⁷ Deubert et al., *supra* note 32, at 175.

¹⁵⁸ See Cerra, *supra* note 147, at 286–88.

¹⁵⁹ Schwarz et al., *supra* note 154.

¹⁶⁰ Perlman, *supra* note 153.

¹⁶¹ Schwarz et al., *supra* note 154.

¹⁶² See Elise Michael, Note, *School of Hard Knocks—The Impact of the NFL Concussion Litigation*, 33 CARDOZO ARTS & ENT. L.J. 289, 298–300 (2015).

The third overlapping strategy used by both the NFL and Big Tobacco is an emphasis on personal responsibility, a theoretical underpinning to the assumption of risk doctrine. In particular, both magnified the choice by individuals to engage in a risky behavior known to potentially harm their health over time.¹⁶³ For smokers, this risk was made readily apparent after the 1965 cigarette legislation required a warning label on all cigarette packages.¹⁶⁴ For professional football players, sacrificing one's body has always been a risk associated with the game, but the possibility of sacrificing one's mind has been clear since (at the latest) the 2009 locker room poster campaign that detailed the long-term neurological consequences of football.¹⁶⁵

B. Why the NFL Context Is Different

Despite the NFL responding to CTE litigation with three strategies that proved successful for Big Tobacco, the NFL context includes unique pressures and structures that decrease the potential success of the assumption of risk doctrine in CTE cases. Specifically, the NFL creates a system that incentivizes players to downplay the existence or impacts of a concussion through contract structuring, social pressures, and the impossibility of fully appreciating risk.¹⁶⁶

1. Contract Structuring

While multi-million-dollar contracts are common among NFL players,¹⁶⁷ the likelihood that athletes actually receive those hefty salaries is attenuated, as the NFL has cultivated a series of mechanisms to minimize or extinguish a player's

¹⁶³ See Lissy C. Friedman et al., *Tobacco Industry Use of Personal Responsibility Rhetoric in Public Relations and Litigation: Disguising Freedom to Blame as Freedom of Choice*, 105 AM. J. PUB. HEALTH 250, 250–51 (2015); Reeves Wiedeman, *Who's Responsible for Football's Concussions?*, NEW YORKER (Oct. 24, 2012), <https://www.newyorker.com/sports/sporting-scene/whos-responsible-for-footballs-concussions>.

¹⁶⁴ Jensen, *supra* note 13.

¹⁶⁵ See Amy L. Bernstein, Comment, *Into the Red Zone: How the National Football League's Quest to Curb Concussions and Concussion-Related Injuries Could Affect Players' Legal Recovery*, 22 SETON HALL J. SPORTS & ENT. L. 271, 287 (2012).

¹⁶⁶ See Sally Jenkins, *NFL's Concussion Priorities: Dodging Blame, Making Players Responsible*, WASH. POST (Dec. 3, 2015), https://www.washingtonpost.com/sports/redskins/nfls-concussion-priorities-dodging-blame-making-players-responsible/2015/12/03/1b8752f8-99d2-11e5-94f0-9eaff906ef3_story.html.

¹⁶⁷ Emmie Martin, *Here's How Much the Highest-Paid NFL Players Make Now, Compared to Their First Year in the League*, CNBC (Aug. 27, 2017, 10:00 AM), <https://www.cnbc.com/2017/08/25/how-much-highest-paid-nfl-players-make.html>; see also Aric Jenkins, *Tom Brady Isn't the Highest-Paid NFL Player by a Long Shot. Here are the Top 5*, TIME (Jan. 29, 2018), <http://time.com/money/5120707/highest-paid-nfl-player-2018>; Leigh Steinberg, *A Historic Breakthrough in Guaranteed NFL Contracts*, FORBES (Aug. 12, 2016, 8:03 AM), <https://www.forbes.com/sites/leighsteinberg/2016/08/12/historic-breakthrough-in-guaranteed-nfl-contracts/#3defe217b739> (contrasting the NFL's "no guaranteed contract" policy with the injury guarantees offered to NBA and MLB players).

earnings and earning potential in instances of injury. Contract structuring mechanisms, such as (1) yearly physical requirements; (2) performance-based pay; (3) the potential for salary de-escalation; and (4) split contracts all incentivize players to underreport or withhold concussion symptoms and return to play before becoming asymptomatic.¹⁶⁸ While these provisions could be modified via the league's Collective Bargaining Agreement (CBA), which takes precedence over private contracts between teams and players, as well as the NFL's constitution and bylaws; the current CBA does not expire until 2020.¹⁶⁹

First, although many NFL players sign multi-year contracts, they are still required to undergo a physical examination at the beginning of each season, and if they fail, their team is released from any obligation to pay the remaining years of the contract.¹⁷⁰ For example, in 2012, Peyton Manning signed a five-year, \$96 million contract with the Denver Broncos, which ensured him \$18 million in the first year but allowed the Broncos to get out of their obligation if Manning became unable to pass a physical.¹⁷¹ The unfortunate consequence of these contract provisions is the tendency for players to withhold concussion symptoms in order to receive the next year's salary.¹⁷²

A second contract structuring mechanism that motivates players to downplay or deny concussion symptoms is performance-based pay. Performance-based pay is available only to those "who participate in at least one down during a regular season game" and can be as sizable as \$300,000 per season.¹⁷³ To calculate an athlete's performance-based pay, the number of plays the athlete participated in is divided by the total plays the team ran that season, placing a financial premium on participation in every single play.¹⁷⁴ This incentivizes athletes to be on the field for as many plays as possible, which they cannot do if they are sidelined for weeks to properly heal from a concussion.¹⁷⁵

¹⁶⁸ See generally Theresa S. Kim, Note, *Tackling Head Injuries in Youth and Interscholastic Football with NFL Contract Reform*, 24 *SPORTS LAW J.* 71, 80–90 (2017) (providing a succinct overview of NFL contract structuring, a complicated matter due to the myriad of parties involved).

¹⁶⁹ *Id.* at 81.

¹⁷⁰ Koczerginski, *supra* note 26, at 79.

¹⁷¹ *Id.*

¹⁷² *Id.*; see also Kain, *supra* note 25, at 710.

¹⁷³ Kim, *supra* note 168, at 85–86.

¹⁷⁴ *Id.* at 86.

¹⁷⁵ *Id.* ("[I]f a player misses game time during the regular season from a work-related head injury, he cannot earn credit toward a playtime incentive in his contract. This incents a player . . . to do whatever he can to return to play, including failing to fully disclose his symptoms to his team physician . . .").

The NFL takes a similar approach to de-escalation, a third mechanism that incentivizes players to downplay injuries.¹⁷⁶ In contracts containing de-escalators, a player's ability to earn his maximum salary is contingent upon his meeting certain performance objectives or metrics.¹⁷⁷ While these objectives often include participation in a certain number of games or plays, or earning certain awards, the NFL does not bar the use of de-escalation provisions to cut a player's salary when he misses games or practices due to head injury.¹⁷⁸ Accordingly, a player worried about his salary being de-escalated due to missing too many games or falling short of Pro Bowl qualification is incentivized to push through or underreport head injuries.

While de-escalation clauses may indirectly motivate players to remain in the game after suffering a head injury, a fourth NFL contract mechanism, split contracts, provides direct motivation. Also called "up and down amounts"¹⁷⁹ or "injury splits,"¹⁸⁰ split contracts revert a player's salary to a rate significantly below the NFL minimum (referred to as a "down") when a he is placed on Injured Reserve.¹⁸¹ Although split contracts are creeping into some veteran contracts,¹⁸² they disproportionately impact rookies, late-round draft picks, and players with a history of injury.¹⁸³ The additional pressure for young and late-round draft picks to prove themselves and earn a spot on the field may encourage them to choose "job security over the short haul [versus] quality of life over the long haul."¹⁸⁴

Just as split contracts might incentivize young and late-round players to underreport head trauma and prematurely return to play after incurring a concussion, veterans might also be incentivized by the prospect of losing their starting positions, and earning potential (including bonuses) tied to those positions, if they do not return to field prematurely after suffering head trauma.

¹⁷⁶ *Id.* at 82.

¹⁷⁷ Mike Florio, *Making Sense of the Kaepernick "De-Escalators"*, NBC SPORTS (June 6, 2014, 4:50 PM), <https://profootballtalk.nbcsports.com/2014/06/06/making-sense-of-the-kaepernick-de-escalators/>.

¹⁷⁸ See Kim, *supra* note 168, at 85–86.

¹⁷⁹ Ted Sundquist, *Sports Negotiations – The Discriminatory Nature of the Split Contract*, FOOTBALL EDUCATOR, <http://www.thefootballeducator.com/sports-negotiations-the-discriminatory-nature-of-the-split-contract/> (last visited Nov. 25, 2018).

¹⁸⁰ Kevin Clark, *How NFL Players Lost Their Leverage*, RINGER (Mar. 16, 2017, 8:30 AM), <https://www.theringer.com/2017/3/16/16077530/nfl-free-agency-players-losing-leverage-864759d6cbdb>.

¹⁸¹ Andrew Brandt, *The Fine Print of Rookie Contracts in the NFL*, SPORTS ILLUSTRATED (May 16, 2017), <https://www.si.com/mmqb/2017/05/16/nfl-rookie-contracts-fine-print>.

¹⁸² *Id.*

¹⁸³ See Clark, *supra* note 180.

¹⁸⁴ Gary Mihoces, *NFL Concussions: Your Job or Your Health?*, USA TODAY (Dec. 3, 2012, 11:30 AM), <https://www.usatoday.com/story/sports/nfl/2012/12/03/alex-smith-nfl-concussions/1741691/>.

For example, Alex Smith was a veteran starting quarterback for the San Francisco 49ers in 2012, but lost his starting position to Colin Kaepernick after he was diagnosed with a concussion and forced to sit inactive for two games.¹⁸⁵ Julian Bailes, prominent Chicago neurosurgeon and cofounder of the Brain Injury Research Institute, commented on Smith's replacement, stating "We thought we were making progress on the change in the culture, and now the fact that this guy, Alex Smith, lost his job once again brings up the issue that the culture is still in question."¹⁸⁶

In contrast, Big Tobacco had no contractual relationship with the consumers of its products. Tobacco companies exercised control over smokers only insofar as they sold an addictive product, not because they offered financial or career-based incentives to smokers.¹⁸⁷ Accordingly, tobacco companies had only a general corporate social responsibility, created by the mass consumption of their product, as opposed to the direct contractual responsibility to several hundred NFL players.

2. *Social Pressures*

In addition to the formalized contract structuring mechanisms that foster an unwillingness to report concussions and a desire to reenter play too early, NFL athletes also face a myriad of social pressures to do so. The most salient pressure for most NFL players is the "macho culture" or "'gladiator' mentality" that the NFL breeds.¹⁸⁸ Former Miami Dolphins linebacker Channing Crowder attested to this mentality when he remarked, "[i]f I get a chance to knock somebody out, I'm going to knock them out and take what they give me . . . They give me a helmet, I'm going to use it."¹⁸⁹ Crowder is not alone in this ethic, as many NFL athletes play through the pain under the assumption that their fellow teammates would do the same,¹⁹⁰ while athletes who volunteer to play hurt are lauded by fans.¹⁹¹ A 2009 *Associated Press* report revealed that 20% of NFL athletes surveyed admitted to hiding or downplaying the effects of concussions, including one who remarked, "I'm always concussed, they just caught me this

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

¹⁸⁷ See Player, *supra* note 89, at 325.

¹⁸⁸ Kocerginski, *supra* note 26, at 64, 64 n.5.

¹⁸⁹ Michael Klopman, *Channing Crowder, Dolphins Linebacker: "They Give Me a Helmet, I'm Going to Use It"*, HUFFINGTON POST (Oct. 21, 2010, 10:15 AM), http://www.huffingtonpost.com/2010/10/21/channing-crowder-miami-do_n_771215.html.

¹⁹⁰ Drysdale, *supra* note 72, at 447.

¹⁹¹ Kocerginski, *supra* note 26, at 82.

week.”¹⁹² This attitude trickles down to young athletes, such as 44.7% of high school players surveyed by ESPN who answered “yes” when asked if a good chance of playing in NFL was worth a “decent chance” of permanent brain damage.¹⁹³ 54.1% of those same athletes surveyed also responded that they would play a concussed star athlete in a state title game, despite only 2.1% of coaches and 9% of trainers opting to do so.¹⁹⁴

The warrior mentality synonymous with professional football may arise from the historic violence integral to the game. Buzz Bissinger, longtime sports writer and author of *Friday Night Lights*,¹⁹⁵ commented on the inherent brutality, noting, “[v]iolence is not only embedded in football; it is the very celebration of it. It is why we like it. Take it away, continue efforts to curtail the savagery, and the game will be nothing, regardless of age or skill.”¹⁹⁶ The player’s body becomes a means to an end, readily sacrificial and easily replaceable,¹⁹⁷ which is further evidenced by the war language used in football such as blitz, bomb, and sack.¹⁹⁸

An additional social pressure comes from the connection between particular teams and the regions they represent, such as those hailing from disenfranchised blue-collar regions. The archetypical example is Mike Webster’s own Pittsburgh Steelers, where players return to the game with a broken leg or take the financial penalty for making a risky hit.¹⁹⁹ Art Rooney II, the team’s President, attributed the popularity of this type of play to the attitudes of western Pennsylvanians who “were accustomed to and appreciated hard work and tough work, and wanted their football team to reflect that.”²⁰⁰ In a world with encroaching safe spaces,²⁰¹

¹⁹² McGrath, *supra* note 64.

¹⁹³ Hans Gissinger, *Concussion Confidential*, ESPN MAG. (Dec. 19, 2010), <http://www.espn.com/espn/news/story?id=5925876>.

¹⁹⁴ *Id.*

¹⁹⁵ See generally BUZZ BISSINGER, *FRIDAY NIGHT LIGHTS: A TOWN, A TEAM, AND A DREAM* (1990) (a quintessential sports book, adapted into a popular movie, providing a fictionalized version of the 1988 Permian High School football team’s run for the Texas state championship).

¹⁹⁶ Buzz Bissinger, *NFL Playoffs: Buzz Bissinger on Why Football Needs Violence*, DAILY BEAST (Jan. 17, 2011, 7:07 PM), <https://www.thedailybeast.com/nfl-playoffs-buzz-bissinger-on-why-football-needs-violence>.

¹⁹⁷ Hecht, *supra* note 139, at 38.

¹⁹⁸ McGrath, *supra* note 64; see also Tracee Hamilton, *Time to Blow Taps on Football-as-War Metaphors*, WASH. POST (Sept. 8, 2012), https://www.washingtonpost.com/sports/redskins/time-to-blow-taps-on-football-as-war-metaphors/2012/09/08/6eb00924-f936-11e1-a073-78d05495927c_story.html?utm_term=.f3d61254a946.

¹⁹⁹ See McGrath, *supra* note 64.

²⁰⁰ *Id.*

²⁰¹ See Andrew McGregor, *College Football Gives Conservatives Their Own Safe Space on Campus*, WASH. POST (Sept. 1, 2017), <https://www.washingtonpost.com/news/made-by-history/wp/2017/09/01/college->

many from blue-collar regions may feel the football field is one of the last remaining places where this particular mentality can come to fruition.²⁰² Accordingly, NFL players must meet the demand issued by their cities, their coaches, and their employer to deliver a hard-hitting, never-say-quit style of play, even when doing so takes its toll on their minds.²⁰³

Similar social pressures to smoke cigarettes were persuasive during the first wave of tobacco litigation but that parallel to the tobacco context was eliminated by the 1980s when the glamour and luxury associated with cigarettes was replaced by stigma and scorn.²⁰⁴ Spurred on by an increasing body of research documenting the adverse health consequences of smoking and new laws governing advertising, public opinion of cigarettes plummeted, and, after 1980, so did rates of smoking among upper- and middle-class Americans.²⁰⁵ Thus, for more than forty years, there has existed no cognizable social pressure in America to smoke, and instead the choice to smoke has been met with stigma.²⁰⁶ NFL athletes pressured to play through head trauma face a vastly different experience, which judges should take into consideration.

While a prima facie assessment of these social pressures may lead to the conclusion that they lack sufficient legal relevance such that a judge would not consider them or include them in jury instructions, studies show that judicial emotion is often influential and can “sometimes be appropriate, even valuable” in such decisions.²⁰⁷ For example, a Harvard researcher identified a pattern of biases surrounding risk beliefs in state court judges that was consistent with documented studies of human behavior in the general population.²⁰⁸ Thus, while

football-gives-conservatives-their-own-safe-space-on-campus/?utm_term=.2aab622c76bf (“Over the past half-century, football has preserved the[] principles [of hierarchy, order, and masculinity], which conservatives view as under siege by the left. The game and its pageantry, steeped in tradition, have hammered home the tie between the culture of the past and American greatness, and have imbued men with the perceived competitiveness and toughness required to thrive in an unforgiving free-market economy. In short, for the right, college football is a safe space of their own.”).

²⁰² See Irfan Khawaja, *Football: The Final Frontier*, POLICY OF TRUTH BLOG (Feb. 2, 2018), <https://irfankhawajaphilosopher.com/2018/02/02/football-the-highest-stage-of-imperialism/>.

²⁰³ See Dennis Waszack Jr., *Jets Rookie Jamal Adams Says Football Field “Perfect Place to Die”*, CHI. TRIB. (Aug. 1, 2017, 7:04 AM), <http://www.chicagotribune.com/sports/football/ct-jamal-adams-football-field-perfect-place-to-die-20170801-story.html> (illustrating Jamal Adams’ willingness to die on the football field just a week after publication of the B.U. study in JAMA).

²⁰⁴ João Mauricio Castaldelli-Maia et al., *Tobacco Smoking: From ‘Glamour’ to ‘Stigma’*. *A Comprehensive Review*, 70 PSYCHIATRY & CLINICAL NEUROSCIENCES REV. 24, 24–25 (2015).

²⁰⁵ K. Michael Cummings & Robert N. Proctor, *The Changing Public Image of Smoking in the United States: 1964–2014*, 23 CANCER EPIDEMIOLOGY BIOMARKERS & PREVENTION 32, 35 (2014).

²⁰⁶ See Castaldelli-Maia et al., *supra* note 204, at 26–27.

²⁰⁷ Terry A. Maroney, *Angry Judges*, 65 VAND. L. REV. 1207, 1211–17 (2012).

²⁰⁸ W. Kip Viscusi, *How Do Judges Think About Risk?*, 1 AM. L. & ECON. REV. 26, 26–29 (1999).

mention of the social pressures NFL players face will not be independently determinative for future CTE plaintiffs, they bear mentioning in response to an assumption of risk defense.

3. Full Appreciation of Risk

In addition to contract structuring mechanisms and social pressures that encourage NFL players to hide or underreport concussions, the players may not fully appreciate the risks of doing so. Falling short of full appreciation can be attributed to endemic painkiller use by NFL players²⁰⁹ and a unique relationship to trainers, coaches, and team ownership.²¹⁰ Assumption of risk doctrine requires that plaintiffs have not just awareness, knowledge, or constructive notice of risks, but that they fully understand and appreciate the specific dangers that may result from their engaging in a particular activity.²¹¹ Thus, it would not be sufficient to show that players understood the general dangers of the football and nonetheless chose the profession, an argument put forth by former Jacksonville Jaguars running back Maurice Jones-Drew.²¹² Instead, players would need to have full understanding of the specific long- and short-term consequences of an NFL career, including the risk of neurological problems, such as CTE or “develop[ing] dementia at a rate nineteen times the normal rate for men between the ages of thirty and forty-nine.”²¹³

One barrier to NFL players’ full appreciation of risk is the rampant use of painkillers within the league, which renders players unable to comprehend the extent of their injuries and make well-informed decisions on the severity of their injuries. In a complaint originally filed in 2015, over 1800 former players alleged that team “doctors and trainers negligently supplied narcotics and anti-

²⁰⁹ Nadia Kounang, *Lawsuit Alleges that NFL Teams Gave Painkillers Recklessly*, CNN (Mar. 13, 2017, 9:55 AM), <https://www.cnn.com/2017/03/12/health/nfl-painkiller-lawsuit/index.html>.

²¹⁰ See Bob Glauber, *A Week in the Life of an NFL Team*, NEWSDAY (Sept. 4, 2014, 5:00 AM), <https://www.newsday.com/sports/football/a-week-in-the-life-of-the-nfl-1.9218497>; see also Nate Jackson, *What an N.F.L. Training Camp Is Really Like*, N.Y. TIMES (Aug. 6, 2010, 6:00 AM), <https://fifthdown.blogs.nytimes.com/2010/08/06/what-an-n-f-l-training-camp-is-really-like/>.

²¹¹ Werts, *supra* note 35, at 202–03; see also Hanna & Kain, *supra* note 33, at 11.

²¹² Associated Press, *Players Still Willing to Hide Head Injuries*, ESPN (Dec. 26, 2011), http://www.espn.com/nfl/story/_/id/7388074/nfl-players-say-hiding-concussions-option (detailing results of Associated Press interviews with a cross section of NFL players to gauge whether attitudes about head injury have changed in light of recent focus).

²¹³ Jeremy P. Gove, Note, *Three and Out: The NFL’s Concussion Liability and How Players Can Tackle the Problem*, 14 VAND. J. ENT. & TECH. L. 649, 685 (2012).

inflammatory painkillers to keep players on the field.”²¹⁴ Most commonly used was the non-steroidal anti-inflammatory Toradol, which players would line up and receive injections of prior to games, remarking: “We’re going to play no matter what. You might as well make yourself comfortable.”²¹⁵ While concerns about Toradol’s blood-thinning properties making players more susceptible to concussions has made ibuprofen the pregame painkiller of choice for some teams,²¹⁶ NFL athletes are nonetheless numbing their bodies so they can play through preexisting injuries in a way that also numbs their recognition of new ones.²¹⁷ Further, when a player incurs a concussion, regardless of prior painkiller use, “his cognitive functioning [is] compromised, and his ability to assume the risk by consenting to play is not entirely informed or valid.”²¹⁸ Given the mélange of concussion symptoms and the common delay of symptom onset, an unknowingly concussed player may plead to return to play without fully appreciating the extreme risks of repeated blows to the head.²¹⁹ This magnifies the reliance players must place on team trainers and medical staff to ensure their safety.

It follows that another factor limiting NFL players’ ability to fully appreciate the risk of long-term neurological decay is the relationship between athletes, coaches, trainers, and team ownership. Athletes spend most of their waking hours with coaches and trainers, developing a dynamic of loyalty and trust.²²⁰ Despite the widespread body of literature on head injuries in the popular press, which players undoubtedly have access to,²²¹ athletes nonetheless rely on their coaches and team executives for dissemination of information on occupational

²¹⁴ The complaint also alleges that in 2012, each team was prescribed 5,777 doses of anti-inflammatories and 2,270 doses of narcotics. Kounang, *supra* note 209. Considering that each team has fifty-three players, this balances out to 150 doses of drugs per player per year. *Id.*

²¹⁵ Tyler Dunne, *The NFL’s Drug of Choice*, BLEACHER REP. MAG. (Jan. 11, 2017), <http://thelab.bleacherreport.com/nfl-toradol-use-players-survey/>.

²¹⁶ *Id.*; see Louis Bien, *Comfortably Numb: The NFL Fell in Love with a Painkiller It Barely Knew*, SBINATION (Aug. 3, 2016), <https://www.sbnation.com/2016/8/3/12310124/comfortably-numb-the-nfl-fell-in-love-with-a-painkiller-it-barely-knew>.

²¹⁷ See Ashleigh Weinbrecht, Note, *The Connection Between Concussions and Chronic Traumatic Encephalopathy (CTE) in Professional Athletics: A Necessary Change in the “Sports Culture” in Light of Legal Barriers*, 14 J.L. SOCIETY 309, 314 (2013); Gretchen Reynolds, *Phys Ed: Does Ibuprofen Help or Hurt During Exercise?*, N.Y. TIMES (Sept. 1, 2009, 11:59 PM), <https://well.blogs.nytimes.com/2009/09/01/phys-ed-does-ibuprofen-help-or-hurt-during-exercise/>.

²¹⁸ Heather MacGillivray, Comment, *Where is the Awareness in Concussion Awareness: Can Concussed Players Really Assume the Risk in a Concussed State?*, 21 JEFFREY S. MOORAD SPORTS L.J. 529, 532 (2014).

²¹⁹ *Id.* at 559–63.

²²⁰ See Glauber, *supra* note 210; see also Jackson, *supra* note 210.

²²¹ See Jeffrey Standen, *Assumption of Risk in NFL Concussion Litigation: The Offhand Empiricism of the Courtroom*, 8 FLA. INT’L U. L. REV. 71, 80 (2012).

hazards.²²² In a survey of 1,440 NFL players conducted by the Wharton Sports Business Initiative at the University of Pennsylvania, “90[%]of [respondents] said they respected their head coach, three-quarters said they trusted their head coach[,] and . . . [m]ore than 50[%] of the players said their pro coach – not their college or high school coach – was the most influential coach in their lives.”²²³ A similar trend of trust was found between players and club doctors in the 2016 Football Players Health Study at Harvard University, funded by the NFL Players Association, despite the conflicts of interest and dual obligations these medical providers face.²²⁴

The trusting, paternalistic relationship between players and team doctors is further illustrated by the 2000 Merrill Hoge lawsuit. Merrill Hoge, a former running back for the Pittsburgh Steelers and Chicago Bears, defeated the assumption of risk defense and received a successful verdict against a Bears team physician for injuries arising from improper handling of his concussions.²²⁵ The case began in a 1994 preseason game wherein Hoge, playing for the Bears, suffered an “earthquake” of a concussion when he was hit from several directions at once.²²⁶ He stayed on the field for the next two plays, before pulling himself out due to concussive symptoms.²²⁷ Despite struggling to remember plays, Hoge returned to the starting lineup despite sitting out just one preseason game, and six weeks later received a second concussion.²²⁸ This time, Hoge’s symptoms were more serious and long-lasting, including “headaches, sensitivity to light, and anger management issues.”²²⁹ As a result, Hoge filed suit against the Bears’ team physician, Dr. John Munsell, alleging Munsell failed to warn him about the dangers of sustaining subsequent and more severe concussions and that Munsell negligently allowed him to return to play without a proper examination.²³⁰

In response, Dr. Munsell employed the assumption of risk defense, arguing that Hoge had a duty to “tell people he was not feeling well.”²³¹ However, this defense failed. Hoge lacked adequate knowledge of the signs and symptoms of

²²² See Gove, *supra* note 213.

²²³ William C. Rhoden, *N.F.L. Players Evaluate Their Coaches*, N.Y. TIMES (Oct. 25, 2008), <http://www.nytimes.com/2008/10/26/sports/football/26rhoden.html>.

²²⁴ Cohen et al., *supra* note 14, at S3–S8.

²²⁵ Kain, *supra* note 25, at 713–17.

²²⁶ Hecht, *supra* note 139, at 26.

²²⁷ Kain, *supra* note 25, at 714.

²²⁸ Hecht, *supra* note 139, at 26–27.

²²⁹ Bernstein, *supra* note 165, at 294.

²³⁰ Kain, *supra* note 25, at 714–15 n.109 (stating the exact language of Hoge’s complaint).

²³¹ Hecht, *supra* note 139, at 28.

concussions or the risks associated with returning to play while still symptomatic and thus could not have knowingly and voluntarily assumed the short and long-term risks of such injury.²³² Ultimately, the jury found in favor of Hoge and awarded him \$1.55 million.²³³ The Hoge verdict demonstrates not only the relationship of trust between players and team doctors but also the potential for an NFL player to overcome the assumption of risk defense.

Trusting relations like that between Hoge and Munsell and the endemic use of painkillers, both of which prevent NFL players from fully appreciating risk, have no accompanying parallel in tobacco cases. Smokers did not spend hours each day with tobacco executives and salesmen or rely on them for dissemination of health information, as smokers' only connection to companies like R.J. Reynolds was through consumption of the product they sold. Additionally, while the addictive qualities of nicotine made smokers more likely to continue using cigarettes, they do not mask smokers' ability to experience and act on the seriousness of the harms they incurred. In this regard, NFL athletes have a unique pressure that should inform arguments made by CTE plaintiffs attempting to overcome the assumption of risk defense.

C. Counterarguments and Refutations

Critics may respond to this Comment by arguing that both Big Tobacco and the NFL actively nurtured social pressures to engage in the dangerous activity. That enticement to engage did not bar Big Tobacco's use of assumption of risk, however, and accordingly, it will not bar the NFL's employment of the doctrine. Big Tobacco not only targeted vulnerable subpopulations such as children, gay and lesbian persons, and minority racial groups,²³⁴ but it also developed versions of cigarettes marketed as "low-tar" or "safe" in the 1960s while maintaining or increasing nicotine levels to keep customers hooked.²³⁵

Despite the fact that these manipulative tactics did not disqualify Big Tobacco from employing the assumption of risk doctrine, the time period in which they did so is relevant. These marketing tactics surged from the 1950s through the 1970s but were no longer abundant by the 1980s, when the dangerousness of cigarettes was common knowledge.²³⁶ By 1994, when the

²³² Andrew B. Carrabis, *Head Hunters: The Rise of Neurological Concussions in American Football and Its Legal Implications*, 2 HARV. J. SPORTS & ENT. L. 371, 378 (2011).

²³³ Kain, *supra* note 25, at 717.

²³⁴ *Themes and Targets of Tobacco Advertising and Promotion*, https://cancercontrol.cancer.gov/brp/tcrb/monographs/19/m19_5.pdf (last visited Nov. 25, 2018).

²³⁵ BATES & ROWELL, *supra* note 88, at 52.

²³⁶ *Id.*

Cigarette Papers that outlined what tobacco companies really knew were released, these marketing tactics were nearly extinguished.²³⁷ As a result, they no longer provide a useful point of comparison with the current NFL context, which is most factually comparable with the second era of tobacco litigation. Moreover, tobacco companies have nonetheless been forced to pay for these strategies and are still doing so via a court order for “corrective statements.”²³⁸ Under this order, tobacco companies like Philip Morris and R.J. Reynolds are forced to air a series of commercials on prime-time TV “detail[ing] the health effects of smoking, the addictiveness of cigarettes, and the dangers of secondhand smoke and low-tar cigarettes, among other health concerns.”²³⁹

A second counterargument that NFL athletes should not be able to overcome the assumption of risk defense hinges on the power that NFL players have to bargain over the terms and conditions of their employment via the CBA. Some scholars argue that NFL players “are not faceless consumers but instead are unionized employees with substantial input into all facets of the game, including the rules” such that when they refrain from exercising that power “they voluntarily accept[] the consequences of those rules.”²⁴⁰ Players like Richard Sherman, the San Francisco 49ers cornerback, echo this sentiment by asserting that “[n]obody who chooses to play this sport should be described as defenseless.”²⁴¹

However, input into the CBA is not quite as empowering or encompassing as it may seem. CBAs are binding for a decade, with the most recent one set to expire after the 2020 season,²⁴² yet the average NFL career lasts only 3.3 years.²⁴³ Consequently, most players begin and end their careers under the limitations of one CBA with no power to influence the next.²⁴⁴ Moreover, the Executive Committee of players in the National Football League Players Association whose voices are most acutely heard in CBA negotiations are long-time veterans whose loyalty to coaches, owners, and the old-school, down-and-

²³⁷ See Player, *supra* note 89.

²³⁸ Jacqueline Howard, *Big Tobacco’s Court-Ordered Ads Make Their Debut*, CNN (Nov. 27, 2017), <http://www.cnn.com/2017/11/21/health/tobacco-ads-court-order-bn/index.html>.

²³⁹ *Id.*

²⁴⁰ Standen, *supra* note 221, at 79.

²⁴¹ Richard Sherman, *We Chose this Profession*, SPORTS ILLUSTRATED (Oct. 23, 2013), <https://www.si.com/2013/10/23/richard-sherman-seahawks-concussions-in-the-nfl>.

²⁴² Andrew Brandt, *The CBA at Halfway, Part I*, SPORTS ILLUSTRATED (Sept. 22, 2016), <https://www.si.com/mmqb/2016/09/22/cba-halfway-point-part-one>.

²⁴³ John Keim, *With Average NFL Career 3.3 Years, Players Motivated to Complete MBA Program*, ESPN: NFL NATION BLOG (Jul. 29, 2016), http://www.espn.com/blog/nflnation/post/_id/207780/current-and-former-nfl-players-in-the-drivers-seat-after-completing-mba-program.

²⁴⁴ See *id.*

dirty style of play²⁴⁵ may be more entrenched than younger players.²⁴⁶ Further, research on traumatic brain injury in sports is constantly changing and updating, resulting in a present context much different than it was ten years ago.²⁴⁷ Even if players do have the capacity to take control of their safety via CBA negotiations, it does not follow that what constituted safety during the first year of the CBA is still true in the tenth year. Accordingly, the argument that players assume the risk of head injury because of the mere existence of a CBA does not aptly describe how little these decades-long agreements represent the present experiences and voices of NFL athletes.

CONCLUSION

Serving as a role model to coaches, athletes, and regulatory bodies at collegiate, high school, and youth levels, the NFL has set a dangerous tone surrounding traumatic brain injury on the field. Taking a page (or perhaps an entire chapter) from the Big Tobacco playbook, the NFL denied any connection between football and CTE, flooded academic journals with questionable research, and shifted responsibility to vulnerable parties. Despite the NFL's denials, a growing body of scientific research, state statutory provisions, and concerned mothers²⁴⁸ represent a societal shift in attitude—a critical mass yearning for the NFL to prioritize public health over profits.²⁴⁹ As Pro Football Hall of Famer Terry Bradshaw asserts, “[the NFL is] forced to care now because it’s politically correct to care. Lawsuits make you care. . . . [T]he PR makes you care.”²⁵⁰

With presumptive lawsuits looming in the near future, including that of Aaron Hernandez, this Comment provides a framework for overcoming the assumption of risk defense that CTE plaintiffs will inevitably face. To prove assumption of risk, the NFL would need to demonstrate that players were not

²⁴⁵ See Bill Romanowski, *The Dirty, Pretty Game*, PLAYERS TRIB. (Oct. 9, 2015), <https://www.theplayerstribune.com/en-us/articles/bill-romanowski-nfl-football>.

²⁴⁶ See *NFLPA Executive Committee*, NFL PLAYERS ASS'N, <https://www.nflpa.com/about/nflpa-officers> (last visited Nov. 25, 2018).

²⁴⁷ See generally Mez et al., *supra* note 11 (providing the results of B.U.'s groundbreaking 2017 study on the prevalence of CTE among 202 deceased football players, finding CTE in 99% [(110 of 111)] of former NFL players).

²⁴⁸ See generally *About Us*, MOTHERS AGAINST CONCUSSIONS, <http://mothersagainstconcussions.org/about-us/> (last visited Nov. 25, 2018) (an organization of concerned mothers whose purpose is “[t]o protect the children and increase public awareness of the problem of concussions in sports, and to aid the families of those who need assistance”).

²⁴⁹ See Carrabis, *supra* note 232, at 376–85.

²⁵⁰ Michael, *supra* note 162, at 289.

only aware of but fully appreciated the long-term neurological risk they incurred when suiting up each Sunday.²⁵¹ However, the complex nature of CTE amidst the NFL's contract policies and macho attitude promotion are such that players cannot fully appreciate the risk and therefore cannot possibly be responsible for predicting their long-term cognitive decline.²⁵² Thus, while there is no smoking gun memo as in the Big Tobacco litigation that reveals industry knowledge and responsibility,²⁵³ the circumstantial distinctions between football and tobacco are such that the assumption of risk defense should not apply to CTE plaintiffs.

Until a plaintiff succeeds in overcoming the defense, players will continue getting their bells rung and the sentiments of Pro Football Hall of Famer Frank Gifford will continue ringing true: "Pro football is like nuclear warfare. There are no winners, only survivors."²⁵⁴ Should a plaintiff successfully overcome the defense, a slew of new questions would arise surrounding ethics, class, and medicine, the most obvious being: is there any time left for a Hail Mary to salvage the essence of modern football, or is this game over?

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²⁵¹ Hanna & Kain, *supra* note 33, at 11.

²⁵² Gove, *supra* note 213.

²⁵³ Cerra, *supra* note 147, at 288.

²⁵⁴ John Guccione, Note, *Moving Past a "Pocket Change" Settlement: The Threat of Preemption and How the Loss of Chance Doctrine Can Help NFL Concussion Plaintiffs Prove Causation*, 22 J.L. & POL'Y 907, 955 (2014).

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