

Review Article

Ethical aspects of organized contact sports for children as participants

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ABSTRACT

This paper seeks to review the literature and address ethical implications of organized contact sports, such as American football and boxing, with significant child or adolescent participation. Child and adolescent sport participation act not only as a leisure activity, but also improves physical health and enhances psychological and social health outcomes. However, playing sports may also have negative physiological effects, such as sports-related concussions (SRCs) - a form of traumatic brain injury (TBI) - which are an emerging public health concern. This paper review and explores ethical implications of contact sports in the scientific literature and demonstrates challenged faced on philosophical deliberation on the ethical implications of SRCs and RHIs due to complexities of these conditions and their identification and treatment involving a wide variety of practical situations, which formal sports rules may not adequately address. Since scholarly literature has yet to arrive at a consensus concerning causal link(s) between contact sports participation and significant concussion-related brain damage, the paper argues in favor of strengthening concussion preventive measures, identification protocols and management procedures in contact sports. This article rejects ethical paternalism on the basis of inconclusive empirical evidence concerning associations between contact sports participation and heightened SRC risk. It also rejects Mill's argumentation against consensualism and suggests prevention is a better solution over inadequately founded philosophical ethical proposals favoring drastically reforming contact sports.

Keywords: Children, Ethics, Football, Paternalism, Sports-related concussions, Traumatic brain injury

INTRODUCTION

In scholarly literature, sport participation is represented as a form of leisure for children and adolescents, not only improving physical health - such as negative association with obesity levels - but enhances psychological and social health outcomes.^{1,2} For lower-income children, participation in organized sports may provide opportunities restricted to higher-income peers. For example, involvement in organized sports is likely to have a positive effect on academic performance among lower income children.^{3,4} However, playing sports may also have lasting negative neurological and psychological effects. Among these are sports-related concussions

(SRCs), a form of traumatic brain injury (TBI) that affect children and adolescents.⁵

The clinical manifestation of acute SRCs among pediatric patients is highly variable. SRCs often involve a combination of physical and psychological symptoms. The vast majority of SRC patients can be expected to achieve complete neurological recovery within 1 to 4 weeks. However, 15%-20% of those are likely to develop post-concussion syndrome, a condition characterized by persistent neurological symptoms lasting more than 1-3 months.⁵ Thus, evidence-based practice guidelines relating to organized contact sports participation are urgently needed in view of clinical studies linking sports-

related trauma with intracranial injuries.⁵ Moreover, repeated concussions may also lead to chronic traumatic encephalopathy (CTE), a neurodegenerative disease. Growing evidence shows accumulating psychological and cognitive consequences of concussions may be associated with alarmingly high levels of suicide-related mortality among National football league (NFL) players. For instance, Andre Waters, former defensive back of the Eagles and Arizona Cardinals football teams committed suicide, reportedly because of diminished neurological capabilities and accumulating traumatic symptoms.⁶

Nevertheless, data suggests football-related head concussions, or SRCs more broadly, do not necessarily represent a significant public health, policy-making or national legislation concern might suggest otherwise.⁷⁻¹⁰ Nevertheless, North American health professionals and medical ethicists have called for significantly reducing football programs in junior and high schools and non-school settings, which together comprised approximately 4.1 students in 2015.¹¹ Previous clinical studies suggest the majority of concussion instances among children and adolescents are followed by rapid recoveries with only a minority of head injury patients suffering from ongoing post-concussion syndrome (PCS) symptoms. This paper will provide philosophical argument to strengthen the idea that preventive measures, identification protocols and management procedures in contact sports are needed rather than a paternalist prohibitive stance. This paper reviews and adds to the philosophical deliberation on ethical implications of SRCs and RHIs due to complexities of these conditions and their identification and treatment involving a wide variety of practical situations, which formal sports rules may not adequately address. This is achieved following a careful literature review of head injuries in contact sports and philosophical methods addressing them.

REVIEW OF LITERATURE

Head injuries in contact sports

Due to their complex emotional, cognitive, behavioral and physical nature, PCS symptoms yet to be sufficiently researched can amount to a clinical disability demanding medical services entailing high costs for young SCR patients and their families.¹² A growing body of research associates CTE incidence with head injury risks of contact sports and demands an examination of empirical evidenced as a basis for ethical and policy guidelines regarding mitigation of concussion-related effects of sports participation.¹³

Research results based on cross-sectional data from Washington state high schools suggest that in typically, non-urban schools without a medically trained athletic trainer (AT), demonstrating high proportions of economically underprivileged students, sports-related concussions are significantly likely to remain

undiagnosed among male athletes ($p < 0.05$), but not among female soccer players.¹⁴

In this respect, the ethical aspects of contact and collision sports comprise not only SRC risks but also their prevention strategies, such as through addressing associated educational and socioeconomic factors, e.g., the presence of ATs during sports training sessions, while taking into account their interactions for both incidence and identification rates. On the one hand, ATs can be educated to increase SRC disclosure. Therefore, tackling SRC in athletic settings, such as via prevention, demands ethical deliberation, policy-making frameworks, societal support and translation into interpersonal interventions and intra-personal behavior.¹⁵

At the same time, in current scholarly literature, both empirical and meta-analysis studies on the links or interactions between contact and collision sports participation, such as in American football, repetitive head impact (RHI) exposure among young athletes and long-term vulnerability to neuropsychiatric, cognitive and neurologic disorders later in life demonstrate conflicting findings and methodological limitations. Despite the presence of ethical concerns about contact sports among policymakers, scholars, clinicians, coaches and parents, evidence-based conclusions on football-related neurologic outcomes remain limited, which demands additional research.¹⁶ This situation is further complicated by, and can be due to, the inconsistent on-field concussion management, post-concussion return-to-play guideline application and concussion incidence identification. This leads to uncertainty concerning prevention guideline compliance among child or adolescent athletes and sports personnel.

A relative variety of concussive symptoms, which can comprise headache, consciousness loss, disorientation, amnesia and vomiting, is also likely to lead to TBI instance mismanagement. In these situations, concussive athletes can be allowed to continue to play, rather than being assessed immediately by qualified personnel and removed from athletic settings due to SRC identification. Additionally, parents and patients can be expected to be largely unaware of organizational concussion management guidelines, which indicates both the presence of both ethical and practical dimensions of SRC prevention and the possibility of its optimization.^{17,18}

At the same time, not all contact sports are perceived as entailing equally high concussion exposure risk levels in correspondence to the degree to which sports practice involves tackling and checking. This also apparently leads to mixed opinions concerning contact sports, e.g., football and ice hockey, participation among child and adolescent players.¹⁹ Consequently, the American academy of pediatrics has increasingly recommend non-contact, non-tackling sports, such as flag football, over their contact counterparts because of the brain injury risks that the latter may entail. Yet the availability of non-

contact sports options is likely to be limited in communities with lower socioeconomic status levels.

Philosophical approaches to concussion-related dilemmas

As this paper suggests, epidemiological data relating to SRCs, TBIs, RHIs is both inconclusive and alone cannot serve as a foundation for ethical conclusions concerning contact sports participation. Among ethical theories cogent to this paper are those revolving around the externalism versus internalism debate. Broadly defined, externalism reflects a position stating that, as a domain of activity, sport derives its values from the larger society, while offering indirect reinforcement, such as through cultural values and socialization.²⁰

More specifically, critical externalism theories spring from Marxist analyses of sports that approach sports playing as a representation of external, competition-based capitalist relations and social conditions.²¹ From this perspective, juvenile football and hockey players as well as their parents discount the long-term health risks attendant to contact sports, such as through repeated brain injuries, in their effort to achieve social inclusion or economic success, e.g., via social contacts or university scholarships. By contrast, the internalist perspective can be summarized as stating that “philosophically relevant features of sport are internal to them, enjoying considerable autonomy from other social realms.”²¹ From the internalist perspective, sport has a distinct set of values separate from those espoused by the wider society, which leaves scope for sub-cultural or counter-cultural athletic values.²⁰

This approach also limits the applicability of extant philosophical approaches to sport, due to the intrinsic nature of the logics that govern its diverse underlying practices.²¹ Therefore, an internalist philosophical approach can be deployed for this analysis of contact sports participation by concentrating on intrinsic factors that motivate players, sway parental judgment and guide policymaking. From this perspective, the likely risk of sports-related concussions and their long-term consequences can be disregarded by athletic game players, due to the individual or collective appreciation of athletic fame, the striving for recognition in competitive sports and patriotically motivated service to one’s community, state or country. These motivational factors go beyond the formal rules of contact sports, which also demands a redefinition of internalism. Moreover, as sport games are rooted in the corresponding practice communities, deliberation on the ethical dilemmas they involve needs to be conducted not only in the context of their formal rules, but also in relation to conventions that coordinate and mediate between individual motivations, economic interests and societal norms. Therefore, sport, as social practice, as MacIntyre and Fraleigh have also argued, demands an analytic interpretation of sports ethical dilemmas that is commensurate with their

complexity, such as by seeking to bring social conventions internal to sport practices to bear on their ethical analysis.²¹⁻²³

Given the degree of generality that these ethical theories have, some scholars have differentiated between broadly defined internalism that leaves ample room for interpretivist approaches to individual and collective motivations and narrow internalism mainly seeking to apply formalist analyses to ethical dilemmas.²⁰ For instance, Suits’ formalist internalism approach is an analytic philosophy that emphasizes the role played by rules in resolving ethical dilemmas.²⁴ Moreover, for Suits, rules create the preliminary game-related conditions for sport activities, such as by specifying what legitimate game moves are.²⁴ They do not define their course or results exhaustively, especially in relation to the social and psychological aspects of athletic games. Suits also suggests it is necessary to differentiate between the practical and ideal-typical dimensions of sport practices as domains requiring different interpretative approaches.²⁴ Similarly, formalism can be construed both narrowly, when game moves or events are interpreted in relation to their constitutive formal rules, and broadly, which extends formal analyses to sports rules themselves, individual player goals and rule-related athletic problems, such as context-dependent game move legitimacy or consequences.²⁰

d’Agostino, rejects formalism, while proposing a conventionalist internalism perspective that stresses the importance and systematic nature of non-official, informal and unformalized conventions that determine how official rules are to be applied in specific circumstances and what their normative implications are, such as in relation to sportsmanship.²⁵ Thus, contrary to the formalist perspective’s emphasis on rules and their creation in relation to sports-related concussions, conventionalist internalism can be argued to focus on the social nature and unformalized aspects of sports participation.²⁵

Nevertheless, d’Agostino, differentiates between game conventions or ethos and formal rules as two inseparable aspects of rule application in sport.²⁵ For d’Agostino, formalism has limited explanatory power, because it fails to validly describe the practical reality of athletic games that differ significantly from their ideal-typical, and hence philosophically reductive, representations.²⁵ This particularly applies to contact sports, in which playing practice frequently involves inter-player physical contact, even though this behavior runs against their formal and institutionalized rules.²⁵ In other words, concussion-related outcomes of on-field sports playing do not necessarily follow from the formal rules of contact sports but can be closely related to the degree to which game rules are strictly enforced.²⁵

The conventionalist internalism perspective has, thus, also apparently developed in response to the conceptual

shortcomings of formalism regarding ethical dilemmas in sports that go beyond rule following or violations.²⁰ Moreover, the de facto boundaries of on-field acceptable behaviour can be expected to be determined by both formal rules and informal, unofficial conventions transmitted through socialization and practice, such as those based on how rule violations are handled by game officials and athletic assistants.²⁵

At the same time, through this emphasis on social factors, such as conventions, the conventionalist perspective apparently reduces the importance of individual-level internal motivational reasons for action, which brings it into theoretical proximity with externalism. For this reason, Morgan, in an effort to overcome the dichotomy between internalism and externalism, proposes to redefine internalist conventionalism in relation to practice domains in which internally oriented and externally oriented forms of conventions are applied.²⁶ In doing so, Morgan strengthens the case in favor of broad internalism that encompasses both coordinating conventions descriptive of sport practices and deep conventions relevant for philosophical deliberation on the ethical dilemmas of contact sports.²⁶ From Morgan's perspective, the internally oriented convention forms correspond to deep conventions that reflect normative aspects of sports internal to how these have historically developed and ingrained in sports practices.²⁶

This approach conceives of externally oriented convention forms as coordinating conventions that pertain to arbitrary arrangements aimed at solving particular practice-related problems. This allows coordinating conventions to be based on non-sports-related factors such as internal or external economic interests.²⁶ As Morgan suggests, however, in terms of virtue ethics and its application to concussions in contact sports, one need not over-emphasize the opposition or differences between externalism and internalism.²⁶ This is likely grounded in his support for broad, interpretive internalism that recognizes the autonomy of athletic practice communities, while demanding the application of discourse ethics to their dilemmas.²⁶

DISCUSSION

In the context of organized sports, Fraleigh, in his monograph on right actions in sports: ethics for contestants, gives precedence to hermeneutical methodology, rather than an analytical reconstruction of reality as a basis for ethical judgements.²³ From this hermeneutical perspective, it can be stated that analytical philosophy runs the risk of overgeneralizing in its ethical conclusions, while disregarding the intricate interrelations between factors that constitute social and psychological reality in which sports practices take place.²³ Moreover, since philosophy operates with historically constituted concepts having an independent status in scholarly, legal and ethical discourses, philosophical reconstructions of sports participation, as well as the health risks it entails,

need to take into account a comprehensive range of its features and without being limited to a single theoretical model as a guiding perspective for their conclusions.²³

Indeed, in step with MacIntyre's approach to philosophical ethics, López Frias comments that "the philosophy of sport's main aim has been to infer the best interpretation of sports' current key elements in order to articulate a comprehensive understanding of such a complex realm."^{21,22} Formalism and conventionalism are too narrow since they reduce sporting practices to either their formal rules or the conventions stipulating how to apply them. So, the philosophy of sport moved from the narrow analysis of rules and social conventions to a much wider analysis that encompasses elements such as the constitutive abilities of sports, their internal goods, their models of excellence and their gratuitous logic. As a consequence, it is neither formalism nor conventionalism but interpretivism that is the dominant approach within the philosophy of sport."

This also corresponds to the complexity of sport-related injuries and the possible harm they entail that can be accepted by sports communities on the basis of virtue ethics.²² To the extent that, as MacIntyre suggests, the ideal-typical representations and conceptions of contact sports adopted by their practitioners are intertwined with the ability to handle potentially physically harmful on-field situations perceived as indicative of sport virtues leading to athletic success, efforts to prevent SRCs and RHIs may have limited effectiveness.²² Thus, a philosophical deliberation on the ethical implications of SRC in contact sports cannot be based exclusively on either the internalist approach or the externalist one, since the complexity of this issue demands obviating this duality. Organized contact sports can, thus, be conceived of as practice communities that produce their athletic matches as potentially harmful and dangerous situations, the confrontation with which is interpreted or constructed in terms of virtue ethics, such as by connecting courage to willingness to risk physical harm.²²

Given that sports competitions are social practices, as Miah, Kretchmar and Russell largely argue, both internalist and externalist ethical philosophies may need to supply the foundations for assessing the dilemmas that concussion risks of contemporary contact sports involve for individual and collective agents.²⁷⁻²⁹ As MacIntyre indicates, the internal goods of contact sports communities can be intrinsically interpreted as associated with the braving of potential harm incurred through the on-field player performance as a means for displaying one's moral virtues.²²

At the same time, from the externalist perspective, contact sports-related harms can also be construed in terms of extrinsic medical ethics that, given the lack of empirical consensus concerning the a significant link between on-field head injuries and long-term or chronic brain damage, such as CTE, do not necessarily support a

philosophical position that an external intervention into, regulation or elimination of contact sports are ethically imperative.³⁰ Nevertheless, SRCs represent a significant ethical concern, since their severity can serve as a basis for the player-level temporary or permanent cessation of sport practice, albeit in the absolute majority of SRC cases, which ranges from 75% to 79% depending on a patient subgroup, no abnormal neuroimaging results are found.⁵

More specifically, as Miah suggests, the relative difficulty of identifying significant head injuries, such as concussions, may pose challenges for integrating DHI prevention rules into sport practices, due to the inherent barriers to the formalization of the corresponding situations that involve a significant degree of interpretation.²⁷ Empirical evidence continues to suggest that the statistical association between contact sports participation and neurological harm, such as CTE, is not significant enough to indicate a causal connection or to raise ethical concerns in relation to the health risks of organized sports.¹ Furthermore, whether injured players receive treatment, are removed from the playing field or are allowed to continue playing may depend on both the intrinsic factors, such as the awareness of coaches and players of concussion symptom diversity, and the extrinsic, external factors, e.g., sport ethos or team interests, the balance between which may either decrease or increase the probability of negative long-term SRC consequences.²⁷ Thus, since ethics is integral to the definition of organized sports, the ethical evaluation of sport participation can be taking place from the externalist perspective, which stands in philosophical proximity to utilitarian ethics, such as based on the evaluation of their developmental benefits as opposed to their health risks.³

Likewise, as opposed to muscular injuries, the extent of and recovery from which can be limited to the medium term, the implications of RHIs or SRCs may manifest themselves in either chronic fashion, e.g., CTE, or in the long term after players leave their teams, which may limit the associated team-level liabilities and the apparent urgency of injury prevention.²⁷ Moreover, despite the presence of concussion risk, particularly during games, its levels remain relatively low, which circumscribes the extent to which SRCs are an urgent ethical issue in sport communities.⁷ The notion of injury may, thus, need to be extended to include that of physical or psychological harm, as a contiguous, causally related outcome possibly leading to specific undesirable clinical conditions. This extends the ethical discussion of SRC from its internal, sports-related causal factors to externally defined possible consequences as medical risks objectively attendant to particular athletic practices that involve direct physical contact.²⁷ Yet the ethical evaluation of SRC risks needs to occur in view of the short-term and long-term health risks that insufficient levels of physical activity among children and adolescents also carry.²

Furthermore, it might be that the implications of long-term brain damage that SRC likely entail are not weighed similarly against the social or economic benefits of sports participation by all relevant agents. This necessitates an ethical analysis that makes an interpretive use of both internalist and externalist approaches, as the motivations and considerations of individual sports players and athletic assistants are likely to be different from the interests of sports teams and framework organizations as backgrounds against which ethical judgements are made.

The mental health implications of SRCs and RHIs may be difficult to integrate into the internal conventions of contact sports, due to their need to change and overcome possible perceptions of these issues as negative or minor issues.²⁷ Additionally, the brain-damage risks of contact sports participation may also need to be compared to the lasting negative effects of non-participation in athletic activities that apply to a wide swath of youth and adolescents, can be compounded with other risk factors, such as obesity, among under-privileged groups and are likely only not to extend to health status, e.g., prevalent chronic diseases, but also include socio-economic ramifications, e.g., academic and income underperformance.⁴

Thus, since internalist or externalist approaches to SRCs can also inherently favor specific ethical philosophies, ethical deliberation on SRCs needs to take interpretively into account the presence of injury prevention programs, local and regional ethics approval committees and the informed awareness of both players and their parents of possible risks that contact sports entail, while avoiding ethical paternalism.⁸

Even though virtue ethics internalized by football players or athletic assistants might lead to the under-identification of concussions, the empirically established risk of SRCs is not tantamount to an ethical imperative to take legal measures toward the prevention of TBIs. The enforcement of these measures can lead to contact sports bans and negative public health implications leading to significant long-term epidemiological harm.⁹ As opposed to this, utilitarian ethics may lead sports teams or school councils to introduce or improve concussion-prevention practices, such as by promoting non-tackling sports, under the impact of costs that damage-related lawsuits or regulation non-compliance can impose. In other words, both internal factors and external agents, such as team interests and insurance companies respectively, can sensitize contact sports teams and organizations as athletic practice communities to both the risks of SRCs and their ethical responsibility for the consequences of these.²⁷ However, given the scientific uncertainty concerning the SRC-based harm and the significance of the role that contact sports play in causing it, in this context strong ethical recommendations cannot be made, due to the lack of conclusive evidence.⁹

Similarly, as Kretchmar suggests, the ethical issue of SRCs may not necessarily be adequately resolved through player-level or team-internal deliberation, because injury-related concerns can be consistently underplayed, while placing an emphasis on winning a sports match under the impact of the athletic ethos or conventions.²⁸ Medical ethics can also be guided by both the internal, professional sport perspective and external criteria for adequately resolving ethical dilemmas. Likewise, sports physicians or team coaches need to reconcile conflicting needs of concussion risk minimization and athletic activity encouragement, which demands a balance approach to SRC risk management, such as through injury prevention protocols and legal liability limitations.¹¹

Thus, building on the positions of Corlett, Dixon and Sailors that examine both externalist and internalist perspectives concerning the ethical issue of SRCs in contact sports, López Frías and McNamee argue that an autonomy-based ethical examination of this issue undermines paternalist arguments for a reform or elimination of contact sports.^{30,32-34} Furthermore, according to López Frías and McNamee, the nature of the internal or external goods that contact sports players pursue in their athletic careers can be considered as a sufficient ethical basis to justify their acceptance of possible future health risks of various degrees related to on-field concussions and their long-term clinical consequences, which corresponds to the anti-paternalist ethical position.³⁰

Likewise, López Frías and McNamee highlight that Mill's philosophical position against consensual domination in regard to ethical deliberation draws on ambiguous and arbitrary distinctions, especially as they concern the scholarly consensus on the interrelationship between organized sport participation and concussion risk exposure.^{30,31} Consequently, for López Frías and McNamee, the lack of consensus in scholarly literature concerning the presence of sufficient and conclusive empirical evidence supporting the position that CTE arises from brain injuries during sport sessions runs counter to ethical calls for a significant reform or outright elimination of contact sports.³⁰

This paper proposes to strengthen concussion preventive measures, identification protocols and management procedures in contact sports. This article concurs with Corlett's, Dixon's and Sailors' positions that reject ethical paternalism on the basis of inconclusive empirical evidence concerning the association between contact sports participation and heightened SRC risk.³²⁻³⁴ While also disagreeing with Mill's argumentation against consensualism, this paper stresses the importance of scholarly consensus and conclusive evidence for philosophical deliberations on the ethical implications of SRCs and RHIs in contact sports, such as football and boxing.³¹ In agreement with autonomy respectful views, this article suggests that ethical proposals that favor

drastically reforming contact sports, due to the high-risk levels of brain injuries associated with their participation, are not well-founded philosophically.^{9,30}

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