Match-fixing has presented itself as a contested and widespread threat to the integrity of sport. Simultaneously with multiple match-fixing scandals that have come to light in various sports and countries, the academic interest in match-fixing has increased during the past decades. However, match-fixing research still remains empirically and theoretically understudied. This dissertation helps to fill this void by exploring, mapping, and understanding match-fixing in sport.

The four original studies included in this doctoral dissertation shed light on different perspectives (i.e., moral development, normalization of corruption, moral disengagement, and multi-stakeholder) of match-fixing. Among other findings, this dissertation reveals the twofold nature of match-fixing and its link with a lack of moral awareness and judgment of the issue, the embedded and taken for granted nature of sporting-related match-fixing, the influence of moral disengagement mechanisms, and the varying attitudes towards and experiences with match-fixing among internal stakeholders in sport. By linking and discussing the findings through the lens of normalization, this dissertation offers a more complete understanding of match-fixing and indicates how certain forms of match-fixing become normalized instead of problematized in numerous sports. In the end, the reported findings have important theoretical and practical implications for match-fixing scholars and practitioners in their quest to counter match-fixing.

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EXPLORING, MAPPING, AND UNDERSTANDING MATCH-FIXING IN SPORT

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Supervisor: Prof. dr. Annick Willem

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CONTENT

ENGLISH SUMMARY

Match-fixing has presented itself as a contested and widespread threat to the integrity of sport. Simultaneously with multiple match-fixing scandals that have come to light in various sports and countries, the academic interest in match-fixing has increased during the past decades. Although several scholars from various scientific disciplines have tried to examine and understand the complex and multifaceted nature of match-fixing, match-fixing research still remains empirically and theoretically understudied. This dissertation helps to fill this void by exploring, mapping, and understanding match-fixing in sport. Going beyond merely describing match-fixing, this dissertation thus aims to contextualize and better explain the phenomenon. After a general introduction in which we outline the subject of match-fixing, the purpose of the dissertation, an overview of the literature, the applied theoretical frameworks, and the research context and questions, four original empirical studies are presented.

A first study explored the prevalence of match-fixing in Flemish sports, as well as how match-fixing is related to the moral decision-making process of those involved. Drawing on a sample of 567 respondents in Flemish football, tennis, and badminton, this study revealed that almost one fifth of the respondents indicated (proposed) match-fixing incidents in the questionnaire. Moreover, the results indicated that sporting-related match-fixing seems to occur more than betting-related match-fixing. Additionally, this study also showed that the moral decision-making process of the people approached to potentially fix a match clearly differs according to the type of match-fixing.

A second study zoomed in on the unique strategic context of road cycling to investigate match-fixing and its sport-specific socio-cultural embedment. Based on interviews with 15 active Belgian road cyclists, this study showed that cyclists interpret match-fixing

differently and do not consider cooperating with competitors as match-fixing. Although cyclists in general do not acknowledge the existence of match-fixing in their sport, this study's findings demonstrated how different forms and levels of cooperation between competitors can be seen as institutionalized, rationalized, socialized, and thus normalized in road cycling. This normalized cooperative behaviour contributes to a grey zone that could theoretically imply match-fixing, but is considered an inherent characteristic of road cycling.

A third study delved deeper into the moral unease component of an individual's cost-benefit assessment when engaging in match-fixing, by exploring the role of moral disengagement. Building on an international sample of 383 various sport actors who indicated that they had previously been approached for match-fixing, results indicated that moral disengagement has a significant effect on the decision to consent to match-fixing, alone and in concert with money, other inducements, and threats or pressure. This study offered novel individual-level explanations for match-fixing and emphasized the importance of detecting and counteracting moral disengagement mechanisms in match-fixing prevention initiatives.

A fourth and final study broadened the scope by examining match-fixing on an international scale, in various sports, on multiple sport levels, and among various internal stakeholders. Drawing on 4958 internal stakeholders involved in different sports across Europe, this study showed that different internal stakeholders in sport have various attitudes towards the seriousness, risk, and acceptability of match-fixing. Moreover, results demonstrated that sporting-related match-fixing seems to be more common overall than betting-related match-fixing on an international scale, and also revealed that both types of match-fixing can occur simultaneously. Consequently, this

study allowed us to better understand the extent of the problem, which could navigate future match-fixing prevention initiatives.

Taken together, these four studies provided important theoretical and practical implications in relation to match-fixing. In a general discussion at the end, we review these implications and also bring our findings together within the theoretical framework of normalization of corruption. By discussing our findings through the lens of normalization, a better picture is offered of match-fixing and its underlying mechanisms. Moreover, by discussing our findings in relation to the processes of institutionalization, rationalization, and socialization, we indicate how certain forms of match-fixing become normalized instead of problematized in numerous sports. Furthermore, the general discussion also presents the strengths and limitations of this work, as well as some future research opportunities (e.g., match-fixing in esports) and practical implications for match-fixing scholars and practitioners (e.g., the challenge of optimizing competition formats).

NEDERLANDSTALIGE SAMENVATTING (DUTCH SUMMARY)

Matchfixing heeft zichzelf getoond als een omstreden en wijdverspreide bedreiging voor de integriteit van sport. Samen met meerdere matchfixing schandalen die in verschillende sporten en landen aan het licht zijn gekomen, is de academische belangstelling voor matchfixing de afgelopen decennia toegenomen. Hoewel verschillende onderzoekers uit uiteenlopende wetenschappelijke disciplines hebben geprobeerd de complexe en veelzijdige aard van matchfixing te onderzoeken en te begrijpen, blijft onderzoek naar matchfixing nog steeds empirisch en theoretisch onderbelicht. Dit doctoraatsproefschrift helpt deze leemte op te vullen door matchfixing in de sport te verkennen, in kaart te brengen en te begrijpen. Dit proefschrift heeft als doel verder te gaan dan alleen het beschrijven van matchfixing, het wil het fenomeen ook contextualiseren en beter helpen te verklaren. Na een algemene inleiding waarin we het onderwerp matchfixing, het doel van het proefschrift, een overzicht van de literatuur, de toegepaste theoretische kaders en de onderzoeksvragen en context toelichten, worden vier originele empirische studies weergegeven.

Een eerste studie onderzocht de prevalentie van matchfixing in de Vlaamse sport, alsook het verband tussen matchfixing en het morele besluitvormingsproces van de betrokken personen. Op basis van een onderzoek bij een steekproef van 567 respondenten in het Vlaamse voetbal, tennis en badminton, bleek dat bijna een vijfde van de respondenten matchfixing incidenten aangaf in de vragenlijst. Bovendien toonden de resultaten ook aan dat sportgerelateerde matchfixing meer lijkt voor te komen dan gokgerelateerde matchfixing. Daarnaast wees deze studie ook uit dat het

morele besluitvormingsproces van de personen die benaderd worden om een wedstrijd te fixen duidelijk verschilt afhankelijk van het type matchfixing.

Een tweede studie zoomde in op de unieke strategische context van het wegwielrennen om matchfixing en de sport specifieke sociaal-culturele verankering ervan te onderzoeken. Op basis van 15 interviews met actieve Belgische wielrenners bleek dat wielrenners matchfixing anders interpreteren en samenwerken met concurrenten niet als matchfixing beschouwen. Hoewel wielrenners in het algemeen het bestaan van matchfixing in hun sport niet erkennen, toonden de bevindingen van dit onderzoek aan hoe verschillende vormen en niveaus van samenwerking tussen concurrenten kunnen worden gezien als geïnstitutionaliseerd, gerationaliseerd, gesocialiseerd en dus genormaliseerd in het wegwielrennen. Dit genormaliseerde coöperatieve gedrag draagt bij aan een grijze zone die in theorie matchfixing zou kunnen inhouden, maar wordt beschouwd als een inherent kenmerk van wegwielrennen.

Een derde studie ging dieper in op het morele onbehagen dat komt kijken bij een individu's kosten-batenanalyse vooraleer in te gaan op matchfixing door de rol van morele onthechting te onderzoeken. Op basis van een internationale steekproef van 383 verschillende sportactoren die aangaven dat ze al benaderd zijn geweest voor matchfixing, toonden de resultaten dat morele onthechting een significant effect heeft op de beslissing om in te stemmen met matchfixing, alleen en samen met het aangeboden krijgen van geld, andere (materiële) zaken en bedreigingen of druk. Deze studie bood nieuwe inzichten op het niveau van het individu om matchfixing te verklaren en benadrukte het belang van het opsporen en tegengaan van morele onthechtingsmechanismen bij de initiatieven ter preventie van matchfixing.

Een vierde en laatste studie verbreedde de reikwijdte door matchfixing op internationale schaal, in verschillende sporten, op meerdere sportniveaus en bij verschillende interne stakeholders te onderzoeken. Op basis van 4958 interne stakeholders die betrokken zijn bij verschillende sporten overheen Europa, toonde deze studie aan dat verschillende interne stakeholders in de sport variërende opvattingen hebben over de ernst, het risico en de aanvaardbaarheid van matchfixing. Bovendien toonden de resultaten ook aan dat sportgerelateerde matchfixing over het algemeen meer lijkt voor te komen dan gokgerelateerde matchfixing op internationale schaal, en dat beide types van matchfixing ook gelijktijdig kunnen voorkomen. Bijgevolg stelde deze studie ons in staat om de omvang van het probleem beter te begrijpen, wat toekomstige initiatieven ter preventie van matchfixing verder kan sturen.

Deze vier studies leverden samen belangrijke theoretische en praktische implicaties op met betrekking tot matchfixing. In een algemene discussie aan het einde van dit proefschrift geven we een overzicht van deze implicaties en brengen we onze bevindingen ook samen binnen het theoretische kader van normalisatie van corruptie. Door onze bevindingen door de lens van normalisatie te bespreken, bieden we een beter beeld van matchfixing en de onderliggende mechanismen ervan. Bovendien stelt de bespreking van de processen van institutionalisering, rationalisering en socialisering ons in staat om aan te tonen hoe bepaalde vormen van matchfixing in tal van sporten genormaliseerd worden in plaats van geproblematiseerd. Verder bespreekt de algemene discussie ook de sterktes en beperkingen van dit werk, evenals enkele toekomstige onderzoeksmogelijkheden (bv. matchfixing in esports) en praktische implicaties voor matchfixing onderzoekers en praktijkmensen (bv. de uitdaging om competitieformats te optimaliseren).

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LIST OF ABBREVIATIONS

API	Aanspreekpersoon Integriteit
EASM	European Association for Sport Management
EPOSM	Evidence-based Prevention Of Sporting-related Match-fixing
EURAM	European Academy of Management
EuroCrim	European Society of Criminology
FIFPro	Fédération Internationale des Associations de Footballeurs Professionnels
IOC	International Olympic Committee
NOC	National Olympic Committee
RC	Road Cyclist
RQ	Research Question
SPSS	Statistical Package for the Social Sciences
SSCI	Social Sciences Citation Index
UCI	Union Cycliste Internationale
UEFA	Union of European Football Associations
VTS	Vlaamse Trainersschool

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PART I: GENERAL INTRODUCTION

1 INTRODUCTION

"Doping affects one individual athlete, but the impact of match-fixing affects the whole competition. It is much bigger."

~ Jacques Rogge (2011), as cited in Carpenter (2012, p. 13)

As illustrated by the abovementioned quote, former IOC president, Jacques Rogge, designated match-fixing as a bigger threat to sport than doping ahead of the London Olympic Games of 2012. Rogge expressed his concerns following a series of scandals that had appeared in a wide variety of sports and countries, and therefore urged the Olympic Movement to fight against match-fixing (Chappelet, 2015). Following Rogge's warning, policy-makers at both the national and international level have put match-fixing higher on the political agenda, and launched initiatives against it. Despite Rogge's warning being a little over 10 years old, match-fixing is not a new phenomenon of the twenty-first century (Huggins, 2018; Serby, 2015).

Match-fixing was already widely practiced within the sporting culture before the dawn of modern sport, both for betting- and sporting-related purposes (Maennig, 2005). However, the globalization and ever increasing commercialization of sport, together with the rapid growth and increased accessibility of online betting have dramatically changed the size and risks for match-fixing (Kerr, 2017; Lastra et al., 2018). Amongst others, an international sport betting market now exists, with numerous kinds of bets and placing modalities, where people can bet on any sport competition, played anywhere in the world, at any time (Reiche, 2013). As such, next to match-fixing for sporting purposes, the digital era has brought new ways to potentially fix matches for betting purposes (Huggins, 2018).

Together with these developments, match-fixing has become widely contested as it may cause several harmful consequences for sport and those involved (Kihl, 2018a). First of all, match-fixing damages the integrity of sport (Boniface et al., 2012). If the outcome or the course of a match is known in advance, sport's basic principle of uncertainty of process and outcome is ruined (Boniface et al., 2012; Harvey, 2015; Mcnamee, 2013). When this basic principle is no longer fulfilled, trust and credibility may be violated, and the public's interest in and demand for sport may decrease (Rebeggiani & Rebeggiani, 2013). Likely further consequences include (but are not limited to) less successful commercialization, less public funding and economic investments in sport, the media turning its back, and sport clubs or even entire leagues ceasing to exist (Hill, 2010; Rebeggiani & Rebeggiani, 2013). Moreover, when the match-fixing event is related to betting, the sport betting sector itself could also suffer extensive financial losses (Forrest, 2012). Furthermore, the mental and physical integrity of the people involved in match-fixing can also be at risk. After all, several researchers showed how people may sometimes experience violence or are threatened, pressured, and/or coerced into match-fixing (Boniface et al., 2012; Doidge, 2018; FIFPro, 2012). In some cases, these threats or pressures may even target their families and friends (Boniface et al., 2012; FIFPro, 2012).

Although match-fixing has thus presented itself as one of today's most pressing sport integrity issues, empirical work on match-fixing has only begun to increase during the last decades (Vanwersch et al., 2022). Declan Hill (2008, 2009a, 2009b), one of the pioneering scholars on the issue, investigated corruptors' motives, incentives, and mechanisms to approach athletes and eventually fix football matches. Following Hill's ground breaking research, a research tradition on match-fixing slightly emerged. For example, several scholars have attempted to better describe and conceptualize match-fixing (e.g., Gorse & Chadwick, 2010; Spapens & Olfers, 2015), while others

have tried to map the extent of the problem (e.g., FIFPro, 2012; Frenger et al., 2019), and its causes and consequences (e.g., Kihl, 2018a; Nowy & Breuer, 2017; Tak et al., 2018b). In addition, Haberfeld and Sheehan (2013) reviewed a selection of policy responses and prevention strategies to match-fixing, while others have analysed betting odds in order to detect fixed matches (Feustel & Rodenberg, 2015; Ötting et al., 2018; Reade & Akie, 2013). Although the abovementioned studies illustrate that match-fixing research has been steadily growing in recent years, there is still an overall lack of empirical research as pointed out by several scholars (e.g., Moriconi, 2020; Nowy & Breuer, 2017; Numerato, 2016; Vanwersch et al., 2022).

Moreover, research into match-fixing often lacks robust theoretical underpinnings (Constandt & Manoli, 2022b; Kihl, 2018c; Numerato, 2016). Existing theoretical perspectives on match-fixing are merely rooted in Becker's (1968) economic theory of rational choice (e.g., Boeri & Severgnini, 2011, 2013; Forrest, 2018; Forrest & Simmons, 2003; Hill, 2015), which argues (in short) that people engage in match-fixing when the benefits outweigh the potential costs. Nevertheless, as match-fixing is a complex phenomenon, several scholars from different scientific fields have also applied other theoretical perspectives to enrich the knowledge about match-fixing. Examples are sociological institutionalism (e.g., Tak et al., 2018b), psychological decision-making theories (e.g., Barkoukis et al., 2020; O'Shea et al., 2021), organizational capacity theory (e.g., Nowy & Breuer, 2017), social exchange and social capital theory (e.g., Costa, 2018; Tzeng & Lee, 2021), and public secrecy theory (e.g., Moriconi & de Cima, 2020; Numerato, 2016) (for a more extensive overview, see Constandt & Manoli, 2022b). Although the emerging body of work on match-fixing has thus provided a sound starting point for scholarly understanding, match-fixing research still remains under-theorized (Constandt & Manoli, 2022b; Kihl et al., 2017; Numerato,

2016). As such, additional empirical and theoretically informed research is needed to better understand match-fixing and its underlying mechanisms.

Given the need for a better understanding of match-fixing, the purpose of this dissertation was to empirically and theoretically expand the scientific knowledge on match-fixing in sport. In an effort to address the "empirical poverty" on match-fixing (Numerato, 2016, p. 701), we collected, analysed, and reported primary data on match-fixing in this dissertation. In addition, the "under-theorization" of match-fixing was addressed by using different theoretical perspectives in our original research to increase the understanding of match-fixing (Numerato, 2016, p. 701). In light of the research purpose, the general research aim was to explore, map, and better understand match-fixing in sport; as we indicated in the title of this dissertation, which was inspired by the three-step approach described in Constandt and Manoli (2022a).

This dissertation is structured as follows: the rest of this first part provides an overview of the literature, the applied theoretical frameworks, as well as the research context and the research questions examined in this dissertation. A second part provides an overview of the original studies that have been executed in the context of this dissertation. A third and final part merges the findings and insights of the original studies into a broad general discussion of the contributions, limitations, and implications of the dissertation.

2 LITERATURE REVIEW

2.1 What is match-fixing?

2.1.1 Defining match-fixing

To enhance our understanding of what match-fixing is, it is important to first define the issue. However, defining match-fixing has rather been problematic (Serby, 2015). Preston and Szymanski (2003, p. 613), for example, described match-fixing as follows:

> Individual contestants may be willing to reduce their effort contribution for specific matches if the rewards for so doing are large enough. Sometimes this occurs either because the opposition values the victory significantly more and is willing to pay to secure it, and sometimes it occurs because there is an opportunity to generate returns on the insider information (for example, through gambling).

However, Preston and Szymanski's (2003) definition is rather restrictive, as it implies that we can only speak of match-fixing if there is a financial advantage for someone (Visschers et al., 2020). However, not all types of match-fixing have financial motivation (see pp. 8-9). A next attempt was made by Hill (2013, p. 32) who concisely stated that match-fixing is in place "when a player or referee deliberately underperforms during a sporting contest to ensure that one team loses or draws the match." Hill's (2013) definition also falls short, as match-fixing is not always about deliberately underperforming to influence the outcome of a match. Sometimes, people rather try to manipulate the course of a match. As such, it becomes clear that a generally accepted definition of match-fixing is hard to find (Spapens & Olfers, 2015). However, in the current debate, the definition of the Council of Europe (2014) is predominant. They describe match-fixing or "the manipulation of sports competitions" as:

> An intentional arrangement, act, or omission aimed at an improper alteration of the result or the course of a sports competition in order to remove all or part of the unpredictable nature of the aforementioned sports competition with a view to obtaining an undue advantage for oneself or for others. (Council of Europe, 2014, art. 3.4)

However, as can be seen from the Council of Europe's (2014) definition, it is confusingly broad and also includes other practices, such as doping, the falsification of documents, or modification of equipment (Moriconi, 2020). After all, these practices can also be considered as intentional acts that alter the result unduly. Nevertheless, to make a further distinction between these different types of "manipulation of sports competitions," the Council of Europe's (2020) Group of Copenhagen established a Typology framework. According to this framework, match-fixing is rather considered a "Type I manipulation," which means "direct interference in the natural course of a sporting event or competition i.e. deliberate manipulation by individual(s) involved in the event," while doping, for example, is more considered a "Type III manipulation" described as a "modification that is non-compliant with criminal laws or sport rules relating to playing surfaces, equipment, athlete physiology, or a sporting venue" (Council of Europe, 2020, p. v).

Although the Council of Europe's (2014) definition does not specify the actual term "match-fixing," it is widely used in the match-fixing literature (Chappelet, 2015; Moriconi, 2020; Tak et al., 2020). Moreover, as it was created by the Council of Europe's Convention on the Manipulation of Sports Competitions, the main political instrument to harmonize the fight against match-fixing (see pp. 13-14), it is more or less considered the norm to currently describe the phenomenon (Moriconi, 2020).

Therefore, we also used the Council of Europe's (2014) overarching definition of "manipulation of sports competitions" in this dissertation to define match-fixing.

2.1.2 Types of match-fixing

Match-fixing is generally classified into two major types, based on whether or not the match-fixing event at hand is related to betting or not (Spapens & Olfers, 2015). The first type is betting-related match-fixing, in which people seek to make a financial gain through the betting market by betting on a manipulated match. Within the betting-related type of match-fixing, a further distinction is made between "match-fixing," where people try to manipulate the outcome of the match as a whole, and "spot-fixing," where people rather seek to manipulate certain specific events during a match (e.g., who gets the first yellow card, who serves the first double fault) (Serby, 2015). In general, betting-related match-fixing has long been considered the common understanding of match-fixing (Serby, 2015). According to Spapens (2021), this generalization was based on the assumption that match-fixing is mainly the work of organized criminals from the outside of sport that target inside sport actors to make money through the Asian illegal betting industry. Consequently, betting-related match-fixing was seen as the greatest danger to sport, and therefore has received the most attention so far, both in practice and the literature (Moriconi, 2020).

The second major type of match-fixing, which has been less foregrounded by researchers and practitioners, is non-betting-related, or in other words, sporting-related match-fixing (Huggins, 2018). In sporting-related match-fixing the primary objective is to achieve a sporting advantage (Spapens & Olfers, 2015). Examples of this type involve fixing a match in order to avoid the relegation of a specific club or team, to encounter an easier opponent in a later stage of the tournament, or to enable another club or team to win the championship. While sporting-related match-fixing thus

primarily happens for sporting purposes, financial gain could also be involved in this type of match-fixing (e.g., bribing the opponent to make the fix happen). Nevertheless, sporting-related match-fixing is mainly considered an infringement on the principles of fair play, conceptualized as respect for the game (Butcher & Schneider, 1998; De Waegeneer & Willem, 2016). After all, by not pursuing victory and/or not performing at one's best, the Olympic motto of "Higher, Faster, Stronger," is clearly breached, which is indispensable in obtaining a fair game (Butcher & Schneider, 1998; Yang & Liu, 2013). Sporting-related match-fixing is thus considered an infringement of fair play, while betting-related match-fixing also breaches the principles of fair play. Betting-related match-fixing is mainly considered a form of corruption in sport due to its often criminalized character (see pp. 16-17).

Next to the key distinction between betting- and sporting-related match-fixing, Spapens and Olfers (2015) made an additional distinction between match-fixing cases in which individuals are bribed or coerced and cases in which they participate voluntarily. After all, Holden and Rodenberg (2017) also showed how individuals can voluntarily take the initiative to fix a match without communication with others (a practice they called "lone-wolf match-fixing"). A summary of the aforementioned types of match-fixing is displayed in Figure 3 of study 1 (see p. 64).

2.2 How widespread is match-fixing?

Together with the quest to better define and classify match-fixing, the question arose how widespread match-fixing is? Consequently, several scholars have tried to provide an account of match-fixing in various countries (e.g., Malta, see Aquilina & Chetcuti, 2014; Italy, see Costa, 2018b; Taiwan, see Lee, 2017; Greece, see Manoli & Antonopoulos, 2015; Turkey, see Yilmaz et al., 2019). However, as these studies

mainly discussed context-specific match-fixing cases, quantitative figures were frequently lacking (Frenger et al., 2019).

First attempts to quantitatively expand the limited knowledge on the prevalence of match-fixing were conducted by Gorse and Chadwick (2011) and Hill (2013), who respectively analysed and compiled a database of cases. More specifically, Gorse and Chadwick (2011) examined the extent of match-fixing based on a database of cases which were proven and sanctioned according to sport disciplinary law, while Hill (2013) created a number of coded databases from a breadth of data, including interviews, newspaper articles, covertly taped telephone conversations, judicial confessions, police confessions, court transcripts, and match reports from (non-)fixed matches. Additionally, a number of (non-)academic reports emerged that revealed prevalence figures of match-fixing in football (e.g., FIFPro, 2012; Harvey & Levi, 2014; Zamante, 2012). For example, FIFPro (2012), the global union for football players, conducted an anonymous questionnaire on various malpractices, including match-fixing, among 3,357 professional football players in 15 different Eastern European countries and found that 11.9% of them had been approached to fix a match as well as that 23.6% of them was aware of match-fixing cases in their league. Moreover, Visschers et al. (2020) examined 595 Belgian professional and amateur football referees' attitudes towards the incidence, disclosure, combatting, and reporting of match-fixing, as well as their experiences with match-fixing by means of a self-developed questionnaire. Amongst others, Visschers et al. (2020) showed that 23.5% of the football referees had already witnessed or suspected match-fixing throughout their career.

Despite the large focus on (professional) football, the prevalence of match-fixing has also been studied in other sports. In 2014, for example, Transparency International surveyed 259 Lithuanian professional basketball players and reported that 21% of

them indicated that they had been approached personally to fix matches (Trumpyte, 2016). Additionally, Theodorou (2017) examined match-fixing among amateur and professional athletes in twelve different sports in three countries and showed that 12.6% of the respondents indicated that they had already played in a match that was fixed. In addition, Theodorou (2017) revealed that 15% stated that they had been approached to fix a match in the last 12 months, and that 34.7% believed that matches in their league may have been fixed in the past 12 months. While FIFPro (2012), Visschers et al. (2020), Trumpyte (2016), and Theodorou (2017) had not applied any specific measures to prevent under-reporting of the prevalence of match-fixing, except from an anonymous approach, Frenger et al. (2019) examined the extent of match-fixing by using an online-based randomized response technique questionnaire. The randomized response technique is an indirect questioning method that could lead to more reliable prevalence figures due to the increased confidence of respondents (see p. 217 of the discussion for a more extensive explanation of this method). Eventually, they estimated that 8.42% of the 425 German elite athletes in Olympic sports had been approached to fix a match (Frenger et al., 2019).

Although research on the prevalence of match-fixing has thus steadily increased, the majority of the aforementioned studies did not make a distinction between betting- and sporting-related match-fixing, or did not include sporting-related match-fixing at all. It was not until the thorough empirical study of Spapens and Olfers (2013, 2015) in the Netherlands that the prevalence of both, betting- and sporting-related match-fixing, was simultaneously examined. Next to analysing police intelligence, files of criminal investigations, and interviews with active and retired players and others in the world of sport, gambling, and law enforcement, Spapens and Olfers (2013, 2015) also conducted an anonymous questionnaire to examine the prevalence of match-fixing. Their questionnaire interrogated 732 sport actors (mainly (former) athletes and

referees) from five sports, who were contacted by their sport federation, via e-mail or a letter that contained the web-link to the questionnaire. In order to prevent others from filling out the questionnaire the respondents were approached personally and only one questionnaire per IP-address was accepted. Furthermore, Spapens and Olfers (2013, 2015) specified that the survey ran for a limited time, that there were no indications that "practical jokers" gained access to the questionnaire, and compared groups of respondents who did not vary significantly, which, according to them indicated that the results were reliable. Eventually, Spapens and Olfers' (2013, 2015) questionnaire showed that 27% of the 732 sport actors believed that match-fixing had occurred in their own environment. Moreover, the respondents who suspected match-fixing pointed more to sporting-related (44%) than betting-related match-fixing (20%). Spapens and Olfers (2013, 2015) also revealed that 8% of the respondents indicated to know people who had been approached to fix matches, and 4% revealed that they had been invited themselves to fix matches. The majority of the latter cases also concerned sporting-related match-fixing, despite a lack of supporting figures (Spapens & Olfers, 2013, 2015).

Although previous studies thus already aimed to map match-fixing, additional research is still necessary (Vanwersch et al., 2022). Moreover, it is apparent that empirical research including both types of match-fixing is rather scarce, a research gap this doctoral dissertation aims to address. For a more comprehensive overview of the prevalence literature on match-fixing and our own contributions, we refer to studies 1 and 4 of this dissertation.

2.3 The current countermeasures against match-fixing

Next to examining the extent of match-fixing, several researchers have also reviewed the range of global initiatives that have emerged to counter match-fixing (e.g., de Cima

& Moriconi, 2022; Moriconi, 2018, 2020; Moriconi & Almeida, 2019; Tak et al., 2018a, 2022). These studies generally start by stating that in the wake of several scandals, (inter)national sport governing bodies, law enforcement agencies, sport betting operators, and governments have embodied a supposed “zero tolerance” narrative in which fighting against match-fixing and the infiltration of organized crime in sport, and preserving the integrity of sport have become a major concern (Moriconi, 2020; Tak et al., 2018b). In line with this narrative, researchers have identified three main types of countermeasures against match-fixing that have been developed: education programmes, monitoring systems, and sanctions (Aquilina & Chetcuti, 2014; Tak et al., 2018a). However, the current countermeasures against match-fixing, and the narrative they are based on, have also been widely questioned in the match-fixing literature (Moriconi, 2018, 2020; Moriconi & Almeida, 2019; Tak, 2018; Tak et al., 2018a, 2022). Before we will further elaborate on this, we will first outline the Convention on the Manipulation of Sports Competitions, as this treaty is generally considered the most important political initiative in the fight against match-fixing so far (Moriconi, 2020; Serby, 2015; Vandercruysse et al., 2022).

2.3.1 Convention on the Manipulation of Sports Competitions

To harmonize the fight against match-fixing in sport, the Council of Europe established the Convention on the Manipulation of Sports Competitions, often referred to as the Macolin Convention (Serby, 2015; Vandercruysse et al., 2022). The Macolin Convention, which was opened for signature in 2014 and entered into force in September 2019, has the purpose to combat match-fixing “in order to protect the integrity of sport and sports ethics in accordance with the principle of the autonomy of sport” (Council of Europe, 2014, art. 1.1). Therefore, the Convention calls on public authorities to cooperate with sport organizations, betting operators, and competition organisers, to prevent, detect and sanction match-fixing, both at national and

international level (Council of Europe, 2014, art. 1.2). To date, the Macolin Convention has been ratified by eight states, namely Greece, Iceland, Italy, Norway, Portugal, Republic of Moldova, Switzerland and Ukraine, and another 33 states have signed the Convention (Council of Europe, 2023).

In the implementation of the Macolin Convention, a pivotal role is reserved for national platforms (van Bottenburg, 2022b). The national platforms aim to serve as information hub; coordinate the fight against match-fixing; receive, centralise, analyse, and exchange information on irregular and suspicious bets placed on sport competitions with sport organizations, public authorities, and sport betting operators (Council of Europe, 2014, art. 13). The idea of creating a national platform has been followed by many states, even though the vast majority of those states has not (yet) ratified the Convention (Vandercruysse et al., 2022). In addition, the Group of Copenhagen, also known as the Network of National platforms, brings together the coordinators of the various national platforms and thus acts as a multi-stakeholder platform at an international level (van Bottenburg, 2022b). Currently, 33 states are represented within this Group (Vandercruysse et al., 2022).

2.3.2 The current match-fixing preventive narrative and its countermeasures

Although match-fixing has been associated with sport throughout the ages, only after the expansion of the global online betting industry, it has become an issue on the political agenda (Moriconi & de Cima, 2020). Consequently, both public policies and prevention programmes have been mainly revolving around a preventive narrative where the problem of match-fixing is mainly framed as a threat coming from organized criminals outside of sport and mostly related to illegal betting (Moriconi, 2020). According to the current preventive narrative, sport actors fall into the trap of match-fixing due to a lack of awareness and information of match-fixing and the dangers that

follow (Moriconi, 2018; Moriconi & Almeida, 2019). By framing match-fixing as a matter of individual ethical failure, public authorities, sport organizations, and sport betting operators have presented themselves as victims and have emphasized the responsibility of individuals in the threat of match-fixing (Tak, 2018). By contrast, sport governing bodies and political institutions have developed a more positive picture in the fight against match-fixing by associating themselves more with integrity and sport ethics, for example, by emphasizing their prevention initiatives (Tak et al., 2022). Moreover, by linking match-fixing to (Asian) illegal betting, the problem is placed outside of sport, and responsibility is shifted towards law enforcement agencies (Moriconi, 2020). Although there is a lack of empirical evidence for these premises, the official preventive narrative has been shared, reproduced, and legitimized, and has put forth three main types of countermeasures (Tak et al., 2018a).

First, in line with the premise that sport actors mainly engage in match-fixing due to a lack of awareness and information of the issue, sport governing bodies and sport federations have established education programmes as key elements in their integrity packs (Moriconi, 2020). In short, these education programmes aim to prevent “naïve” sport people from falling prey to the (indirect) proposals of fixers (Hill, 2009a). However, education programmes and awareness raising initiatives have not been without criticism (de Cima & Moriconi, 2022; Tak et al., 2018a). In accordance with the premise on which they are built, several researchers stated that education programmes place too much responsibility on the individual and are therefore not sanctifying (Marchetti et al., 2021). Moreover, de Cima and Moriconi (2022) stated that athletes pay not only attention to information from education programmes, but also to the credibility and trustworthiness of the organizations that promote the official narrative. According to de Cima and Moriconi (2022), this is one of the main reasons why the education programmes of UEFA remained rather ineffective (de Cima &

Moriconi, 2022). Furthermore, Tak et al. (2018a, p. 40) stated that education programmes have political purposes by redefining the notion of sport ethics, not for sport's own sake, but to remodel sport as a provider of "pristine" matches for betting.

Second, based on the premise that match-fixing is mainly related to betting, betting monitoring systems have been developed (Tak et al., 2022). Betting monitoring systems work in collaboration with licensed betting operators and analyse leagues and matches in order to detect suspicious betting patterns which could be an indication of match-fixing (Forrest & McHale, 2019; Veuthey, 2014; Villeneuve, 2015). Although betting monitoring systems have already succeeded in detecting fixed matches (e.g., see Van Rompuy, 2015), their effectiveness has been questioned as they do not integrate match-fixing for sporting purposes (Harvey, 2015; Spapens & Olfers, 2013, 2015), simply rely on the odds variations (Serby, 2015), focus solely on legal betting operators, and have difficulties in detecting large bets that are divided in smaller sums of money (Tak et al., 2018a). Next to their effectiveness, Tak et al. (2022) also questioned the political neutrality of betting monitoring systems by using a political sociology approach. In short, Tak et al. (2022) concluded that betting monitoring systems legitimise sport betting by reframing the issue of match-fixing as a common enemy that betting and sport join forces to combat (as victims), not a risk that betting brings to sport.

By framing match-fixing in this way, the distinction between betting and sport integrity has become blurred, which has also enabled the enforcement of criminal and disciplinary sanctions, the third main type of countermeasures (Tak et al., 2022). Based on the premise that match-fixing is mainly associated with serious organized crime, the criminalisation of match-fixing has been enforced (Haberfeld & Sheehan, 2013; Hill, 2015). However, there is no common, global legislative approach to the

criminalization of match-fixing (Serby, 2015). While several countries have already introduced specific criminal legislation on sport manipulation in general and match-fixing in particular (e.g., Greece, Italy, and Portugal), other countries still use general criminal law legislation on such overarching themes as fraud, bribery, cheating, corruption, and deception (e.g., Belgium, Brazil, and China) (Abbott & Sheehan, 2013; Husting et al., 2012; Kos & Gorkič, 2013; Vandercruysse et al., 2022). Consequently, there is a lack of uniformity and consistency across nations which could cause difficulties in terms of international cooperation (Vandercruysse et al., 2022). Moreover, many national laws are insufficient to truly address the crime of match-fixing (Husting et al., 2012; Vandercruysse & Baert, 2022). Next to criminal sanctions, sport governing bodies have also instituted disciplinary proceedings. After all, "not every match-fixing case has a criminal component, it will always have a disciplinary component" (Van Rompuy, 2013, p. 70). This is certainly the case for sporting-related match-fixing, which is often considered only against the rules of certain sports and not always against the law (Van Rompuy, 2013; Vandercruysse et al., 2022).

However, as shown by Moriconi and de Cima (2020) disciplinary and legal obligations (in accordance with the sanctions), such as the obligation of reporting, are no guarantee of success. They showed that hardly anyone reports match-fixing in sport, because they fear the consequences for their career (Moriconi & de Cima, 2020). In addition, Moriconi (2020) indicated that integrity officers often recognize that the conditions to protect those who blow the whistle to avoid retaliations are not a certainty. Consequently, the appropriateness and effectiveness of whistleblowing protection programmes could also be questioned (Verschuuren, 2020). In a similar vein, Moriconi and de Cima (2020) and Moriconi and Almeida (2019) emphasized that although legal and disciplinary frameworks are created and imposed, there are often not enough human, economic and/or technical resources to put them in practice.

Furthermore, Tak et al. (2018a) argued that the regulatory instruments, including disciplinary actions and legal sanctions, are utilised to enforce the rules prescribed by the education programmes, and thus again promote the transformation of sport into a more favourable entity for betting.

In summary, countermeasures against match-fixing have been questioned regarding their effectiveness and political neutrality. While often defined as neutral and functional initiatives, the current countermeasures against match-fixing clearly also have political functions (Moriconi, 2020; Tak et al., 2018a, 2022). Consequently, the current academic debate on match-fixing's causes (i.e., "Who's fault is it and who's responsible? Athletes, organized crime, sport governing bodies, or the betting industry?") and resultant countermeasures have different connotations of where more responsibility lies (Tak et al., 2018b). However, as the current preventive narrative is based on unfounded premises, several scholars argued that more research on match-fixing is needed to navigate the current discussions and resultant countermeasures (Moriconi, 2020; Moriconi & Almeida, 2019). By discussing our findings through the multilevel lens of normalization (see pp. 230-233), this dissertation aims to contribute to this discussion.

3 THEORETICAL FRAMEWORKS

3.1 A multi-theoretical perspective

Next to describing what match-fixing is, what concerns us most is why match-fixing occurs and how it is facilitated. In other words, additional explanations for match-fixing are needed, which boils down to theory (Mintzberg, 2005). Theory represents a "statement of constructs and their relationships to one another that explain how, when, why, and under what conditions phenomena take place" (Cunningham, 2013, p. 1).

With regard to match-fixing, theories from diverse fields have been applied to gain a better understanding of the complex phenomenon (Constandt & Manoli, 2022b). Initially, economists mainly applied Becker's (1968) rational choice theory to explain match-fixing (e.g., Boeri & Severgnini, 2011, 2013; Forrest, 2018; Forrest & Simmons, 2003). In short, rational choice theory implies that most human decisions are made after an individual's cost-benefit calculation. However, rational choice theory cannot thoroughly explain the more nuanced social, cultural, institutional and organizational conditions in the setting of match-fixing (its shortcomings are described on p. 21) (Tzeng & Lee, 2021). Therefore, several scientists have attempted to extend the rational choice approach to match-fixing by applying other theories, such as sociological institutionalism (Tak et al., 2018b), psychological decision-making theories (Barkoukis et al., 2020; O'Shea et al., 2021), ethical theory (Harvey, 2015), organizational capacity theory (Nowy & Breuer, 2017), routine activity theory (Moneva & Caneppele, 2020), and public secrecy theory (Moriconi & de Cima, 2020; Numerato, 2016) (for a more extensive overview, see Constandt & Manoli, 2022b).

Moreover, scholars have mainly used three levels of analysis in their challenge to explain corruption (in sport) in general (de Graaf, 2007; Jancsics, 2014; Soebbing & Walker, 2018), and match-fixing in particular. First, micro (i.e., individual) level

explanations of why individuals engage in match-fixing have mainly focused on the aforementioned rational choice theory (Kihl, 2018b). Forrest and Simmons (2003), for example, elaborated an equation to represent the cost-benefit assessment made by an individual of the expected (monetary) gain from accepting a match-fixing proposal on the one hand and the expected costs on the other hand. This cost-benefit assessment was also the central thesis of Hill (2015), who stated that financial gain is the primary expected benefit from engaging in match-fixing. However, various scholars have already shown that other benefits may also play a role (e.g., career progress, see Boeri & Severgnini, 2011, 2013; the promise of a transfer, see Yilmaz et al., 2019).

Second, meso (i.e., relational, organizational) level explanations of match-fixing have focused on the social relations and networks in which people are integrated to better understand match-fixing (Costa, 2018). For example, social network analysis was applied by Costa (2018) to examine the transnational crime network in the *Calcioscommese* scandal in Italian football. However, social networks do not always have to be transnational and highly structured in nature. Local, less organized, and often culturally influenced networks can also arrange match-fixing, as shown by Lee (2017) who examined match-fixing in Taiwan's baseball and its Confucianism-oriented culture. Moreover, Numerato (2016) used an ethnographic approach to examine the social relations regarding the publicly secret nature of match-fixing in local Czech football. However, as argued by Tzeng and Lee (2021, p. 570): "social networks per se cannot thoroughly explain match-fixing."

Third, macro (i.e., structural, societal) level explanations have focused on the external societal and/or systematic factors to explain corruption (in sport) (de Graaf, 2007; Jancsics, 2014). Cashmore and Cleland (2014), for example, pointed to the

commercialization of the game as the primary reason why corruption is often tolerated in football. Marchetti et al. (2021, 2022) highlighted the deeply rooted institutional characteristics of and cultural norms in Brazilian football which help explain its susceptibility to betting-related match-fixing. As previously mentioned, some authors have also warned for the politics behind the current countermeasures against match-fixing (Moriconi & de Cima, 2020; Spapens, 2021; Tak et al., 2018a, 2022).

3.2 The main theories used to explore match-fixing in sport

As briefly touched upon, the rational choice perspective to match-fixing is considered too limited to fully the grasp the phenomenon (Tzeng & Lee, 2021). A first criticism is that rational choice theory is based on methodological individualism, and consequently fails to include meso- and macro-level factors that could play a role in match-fixing. In other words, rational choice theory largely ignores the social context (i.e., groups, organizations, and societies) in which individual and organizational behaviours are formed (van Bottenburg, 2022a). A second criticism is that rational choice theory mainly portrays individuals as "amoral calculators" whose behaviour is purely based on a rational calculation of costs and benefits. As a result, rational choice theory mainly focuses on the consequences of behaviour while ignoring its genesis (van Bottenburg, 2022a). As such, rational choice theory does not only ignore the social context of match-fixing, but also overlooks its social origins.

Before moving to the next sections in which we outline the main theories used in this dissertation, this paragraph will first briefly indicate how our original research (and applied theories) build further on the shortcomings of rational choice theory. More specifically, to overcome the assumption that individuals are just "amoral calculators" when they are approached to potentially fix a match, we used Rest's (1986) moral development theory in our first study to examine an individual's moral decision-making

process before engaging in match-fixing. Rest's (1986) theory allowed us to take into account the moral challenges that come with match-fixing, which goes further than just calculating the costs and the benefits of a match-fixing proposal. Second, building on the critique of methodological individualism, and the call for more multilevel theory on match-fixing (Gorsira et al., 2018; Kihl, 2018c; Tzeng & Lee, 2021), we applied Ashforth and Anand's (2003) normalization of corruption theory in our second study. After all, Ashforth and Anand's (2003) framework encompasses social, cultural, and institutional conditions to examine the normalization of behaviour. Third, we identified a gap within the rational choice perspective on match-fixing itself. Although Forrest and Simmons (2003) included a term to represent the moral discomfort from having taking part in match-fixing in their cost-benefit equation, little is known about how individuals cognitively decide to engage in match-fixing (Barkoukis & O'Shea, 2022). Therefore, we delved deeper into an individual's cognitive process to engage in match-fixing by examining the role of moral disengagement in our third study (Bandura, 1986). Finally, we built further on the results of our first and second study by applying a multi-stakeholder approach (Freeman, 1984) in our fourth study. This allowed us to investigate various internal stakeholders' attitudes towards and experiences with match-fixing in an international sport context. An overview of the main theories used in this dissertation can be found in Table 1.

Table 1. Overview of the main theories used.

	Theory/approach	Addressed knowledge gap
Study 1	Rest's (1986) theory of moral development	Rational choice theory assumes that individuals are "amoral calculators," while match-fixing also involves moral challenges.
Study 2	Ashforth and Anand's (2003) theory of normalization of corruption	Rational choice theory is based on methodological individualism, and consequently fails to include meso- and macro-level factors that could play a role in match-fixing.
Study 3	Bandura's (1986) theory of moral disengagement	Within the rational choice perspective on match-fixing, there is a lack of knowledge about how individuals cognitively decide to engage in match-fixing.
Study 4	Multi-stakeholder approach, based on Freeman's (1984) stakeholder theory	Building on the results of study 1 and 2, which suggested that different stakeholders may have different attitudes towards and experiences with match-fixing.

Although our individually applied perspectives each provide a significant contribution to the match-fixing literature, it became clear throughout the process that connecting our findings within Ashforth and Anand's (2003) (multilevel) model of normalization would provide a better-rounded picture of match-fixing. Consequently, Ashforth and Anand's (2003) normalization framework will be predominant in the general discussion. Furthermore, as we borrowed and applied several theoretical perspectives from other disciplines to the context of sport, a *derived* approach is thus used in this dissertation (Chalip, 2006). Such an approach allows us to reflect on how our findings may have extended the theoretical perspectives on match-fixing and/or (sport) corruption in general. These theoretical contributions are also further outlined in the general discussion of the dissertation.

3.2.1 Rest's theory of moral development

As discussed by Harvey (2015) and Sailors et al. (2015), match-fixing involves a situation with moral principles attached. More specifically, people who are approached to potentially fix a match must deal with a number of moral considerations before they make a decision. As previously mentioned, when athletes would decide not to compete to the best of their ability, the fair play principle is clearly breached (Butcher &

Schneider, 1998). Moreover, when it concerns betting-related match-fixing, not only the sport itself is abused, but also the sport betting market is affected in what could be seen as a dishonest way. Furthermore, the physical and mental integrity of people involved in match-fixing can also be at risk (Boniface et al., 2012; Doidge, 2018; FIFPro, 2012). As such, the potential act of match-fixing is the result of a moral decision-making process that considers these moral issues (Garrigan et al., 2018). After a moral decision has been made, behaviour that conforms to or follows moral principles (i.e., prosocial behaviour or a moral action) will most likely follow. However, when the resulting behaviour violates a moral principle, it is referred to as antisocial behaviour (or an immoral action) (Garrigan et al., 2018). Consequently, engaging in match-fixing can be considered an antisocial behaviour or an immoral action.

Various moral decision-making theories and perspectives have been developed over the years (for an overview, see Garrigan et al., 2018). However, the cognitive-developmental perspectives have been predominant in the field of moral psychology by employing stage theories to explain moral development. First, Piaget's (1932) theory of logical reasoning focused on moral development in children. Subsequently, Kohlberg (1969) extended Piaget's theory beyond childhood, and stated that an individual's capacity for moral reasoning also depends on the capacity for logical reasoning. Kohlberg (1969) proposed six sequential stages of moral judgment that one must pass through, each in turn. However, Kohlberg's (1969) sequential stages have not been without criticism (e.g., Boyes & Walker, 1988; Krebs & Denton, 2005; Locke, 1979). Therefore, Rest (1986) moved the field away from stage theory and proposed that moral development should be considered more gradually. Moreover, by highlighting moral action (behaviour) as the end point, not just moral judgment, Rest's (1986) model led to more mature forms of thinking, which is also necessary in the study of match-fixing (see study 1).

As shown in Figure 1, Rest's (1986) model suggests that four distinct steps must happen in order for moral behaviour to occur: i.e., *moral sensitivity*, *moral judgment*, *moral motivation*, and *moral character*.

Figure 1. Rest's (1986) four steps model of moral decision-making.

The first step is called *moral sensitivity*, which refers to an individual's ability to recognize that a situation contains a moral issue (Lincoln & Holmes, 2011). The second step is *moral judgment*, which involves the evaluation of the moral justification of different possible solutions to the moral issue. In other words, in the second step an individual asks him or herself which action is morally right or wrong. A third step, namely *moral motivation*, refers to the intention to choose the moral decision over another solution representing a different value (e.g., financial or personal gain) (Lincoln & Holmes, 2011). Finally, the last step, which is called *moral character*, comprises the actual implementation of the action which involves courage, determination, and ability to follow through with the moral decision. Although the four steps are ordered logically, they are not sequential. Furthermore, failure in any of these steps can result in the failure to make a moral decision, in our case, engaging in match-fixing (Lincoln & Holmes, 2011). Rest's (1986) model has been applied in our first study.

3.2.2 Normalization of corruption theory

Match-fixing has dominantly been presented as a form of corruption (in sport) (Kihl, 2018b). Corruption in general has been defined in several ways, such as "the misuse of public office for private gain" (Treisman, 2000, p. 399) and "the misuse of authority for personal, subunit and/or organizational gain" (Ashforth & Anand, 2003, p. 2).

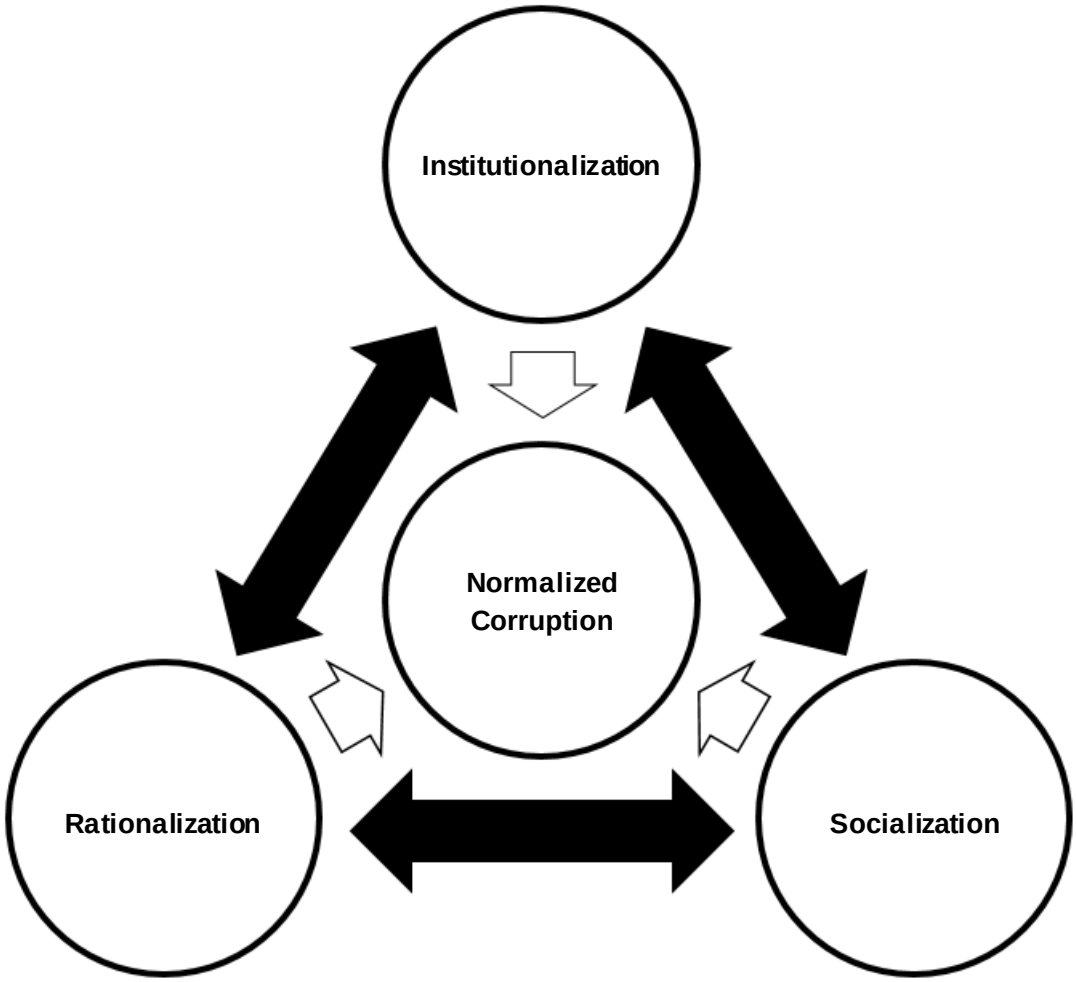
Although these definitions could be valuable when considering sport governance corruption, they are less relevant when investigating corruption involving athletes. Therefore, several scholars have proposed more sport-focused or sport-specific definitions of corruption (e.g., Gorse & Chadwick, 2010; Maennig, 2005; Masters, 2015). In this dissertation, we rely on Masters' (2015, p. 113) definition of "corruption in sport," which refers to "the deviation from public expectations that sport will be played and administered in an honest manner." Although Masters' (2015) definition has not been without criticism (e.g., see Manoli et al., 2020 and the discussion on pp. 227-228 of this dissertation), we chose his definition because it leaves room for interpretation and includes sporting- and betting-related match-fixing. For a more extensive overview of the different definitions of corruption in sport, we explicitly refer to the book chapter of Van Der Hoeven and Willem (2022). Moreover, the remaining part of this section is also strongly based on Van Der Hoeven and Willem's (2022) book chapter, as they highlighted the potential of Ashforth and Anand's (2003) normalization of corruption model to explain match-fixing and its underlying mechanisms.

As previously described in this dissertation (see pp. 19-21), three levels of analysis have mainly been applied to study corruption (in sport). In summary, micro-level understandings of corruption in sport have mainly been rooted in rational choice theory (Becker, 1968), meso-level approaches focused on the social and relational networks in which people are integrated to explain corruption, and macro-level models mainly focused on external societal determining factors in relation to corruption (in sport) (Huberts, 2010). As these three levels have mainly been considered in isolation of each other, they do not provide a complete picture, which is necessary to better understand corruption (in sport) (Huberts, 2010). Therefore, several scholars have argued that corruption in sport, and match-fixing in particular, should be examined by

using a more holistic framework that examines the three interconnected levels (i.e., micro, meso, macro) together (Huberts, 2010; Kihl, 2018c).

In the general corruption literature, Ashforth and Anand (2003) have provided such an overarching and multilevel model that explains how corruption becomes normalized in organizations. According to Ashforth and Anand (2003), a practice is considered normalized when it is embedded in an organization's structures, processes, and culture in a taken for granted way. As shown in Figure 2, Ashforth and Anand (2003) argued that three mutually reinforcing and reciprocally interdependent pillars (i.e., processes) underlie normalization: (a) institutionalization, (b) rationalization, and (c) socialization. The three pillars are outlined in the following paragraphs.

Figure 2. Ashforth and Anand's (2003) normalization of corruption framework.



The first pillar, institutionalization, refers to "the process by which corrupt practices are enacted as a matter of routine, often without conscious thought about their propriety" (Ashforth and Anand, 2003, p. 3). According to Ashforth and Anand (2003), the institutionalization process consists of three phases. The first phase consists of the initial corrupt decision or act. When it comes to match-fixing, researchers have already shown that individuals can decide to engage in match-fixing for several reasons (e.g., from a reciprocal perspective, see Christiansen and Hjørngard, 2013; from a rational choice perspective, see Hill, 2015; from a code of brotherhood perspective, see Tzeng, Lee and Tzeng, 2020). In a second phase, Ashforth and Anand (2003) state that an initial (successful) corrupt act can become embedded in an organization's structures and processes. The ethnographic study of Numerato (2016, p. 711), for example, showed how bribes in exchange for fixed refereeing became an "unwritten rule," a part of the game, in Czech local football. As such, simultaneously with the embedding of the corrupt behaviour, a deviant (sub)culture may emerge which normalizes the behaviour. In a third and final phase, corrupt acts become routinized and habitual (Ashforth & Anand, 2003). Routinizing blunts awareness that a moral issue is at stake, and consequently, individuals are frequently swept along by the momentum of the system (Ashforth & Kreiner, 2002). Eventually, corrupt acts become taken for granted and normative, while being performed mindlessly.

The second pillar, rationalization, refers to the process by which individuals (or groups) develop and use self-serving ideologies to justify, legitimate, or even valorise corrupt acts in their own eyes (Ashforth & Anand, 2003). The rationalizing ideologies help distance individuals and groups from the aberrant moral stance implied by their actions by explaining why specific acts of corruption are justifiable or excusable exceptions to the general normative rules (Ashforth & Anand, 2003). The rationalizations explain why otherwise law abiding and morally upright individuals engage in corruption and

"tend not to view themselves as corrupt" (Ashforth and Anand, 2003, p. 15). Collins et al. (2009), for example, demonstrated how firm's top managers rationalize engaging in corruption as necessary to be competitive. Moreover, when rationalizations become a shared resource in the organization's culture, they may pave the way towards collective corruption (see Frost & Tischer, 2014). In summary, Ashforth and Anand (2003) listed eight rationalizing strategies used in various combinations to justify corrupt practices (for an overview, see study 2).

The third pillar, socialization, involves "the process by which newcomers are taught to perform and accept the corrupt practices" (Ashforth & Anand, 2003, p. 3). The socialization process helps to explain how ongoing corruption is sustained through the induction and absorption of newcomers, and how ethically sound persons become steeped in corruption (Ashforth & Anand, 2003). Ashforth and Anand (2003) identified three socialization mechanisms: i.e., cooptation, incrementalism, and compromise. In cooptation, newcomers are induced by rewards to change their attitudes toward corrupt acts (Anand et al., 2004). In incrementalism, newcomers are gradually introduced to corrupt acts (Brief et al., 2001). More specifically, newcomers are initially exposed to small and slightly deviant acts. When they come to accept the act as normal, they are introduced to other more corrupt acts. In this way, the newcomer is eventually engaging in acts that he or she would initially have rejected (Anand et al., 2004). In compromise, "individuals essentially 'back into' corruption through attempts (often in good faith) to resolve pressing dilemmas, role conflicts, and other intractable problems" (Ashforth & Anand, 2003, p. 30).

3.2.3 Social cognitive theory of moral thought and action: moral disengagement

At the individual-level, the decision to engage in match-fixing may also be explained by cognitive processes (Barkoukis & O'Shea, 2022). After all, even the dominant

rational choice cost-benefit equation to match-fixing, as elaborated by Forrest and Simmons (2003), contains a term that represents the cognitive discomfort from having taking part in match-fixing. However, there is still a lack of knowledge on the cognitive processes associated with the decision to engage in match-fixing (Barkoukis & O'Shea, 2022).

Robertson and Constandt (2021) argued that Albert Bandura's (1986, 1991) seminal social cognitive theory of moral thought and action may be an interesting lens to examine integrity breaches in sport, such as match-fixing. Bandura's (1986, 1991) theory explains how moral behaviour is regulated by personal and social sanctions expected to result from such conduct. Although both personal and social sanctions are important, Bandura (1991) perceived personal sanctions as the most effective regulator of people's moral conduct. Bandura argued that people can refrain from engaging in immoral actions by implementing self-sanctions as part of a cognitive, self-regulative process (Robertson & Constandt, 2021). However, self-regulatory mechanisms only work effectively when they are activated (Bandura, 1991, 2002). In the face of external inducements, people can consciously deactivate the self-regulatory process to behave contrary to their moral standards without feeling guilt or stress, a practice referred to as moral disengagement (Bandura, 1991, 2002).

Moral disengagement is described as "a set of eight cognitive mechanisms that decouple one's internal moral standards from one's actions, facilitating engaging in unethical behavior (sic) without feeling distress" (Moore, 2015, p. 199). The eight cognitive mechanisms of moral disengagement outlined by Bandura (1991, 2002) are listed in Table 2.

Table 2. Eight cognitive mechanisms of moral disengagement.

Mechanism	Explanation
Moral justification	Cognitively reframing unethical acts as being in the service of a greater good.
Euphemistic labelling	The use of sanitized language to rename harmful actions to make them appear more benign.
Advantageous comparison	Exploiting the contrast between a behaviour under consideration and an even more reprehensible behaviour to make the former seem innocuous.
Displacement of responsibility	The attribution of responsibility for one's actions to authority figures who may have tacitly condoned or explicitly directed behaviour.
Diffusion of responsibility	Dispersing responsibility for one's action across members of a group.
Distortion of consequences	The minimization of the seriousness of the effects of one's actions.
Dehumanization	The framing of the victims of one's actions as undeserving of basic human consideration.
Attribution of blame	Assigning responsibility to the victims themselves, who are described as deserving whatever befalls them.

Moral disengagement theory has been fertile ground for empirical research in various disciplines and domains, such as organizational behaviour (e.g., Duffy et al., 2012; Moore et al., 2012), criminology (e.g., Cardwell et al., 2015; DeLisi et al., 2014), and military psychology (e.g., Aquino et al., 2007; McAlister et al., 2006). In the domain of sport, moral disengagement has already been associated with antisocial behaviour (e.g., Boardley & Kavussanu, 2009, 2011; Hodge & Lonsdale, 2011; Stanger et al., 2013), consumers' moral reasoning in the aftermath of an athlete scandal (e.g., Lee et al., 2016; Lee & Kwak, 2016), doping (likelihood) (e.g., Kavussanu & Ring, 2017; Stanger & Backhouse, 2020), aggression and violence (e.g., Traclet et al., 2015), and corruption (e.g., Kihl, 2019). However, no study has yet empirically examined moral disengagement in relation to match-fixing (Barkoukis & O'Shea, 2022; Van Der Hoeven & Willem, 2022), a knowledge gap that our third study aimed to address.

3.2.4 A multi-stakeholder approach

As illustrated by a series of match-fixing scandals that have already occurred in sport, various stakeholders can be involved in match-fixing (Carpenter, 2012). Stakeholders

are generally described as “those groups who can affect or are affected by the achievement of an organization’s purpose” (Freeman, 1984, p. 49). In the study of match-fixing, several stakeholder classifications have been made. For example, Manoli and Antonopoulos (2015) made a distinction between direct and indirect stakeholders, depending on the level of their association with match-fixing in Greek football. Yilmaz et al. (2019) made a distinction between primary and secondary stakeholders in their study on match-fixing in Turkish football. More specifically, primary stakeholders were described as those who were convicted for match-fixing and were part of one of Turkey’s leading clubs (i.e., the criminal organization in the study), while secondary stakeholders were also convicted for match-fixing, but were not part of the “criminal organization” (i.e., players, presidents, and club officials of opposing teams). Another classification was formulated by Spapens (2021) who made a distinction between “outsiders” and “insiders” who can affect or are affected by match-fixing. Outsiders or external stakeholders were mainly described as external criminals, whereas people such as athletes, coaches, board members, and referees were considered as insiders or internal stakeholders.

As already mentioned, the current match-fixing narrative stereotypes match-fixing as a problem caused by external stakeholders who infiltrate in sport. However, several researchers agreed that match-fixing is rather an activity of the internal stakeholders in sport (Spapens, 2021; Yilmaz et al., 2019). After all, internal stakeholders actively involved in sport, can be approached by criminals external to sport, and are also the ones who can eventually perform the manipulation on the field. As such, more research should be focused on internal stakeholders in relation to match-fixing.

Current match-fixing research on sport internal stakeholders mainly focused on the involvement of athletes (FIFPro, 2012; Frenger et al., 2019) and referees (Boeri &

Severgnini, 2011; Visschers et al., 2020). The focus on athletes and referees is not surprising, as they can play an important role in the outcome and the course of a match (Manoli & Antonopoulos, 2015; Yilmaz et al., 2019). However, to obtain a more complete picture, the involvement and viewpoints of other (internal) stakeholders (e.g., coaches, board members) should also be considered (Tzeng & Lee, 2021). Our fourth study aimed at contributing to fill this gap by exploring various internal stakeholders' attitudes towards and experiences with match-fixing in European sport.

4 RESEARCH CONTEXT AND OVERVIEW ORIGINAL RESEARCH

4.1 Ethical approval, data collection, research context, and research questions

4.1.1 Ethical approval

The general outline of this doctoral dissertation was approved by the ethics commission (code: project 2019/0754) and the doctoral commission of the Faculty of Medicine and Health Sciences of Ghent University. The outline of the study "Match-fixing: Moral challenges for those involved" was approved by the ethics commission (code: project 2017/42) of the Faculty of Psychology and Educational Sciences. The outlines of the studies "Understanding how individuals engage in match-fixing: The role of moral disengagement" and "Match-fixing in European sports: Attitudes and experiences" were part of the Erasmus+ sport project EPOSM, which was approved by the ethics commission (code: project 2019/105) of the Faculty of Psychology and Educational Sciences.

4.1.2 Data collection: measuring (the prevalence of) match-fixing

Due to its complex and multifaceted nature, it is challenging to measure (the prevalence of) match-fixing. While match-fixing is often compared with doping, there is no institutionalized testing and detection scheme for match-fixing as there is in anti-doping efforts (Emrich et al., 2022). Consequently, practitioners and researchers searched for other methods to examine (the prevalence of) match-fixing. In practice, the main tools to detect and examine match-fixing are betting monitoring systems. However, as previously mentioned, these monitoring systems do not include match-fixing for sporting purposes and have also several shortcomings in detecting betting-related match-fixing (see p. 16). Consequently, communicated figures by betting monitoring companies should be interpreted with caution.

When it comes to academic research, Gorse and Chadwick (2011) were among the first to quantitatively examine the extent of match-fixing. They relied on a database of doping and match-fixing cases which were proven and sanctioned according to sport disciplinary law. However, one might suppose that Gorse and Chadwick's (2011) figures were an underestimation of the reality as many cases of (sporting-related) match-fixing often stay undetected. Moreover, even when cases are detected, it is often difficult to sanction the people involved due to a lack of evidence (e.g., Vinokourov case, see Cyclingnews, 2019). Consequently, alternative methods have been used in the match-fixing literature to date, with questionnaires as the most commonly used method to investigate the prevalence of match-fixing (e.g., FIFPro, 2012; Frenger et al., 2019; Harvey & Levi, 2014; Spapens & Olfers, 2013, 2015; Theodorou, 2017; Trumpyte, 2016; Visschers et al., 2020; Zamante, 2012).

As mentioned on pp. 11-12 of this dissertation, Spapens and Olfers' (2013, 2015) questionnaire was the first to examine betting- and sporting-related match-fixing together. Inspired by their approach, we decided to use their questionnaire as the starting point for our own online questionnaire (study 1). However, as match-fixing is a sensitive subject, we had to avoid several response biases (an extensive overview of the possible biases we had to deal with is provided in the original research papers and the general discussion on pp. 235-238. For example, to counter the concerns regarding a social desirability bias, we used an anonymous approach in our first online questionnaire (Fukukawa, 2002). Building on the experience we gained from our first exploratory questionnaire, we decided to add an additional scale in our next questionnaire (study 3 and 4) to control for social desirability (i.e., Strahan and Gerbasi's (1972) short-form scale X1). Furthermore, as we mainly disseminated both of our questionnaires through email and social media, we also had to deal with the

possibility of a self-selection bias. The specific features of the questionnaire data are outlined in part II of this dissertation.

Next to our quantitative studies, which allowed us to explore the prevalence of match-fixing, we also conducted a qualitative study to examine the socio-cultural embedment of match-fixing in the unique context of road cycling (study 2). A qualitative research method was chosen for the second study, as this generally yields more in-depth and detailed responses to the research questions. Following written informed consent, we collected data through semi-structured interviews with road cyclists. Semi-structured interviews were chosen as they combine consistency and flexibility (Langdridge, 2007), while also offering a conversational style to help make interviewees feel at ease (Wadey et al., 2011), which is important when talking about a sensitive topic. To recruit interviewees, purposive and subsequent snowball sampling were applied (Emerson, 2015; Patton, 2002). For more details about the data (collection method), we again refer to our original research.

4.1.3 Research context

As reflected throughout the previous sections, empirical research on match-fixing remained rather limited. Moreover, match-fixing studies so far mainly focused on football (e.g., Manoli & Antonopoulos, 2015), professional sport (e.g., Frenger et al., 2019), betting-related match-fixing (e.g., Lastra et al., 2018), athletes and referees (e.g., athletes, see FIFPro, 2012; referees, see Visschers et al., 2020), and specific national contexts (e.g., Malta, see Aquilina & Chetcuti, 2014). Consequently, only some parts of the problem have already been addressed. To provide a more complete picture of match-fixing, we decided to broaden the scope of this dissertation in multiple ways.

First of all, we explored match-fixing in multiple sports. In our first exploratory study, we focused on football, tennis, and badminton. Football and tennis were chosen as a series of match-fixing scandals have occurred in these sports (Boniface et al., 2012). Badminton was added following the discussion on the sporting-related match-fixing scandal at the London Olympic Games of 2012 (Blair, 2018; Sailors et al., 2015). In a second study, we focused on road cycling, as this sport is characterized by several unique peculiarities which could make the sport vulnerable for match-fixing (Mignot, 2016a; Rebeggiani, 2016). Moreover, some mediatized match-fixing cases already happened in road cycling, although the involved cyclists were eventually not convicted (Cyclingnews, 2011, 2019; VeloNews, 2012). In a third and fourth study, we focused on four sports, namely football, tennis, basketball, and field hockey. Next to football and tennis, basketball and field hockey were thus added. Basketball was added as this sport has already suffered from match-fixing (Muniowski, 2018), and is frequently associated with practices such as “tanking” (i.e., a specific form of sporting-related match-fixing in which people purposively lose one or multiple games at the end of a season to be better positioned for the drafts of the next season) (Soebbing et al., 2013), and “point shaving” (i.e., a specific form of betting-related match-fixing in which people try to keep the final result of a game within or outside a pre-determined range) (Wolfers, 2006). Field hockey was added because it is the sixth largest sport in the Netherlands in terms of club membership and the largest team sport after football. In addition, just like football and tennis, field hockey is known for its club culture, which may be relevant in relation to the occurrence and prevention of match-fixing.

Second, we focused on various sport levels, as no level of sport is immune from match-fixing (Forrest, 2018). Moreover, as we aimed to examine both types of match-fixing, all levels of sport should be included to provide a more complete picture. After all, betting-related match-fixing is more associated with higher levels of sport, while

sporting-related match-fixing can happen at any level of sport. In our first, third and fourth study, the majority of the respondents were involved on an amateur level, whereas in our second study the majority of the cyclists were involved on a professional level. By considering amateur and professional levels of sport, we aimed to provide a more complete picture of match-fixing in general, and the proportion of the two major types in particular.

Third, we focused on various internal stakeholders in sport. After all, match-fixing is frequently stereotyped as a problem caused by external criminals, while match-fixing by internal stakeholders might even be the bigger problem (Spapens, 2021). In the first study, we included athletes, former athletes, trainers, and referees. Athletes, trainers, and referees were chosen, as these are the people who actively participate in sport, and consequently can influence the course or the result of the match. Former athletes were also included, as they could give valuable insights into their past experiences. Moreover, former athletes often have good relationships in sport, which are sometimes used to convince other (active) athletes to engage in match-fixing (Marchetti et al., 2021). In our second study, we focused on road cyclists only, as they are part of a close-knit peloton, which is known for its shielding attitude towards people from the outside (Rebeggiani, 2016). In the third and fourth study, we focused on current and former athletes, coaches, referees, and board members. Compared to the first study, board members were included, as they can also participate in match-fixing, as shown by Manoli and Antonopoulos (2015). Moreover, the inclusion of former involved stakeholders was necessary, as we examined people who indicated that they had previously been approached for match-fixing in study 3.

Fourth, research in this dissertation went from a regional (i.e., Flanders, see study 1), to a national (i.e., Belgium, see study 2), to an international scope (i.e., Austria,

Belgium, Croatia, France, the Netherlands, Switzerland, and the United Kingdom, see study 3 and 4). The idea for his gradual broadening of the geographical scope arose after we discovered interesting results in the first exploratory study. After all, Flanders is just a small area and match-fixing is a cross-national phenomenon (Carpenter, 2012). In our second study, we therefore broadened the scope to Belgium, a country which is known as one of the European core countries of cycling where several (prestigious) races are organized (Mignot, 2016b). Subsequently, we extended our first exploratory and quantitative study to a European context, by elaborating the Erasmus+ sport project EPOSM. This allowed us to conduct the third and fourth study in Austria, Belgium, Croatia, France, the Netherlands, Switzerland, and the United Kingdom.

4.1.4 Research questions

As previously mentioned, the first study of this dissertation built further on the work of Spapens and Olfers (2013, 2015) who revealed prevalence figures on match-fixing in the Netherlands, and indicated that sporting-related match-fixing seems to occur more than betting-related match-fixing. However, convincing prevalence figures were still limited, as was empirical research on match-fixing in general. Therefore, we decided to elaborate an exploratory study on match-fixing in Flanders, which used Spapens and Olfers' (2013, 2015) questionnaire as a starting point. Moreover, we decided to add additional questions targeting spot-fixing and Rest's (1986) model of moral decision-making. After all, spot-fixing was barely mentioned in the quantitative research of Spapens and Olfers (2013, 2015), and an ethical theoretical framework was rarely used in the study of match-fixing even though people approached to potentially fix a match must consider a number of ethical issues (Harvey, 2015). As a consequence, the first two research questions (RQ's) are as follows:

RQ1: What is the prevalence of match-fixing in Flemish sports?

RQ2: How does match-fixing relate to moral decision-making?

Although exploring and mapping match-fixing in Flemish football, tennis, and badminton offered novel individual-level explanations for match-fixing, organizational and systematic levels of analysis are also necessary to better understand match-fixing and its underlying mechanisms (Kihl, 2018c). In the general corruption literature, Ashforth and Anand (2003) have provided such a multilevel model which explains how corruption becomes normalized in organizations. Moreover, a sport that is known for its unique strategic context and close-knit culture, but remained understudied when it comes to match-fixing, is road cycling (Christiansen & Hjørngard, 2013). Given this context the following research questions are formulated:

RQ3: How do road cyclists perceive the existence of match-fixing in their sport?

RQ4: (How) is match-fixing institutionalized, rationalized, and socialized in road cycling?

After exploring match-fixing (study 1) and zooming in on the socio-cultural embedment of match-fixing in road cycling (study 2), the idea for the third study arose from a gap detected in the match-fixing literature on how individuals cognitively decide to engage in match-fixing. Although Forrest and Simmons (2003) included a term to represent the moral discomfort from having taking part in match-fixing in their cost-benefit equation, cognitive mechanisms have scarcely been studied in relation to match-fixing (Barkoukis & O'Shea, 2022). A known, but underexplored type of cognitive mechanism is moral disengagement (Robertson & Constandt, 2021). Despite research in sport highlighting the role of moral disengagement in relation to practices such as doping (Stanger & Backhouse, 2020), little remained known about moral disengagement in

relation to match-fixing (Barkoukis & O'Shea, 2022). Consequently, the research question sounds as follows:

RQ5: (How) can moral disengagement help explain an individual's decision to consent to match-fixing, alone and in concert with the possibility of having been offered money, other inducements, and having been threatened or pressured?

The final study built further on study 1. More specifically, after exploring match-fixing in Flanders, the Council of Europe's Group of Copenhagen showed interest in our research, and subsequently asked us to broaden the scope to a European context. Moreover, empirical research on match-fixing to date has often been limited to a certain country (e.g., the Netherlands, Spapens & Olfers, 2013, 2015), sport (mainly football, see e.g., FIFPro, 2012), sport level (mainly professional, see e.g., Frenger et al., 2019), and/or type of match-fixing (mainly betting-related, see e.g., Lastra et al., 2018). In addition, match-fixing is often stereotyped as a problem caused by external criminals, while match-fixing by internal stakeholders might even be the bigger problem (Spapens, 2021). Furthermore, the viewpoints of various (internal) stakeholders are needed to get a better picture of match-fixing (Tzeng & Lee, 2021). Hence, the last research questions of this dissertation read as follows:

RQ6: What are the attitudes of various internal stakeholders towards the seriousness, risk, and acceptability of match-fixing?

RQ7: To what extent do internal stakeholders in European sports know of others who had already been approached for match-fixing?

RQ8: To what extent do internal stakeholders in European sports indicate that they had already been approached themselves to fix a game/match?

4.2 Overview of original research

Part II of this dissertation focuses on the previously listed research questions by presenting the original research that has been published or is in the process of being published by journals included in the Clarivate Analytics' Social Sciences Citation index (SSCI), made available through Web of Science.

Van Der Hoeven, S., De Waegeneer, E., Constandt, B., & Willem, A. (2020). Match-fixing: Moral challenges for those involved. *Ethics & Behavior, 30*(6), 425–443.

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Van Der Hoeven, S., Constandt, B., Manoli, A. E., van Bottenburg, M., Caneppele, S., & Willem, A. (2022). Match-fixing in European sports: Attitudes and experiences. *Deviant Behavior*. Accepted pending minor revisions.

A schematic overview of the original research is displayed in Table 3.

Table 3. Schematic overview original research.

	RQs	Research perspective	Geographical scope	Scope sport (level)	Data collection	Sample
Study 1	RQ1-RQ2	Moral development	Flanders	Amateur and professional football, tennis, and badminton	Online questionnaire	567 respondents
Study 2	RQ3-RQ4	Normalization of corruption	Belgium	Amateur and professional road cycling	Semi-structured interviews	15 interviewees
Study 3	RQ5	Moral disengagement	Austria, Belgium, Croatia, France, the Netherlands, Switzerland, United Kingdom	Amateur and professional football, tennis, basketball, and field hockey	Online questionnaire	383 respondents
Study 4	RQ6-RQ8	Multi-stakeholder	Austria, Belgium, Croatia, France, the Netherlands, Switzerland, United Kingdom	Amateur and professional football, tennis, basketball, and field hockey	Online questionnaire	4958 respondents

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PART II: ORIGINAL RESEARCH

1 MATCH-FIXING: MORAL CHALLENGES FOR THOSE INVOLVED

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Abstract

Match-fixing is a major ethical issue in sports. Although research interest in match-fixing has increased in recent years, we remain largely in the dark regarding how both betting- and non-betting-related match-fixing relate to the moral decision-making of those involved. Drawing on Rest's (1986) theory of morality and on the perceptions of a large sample (n = 567) of participants in Flemish sports, this study indicates that most match-fixing incidents are non-betting-related, while moral motivation and associated challenges clearly differ according to the type of match-fixing. Therefore, each type of match-fixing requires different preventive measures.

Keywords: Match-fixing; Moral decision-making; Sports ethics

Introduction

In recent years, maintaining the integrity of sports has become an increasingly complex challenge (Aquilina & Chetcuti, 2014; Gokhale, 2009; Hill, 2010; Spapens & Olfers, 2015). Next to practices such as doping, management fraud, transfers of adolescent players, human trafficking, and hooliganism, many sports have been confronted with match-fixing (i.e., the manipulation of sports competitions) (Spapens & Olfers, 2015). Although match-fixing is as old as sporting itself and has already occurred in a wide variety of sports and countries (see Carpenter, 2012; Chappelet, 2015; Huggins, 2018; Maennig, 2005), the advancement of the Internet in the mid-1990s facilitated a dramatic increase in its size and complexity (Kerr, 2017; Lastra, Bell, & Bond, 2018).

At the same time, match-fixing has become heavily opposed as it may have several detrimental consequences. First, match-fixing damages the uncertainty of sports (competitions) results, which, in turn, endangers sports' popularity (Chappelet, 2015). Removing this uncertainty can damage these sports as a discipline. Likely consequences include (but are not limited to) a decreased public interest in sports, sponsors refusing to associate their image with sports, the media turning its back, and clubs ceasing to exist due to a lack of resources (Boniface et al., 2012). This is not just the case for sports but also for the sports betting sector itself, which could suffer extensive financial losses. In the long run, people might be reluctant to spend money on a corrupted and untrustworthy system (Rebeggiani & Rebeggiani, 2013). Second, the mental and physical integrity of the people who are approached to fix a match (e.g., athletes, officials, and team administrators)—as well as their families and friends—is greatly at risk. These people and their environments are often faced with

threats and violence when involved in a match-fixing event (Boniface et al., 2012; FIFPro, 2012).

Although match-fixing has thus presented itself as a major concern for sports, relatively little empirical academic work has been conducted until recently (Hill, 2009a, 2009b; Nowy & Breuer, 2017; Numerato, 2016; Spapens & Olfers, 2015). Both Boniface et al. (2012) and Spapens and Olfers (2013) analyzed different motives and ways to fix a match. Some authors have discussed how to implement prevention against the threat of match-fixing (Chappelet, 2015; Nowy & Breuer, 2017) while formulating recommendations to combat match-fixing (Boniface et al., 2012; Bozkurt, 2012; Holden & Rodenberg, 2017; Husting et al., 2012). Several researchers have analyzed betting odds in order to detect fixed matches (Feustel & Rodenberg, 2015; Ötting, Langrock, & Deutscher, 2018; Reade & Akie, 2013). Hill (2009a, 2009b) has undertaken ground-breaking work by investigating the motives, incentives, and mechanisms used by corruptors to approach athletes and eventually fix soccer matches. Lastra et al. (2018) revealed that there is a considerable lack of understanding and awareness of betting-related match-fixing among both athletes and non-athletes. Generally, the literature has identified three main causes of match-fixing originating from: (a) criminal organizations and illegal sports betting; (b) (financially) vulnerable individuals; and (c) weak governance of sports organizations (Tak, Sam, & Jackson, 2018).

Although the abovementioned studies illustrate the emergence of a research tradition on match-fixing, several individual vulnerabilities have not been fully addressed. For example, there is still a lack of knowledge about how athletes, coaches, and referees [1] perceive themselves as potential targets (see Boniface et al., 2012; Lastra et al.,

[1] The term “referees” refers to “linesmen,” “jury members,” and “officials” throughout this study.

2018), how they are approached (see Hill, 2009a, 2009b), and what makes them decide to agree on a proposed fix (see Hill, 2015). Moreover, an ethical theoretical framework is rarely used in the study of match-fixing even though match-fixing is an ethical issue as well as a criminal problem (Harvey, 2015). However, we do not know how match-fixing relates to an individual's moral decision-making process. Given this context, the present study largely advances our knowledge regarding match-fixing by addressing the following research questions:

(1) What is the prevalence of match-fixing in Flemish sports?

(2) How does match-fixing relate to moral decision-making?

Literature review

Defining match-fixing

During the past few years, several match-fixing conceptualizations and definitions have been established by different researchers and associations. For instance, Preston and Szymanski (2003) first described match-fixing as follows:

> Individual contestants may be willing to reduce their effort contribution for specific matches if the rewards for so doing are large enough. Sometimes this occurs either because the opposition values the victory significantly more and is willing to pay to secure it, and sometimes it occurs because there is an opportunity to generate returns on the insider information (for example, through gambling). (p. 613)

Ten years later, Hill (2013) offered a more concise definition, stating that match-fixing takes place "when a player or referee deliberately underperforms during a sporting contest to ensure that one team loses or draws the match" (p. 32). Furthermore, the

Council of Europe (2014) did not explicitly write about match-fixing but provided a definition of "manipulation of sports competitions":

> An intentional arrangement, act, or omission aimed at an improper alteration of the result or the course of a sports competition in order to remove all or part of the unpredictable nature of the aforementioned sports competition with a view to obtaining an undue advantage for oneself or for others. (art. 3.4)

These definitions, however, are not detailed enough to deal with the problem in practice as match-fixing assumes varied forms depending on who is involved and for what reasons (Tak et al., 2018). Match-fixing can be classified into two major types based on whether or not the match-fixing case at hand is related to gambling/betting (Hill, 2015; Spapens & Olfers, 2015). On the one hand, non-betting-related match-fixing focuses primarily on sporting interests (Boniface et al., 2012; Duggan & Levitt, 2002; Spapens & Olfers, 2015). Examples of this type involve circumventing relegation by making agreements with the opposite team or athlete (see Hill, 2008), losing a match to avoid meeting certain competitors or teammates in the next round of a round-robin competition system (see Yang & Liu, 2013), or enabling another team to win a championship (see Boniface et al., 2012). This kind of match-fixing clearly breaches the Olympic motto, "Higher, Faster, Stronger," which encourages all participants to pursue victory and perform at one's best (Yang & Liu, 2013). However, Butcher and Schneider (1998) assumed that this pursuit of victory is indispensable in obtaining a fair game. Therefore, non-betting-related match-fixing can be seen as an infringement on the principles of fair play, conceptualized as respect for the game (Butcher & Schneider, 1998; De Waegeneer & Willem, 2016). Nevertheless, this type of match-fixing is "still about achieving success, albeit delayed success or 'cheating to win'" (Boniface et al., 2012, p. 5; Tak et al., 2018, p. 74).

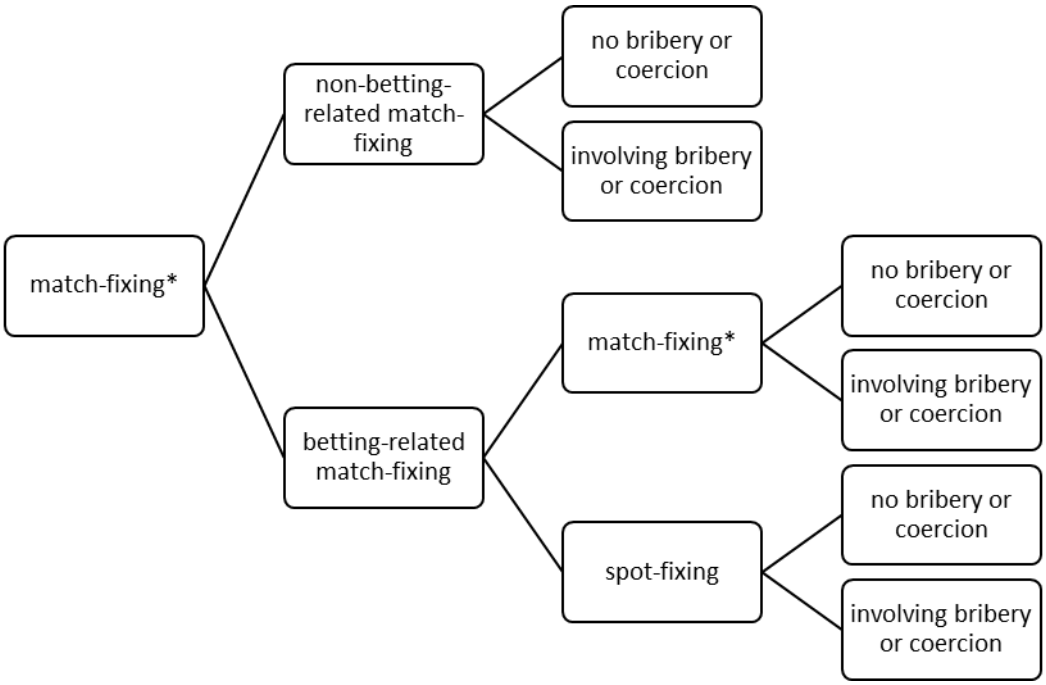
On the other hand is the well-known betting-related match-fixing, which has grown enormously in scope over the past two decades (Boniface et al., 2012; Hill, 2013; Huggins, 2018). This type of match-fixing is considered a sub-dimension of corruption in sports, which is "any illegal, immoral, or unethical activity that attempts to deliberately distort the result of a sporting contest for the personal material gain of one or more parties involved in that activity" (Gorse & Chadwick, 2010, p. 43). Consequently, the main reason for participating in betting-related match-fixing is most often purely financial (Spapens & Olfers, 2015). Specifically, the purpose of this kind of match-fixing is to make money by placing a bet on a fixed match (Hill, 2008). The subject of fixing can be either the outcome of the match or a specific event during the match (a practice called "spot-fixing") (Serby, 2015).

Additionally, Spapens and Olfers (2015) made a second important distinction between match-fixing incidents in which the individuals who must arrange "the fix" participate voluntarily and cases in which they are bribed or coerced. An individual (e.g., a player or referee), may take the initiative to manipulate a match without being bribed or influenced by others (Spapens & Olfers, 2015). This scenario is called "lone-wolf match-fixing," regardless of whether or not it involves betting (Holden & Rodenberg, 2017). However, it is also possible that multiple people will agree to fix a match without bribes or coercion (Spapens & Olfers, 2015). In other circumstances, outsiders may bribe or coerce the people who are able to directly influence the course of a match (Spapens & Olfers, 2015).

The sharing of sensitive inside information is not considered a type of match-fixing in this work, as long as the course or the result of the match is not manipulated to achieve a guaranteed outcome (Spapens & Olfers, 2013). In this respect, Harvey (2015) stated that the use of insider information—for the purpose of gaining an advantage in the

betting markets—does not undermine the value of sports since its impact is purely on those involved in gambling on sports. Nevertheless, the sharing and gathering of insider information is considered a risky practice that could induce match-fixing (Spapens & Olfers, 2013). In summary, Figure 3 displays the different types of match-fixing, taking into account the aforementioned distinctions.

Figure 3. Overview of the different types of match-fixing



* The notion "match-fixing" is used twice in Figure 3, once as an overarching term and once as a specific subdivision within betting-related match-fixing. This conceptualization can cause confusion among readers, but the contemporary literature does not provide an unambiguous classification. A possible amendment of the current conceptualization of match-fixing and the design of a possible new overarching term is beyond the scope of this research.

Prevalence of match-fixing

As mentioned earlier, empirical research on match-fixing has been rather scarce (Hill, 2009b; Nowy & Breuer, 2017; Numerato, 2016; Spapens & Olfers, 2015). Over the past few years, match-fixing has nevertheless gained increased attention from both authorities and researchers (Huggins, 2018). International studies have resulted in a number of reports that discuss a wide array of insights into sports corruption in general

and match-fixing in particular (Boniface et al., 2012; Gorse & Chadwick, 2011; University Paris 1 Panthéon-Sorbonne & International Centre for Sport Security, 2014; Van Rompuy, 2015). With specific regard to the European context, research has been conducted to gain a better understanding of the problem of match-fixing in this area (FIFPro, 2012; Harvey & Levi, 2014; Husting et al., 2012; Nowy & Breuer, 2017; Theodorou, 2017). For instance, FIFPro (2012), the worldwide soccer athletes' association, interrogated 3,357 Eastern European soccer athletes from 15 different countries about match-fixing. This inquiry revealed that 11.9% of the players had been approached to match-fix, and 23.6% of the respondents thought that match-fixing had occurred in their national competition (FIFPro, 2012). In cases where players had not received their salary on time, the research showed that 55% of them had been approached to consider match-fixing (FIFPro, 2012). However, an important limitation of this study is the absence of a distinction between betting- and non-betting-related match-fixing (FIFPro, 2012).

Another empirical study conducted by Theodorou (2017) used a quantitative survey to collect data about match-fixing from athletes belonging to twelve different sports disciplines. The results revealed that 12.6% of the respondents said they had played in a match that was fixed, 15% stated that they had been approached by someone in the last twelve months who asked them to fix a match, and 34.7% of the respondents believed that matches in their league may have been fixed in the past 12 months (Theodorou, 2017). The respondents also indicated that the most likely instigators for match-fixing were board members of the club (38.1%), other athletes (16.2%), referees (9.8%), and—last but not least—people from outside the sport (8.9%) (e.g., a member of a criminal gang, a bookmaker, or an athlete's agent) (Theodorou, 2017). Furthermore, their data revealed that most athletes agree to fix a match because of financial difficulties (34.6%), pressure from other athletes or officials (27.5%), the

opportunity to earn easy money (23.7%), pressure from external persons (16.8%), threats of violence toward family or friends (14.5%), or because of a general cultural acceptance of match-fixing (9.5%) (Theodorou, 2017).

However, as the nature of match-fixing can differ from country to country (see Harvey & Levi, 2014), multiple researchers have investigated match-fixing in various national contexts (e.g., Malta, see Aquilina & Chetcuti, 2014; Italy, see Costa, 2018; Australia, see Lastra et al., 2018; Taiwan, see Lee, 2017; Greece, see Manoli & Antonopoulos, 2015; Iberian countries, see Moriconi, 2018; Zimbabwe, see Ncube, 2017; Czech Republic, see Numerato, 2016; Germany, see Pitsch, Emrich, & Pierdzioch, 2012; the Netherlands, see Spapens & Olfers, 2013, 2015; Turkey, see Yilmaz et al., 2018; Belgium, see Zamante, 2012). With respect to Belgium, the Belgian social network site for soccer athletes, Zamante (2012), conducted an online survey of 945 athletes who were particularly active on an amateur (nonprofessional/nonprofit) level. This survey revealed that 14.5% of them had been contacted directly to fix one of their matches, and 27.8% of the approached had agreed to take part in the manipulation (Zamante, 2012). The results also showed that more than a third of the respondents claimed to know one or more athletes or coaches who had been contacted by match-fixers (Zamante, 2012).

In the Netherlands, a thorough empirical study was implemented by Spapens and Olfers (2013, 2015), who collected data through three research methods (whereof one web survey was completed by 732 respondents). This survey targeted (former) athletes, coaches, referees, and sports agents from soccer, tennis, horseracing, boxing, and basketball (Spapens & Olfers, 2013, 2015). The questionnaire unveiled that 27% (n = 181) of the respondents believed that match-fixing has occurred in their own environment (Spapens & Olfers, 2013, 2015). More specifically, 19% (n = 127)

thought that match-fixing could have taken place in their own league, 16% (n = 107) in games in which they participated, and 7% (n = 47) within their own team (Spapens & Olfers, 2013, 2015). Of the cases in which respondents suspected manipulation, 44% concerned non-betting-related match-fixing, and 20% were betting-related (Spapens & Olfers, 2013, 2015). For the remaining 36%, respondents did not know why the match was manipulated (Spapens & Olfers, 2013, 2015). Moreover, the results showed that the outcome of the match was fixed in 83% of the cases, events during the match were influenced in 23% of the cases, and the exact score in 14% of the cases (Spapens & Olfers, 2013, 2015). The percentage of respondents claiming to know people who have been approached to fix matches or had been invited themselves to manipulate games was relatively low: 8% and 4%, respectively (Spapens & Olfers, 2013, 2015). Moreover, the majority of the cases concerned non-betting-related match-fixing (Spapens & Olfers, 2013, 2015). The approaching parties were, in most cases, the opponent (35%), followed by the club (14%) and team members (6%) (Spapens & Olfers, 2013, 2015).

Match-fixing as an ethical issue: Rest's model

Match-fixing—regardless of the type—is considered a moral[2] dilemma as it is a situation with moral principles attached that requires a response or decision (Garrigan, Adlam, & Langdon, 2018). More precisely, people who are subject to a match-fixing proposal must deal with a number of moral considerations before they potentially engage in match-fixing. As already mentioned, the fair play principle is clearly breached in the case of non-betting-related match-fixing. When it comes to betting-related match-fixing, not only is the sport itself affected, but the betting industry is also abused to make money in what could be seen as a dishonest way. Furthermore, the

[2] For the purpose of this study, the terms "ethics" and "morality" are considered synonymous.

integrity of the people involved is often harmed. As such, the potential act of match-fixing is the result of a moral decision-making process that considers these ethical issues. According to Garrigan et al. (2018), moral decision-making is a complex process that refers to any decision—including judgments, evaluations, and responses—made within the "moral domain." These decisions relate to moral issues or principles such as justice, harm, fairness, and care. After a moral decision has been made, a moral action (moral behavior) will most likely follow. Behavior that conforms to or follows moral principles is referred to as prosocial behavior (or a moral action), whereas behavior that violates a moral principle is referred to as antisocial behavior (or an immoral action) (Garrigan et al., 2018; Sokolowski, 1985). Given the abovementioned reasons, engaging in match-fixing is considered an antisocial behavior or an immoral action.

Many different theories and perspectives on moral decision-making have been developed over the years (e.g., social intuitionist theory, see Haidt, 2001; moral domain theory, see Smetana, 2006). However, moral psychology has been dominated by the rationalist, cognitive-developmental perspective, employing stage theories to explain moral development (Garrigan et al., 2018). Piaget's (1932) theory of logical reasoning for moral development in children is generally considered the first cognitive-developmental theory. Kohlberg (1969) then extended Piaget's theory beyond childhood, stating that an individual's capacity for moral reasoning also depends on his/her capacity for logical reasoning. Therefore, he proposed six sequential stages of moral judgment that one must pass through, each in turn. Despite its enormous contribution, however, Kohlberg's theory has not been without criticism (e.g., Boyes & Walker, 1988; Krebs & Denton, 2005; Locke, 1979). A crucial advancement within the field of moral development was realized by Rest (1986), who revised Kohlberg's theory while focusing on moral action as the end point. In contrast to Kohlberg's proposition

of seeing moral development as occurring one stage at a time, Rest (1986) proposed that moral development takes place gradually, leading to more mature forms of thinking. After all, unethical behavior can also be caused by a lack of awareness of the relevant moral factors and implications or due to a lack of self-control.

This gradual nuance in Rest's theory is important for the study of match-fixing as an ethical issue since it allows us to assess athletes', coaches', and referees' decision-making processes when considering whether to fix a match. Therefore, this study used Rest's (1986) model, which requires the successful handling of four steps to come to ethical behavior. The first step, *moral sensitivity*, refers to an individual's ability to recognize that a situation contains a moral issue. The second step, *moral judgment*, refers to the evaluation of the moral justification of different possible solutions to the moral issue (i.e., "which action is morally right or wrong?"). The third step is *moral motivation*, which refers to the intention to choose the moral decision over another solution representing a different value (e.g., financial gain or personal reputation). The final step is *moral character*, which involves the courage, determination, and ability to follow through with the moral decision. Although these steps are ordered logically, they are not sequential (i.e., the steps are distinct, yet they can overlap time-wise). A failure in any of these steps can result in the failure to make an ethical decision (Lincoln & Holmes, 2011). Thus, in the case of match-fixing, four different obstacles need to be overcome to eventually make a moral decision: not being aware of the fact that match-fixing may be an ethical issue (*moral sensitivity*), not thinking of match-fixing as something wrong (*moral judgment*), choosing another motivation over the moral decision not to fix a match (*moral motivation*), and not having the strength or courage to effectuate the moral decision under the pressure of others or due to coercion or bribery (*moral character*) (Constandt & Willem, 2019).

Method

To assess the prevalence of match-fixing, a quantitative research method was used, based on a closed questionnaire. The outline of this study was approved by the independent ethics commission of the Faculty of Psychology and Educational Sciences of the authors' host institution. Data were collected using an online questionnaire. All participants completed the questionnaire voluntarily, while they were also assured that the answers would be processed anonymously and not passed on to third parties. Moreover, participants were assured that they could quit the questionnaire at any time without consequence.

Sample

All data were collected in Flanders, which is the Dutch-speaking region of Belgium. The final sample consisted of 567 adult members (18 years or older; 80.2% male; 59.4% athletes; 85.2% active on an amateur level) who were affiliated with the Flemish sports federations of soccer, tennis, or badminton. Soccer and tennis were chosen as these sports disciplines have already suffered from a large number of corruption scandals (Boniface et al., 2012). Badminton was added since this discipline gave rise to a discussion on non-betting-related match-fixing at the London Olympic Games of 2012, which made academics and practitioners hone their stance on the subject (Blair, 2018; Sailors, Teetzel, & Weaving, 2015; Yang & Liu, 2013). To reach appropriate participants (18 years or older and affiliated with the Flemish sports federations of soccer, tennis, or badminton), the online questionnaire was communicated on the Facebook pages of Flemish soccer, tennis, and badminton clubs. The Flemish soccer federation also provided help by sending an email to all its members explaining the purpose of the study and containing the web link to the questionnaire. Furthermore, the authors visited several Flemish soccer, tennis, and badminton clubs and

tournaments in person to recruit participants. To appease a possible social desirability bias, an anonymous approach was used to ensure that respondents confessing to forms of corruption could not be identified (Gorsira, Denkers, & Huisman, 2018). Specifically, respondents were assured anonymity by not being asked to indicate identifying information on the questionnaire. This guarantee of anonymity minimized the impact of social desirability (Joinson, 1999; Nederhof, 1985; Paulhus, 1984). Moreover, the data were controlled on self-selection bias by comparing the age, the sports disciplines, and the number of reports of personal match-fixing approaches of the respondents who were contacted at a sports club or at a tournament to fill in the survey (n = 164) with those who completed the questionnaire through email or Facebook (n = 403). By recruiting respondents in these two ways, we were able to compare the results of respondents who volunteered to complete the questionnaires, without personal contact with the researchers, with results of respondents who were randomly approached and asked to participate. Additionally, a smaller self-selection bias is expected with the respondents who were approached randomly since this method reaches more random people. No significant differences were found between the groups regarding age, sports disciplines, and the number of reports of personal match-fixing approaches. The final data were checked for missing values by performing a missing value analysis. Two variables had in total 87 user missing values ("I don't know") and 12 variables had in total 5,824 system missing values ("Not applicable," i.e., due to the structure of the questionnaire, the majority of the respondents were not referred to all the questions). Missing values were excluded analysis by analysis, i.e., a complete-case analysis for each separate research question (Little & Rubin, 2019; Molenberghs & Kenward, 2007).

Questionnaire

An online questionnaire was developed in which the participants were asked about both direct and indirect experiences with proposals to fix a match. The work of Spapens and Olfers (2013) functioned as starting point for our questionnaire, but certain questions—targeting issues such as spot-fixing and Rest's model (1986)—were added. The questionnaire consisted of 25 questions, 10 of which were multiple choice questions to which the respondents had to choose one answer, 8 multiple choice questions to which the respondents could give multiple answers, 5 dichotomous questions, and 2 fill-in-the-blank spaces. On average, it took five to ten minutes to complete the questionnaire. After the designing phase, the questionnaire was programmed in the online program LimeSurvey. Before the questionnaire was dispersed online, a pilot test was conducted to ensure its reliability. The first part of the questionnaire included questions about the participants' characteristics. Subsequently, respondents were asked how they estimated the risk of coming into contact with match-fixing and proposals to fix a match. When they testified of match-fixing cases, whether indirect (they knew of fixes in their sports) or direct (they were approached to fix a match themselves), their reactions and the underlying motivations were further investigated, based on Rest's model (1986). Additionally, we examined who tried to approach them and how this worked out. We asked whether any monetary or other compensations were offered and what the motivation behind the proposal to fix was (e.g., making money through gambling, avoiding relegation, and/or avoiding a strong opponent in the next round of the tournament). Finally, the questionnaire measured if there were any threats or incidents of violence involved with the match-fixing event and if the respondents had reported their suspicions or experiences with match-fixing to anyone.

Data analysis

Data analyses were performed with the statistical software SPSS 24. To control the data on self-selection bias, an independent sample t-test was performed to compare the mean age of the two groups of respondents that were recruited differently. Additionally, to test the effect of the recruitment method on (a) the number of respondents who were involved in a certain sports discipline and (b) the number of reports of personal match-fixing approaches, two chi-square analyses were conducted. Descriptive statistics were then used to describe participants' characteristics, the prevalence of match-fixing, match-fixing types, and the reasons and motives behind match-fixing. A one-way multivariate analysis of variance (MANOVA; followed by univariate analyses) was applied to compare the respondents involved in soccer, tennis, and badminton with regard to their perceptions about how serious match-fixing might be in their own sports discipline and the risk that they could be approached themselves to match-fix. The dependent variables in the one-way MANOVA were (a) "I think match-fixing is a real problem in my sports discipline in Flanders" and (b) "I think there is a risk that I could be approached myself to fix a match," whereas the fixed factor was the "sports discipline." Finally, a correlation analysis was performed to examine the relationship between both dependent variables of the one-way MANOVA.

Results

A total of 403 respondents completed the questionnaire through email or Facebook, while 164 respondents filled in the questionnaire after they were approached randomly and asked to participate. Those who completed the questionnaire through email or Facebook did not differ significantly in age (M = 37.1, SD = 15.5) from those who were randomly approached (M = 35.9, SD = 13.0) (independent sample t-test: t = .973, df =

357, $p > .10$). Two chi-square analyses showed that (a) respondents involved in certain sports disciplines were not significantly more represented in either of the two recruiting groups ($\chi 2$ (2) = 3.484, $p > .10$), and (b) no significant difference was found between the groups regarding the reporting of personal match-fixing approaches ($\chi 2$ (1) = .025, $p > .10$). Since no significant differences were found between the recruited groups, the presence of a self-selection bias is unlikely. The specific characteristics of all respondents are shown in Table 4.

Table 4. Characteristics and descriptive statistics of the questionnaire respondents (descriptive statistics).

	total (n = 567)	soccer[3] (n = 347)	tennis[4] (n = 41)	badminton[5] (n = 179)
gender				
man	80.2%	90.8%	70.7%	62.0%
woman	19.8%	9.2%	29.3%	38.0%
age: M (SD)	36.8 (14.8)	37.7 (16.2)	33.3 (15.3)	35.8 (11.6)
way of involvement				
athlete	59.4%	42.7%	73.2%	88.8%
former athlete	7.8%	10.1%	12.2%	2.2%
trainer	5.8%	6.9%	4.9%	3.9%
referee/jury member	1.6%	2.3%	2.4%	0.0%
other	25.4%	38.0%	7.3%	5.0%
level of involvement				
professional	4.8%	2.9%	29.3%	2.8%
semi-professional	10.1%	6.6%	19.5%	14.5%
amateur	85.2%	90.5%	51.2%	82.7%
playing level				
international	4.4%	3.5%	22.0%	2.2%
national	24.3%	28.0%	39.0%	14.0%
provincial	56.1%	59.9%	26.8%	55.3%
recreational	15.2%	8.6%	12.2%	28.5%

M = mean, SD = standard deviation

No fewer than 104 respondents (18.3%, or almost one fifth, of the 567 respondents) reported (proposed) match-fixing incidents on the questionnaire. More specifically, 68

[3] There are 3073 soccer clubs in Flanders, which are recognized by the Flemish soccer federation (Voetbal Vlaanderen, 2018).
[4] There are 454 tennis clubs in Flanders, which are recognized by the Flemish tennis federation (Tennis Vlaanderen, 2018).
[5] There are 214 badminton clubs in Flanders, which are recognized by the Flemish badminton federation (Badminton Vlaanderen, 2019).

persons (12.0%) knew of someone (not themselves) who had been approached for match-fixing. Next to this, 33 respondents (5.8%) knew of someone who had been approached for match-fixing and acknowledged to have been approached personally for match-fixing, and 3 respondents (0.5%) indicated to have been approached personally for match-fixing without knowing of anyone else who had also been approached. In all, the respondents indicated 101 cases (17.8%) of knowing that someone else had been approached for a match-fixing proposal and 36 cases (6.3%) of having been approached themselves. The latter case involved a non-betting-related proposal in 91.7% (n = 33) of the incidents and a betting-related proposal in 8.3% (n = 3) of the incidents.

Perceptions about match-fixing, its seriousness, and risks

The questionnaire revealed that 36.3% (n = 206) of the 567 respondents believed that match-fixing had occurred in their own environment. More specifically, 36.3% (n = 206) thought that match-fixing could have taken place in their own competition or tournament, 22% (n = 125) in games in which they participated, and 16.9% (n = 96) within their own team. Of course, these answers do not mean that match-fixing actually took place. Rather, these figures can be seen as a first indication of the awareness of match-fixing. Moreover, a significant difference is noticed between the sports disciplines regarding (a) the estimation that match-fixing is a real problem in their sports discipline in Flanders; and (b) the assessment that they could be approached themselves for match-fixing (one-way MANOVA: Wilks' λ = .791, F (4, 970) = 30.139, p < .001, η_p^2 = .111). When it comes to the respondents' belief that their sport is compromised by match-fixing, the results of the questionnaire show (see first column Table 5) a significant difference between the different sports disciplines (univariate effect: F (2, 486) = 55.193, p < .001, η_p^2 = .185). Soccer athletes, coaches, and referees

assess the risk of match-fixing in their sports higher than do the actors in tennis (Tukey's honestly significant difference test [Tukey's HSD] $p < .05$) and badminton (Tukey's HSD $p < .001$). In addition, tennis athletes, coaches, and referees assess the risk of match-fixing in their sports higher than those involved in badminton do (Tukey HSD $p < .01$). This is shown in Table 5, in which the mean results for the three sports disciplines are scored on a four-point scale, whereby "1" is a very high estimation of the risk, and "4" a very low assessment of the risk. Respondents could also indicate that they had no idea of the extent of the issue. Moreover, there appeared to be a significant difference between the sports disciplines regarding the estimation of whether they could be approached themselves for match-fixing (univariate effect: $F(2, 486) = 34.549$, $p < .001$, $\eta_p^2 = .124$). As displayed in the second column of Table 5, soccer and tennis athletes, coaches, and referees believe that there is a much higher chance that they could be confronted themselves with proposals to fix a match than is the case with those involved in badminton (Tukey's HSD $p < .001$). No significant difference was found between those involved in soccer and tennis regarding the estimation of whether they could be approached themselves with proposals to fix a match (Tukey's HSD $p > .10$). The results indicate that the respondents, regardless of the sports discipline, clearly underestimate the chance of being approached themselves, compared to the chance that match-fixing is a problem in their own sports discipline in Flanders. Furthermore, a positive significant relationship was found between these two variables ($r(489) = .555$, $p < .001$), indicating that the higher one estimates that match-fixing is a real problem in their sports discipline in Flanders, the higher one assesses the chance that they could be approached themselves to fix a match.

Table 5. Perceptions of the seriousness of match-fixing and the risk of being approached personally (one-way MANOVA).

sports discipline	"match-fixing is a real problem in my sports discipline in Flanders" * (M ± SD)	"I could be approached for match-fixing" * (M ± SD)
soccer	2.5 ± 0.8	3.0 ± 0.9
tennis	2.9 ± 0.8	3.0 ± 1.0
badminton	3.3 ± 0.6	3.7 ± 0.5

*$p < .001$, M = mean, SD = standard deviation

Consent to a match-fixing proposal: approaches, rates, and motivations

Of the 36 respondents who indicated that they had been approached for match-fixing, 19.4% (n = 7) admitted to have consented with the proposal and fixed the match at hand. When focusing on the 33 respondents who were approached for a non-betting-related fix, 18.2% (n = 6) consented to the proposal. As shown in Table 6, the main rationale for consent was the importance of the fix for the sporting interests of the sports club, followed by the money offered, and other reasons. More specifically, the respondents who indicated that they consented to the proposal for another reason reported, respectively, that "preventing the relegation of a sympathetic opponent does not seem like a problem" and "it does not matter if you intentionally lose a set and eventually win the match." When examining the respondents who were approached for a betting-related fix (n = 3), just one person consented to the proposal because of the money offered (see Table 6).

Table 6. Details of the respondents who indicated that they had been approached for match-fixing.

	non-betting-related MF*		betting-related MF*	
	n = 33	%**	*n = 3*	%**
Did you consent with the proposal to fix the match? (multiple answers possible)				
a. Yes, because of the money offered	2	6.1	1	33.3
b. Yes, because I was pressured by those who approached me	0	0.0	0	0.0
c. Yes, because I was pressured by the team	1	3.0	0	0.0
d. Yes, in the interest of the club	3	9.1	0	0.0
e. Yes, other: …	2	6.1	0	0.0
f. No, I did not consent with the proposal	27	81.8	2	66.7

What was the motive for approaching you? (multiple answers possible)				
a. To earn money by betting on the manipulated game/match	0	0.0	3	100
b. To prevent a specific club or athlete form being relegated	26	78.8	0	0.0
c. To determine who the next-round opponent would be	5	15.2	0	0.0
d. To make the competition or tournament more exciting	4	12.1	0	0.0
e. Other motive: …	5	15.2	0	0.0
f. I don't know	0	0.0	0	0.0
I am (one answer possible)				
a. Male	31	93.9	2	66.7
b. Female	2	6.1	1	33.3
My sport is (was) (one answer possible)				
a. Soccer	27	81.8	1	33.3
b. Tennis	2	6.1	2	66.7
c. Badminton	4	12.1	0	0.0
At what level are (were) you involved? (one answer possible)				
a. Professional	1	3.0	2	66.7
b. Semi-professional	5	15.2	1	33.3
c. Amateur	27	81.8	0	0.0
What were the perpetrators seeking to influence? (multiple answers possible)				
a. The outcome of the game/match	28	84.8	2	66.7
b. The exact result of the game/ match	4	12.1	2	66.7
c. Specific events during the game/match	1	3.0	1	33.3
d. Other: …	1	3.0	0	0.0
Were you offered money to influence the game/match? (one answer possible)				
a. Yes	23	69.7	3	100
b. No	10	30.3	0	0.0
Were you promised other material inducements to influence the game/match? (one answer possible)				
a. Yes	9	27.3	0	0.0
b. No	24	72.7	3	100
Who approached you? (one answer possible)				
a. Teammates	1	3.0	1	33.3
b. Club, association or federation	1	3.0	0	0.0
c. Former athlete	0	0.0	0	0.0
d. Opponent(s)	26	78.8	1	33.3
e. Sponsors	2	6.1	0	0.0
f. Trainer	2	6.1	0	0.0
g. I don't know by who	0	0.0	0	0.0
h. Other: …	1	3.0	1	33.3
Were you threatened or pressured to influence the game/match? (one answer possible)				
a. Yes	0	0.0	0	0.0
b. No	33	100	3	100

*MF = match-fixing

**The sum of the figures might exceed 100%, because multiple answers were possible to certain questions.

Match-fixing proposals: characteristics, stakes, and purposes

For respondents who declared that they had suspicions of match-fixing in their environment (36.3%, *n* = 206), four groups can be distinguished: (a) those who suspected only non-betting-related match-fixing (83.5%, *n* = 172), (b) those who suspected only betting-related match-fixing (5.8%, *n* = 12), (c) those who suspected both types of fixing (3.9%, *n* = 8), and (d) those who were not aware of the motive behind the fix (6.8%, *n* = 14). As shown in Table 7, the people who suspected only non-betting-related match-fixing were mostly involved in soccer; only a few of these respondents were involved in tennis or badminton. In the case of non-betting-related match-fixing, preventing the relegation of an athlete or a club was the main purpose, followed by determining the opponent in the next round of a tournament, and making the tournament or the competition more exciting. In 16.9% of the cases, other sporting-related arguments were given (e.g., enabling or preventing a team from winning the championship). Furthermore, the end result of the match (win/loss) was mostly at stake, followed by specific events during the match and the exact score of the match. On the other hand, 5.8% (*n* = 12) suspected only betting-related fixing in their environment. Of this group, seven persons were involved in soccer (whereof four involved at a [semi-] professional level), and five persons were involved in tennis (all on a professional level). Nobody involved in badminton suspected betting-related fixing in their environment. In the case of betting-related suspicions, making money by betting on the manipulated match was the only purpose. Moreover, mostly the end result of the game was at stake, followed by specific events during the match and the exact score of the match. More details about these results are shown in Table 7.

Table 7. Details of the respondents who had suspicions of match-fixing in their environment.

	only suspicions of non-betting-related match-fixing		only suspicions of betting-related match-fixing	
My sport is (was) (one answer possible)	*n* = 172	%*	*n* = 12	%
a. Soccer	142	82.6	7	58.3
b. Tennis	10	5.8	5	41.7
c. Badminton	20	11.6	0	0.0
If you think there has ever been a case of match-fixing in your own environment, what do you consider to have been the motive? (multiple answers possible)				
a. To earn money by betting on the manipulated game/match	0	0.0	12	100
b. To prevent a specific club or athlete from being relegated	129	75.0	0	0.0
c. To determine who the next-round opponent would be	31	18.0	0	0.0
d. To make the competition or tournament more exciting	14	8.1	0	0.0
e. Other motive: …	29	16.9	0	0.0
f. I don't know	0	0.0	0	0.0
If you think there has ever been a case of match-fixing in your own environment, can you say what the perpetrators were seeking to influence in these games/matches? (multiple answers possible)				
a. The outcome of the game/match	151	87.8	8	66.7
b. The exact result of the game/match	9	5.2	1	8.3
c. Specific events during the game/match	20	11.6	3	25.0
d. Other: …	7	4.1	0	0.0

Have you ever reported your suspicions or experiences of match-fixing to anyone? (one answer possible)	*n* = 206	%
a. Yes	71	34.5
b. No	135	65.5

*The sum of the figures might exceed 100%, because multiple answers were possible to certain questions.

When focusing on the respondents who reported that they had been directly approached (6.3%, *n* = 36), 7.3% (*n* = 33) of the male participants and 2.7% (*n* = 3) of the female participants reported this. Looking at the types of match-fixing, only three respondents (8.3%) indicated that they had been offered a betting-related match-fixing proposal. From Table 6, it can be seen that this group consisted of two men and one woman who were involved in tennis and soccer on a (semi-) professional level. Moreover, in the cases of betting-related fixes, the end result and the exact score of

the match were mostly at stake for the fixer, rather than specific events in the match. In the three betting-related cases, money was offered to those who were approached. On the other hand, 33 respondents (91.7%) indicated that they were offered a non-betting-related match-fixing proposal. The people who received these proposals were, in most cases, men involved in soccer on an amateur level (see Table 6). Moreover, the main purpose of the proposals was to prevent relegation of a known athlete or club, followed by determining the opponent in the next round of a tournament, and making the competition or tournament more exciting. In 15.2% of the cases, other motives were indicated. More specifically, these respondents mainly reported that the instigators tried to "prevent or enable a team to win the championship." The end result of the match was mostly at stake for the fixer, rather than the exact score or certain specific events during the match. Furthermore, 69.7% of the respondents who had been approached for a non-betting-related fix were offered money. Next to this, 27.3% of them were also offered other material inducements, mainly consumption goods (e.g., a keg of beer). More details about these results are shown in Table 6.

Being approached to match-fix: instigators, circumstances, and willingness to report

According to the 101 respondents (17.8%) who knew someone who had been approached for match-fixing, proposals were mostly offered by opponents (see Table 8). For those who had been approached personally for a non-betting-related fix (n = 33), the opponents were, again, the most likely to approach, followed by trainers and sponsors (see Table 6). Those who had been approached personally for a betting-related proposal indicated that they were approached by their own teammates, opponents, or bettors (see Table 6). No use of threat or violence was reported by any of the respondents who have been approached personally. Furthermore, Table 7

reveals that of the persons who had suspicions or experiences with match-fixing (36.3%, *n* = 206), no less than 65.5% kept the information to themselves, and only 34.5% had ever reported it to anyone.

Table 8. Details of the respondents who knew someone who had been approached for match-fixing.

Who approached this person? (multiple answers possible)		
	n = 101	%*
a. Teammates	12	11.9
b. Club, association or federation	28	27.7
c. Former athlete	2	2.0
d. Opponent(s)	70	69.3
e. Sponsors	8	7.9
f. Trainer	10	9.9
g. I don't know by who	10	9.9
h. Other: …	6	5.9

*The sum of the figures exceeds 100%, because multiple answers were possible to the question.

Discussion

An online questionnaire was developed and implemented to investigate (a) the prevalence of match-fixing in Flemish soccer, tennis, and badminton and (b) how match-fixing relates to the moral decision-making process of athletes, coaches, and referees in potentially fixing a match. The next two sections will discuss one research question each.

Prevalence of match-fixing

Our research revealed that 6.3% (*n* = 36) of the respondents had been approached personally in regard to match-fixing. Compared to the studies of FIFPro (2012), Zamante (2012), and Theodorou (2017), this figure is relatively low. Since FIFPro (2012) and Zamante (2012) respectively focused on professional and amateur soccer, it could be expected that their figures would be higher, as soccer is known as one of the most affected sports (Boniface et al., 2012). Moreover, Theodorou's (2017) study surveyed twelve different sports disciplines using a time variable (i.e., the last twelve

months); as such, it is difficult to compare our results with those. However, in comparison with the research of Spapens and Olfers (2013, 2015), our research shows a slightly higher prevalence of direct match-fixing. Moreover, in the Dutch study, non-betting-related match-fixing was shown to be much more common than betting-related match-fixing. Our research unveiled that 17.8% (*n* = 101) knew someone who had been approached for match-fixing. This figure is more than twice as large as that in the study of Spapens and Olfers (2013, 2015), which would imply that direct and indirect match-fixing proposals seem to occur more in Flanders than in the Netherlands. However, these figures need to be put in perspective, as Spapens and Olfers (2013, 2015) investigated five sports disciplines. As cultural differences might play a role, a cross-cultural (or meta) study is recommended to analyze the impact of cultural differences on match-fixing prevalence.

Moreover, the twofold nature of match-fixing is clearly represented in the results of our research (Boniface et al., 2012). First, non-betting-related match-fixing involves mostly amateur soccer and concerns the manipulation of gain and loss. This type of match-fixing is much more common, in both direct proposals of match-fixing (91.7%) and when people suspect match-fixing in their environment (83.5%). The most important stake is the prevention of relegation, and in most cases, money or consumption goods are involved. In our study, no threat was involved in regard to this type of match-fixing. Second, betting-related match-fixing typically takes place in a variety of sports (soccer and tennis in this research) and at the (semi-) professional level. This type of match-fixing occurs much less in both direct proposals of match-fixing (8.3%) and when people suspect match-fixing in their environment (5.8%). Next to fixing the outcome of the match as a whole, the results showed that spot-fixing is also taking place. Although the stakes are always money, there were no reported cases of threats or violence.

The results also indicate that there is a lack of awareness among the respondents of the possibility that match-fixing could occur in their own environment. These figures are fairly similar, in terms of distribution, to the figures of the Dutch study of Spapens and Olfers (2013, 2015). However, the results of our study indicate a slightly higher suspicion of match-fixing in the environment. This implies that an awareness of the possible occurrence of match-fixing is higher in Flanders than in the Netherlands. This finding can have multiple explanations: a real difference between the populations (e.g., a cultural difference), more awareness of the risk of match-fixing in Flanders, and/or the fact that suspicions are sometimes expressed in the press, which increases the alertness to match-fixing. Unfortunately, these potential explanations are not conclusive.

Nevertheless, our figures show that more than one third (n = 206) of the respondents estimate the risk of match-fixing as quite real, which is a considerably high figure given that match-fixing does not actually have to occur. There is also a lack of awareness in athletes, coaches, and referees of the belief that match-fixing is a real problem in their own sports discipline and the risk that they will be confronted with match-fixing. The people involved in soccer were significantly more aware of the dangers of match-fixing, compared to those involved in tennis and badminton. These results can have multiple explanations: a greater occurrence of match-fixing in soccer, the larger media attention that has recently been given to corruption and match-fixing scandals in soccer (Carpenter, 2012), and/or the perception of soccer "as the one most strongly affected sports" (Chappelet, 2015). However, when it comes to the assessment of whether they could be approached themselves for match-fixing, there is no significant difference in the awareness between the actors involved in soccer and tennis. This indicates that the people involved in tennis are also aware of their vulnerability to be approached personally for match-fixing, which can also be explained by the multiple

scandals that have already plagued tennis (Ramos, 2009) and the perception that fixing is easier in sports where the actions of one individual could ensure the appropriate result (Carpenter, 2012; Huggins, 2018).

Furthermore, the greater awareness in tennis, in comparison to badminton, can potentially be attributed to the globalized nature of tennis, a sport in which professional events are happening in multiple time zones, across multiple continents, throughout the entire year (Harkin, 2017). The results show that the higher one estimates match-fixing to be a real issue in their sports discipline, the higher one assesses the chance to be personally involved. However, the majority of the respondents estimated the risk of being approached themselves much lower than the general risk of match-fixing in their own sports discipline. This lack of awareness needs to be addressed in order to tackle the problem. This was also emphasized by Boniface et al. (2012), who stated that the psychological factor is key because someone who is made aware of the issue will be inclined to instantly perceive match-fixing approaches as a threat when approached indirectly or offered favors.

Moral decision-making process

Both types of match-fixing also clearly come into view when looking at the moral decision-making process of the people approached to potentially fix a match. More specifically, our results indicate that the majority of the people involved in non-betting-related match-fixing lack awareness of the problem and seriously underestimate its risks. Even if these people are aware of the risks, they do not always see match-fixing as an ethical issue but sometimes rather as a “friendly gesture” towards another club or athlete, which highlights a lack of *moral sensitivity*. Moreover, even if they know that an ethical issue is at hand, they often do not condemn fixing a match as morally wrong, i.e., a lack of *moral judgment*. Therefore, the first two steps in Rest’s (1986) model

appear to be more compromised in the non-betting-related type of match-fixing. Consequently, both hurdles (i.e., a lack of *moral sensitivity* and *moral judgment*) need to be overcome to solve the problem of match-fixing and non-betting-related match-fixing in particular.

Compared to those involved in non-betting-related match-fixing, people involved in betting-related fixing are well aware of the ethical aspects of this incident and acknowledge that this act is wrong, i.e., they acknowledge the *moral sensitivity* and *moral judgment* in these cases. This finding supports the work of Hill (2015), who argued that athletes know the correct ethical position in match-fixing but decide to fix a match due to rational decision-making. More specifically, they focus on cost/benefits and motivations for match-fixing such as low salary (see Cashmore & Cleland, 2014; Hill, 2009b), delayed payment (see Hill, 2015), possible career progress (see Boeri & Severgnini, 2011), or coercion (see Carpenter, 2012). As such, the real moral obstacles with regard to the betting-related variety of match-fixing are *moral motivation* and *moral character*. Given that certain steps are more concerned with particular types of match-fixing, betting-related match-fixing will not be prevented by raising moral awareness and increasing moral judgment, as both elements are already present within the persons involved. These obstacles need to be tackled in a different manner: external pressures that lead to consenting to fix a match need to be dealt with. Examples are financial and/or material inducements (see Hill, 2009a, 2009b), which can make an athlete, coach, or referee consent even when his/her moral judgment says not to. Another pressure that plays a major role, although our results did not support this, is the fear of threats and violence for the athletes, coaches, or referees themselves as well as for their families (see Boniface et al., 2012; FIFPro, 2012).

Most people (65.5%) involved in both types of fixing kept the information to themselves when they were confronted with facts or suspicions. This is a troublesome finding and can point to the hurdle that is posed in the fourth step of Rest's (1986) model: when athletes are confronted with a match-fixing proposal, it is of utter importance that they can easily blow the whistle (Singh, 2011). Whistleblowers' protection/support acts as an antidote to group/organizational pressure and an inherent culture of fear of retaliation and alienation when people want to raise match-fixing concerns (Webley & Werner, 2008). If not, these hurdles may prohibit them from abstaining from match-fixing proposals.

Practical implications

The results of this research have important practical implications for the sports field. Current preventive measures and initiatives need to be intensified and, where necessary, adjusted to the specific challenges (i.e., betting-related/non-betting-related) faced by the respective sports disciplines. Specific prevention programs for the different types of match-fixing need to be put in place. As the findings suggest, both types are different "diseases" that clearly ask for different remedies. In the case of non-betting-related match-fixing, much effort needs to be put into raising (moral) awareness and guiding moral judgment, e.g., by providing effective ethical codes on the issue (Constandt, De Waegeneer, & Willem, 2019; De Waegeneer, Devisch, & Willem, 2017). Athletes, coaches, and/or referees have to clearly steer away from these so-called "friendly gestures" or "folk practices" and need to firmly condemn non-betting-related match-fixing. On the other hand, betting-related match-fixing asks for other preventive measures such as a trustworthy whistleblowing protection program (Singh, 2011; Webley & Werner, 2008). To summarize the interpretation of the results, Table 9 depicts an overview of the features of the two major types of match-fixing.

Table 9. Features of the two major types of match-fixing.

non-betting-related match-fixing	betting-related match-fixing
gender: man	gender: man
discipline: mostly soccer	discipline: soccer, tennis
mostly amateur level	mostly (semi-) professional level
manipulation of the result (loss or win)	manipulation of the result + spot-fixing
approached by the opposite team	approached by teammates, the opposite team, or by bettors (organized crime)
motivation: prevention of relegation	motivation: financial gain
at stake: money and/or consumption goods	at stake: money
no threat or aggression involved	threat and aggression are possible/likely
hurdle: moral sensitivity + moral judgment	hurdle: moral motivation + moral character

Conclusion

This study indicates that match-fixing is not an absent or unknown phenomenon in Flemish soccer, tennis, and badminton. Almost one fifth of the respondents testified of direct and/or indirect match-fixing incidents. Moreover, non-betting-related match-fixing—with its own characteristics and threats—appears to be much more common in Flanders than the betting-related variety of match-fixing. Additionally, this study enriches the current match-fixing literature, using the lens of Rest's (1986) moral decision-making theory. As such, the twofold nature of match-fixing clearly comes into view when looking at the moral decision-making process of those involved. More specifically, in the case of non-betting-related match-fixing, the people involved often lack (moral) awareness of the issue and do not judge it as (morally) wrong, whereas those involved in betting-related match-fixing are usually more confronted with moral challenges such as (external) inducements and/or pressures. Both types of match-fixing are clearly different "diseases" that require different preventive measures.

Limitations and future research

This research included a limited number of participants involved on a (semi-) professional level (14.8%). Accordingly, it is difficult to draw conclusions from this

group. Furthermore, some analyzed subsamples are quite small (e.g., only three respondents were approached personally for a betting-related fix, and only seven participants consented to a match-fixing proposal). Consequently, it is difficult to draw strong conclusions in relation to these subgroups. A third limitation of this research is the possibility of a self-selection bias since comparing the results of both groups of respondents (i.e., those who were contacted in a sports club or at a tournament to complete the survey and those who completed the questionnaire through email or Facebook) only gave an indication of the representativeness of our final sample for the selected population. A fourth limitation of this research is the possibility of a social desirability bias, as some respondents may not have been willing to admit to forms of corruption. However, by using an anonymous approach, this type of bias was reduced (Joinson, 1999; Nederhof, 1985; Paulhus, 1984). In addition to this limitation, which is inherent to corruption research (see Kihl, 2018), this study also investigated only three sports disciplines. Other sports, such as baseball, martial arts, and cycling are worthy of investigation as well, and this could shed a broader light on the types of fixing and their accompanying processes and rationales. Moreover, the geographical scope of our research was limited to Flanders. Other motivations and practices could be the case in other regions, and therefore, a broader geographical area needs to be covered in future research. This way, different cultural perspectives on what is acceptable and what is not (i.e., specific moral judgments) can be made explicit, which could enable preventive measures to be more customized and, therefore, more effective. Additionally, it would also be interesting to investigate the influence of contemporary preventive measures in sports clubs on the willingness to report match-fixing suspicions or experiences by their members, which would make it possible to detect the most effective preventive measures. Another suggestion for future research can be found in the study of relegation to lower leagues. Analysis of the end-of-season

results in soccer, for instance (see Elaad, Krumer, & Kantor, 2018), could shed light on non-betting-related fixing.

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2 THE GREY ZONE BETWEEN TACTICS AND MANIPULATION: THE NORMALIZATION OF MATCH-FIXING IN ROAD CYCLING

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Abstract

Match-fixing has already been studied in various sport disciplines. However, despite some well-known incidents in road cycling, match-fixing has barely been investigated in this unique sport discipline. Drawing on Ashforth and Anand's theoretical model of normalization of corruption in organizations and on the perceptions of 15 active Belgian road cyclists, this study examines road cyclists' attitudes towards collaboration and match-fixing in their sport. As the culture of agreements can be seen as part and parcel of road cycling itself, this study also examines whether agreements between cyclists are embedded, perpetuated, and thus normalized in road cycling. Using semi-structured interviews, this qualitative study indicates that road cyclists have a different understanding of match-fixing. By demonstrating that (a) cooperation between competitors happens routinely, (b) cyclists use self-serving explanations to justify these collaborations, and (c) newcomers are induced to engage in and accept collaborations with their competitors, we also indicate how normalized behaviors contribute to a grey zone that can be labelled as match-fixing. To enhance the future credibility of road cycling towards both fans and sponsors, additional clarifying and awareness-raising policy measures should be implemented.

Keywords: Match-fixing; Road cycling; Normalization; Sport manipulation; Tactics

Introduction

Road cycling is currently facing several challenges that cast shadows on its future (Van Reeth and Lagae, 2018). For example, road cycling has been heavily affected over the past decades by several mechanical (i.e. the use of hidden motors in cyclists' bikes) and non-mechanical doping scandals, which damaged road cycling's public image and economical foundations (Smith, 2017a, 2017b). However, doping is not the only sport corruption problem road cycling is currently experiencing (Christiansen and Hjørngard, 2013). In 2011, for instance, former cyclist Alexandre Vinokourov was accused of buying/fixing his 2010 Liège-Bastogne-Liège victory—a prestigious one day cycling race—from Alexandr Kolobnev (Cyclingnews, 2011). Hardly 1 year later, Vinokourov was again discredited after his controversial victory in the 2012 London Olympic road cycling race (VeloNews, 2012). Although the involved cyclists were not convicted in court due to a lack of evidence (Cyclingnews, 2019b), road cycling certainly deserves further investigation in relation to its connections with match-fixing (i.e. any "improper alteration" of a sport competition, see Council of Europe, 2014).

Road cycling provides a unique context to investigate match-fixing and its sport-specific socio-cultural embedment, as it has several peculiarities that complicate the system in which cyclists have to perform (Rebeggiani, 2016). Cyclists operate in a hybrid and hierarchical regime, as road cycling is an individual sport that requires teamwork (Netland et al., 2012). Given the nature of the sport, which requires both competition and cooperation between competitors (i.e. cyclists from other teams) (Scelles et al., 2018), it is also unclear what an "improper alteration" in road cycling entails. Additionally, the world governing body of cycling, the Union Cycliste Internationale (UCI), does not clearly define where appropriate tactics and collaboration end and where improper alterations start. Hence, a grey zone between

tactics and manipulation might occur. Despite this unique context of road cycling, little empirical work has yet linked road cycling's peculiarities with the occurrence of match-fixing. An exception is the study of Christiansen and Hjørngard (2013) who examined three Danish elite road cyclists' (RCs') experiences and attitudes to agreements on podium placing and victory trading. Christiansen and Hjørngard (2013) have provided significant insights into the subject by using the social psychology theory of reciprocal altruism. However, they only focused on individual-level explanations for match-fixing in road cycling.

As match-fixing is a socio-cultural phenomenon, a more holistic and multi-level approach is needed to further enhance our understanding about match-fixing (Kihl, 2018). Accordingly, this study applies Ashforth and Anand's (2003) theoretical model on the normalization of corruption in organizations to investigate whether and how match-fixing is normalized in road cycling's structures, processes, and culture. The present study thus largely advances our knowledge regarding the sport-specific nature and underlying mechanisms of match-fixing, by addressing the following research questions:

RQ1: How do RCs perceive the existence of match-fixing in their sport?

RQ2: (How) is match-fixing institutionalized, rationalized, and socialized in road cycling?

Road cycling offers a rich context to examine cyclists' perceptions of match-fixing and its normalization. Road cycling has the most peculiar organizational structure, and is considered the most strategic cycling discipline (Mignot, 2016a; Rebeggiani, 2016). In terms of geographical scope, Belgium is an interesting case to study as this country belongs to the European core countries of cycling (next to France, Italy, and Spain),

where several races are organized (including two of the “Five Monuments of cycling”) (Mignot, 2016b: 17). Moreover, Belgian cyclists, teams, and races have been well represented in the history of road cycling (Mignot, 2016b). For example, the very first inter-municipal road cycling race in the world was held in Belgium in 1869 (Delheye, 2017), while the most mediatized match-fixing case in road cycling took place in Belgium (Cyclingnews, 2011, 2019b).

Literature review

Conceptualizing match-fixing in the context of road cycling

Several match-fixing conceptualizations have been established over the past years (for an overview, see e.g., Van Der Hoeven et al., 2020). However, the most widely used definition is the one of the Council of Europe (2014) which describes match-fixing or the “manipulation of sports competitions” as:

> An intentional arrangement, act, or omission aimed at an improper alteration of the result or the course of a sports competition in order to remove all or part of the unpredictable nature of the aforementioned sports competition with a view to obtaining an undue advantage for oneself or for others. (art. 3.4)

As demonstrated by the Council of Europe’s (2014: art. 3.4) definition, “one of the key difficulties is the broadness of the concept of match-fixing” (Zaksaite, 2013: 287). On the one hand, different types of match-fixing exist (Van Der Hoeven et al., 2020). A distinction is usually made between betting-related—aimed at making profits on betting markets—and non-betting-related—primarily focused on sporting interests—match-fixing (Spapens and Olfers, 2015). On the other hand, match-fixing’s meaning and understanding may vary between sport disciplines (Zaksaite, 2013). While certain behavior can be seen as widespread tactics in one sport, it can be considered a form

of corruption in other sports. In other words, what counts as corruption, “has to be understood in the context of the social structures and culture in which it is embedded” (Numerato, 2016: 712).

Road cycling is characterized by a unique strategic context, as cyclists have to cooperate with their competitors to have success (Scelles et al., 2018). Cooperation between competitors assumes various forms, ranging from whole teams working together in the peloton (i.e. the main group of cyclists riding together) to cyclists sharing the burden in a breakaway (i.e. when one or more cyclists have successfully opened a gap ahead of the peloton). In some cases, cyclists even agree on the result before they reach the finish line (Christiansen and Hjørngard, 2013). Although these examples have to be understood in light of road cycling’s culture of agreements (see Christiansen and Hjørngard, 2013), it is difficult to make a clear distinction between permitted and prohibited cooperation.

Moreover, the UCI (2021b) states that: “Riders shall sportingly defend their own chances. Any collusion or behavior likely to falsify or go against the interests of the competition shall be forbidden” (art. 1.2.081). Although the UCI’s apparent black and white rule implies that any form of collusion/cooperation is actually forbidden, they do not define where proper tactics end and improper alterations start. Hence, the boundaries between acceptable behavior (i.e. tactics) and misconduct (i.e. match-fixing) remain unclear, causing a grey zone. The unique peculiarities of road cycling help to explain this grey zone and road cycling’s culture of agreements.

Peculiarities of road cycling

Hybrid sport and the technique of drafting. First, road cycling is an individual sport practiced in teams (a so-called “hybrid sport”) (Lagae and Van Reeth, 2016). Road

cycling races are organized as team events, but apart from team time trials, most races are won by individual cyclists (Rebeggiani, 2016). This unique setting creates opportunities for strategic behavior both within and between teams (Mignot, 2016a).

Moreover, road cycling is practiced on public roads with air resistance as the primary external factor (Christiansen and Hjørngard, 2013). Therefore, the permitted technique of "drafting" (i.e. riding so close behind (an)other cyclist(s) that air resistance is significantly reduced) is "the foundation" for road cycling's tactics (Brewer, 2002: 280). As cyclists can save up to 30-40% energy by drafting, cyclists (from different teams) often cooperate by "rotating one by one into the lead position of a group and allowing others to draft" (Hoenigman et al., 2011: 39).

Hierarchical structures. Within a team, a hierarchical distinction is usually made between "team captains," who are expected to garner the team's results, and "domestiques," whose only role is to support the team captain(s) during the race (Rebeggiani, 2016: 35). Candelon and Dupuy (2015) showed that this hierarchical organization within teams increases performance inequality among cyclists. Given the inherent tension between individualism and collectivism in cycling teams, it is nearly impossible to achieve success without some team members having to sacrifice their own chances of winning (Netland et al., 2012). Consequently, cyclists may decide to ignore the team tactics to achieve a better personal result (Netland et al., 2012). A similar tension is present between teams as well. The UCI (2021a) makes a (hierarchical) distinction between UCI WorldTeams (highest level), ProTeams, and Continental Teams (third level). One step down from Continental Teams, fourth level (i.e., amateur) teams are classified as "elite without contract" teams. Cyclists of different team levels (mainly of the three highest levels) often compete against each other in the same races and agreements between them are regularly made.

Job insecurity and team-based sharing of prize money. Since road cycling teams almost completely depend on their main sponsors, cyclists' contract durations are rather short (Van Reeth, 2016). Therefore, the job insecurity and the pressure to deliver results is quite high (Rebeggiani, 2016). This pressure to get a new contract may foster the attractiveness of agreements with competitors. Moreover, individual prize money is usually shared with all team members, including the technical staff (Van Reeth, 2016). This mechanism is used to stimulate cooperation within a team (Netland et al., 2012). However, this team-based sharing of prize money could also cause a tendency towards underperformance, since underperforming cyclists are still rewarded when their teammates garner good results (Netland et al., 2012). On the other hand, this could also stimulate cyclists to make agreements with competitors to earn more (prize) money.

The peloton and its unwritten rules. The cycling peloton has often been compared to a "family" in which each cyclist must adhere to "tacit rules" (Rebeggiani, 2016: 51). Mignot (2016a: 219) emphasized that there are even certain norms of "etiquette or fairness" (i.e. unwritten rules) that cyclists should respect in the peloton (e.g. not attacking when opponents are having sanitary stops). Moreover, since cyclists ride with each other all year long, everyone knows who are the "free riders" (i.e. drafters) and the conditional cooperators (Mignot, 2016a). Cyclists are thus advised to build a good reputation in the peloton. However, this close-knit community has already shown to facilitate illicit activities (e.g. doping practices), while complexifying detection and prosecution (Smith, 2017b). Moreover, Bassons and Hopquin (2014) demonstrated how cyclists were ostracized or even pushed out of cycling when they disclosed corruption cases.

While the abovementioned peculiarities may explain road cycling's culture of agreements, they also emphasize the existence of a grey zone. Buying or selling a race obviously changes the competition result. Gifting a stage is an act of collusion/cooperation between two cyclists and the same applies for teams or individuals working together in the peloton or the breakaway. Although these examples clearly differ in terms of questionability and "improperness," they can be seen as contrary to the UCI rule. Conversely, road cycling's peculiarities demonstrate why there is a structural and cultural tolerance that allows competitors to cooperate and make agreements. Moreover, the UCI does not explicitly enforce the rule. Therefore, behavior that could perhaps be seen as corruption, is actually considered normal in road cycling.

The normalization of corruption

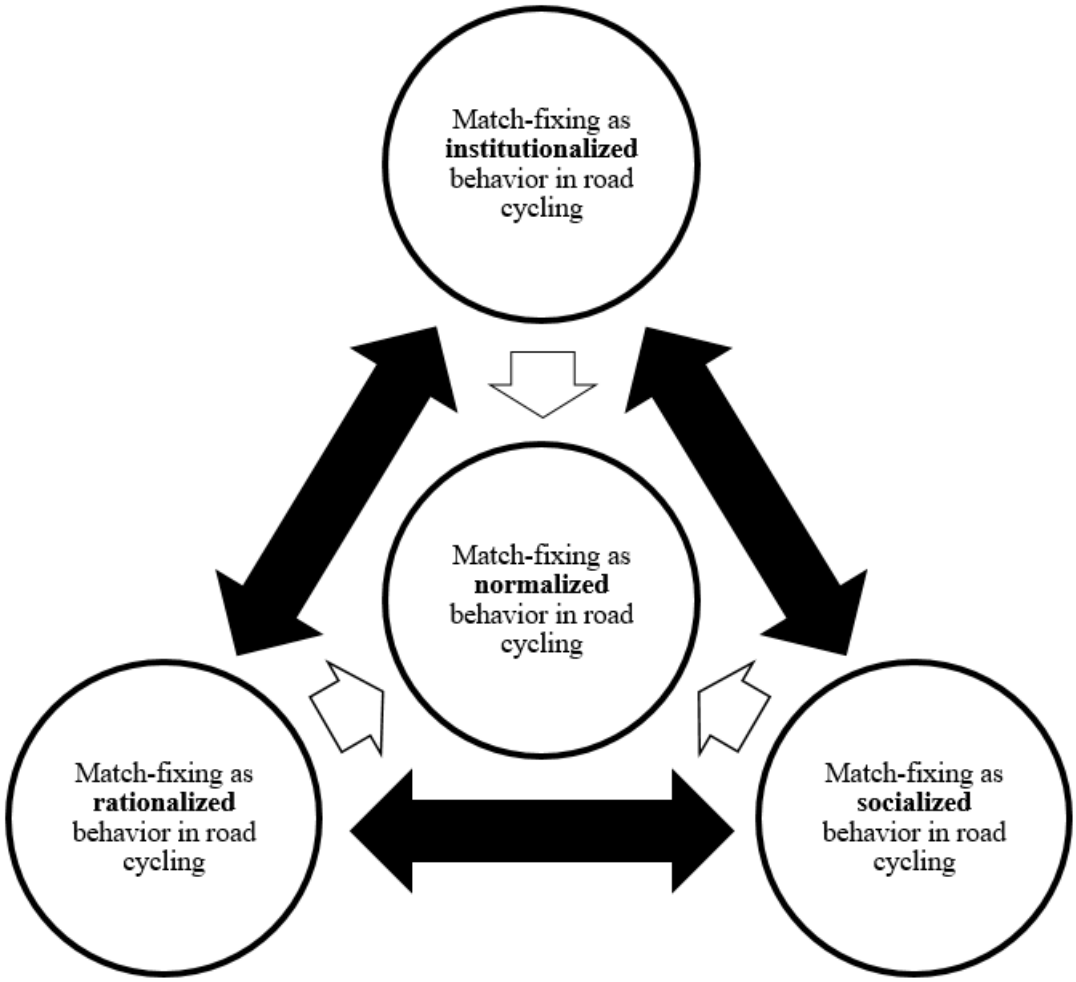
Corruption has been studied extensively, in both sport and non-sport settings (Hwang, 2016). In general, Treisman (2000: 399) defined corruption as "the misuse of public office for private gain," and Ashforth and Anand (2003: 2) suggested that corruption refers to "the misuse of authority for personal, subunit and/or organizational gain." Whereas these definitions are useful to investigate sport governance corruption, they are less relevant when discussing corruption by athletes. Consequently, several researchers have proposed more sport-focused definitions of corruption (e.g. Gorse and Chadwick, 2010; Maennig, 2005; Masters, 2015). In this study, we use Masters' (2015: 113) definition of "corruption in sport," which refers to "the deviation from public expectations that sport will be played and administered in an honest manner." Honest sport, in turn, may refer to the principles of fair play, conceptualized as respect for the game, where everyone should perform at one's best (Butcher and Schneider, 1998).

Three theoretical models are commonly applied to understand corruption (in sport) (Soebbing and Walker, 2018). First, rational-choice theory argues that individuals (i.e. micro-level) make a cost/benefit analysis before engaging in corruption (Becker, 1968). Based on this theory, several scholars concluded that people engage in match-fixing if expected benefits outweigh expected costs (Forrest, 2018; Hill, 2015). Second, structural models explain corruption in sport by focusing on external societal (i.e. macro-level) pressures (e.g. the commercialization of the game, see Cashmore and Cleland, 2014; the expansion of the betting industry, see Forrest et al., 2008). Third, relational (i.e. meso-level) approaches center on the social networks in which people are integrated to explain corruption (Costa, 2018; Lee, 2017).

Considered in isolation of each other, these models only provide a partial understanding of corruption in sport (Numerato, 2016; Tzeng and Lee, 2021). The difficulty of understanding (perceived) corruption resides in its multidimensionality, systematic nature, and historical and cultural background (Treisman, 2000). Therefore, several scholars have indicated that corruption has to be understood by examining the three interconnected levels (i.e. micro, meso, macro) together (Huberts, 2010; Kihl, 2018).

In the general corruption literature, Ashforth and Anand (2003) have presented an interesting overarching framework that explains how corruption becomes normalized in organizations. Ashforth and Anand (2003) consider a practice as normalized when this practice is embedded in an organization's structures, processes, and culture in a taken for granted way. Ashforth and Anand's (2003) theoretical model stipulates that three pillars contribute to the normalization of corruption in an organization: (a) institutionalization, (b) rationalization, and (c) socialization. Figure 4 depicts how these pillars are interdependent and mutually reinforce each other.

Figure 4. The three pillars of normalization (figure based on and slightly adapted from Ashforth and Anand (2003: 3)).



The first pillar, *institutionalization*, refers to the process by which a corrupt practice becomes "a matter of routine" and unconscious decision through three phases (Ashforth and Anand, 2003: 3). First, the initial corrupt decision is made. This decision is often linked to an unethical organizational climate, in which immoral actions creep in (Brief et al., 2001). Second, corrupt acts become embedded in organizational structures and processes. Once a corrupt act produces a successful outcome, actors tend to reuse it in the future (Ashforth and Anand, 2003). Simultaneously a deviant (sub)culture may emerge which normalizes corruption. Marchetti et al. (2021), for example, have shown how deeply rooted institutionalized norms may explain betting-related match-fixing in Brazilian football. Third, corrupt practices become routinized and habitual. Actors are swept along by the momentum of the system, which blunts

their awareness that a moral issue is at stake (Ashforth and Kreiner, 2002). If an actor does not recognize that a situation contains a moral issue, the moral decision-making process cannot be further activated (Van Der Hoeven et al., 2020). Consequently, corrupt acts become normative and taken for granted, while being enacted mindlessly (Ashforth and Anand, 2003). Tak et al. (2018) have highlighted how institutionalized betting regimes may contribute to routinized match-fixing.

In the second pillar, *rationalization*, individuals engage in a process where self-serving ideologies are developed and used to justify corrupt acts (Ashforth and Anand, 2003). Rationalizations refute the negative interpretations of corrupt acts by explaining why the acts are justifiable exceptions to the general normative rules (Ashforth and Anand, 2003). Collins et al. (2009), for instance, showed how firm's top managers rationalize the practice of corruption as necessary to be competitive. Ashforth and Anand (2003) identified eight rationalizing strategies used in various combinations to justify corrupt practices. Actors may excuse corrupt acts on the grounds that: (a) they are legal (i.e. legality), (b) they have no other choice (i.e. denial of responsibility), (c) no one is injured (i.e. denial of injury), (d) the violated party deserved it (i.e. denial of victim), (e) they tried to realize a higher-order value (i.e. a higher loyalty), (f) they are entitled to behave in a deviant way because of their delivered performances (i.e. metaphor of the ledger), (g) others have no right to criticize them (i.e. condemning the condemners) or others are worse off than they are (i.e. selective social comparison), or (h) other (non-stigmatized) features of their behavior are more important (i.e. refocusing attention) (Ashforth and Anand, 2003).

The third pillar is *socialization*, which involves the process by which newcomers are taught to accept and perform corrupt practices (Ashforth and Anand, 2003). This is often done in conjunction with the rationalizing ideologies. Ashforth and Anand (2003)

identified three socialization mechanisms: cooptation, incrementalism, and compromise. In cooptation, newcomers are induced by rewards to change their attitudes toward corrupt acts (Anand et al., 2004). In incrementalism, newcomers are gradually introduced to dubious acts (Brief et al., 2001). Newcomers are initially exposed to small and slightly deviant acts. When they come to accept the act as normal, they are introduced to other more corrupt acts, and are eventually engaging in acts that they would initially have rejected (Anand et al., 2004). Zyglidopoulos and Fleming (2008) argued that the greater the distance between an act and its ethical consequences, the easier it will be to move from being an innocent bystander to an innocent participant, and subsequently to an active rationalizer of the corrupt act. In compromise, "individuals essentially 'back into' corruption through attempts to resolve pressing dilemmas, role conflicts, and other intractable problems" (Ashforth and Anand, 2003: 30).

Methods

Sampling and gaining access

A purposive sampling method was used to recruit Belgian male and female RCs—representing relevant key layers in road cycling's hierarchy—that could provide their match-fixing perspectives (Patton, 2002). After all, we see match-fixing as most relevant to elite amateurs or low-ranked professionals needing results or additional incomes, and WorldTour cyclists (cf. the Vinokourov-Kolobnev case). Potential interviewees were contacted by email or telephone. Additionally, a snowballing process was initiated by asking the first interviewees to suggest other Belgian RCs with interesting viewpoints on the studied topic (Emerson, 2015). We continued interviewing RCs until data saturation was reached (Guest et al., 2006). As shown in

Table 10, 15 adult RCs were interviewed. The average age was 28.8 years. Eleven interviewees were male and four were female.

Table 10. Interviewees' characteristics.

No.	Age	Gender	Level
1	24	Male	Continental
2	24	Male	Continental
3	24	Male	Elite without contract
4	27	Male	Elite without contract
5	27	Male	Continental
6	39	Male	Elite without contract
7	33	Female	Continental
8	27	Male	Continental
9	26	Female	Continental
10	29	Male	Elite without contract
11	26	Male	WorldTour
12	33	Female	Continental
13	35	Male	WorldTour
14	25	Male	WorldTour
15	33	Female	Continental

Data collection

Based on a pilot study, a semi-structured interview guide was developed. Prior to the start of the interviews, all participants were asked to read an information letter which described the purpose and content of the study, as well as the procedure and confidentiality related to the data collection and analysis. Subsequently, written informed consent was obtained from all participants to comply with institutional ethics standards. Match-fixing, framed as "the manipulation of sport competitions," was described in the information letter, as well as its evolution over time and its negative consequences for sport and the people involved. To obtain rich insights, own interpretations, and an open discussion about the topic, we consciously provided a broad description of match-fixing. Following an oral introduction, which broadly repeated the information letter, questions were asked about (a) how RCs perceive the existence of match-fixing in their sport, (b) how and why different forms of agreements

occur, (c) their attitudes towards this, (d) how they justified these acts, and (e) if and how these tactical acts had become embedded, routinized, and normalized in road cycling. Additionally, we asked how newcomers were introduced to certain tactical acts, and if and how these acts were perpetuated in the peloton. To keep the conversation open, and to encourage the interviewees to provide their perspectives, we did not insist that they specified whether they were telling their personal experiences. We also asked how they think other RCs think about match-fixing in road cycling. All interviews were digitally recorded and executed in Dutch by the first author and a research assistant. The duration of the interviews varied between 20 and 45 min.

Data analysis

All interviews were transcribed verbatim, after which we used NVivo 12 software to analyze the data (Welsh, 2002). An inductive approach was used to elaborate the codes for the first research question, as we aimed to examine RCs' perceptions and interpretations of match-fixing. To elaborate the codes for the second research question, a deductive approach was used, as the initial codes (i.e. institutionalization, rationalization, and socialization) were based on Ashforth and Anand's (2003) theoretical framework. Subsequently, new codes were added inductively, based on new elements emerging from assessing the data. For example, "unwritten rules" and the "Post-Tour de France criteriums" were inductively discovered in the data. The data were coded separately by the first author and a research assistant. The coding outcomes were compared, debated, and agreed upon to guarantee a correct interpretation of the data.

Findings

Findings are presented in two separate sections. The first section depicts cyclists' perceptions of the existence of match-fixing in their sport (RQ1), while the second section focuses on whether and how match-fixing is institutionalized, rationalized, and socialized in road cycling (RQ2).

RCs' perceptions of the existence of match-fixing in their sport

RCs generally explained their perception of match-fixing meant deciding "before the race what will happen during the race." Given cyclists' belief that they did not predetermine competition outcomes, cyclists were convinced that "match-fixing does not occur in road cycling." Consequently, nearly all cyclists did not perceive match-fixing as a threat to their sport.

When it comes to the threats of bookmakers (i.e. bookies who are present along the roadside, and who write down the odds on a chalkboard) or online betting, most cyclists were convinced that betting-related match-fixing did not form a threat to road cycling. However, more than half of the interviewees indicated that bookmakers often influenced the results of races, mainly during so-called kermesses (i.e. local races consisting of short laps around a small town or village, often organized during fairs) in West Flanders (i.e. a Belgian province). RC #4 explained:

> Some cyclists dare to play with the bookmakers. They let someone else bet money, and they know what their odds are. Then they know how much money they can win, and how much money they can use during the race to buy the victory.

Despite past incidents, nearly all cyclists perceived bookmakers as an inherent cultural part of the "tradition and folklore of the sport." Furthermore, most cyclists believed that online betting has (had) no influence on the course of races, and thus did not threaten road cycling. RC #5 argued, "You are much less likely to win something, than when you bet on soccer. You have one chance in 180 cyclists in the peloton."

Furthermore, cyclists clearly distinguished the cooperation concept. On the one hand, they perceived cooperation as "an inherent tactical part of road cycling" (RC #8). Given the benefits of drafting, "it makes sense that you cooperate with your competitor(s) in the breakaway" (RC #2). Accordingly, teams cooperate when they have the same interests, for instance, "to end the race with a bunch sprint" (i.e. a large group of cyclists—usually the peloton—sprinting for the victory) (RC #15). Although money can be involved, cyclists emphasized the reciprocal nature of agreements. Therefore, nearly all cyclists did not perceive such cooperation as match-fixing, since "you just help each other to be in the most favorable situation, but you continue to pursue victory" (RC #12).

Conversely, cyclists acknowledged that buying and selling victories is not uncommon in their sport, mainly at lower levels of competition (i.e. at the level of elite without contract and during kermesses). At lower levels of competition, interests were considered low and cyclists were believed to "ride more on an individual basis" (RC #7). At a professional level, the stakes were believed to be too high, and the team interests too big. Although mixed feelings were present concerning buying and selling victories, cyclists did not even perceive this behavior as match-fixing. In general, cyclists argued again that trading victories cannot be equated with match-fixing, since "you have to be in the decisive breakaway, before you get that chance" (RC #4).

Albeit cyclists did not interpret match-fixing in the same way as defined by the Council of Europe, our next findings showed that different forms of cooperation between competitors were normalized through institutionalization, rationalization, and socialization processes.

Cooperation between competitors as normalized behavior in road cycling

Institutionalization. Interviewees considered cooperation between competitors a routine and unconscious decision that occurred in three phases. As mentioned before, cooperation between competitors usually occurred for tactical reasons. The initial decision to cooperate, however, was often not made solely for tactical reasons. Some cyclists were more likely to cooperate with competitors they had a friendly relationship with (e.g. training partners of other teams), than with competitors they did not know. Because of this friendship they were more inclined to ask, for instance, “Today I will attack […]. Are you in?” (RC #7). Additionally, the decision to cooperate was often made from a reciprocal perspective, as “a favor provided one day, can be returned later on” (RC #14). Furthermore, a rational-choice perspective was sometimes applied to work together or to trade a race. RC #9 explained: “Suppose you don’t feel well, and you know you will lose the sprint anyway. When the other cyclist makes you an offer, then you will be more willing to agree, so you at least earn some money.”

This decision-making occurred in a climate in which “ethics are quickly pushed aside” (RC #12). Cooperation (with competitors) was considered unquestioned and not really “a topic of conversation.” Nevertheless, (un)ethical climate turned out to depend on the level. The lower the level, “the fewer boundaries there are” (RC #3), and “the more it is each for himself” (RC #1). As previously mentioned, cyclists were convinced that trading victories mainly occurred at the level of elite without contract. At higher levels

of competition, the occurrence of trading victories was considered less likely due to higher stakes and "strict team guidelines" (RC #12).

In a second phase, cooperation with competitors became embedded in cycling's structures and processes. After a (first) successful outcome, cooperation with competitors was reused by the cyclists in the peloton. The peloton, considered "a small and secretive world," embedded this cooperative behavior in its structures and processes through its "many unwritten rules." RC #14 gave an example of an unwritten rule:

> When you are with two in a breakaway (in a stage race) and you can take the leader's jersey and the other cyclist is not a general classification rider, then you often say "you may win the race and I take the jersey." Then, you ride together against those who are chasing you in order to take enough time. In this way, you can take the leader's jersey and the other cyclist may win the race.

A subculture (i.e. the peloton) clearly emerged, which insulated the cyclists from the wider culture, and which normalized cooperation with competitors. Moreover, deviating behavior from these unwritten rules, would be passed on immediately, since "everyone speaks about everyone" (RC #6).

In a third phase, cooperation with competitors became routinized and habitual. Cooperation with competitors was considered "a routine," and was enacted mindlessly, as illustrated by RC #8: "Cooperative behavior with competitors could be problematic, if you think about it. However, I don't think anyone really thinks about it."

Post-Tour de France criteriums. When cyclists thought about routinized and normalized fixing, all cyclists immediately pointed to the post-Tour de France

criteriums, which are (exhibition) races organized shortly after the Tour de France that allow locals to watch cyclists who had just participated in the Tour de France. Nearly all cyclists declared that the course and the result of these criteriums were predetermined by the criterium organizer. Although cyclists thus admitted that these criteriums were fixed, no uncomfortable feelings were present. Cyclists argued that "it is important that the major cyclists of the Tour de France are on the podium" (RC #13), since post-Tour de France criteriums have commercial purposes and "serve to entertain the people" (RC #6).

Rationalization. Multiple rationalizations were used to justify cycling's culture of agreements. Selective comparison justifications were made where cyclists compared their own deviant acts with other sports' behaviors. They declared that "the problem (match-fixing) is much bigger in soccer" in comparison to road cycling. RC #6 illustrated this socially weighting: "I think, road cycling is actually one of the few sports where you cannot predetermine who will win. […] Road cycling is not like soccer or tennis, where match-fixing probably happens a lot." Moreover, when cyclists acknowledged that the post-Tour de France criteriums were almost always predetermined, they frequently shifted the attention away from the stigmatized fact that these criteriums were actually "fixed." The majority of cyclists pointed to their safety and commercial reasons why these criteriums were fixed. They argued that they are completely exhausted after three weeks Tour de France. They further rationalized their actions through "metaphor of the ledger" by declaring they "earned their credits" during the tour de France, and therefore deserved to be in the spotlight during the post-Tour de France criteriums, which were organized to entertain the people.

Whilst some cyclists also denied responsibility by stating that they cooperated or made agreements with competitors, because they had no other choice due to circumstances beyond their control. Nearly all cyclists shared “it (cooperation) is inherent to the sport […], and everyone does it” (RC #2). When it comes to selling a race, a handful of cyclists argued they had no other option than to consent. The following quotation supports this denial of responsibility:

> I was in the decisive breakaway (during a kermesse) with two other cyclists. One of the cyclists asked me how much money I would like to have, so he could win the race. However, I had already noticed that the other cyclist in the breakaway had already made an agreement with him. So, from that moment I knew that when I would refuse his proposal, they would ride with two against me. So, I had to accept his proposal. I know it's unfair and I would rather have taken my own chance, but at that moment I had no other choice. (RC #4)

Some cyclists justified cooperation with competitors on the grounds that this behavior was legal. “It is not that you do things that are not allowed” (RC #14). RC #12 even wondered: “I don’t think there are any written rules in road cycling about whether or not this behavior is allowed.” Some cyclists also rationalized that no one was really harmed (i.e. denial of injury). They argued that “the sport is not really harmed” by, for instance, selling a race, because “in most cases, when someone accepts an offer, (s)he actually realized (s)he couldn’t win that day” (RC #4).

Additionally, a number of cyclists explained that competitors occasionally cooperated against certain cyclists, because these particular cyclists were not popular in the peloton. Hence, they “deserved it” (RC #3) to be chased down (i.e. denial of victim). Contrary to this, a considerable number of cyclists also rationalized that certain

agreements were made out of friendship. As such, they tried to realize a higher-order value (i.e. a higher loyalty).

Socialization. Three socialization mechanisms were identified. A first mechanism, incrementalism, was used to gradually evolve cyclists' attitudes towards cooperative behavior throughout their career. "The longer you are in the peloton, the better you get to know the other cyclists, and the better you get to know the strong and cooperative cyclists" (RC #3). In the beginning, young cyclists were "hungry to win" (RC #5), and prioritized their further career. However, as cyclists get to know the hierarchies within the team and the peloton, they realized that competitors with the same goals can be allies. Cyclists' cooperative experience and behavior thus increased "as they get older" (RC #4). Accordingly, many cyclists stated that "older cyclists, at the end of their career, and mainly active at lower levels of competition" (i.e. elite without contract) were more likely to trade races, than younger cyclists.

Second, cyclists frequently engaged in cooperative behavior with competitors, because they compromised to avoid problems or conflicts with competitors. Compromises were thus often made as "it is important to build a good reputation in the peloton" (RC #3). Several cyclists even stated that "refusing or breaking agreements," could result in other cyclists "riding against you, also in future races" (RC #7). Cyclists' place in the peloton was thus consolidated by showing cooperative behavior, and avoiding social sanctions.

Both mechanisms of incrementalism and compromise, were sometimes supplemented by the mechanism of cooptation, in which newcomers were induced by rewards. However, as previously mentioned, young cyclists prioritized victory and their career, and therefore rewards were subordinate to the reciprocal nature of agreements.

Discussion

Building on RCs' perceptions of cooperation and the theory of normalizing corruption (Ashforth and Anand, 2003), this study provides in-depth and nuanced insights on match-fixing, and to what extent it is normalized in road cycling. Our findings show that cyclists interpret match-fixing differently. Given cyclists' belief that agreements are not predetermined, cooperating with competitors was generally accepted, and not considered as match-fixing. Despite past betting-related incidents with bookmakers, even betting-related match-fixing was not seen as a threat to their sport. Albeit participating cyclists did not acknowledge the existence of match-fixing in their sport, our findings illustrate how different forms and levels of cooperation between competitors can be seen as institutionalized, rationalized, socialized, and thus normalized behavior in road cycling.

Findings on cyclists' perceptions of cooperation with competitors clearly challenge the concept of match-fixing. Although cycling's culture of agreements may theoretically imply match-fixing, it is considered a fundamental and inherent characteristic of road cycling by cyclists. As such, we may wonder whether we are authorized to label this behavior as match-fixing, even if it is contrary to the UCI rule. After all, our findings indicate that (the perception of) a grey zone exists, and that agreements between competitors (or in theory "certain forms of match-fixing") are allowed, partly because it is normalized and because of the complexity of road cycling. Depending on who looks at this behavior, it may or may not be seen as match-fixing. Hence, the normalization process is at the root of the grey zone. On the one hand, this may point to the necessity of a sport-specific definition of match-fixing for road cycling. On the other hand, this may emphasize that match-fixing should not be considered in a black or white way.

Moreover, the UCI's (2021b) vague rule on collusions contributes to this grey zone. More specifically, by formulating art. 1.2.081 in such a vague manner, the UCI actually initiates a grey zone. Additionally, by not enforcing this rule properly, the UCI helps to maintain the grey zone. This grey zone between tactics and manipulation could partly be explained by what Kvalnes and Hemmestad (2010: 57) call "loophole ethics" (i.e. anything that is not explicitly forbidden, is presumed implicitly allowed; in line with the aforementioned legality rationalization argument). Notwithstanding that cooperation between competitors is thus conducted by cyclists, it is actually the UCI's responsibility to not enable and permit this grey zone. Therefore, we emphasize the responsibility of organizations (institutions) rather than the responsibility of individuals to clarify the rules, and the grey zone regarding collaboration and match-fixing (Marchetti et al., 2021; Tak, 2018).

Findings highlighting the institutionalization process show how cooperation is a matter of routine and unconscious decision-making in cycling's culture. In addition to tactical reasons, cyclists often decide to cooperate with competitors out of friendship, from a reciprocal perspective or sometimes from a rational-choice perspective. Although our study is pioneering in terms of applying Ashforth and Anand's (2003) theoretical framework to match-fixing, connections can thus be made with other dominant theories used in match-fixing research, such as rational-choice theory (e.g., Forrest, 2018; Hill, 2015). In accordance with Christiansen and Hjørngard (2013), our findings also show how breaking or refusing the unwritten rules can cause social sanctions. Given this known, but unarticulated nature of behavior, parallels can be drawn with the concepts of public secrecies and codes of silence (Moriconi and de Cima, 2020; Numerato, 2016). Additionally, an ultimate form of routinized and habitual cooperation that transcends the peloton itself is found in the Post-Tour de France criteriums. These criteriums' results are often predetermined by criterium organizers, cyclists and/or

sponsors, but they attract thousands of fans each year (Cyclingnews, 2019a). This observation can be explained by the fact that spectators prioritize the positive social outcomes of the sport, thereby accepting the lack of integrity (Manoli et al., 2020).

When it comes to the rationalization process involved, a range of self-serving ideologies were used by the interviewees to justify cooperation with competitors. Ashforth and Anand's (2003) eight rationalizing strategies all emerged throughout our findings. Cyclists frequently applied selective comparison justifications to argue that match-fixing is something that happens in other sports (mainly soccer) but not in road cycling. Furthermore, they frequently tried to shift the attention away from stigmatized features, and frequently denied or diffused their own responsibility by stating that they had "no other choice" or that "everyone does it." Other rationalizing ideologies were used less frequently or in combination with each other.

Findings regarding the socialization process show how one does not suddenly engage in normalized (dubious) behavior, but is gradually socialized into it. Similar to the socialization into doping (Ohl et al., 2015), young cyclists gradually redefine their norms and values regarding the culture of agreements through interactions with others in the cycling subculture. Cyclists also often compromised to avoid problems or conflicts with their competitors. Although both mechanisms of incrementalism and compromise were sometimes supplemented by rewards (e.g. money), rewards were subordinate to the reciprocal nature of road cycling's culture of agreements (cf. Christiansen and Hjørngard, 2013).

Given the holistic nature of Ashforth and Anand's (2003) model, it provided valuable mechanisms to explain why behavior that can be seen as corruption in other sports, is considered normal in road cycling. However, similar to the concept of match-fixing, Ashforth and Anand's (2003) general corruption model may be "too black or white,"

since not all normalized behavior that is contrary to the rules, is considered corruption. Various stakeholders may have different interpretations and visions on the normalized behavior, which is in the grey zone. On the contrary, the ambiguity about whether or not certain behavior is corrupt, is typical for normalized corrupt behavior. While Ashforth and Anand's (2003) model could also provide valuable insights in other sports (e.g. Taiwan's baseball, see Tzeng and Lee, 2021), and other forms of (sport) misconduct (e.g. doping, see Ohl et al., 2015), a more nuanced interpretation of the model is thus required for sport.

By exploring match-fixing in the unique context of Belgian road cycling, this study provides a multifold empirical and theoretical contribution. Building on the theory of normalizing corruption (Ashforth and Anand, 2003), this study adds to the sport corruption literature (Kihl, 2018), as well as to the development of sport-specific theoretical understandings of how behavior is normalized (Doherty, 2013). Current sport corruption research continues to be largely under-theorized (Kihl, 2018). To date, three models and levels on sport corruption (i.e. rational-choice theory on a micro-level, structural models on a macro-level, and relational models on a meso-level) are mainly considered in isolation of each other (Soebbing and Walker, 2018). By applying a multilevel approach, including all three levels, this study provides a more holistic and nuanced perspective, which is necessary to obtain a better understanding of sport corruption, and match-fixing in particular (Kihl, 2018).

Based on our empirical findings, we call for actions targeting all three normalization pillars. As cooperation between competitors is considered institutionalized, a revised format may be necessary to limit cooperation, and enhance the uncertainty of outcome and credibility, which is indispensable to maintain fans and sponsors. Banning two-way radio communication, for instance, might increase race outcome uncertainty in

professional cycling (Larson and Maxcy, 2014). Moreover, to pursue fair play, where everyone competes at the best of his/her abilities, clear rules should be implemented to clarify the grey zone and to change the normalized behavior. Additionally, team managers and sponsors could play an important role in educating young cyclists and raising awareness about permitted and prohibited behavior. Furthermore, awareness raising initiatives might reduce the use (and development) of rationalization strategies and socialization processes (Anand et al., 2004). However, given the publicly secret nature of the culture of agreements in road cycling, a trustworthy whistleblowing protection program is also required for safe reporting as well as to initiate much-needed institutional and cultural change in cycling (Verschuuren, 2020).

Conclusion

This study sheds innovative light on how RCs have a different understanding of the existence of match-fixing. Moreover, by showing that (a) cooperation with competitors is routinized and habitual in road cycling, (b) cyclists use rationalization strategies to justify their cooperative behavior with competitors, and (c) newcomers are induced to the culture of agreements, we demonstrate how cooperation between competitors is normalized in road cycling. This normalized behavior causes a grey zone that may be considered as match-fixing, depending on who interprets the behavior. Applying a strict interpretation of match-fixing, as proposed by the broad definition of the Council of Europe (2014), and thus considering the cyclists' behavior as match-fixing is useful. After all, a loose interpretation of match-fixing could endanger the sport, especially when there is such a widespread general acceptance of agreements. Consequently, this study highlights the UCI's responsibility to clarify the rules, and the grey zone between tactics and manipulation in road cycling. Additionally, by using Ashforth and Anand's (2003) model, this study demonstrated mechanisms to explain why certain

behavior that can be seen as corruption in one sport, can be considered normal in another sport.

This study's sample included active adult RCs only. Youth and former RCs as well as other stakeholders could shed a broader light on the process (and evolution) of the culture of agreements. Also, the geographical scope of this study was limited to Belgium, although road cycling is an international sport in terms of cyclists, teams, and races (Rebeggiani, 2016). Country-specific and cultural differences could exist concerning how cyclists perceive the culture of agreements. Additionally, a social desirability bias might have impacted our findings, as some interviewees may not have been willing to admit to forms of corruption to protect their sport. After all, road cycling has already experienced a lot of negative exposure in relation to doping issues.

Future research should focus on the roles of anti-corruption agencies and their initiatives against match-fixing regarding the three pillars of normalization. Additionally, it would be interesting to further examine how cycling's structure and culture impact how individuals morally disengage by deactivating self-sanctions (e.g. feelings of shame and guilt) to facilitate their engagement in match-fixing (Moore et al., 2012). In all policy efforts, emphasis should be placed on how young athletes can be protected to avoid socialization into match-fixing. Future research should also examine the role and perceptions of other stakeholders in road cycling (e.g., sponsors, fans) regarding collaborations and match-fixing. After all, if everyone agrees to fixing, is it still fixing? Furthermore, a quantitative approach could shed a broader light on how (often) and why people make agreements in road cycling.

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3 UNDERSTANDING HOW INDIVIDUALS ENGAGE IN MATCH-FIXING: THE ROLE OF MORAL DISENGAGEMENT

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Abstract

Research question: This study aims to investigate the role of moral disengagement in individuals' decisions to consent to match-fixing, either alone or in concert with money, other inducements, and threats or pressure. Drawing on the moral unease component of an individual's rational-choice cost-benefit assessment, we examine the potential of moral disengagement as an explanatory mechanism.

Research methods: Data were obtained through an online questionnaire. The analysis was based on an international sample of 383 current and former athletes, coaches, referees, and board members who have reported having been approached for match-fixing in the past. The empirical evaluation employed descriptive statistics and (multiple) binary logistic regression models, which were performed using SPSS 24 software.

Results and Findings: Results indicate that a higher propensity to morally disengage can be associated with increased odds of consenting to match-fixing. These results suggest that individuals approached with a match-fixing proposal tend to employ self-defensive mechanisms to rationalize their decision to engage in match-fixing. Furthermore, the use of threats or pressure was found to have a significant impact on the decision to participate in match-fixing, both alone and in concert with (monetary) inducements and moral disengagement. While a positive significant interaction effect was observed between moral disengagement and the offer of (monetary)

inducements, no significant interaction effect was noted between moral disengagement and threats or pressure.

Implications: This study offers novel individual-level explanations for match-fixing. Enriching the dominant rational-choice paradigm, this study emphasizes the importance of detecting and counteracting moral disengagement mechanisms in match-fixing prevention initiatives.

Keywords: Match-fixing, Moral disengagement, Sport manipulation, Bribe, Integrity

Introduction

One topical and prevalent issue surrounding sport is match-fixing or "the manipulation of sports competitions" (Council of Europe, 2014, art. 3.4). Match-fixing casts a shadow over sport as it may cause several harmful consequences for sport and those involved (Kihl, 2018a). First of all, match-fixing damages the integrity of sport (Boniface et al., 2012). If the outcome or the course of a match is known in advance, sport's basic principles of fairness of competition and uncertainty of outcome are ruined (Harvey, 2015; Mcnamee, 2013). As a consequence, trust and credibility may be violated, and the interest in and demand for sport may decrease (Rebeggiani & Rebeggiani, 2013). This in turn could lead to less (successful) commercialization, less funding and economic investments in sport, decreased media attention, and sport clubs or even entire leagues ceasing to exist (Hill, 2010; Rebeggiani & Rebeggiani, 2013). When the match-fixing event is related to betting, the sport betting industry could also suffer extensive financial losses insofar as it is not itself involved in match-fixing (Forrest, 2012). The mental and physical integrity of the people involved in match-fixing can also be at risk due to violence, threats, pressure, and/or coercion (Boniface et al., 2012; Doidge, 2018; FIFPro, 2012).

As match-fixing has thus presented itself as one of today's most pressing sport integrity issues, researchers have tried to explain why individuals decide to engage in match-fixing (Kihl, 2018b). A dominant theoretical perspective is thereby offered by rational-choice theory, arguing that individuals mainly engage in match-fixing after deciding that the benefits outweigh the potential costs (Becker, 1968; Forrest, 2018). Accordingly, a robust amount of research has focused on bribes to engage in match-fixing, ranging from money (e.g., Hill, 2015) to other (material) inducements (e.g., Van Der Hoeven et al., 2020), and career progress (e.g., Boeri & Severgnini, 2011).

Several studies have also described how people were (simultaneously) threatened or pressured into match-fixing (e.g., Carpenter, 2012; Yilmaz et al., 2019).

While money, inducements, and threats or pressure have been widely addressed as part of the rational-choice perspective on match-fixing, little remains known about the ways individuals deliberate about and cognitively restructure match-fixing proposals to enable the decision to engage in them (Barkoukis & O'Shea, 2022). Ultimately, one can contend that individuals enable their involvement in match-fixing by deliberately deactivating their moral beliefs and self-imposed constraints. This behaviour is commonly known as moral disengagement (Bandura, 1986). Despite research in sport highlighting the role of moral disengagement in relation to specific incidents of unethical behaviour such as doping (e.g., Stanger & Backhouse, 2020), no study has yet examined moral disengagement in relation to match-fixing (Barkoukis & O'Shea, 2022; Van Der Hoeven & Willem, 2022).

The present study aims to contribute to our understanding about the cognitive processes behind match-fixing, by examining whether moral disengagement can help explain an individual's decision to have consented to match-fixing, alone and in concert with the possibility of having been offered money, other inducements, and having been threatened or pressured. It is beyond the scope of this study to examine the influence of all expected benefits and costs (e.g., the chance to get caught) related to match-fixing. We rather delve deeper into the moral unease component of the cost-benefit assessment which rational-choice thinking presumes sport actors (in this study: current and former athletes, coaches, referees, or board members who were involved in various sport disciplines on amateur or (semi-)professional levels) to make. Therefore, we utilised a cross-sectional study design to examine match-fixing from a micro (i.e., individual) viewpoint.

Theoretical perspectives on match-fixing

Rational-choice

Many researchers from different scientific disciplines have investigated why individuals decide to engage in match-fixing, but most of them make use of rational-choice theory to explain match-fixing at the individual level (Kihl, 2018b; Marchetti et al., 2021; Tzeng & Ohl, 2023). Rational-choice theory implies that individuals engage in corruption when they expect that benefits outweigh the expected costs (Becker, 1968). Accordingly, Hill's (2010, 2013, 2015) pioneering work described financial gain as the primary expected benefit from engaging in match-fixing. However, as the motives for match-fixing may differ, the benefits may also vary between – or can be a combination of – sporting, financial, and social profits (e.g., a friendly gesture toward another club or athlete) (Forrest, 2018). Boeri and Severgnini (2011), for example, showed how referees might engage in match-fixing for career progress, while Van Der Hoeven et al. (2020) showed how bribes for match-fixing can vary from money to a wide range of material (e.g., a keg of beer) and social (e.g. loyalty, bonding) inducements.

In addition to the widely documented bribes to convince people to engage in match-fixing, several studies have also shown how individuals are (simultaneously) pressured or threatened into match-fixing (e.g., Manoli & Antonopoulos, 2015; Yilmaz et al., 2019). FIFPro's (2012) Black Book Eastern Europe revealed that 38.6% of the players who had been approached to consider match-fixing, had been a victim of a violent act. Boniface et al. (2012) explained some major match-fixing cases where people were threatened or pressured into fixing, and Harvey and Levi (2014) showed the spread of responses concerning threats and pressure in their questionnaire on match-fixing as part of the "Don't Fix It!" project.

Although the role of money, other inducements, and threats or pressure have been widely described in the match-fixing literature, the current rational-choice approach to match-fixing falls short as it mainly portrays individuals as "amoral calculators" whose behaviour is purely based on a rational calculation of (tangible) costs and benefits (van Bottenburg, 2022, p. 34). This can best be demonstrated with Forrest and Simmons' (2003, p. 607) equation (i.e., $E(U^F) = (1-p)\,[qU\,(Y+G)] + (1-p)\,[(1-q)\,U(Y)] + p\,[U\,(Y-F-R)] - U(Y) + U(C)$) which represented the weighing-up by a sport actor of the expected (monetary) gain from accepting a match-fixing proposal on the one hand and the expected cost on the other hand. However, Forrest and Simmons' (2003) equation also included a term (i.e., *U(C)*) to represent the moral (dis)comfort from having taking part in match-fixing. For example, a player may feel guilty or uncomfortable having engaged in match-fixing. Although unpleasant emotional feelings thus also regulate an individual's decision to consent to match-fixing or not, less scientific attention has yet been dedicated to the cognitive mechanisms of sport actors that play a role prior to – and help explain – match-fixing. As one could expect that unpleasant emotional consequences should deter individuals to consent to match-fixing, how is it then possible that individuals still decide to engage in match-fixing?

Albert Bandura's (1986, 1991) social cognitive theory of moral thought and action can contribute to our understanding of how an individual's decision to engage in match-fixing is regulated by personal and social sanctions expected to result from such conduct. Central to Bandura's (1991) theory is that people can refrain from engaging in immoral actions by implementing self-sanctions as part of a cognitive, self-regulative process (Robertson & Constandt, 2021). However, self-regulatory mechanisms only work effectively when they are activated (Bandura, 1991, 2002). In the face of external inducements, people can deliberately deactivate the self-regulatory process to behave contrary to their moral standards without feeling guilt or stress, a practice referred to

as moral disengagement (Bandura, 1991, 2002). Moral disengagement could help explain why people engage in a match-fixing proposal despite feeling moral discomfort.

Moral Disengagement

Bandura (1991, 2002) distinguished eight cognitive mechanisms "that decouple one's internal moral standards from one's actions, facilitating engaging in unethical behavior (sic) without feeling distress" (Moore, 2015, p. 199). These cognitive mechanisms of moral disengagement have been grouped into four categories related "to the timing of their use in relation to the immoral action and the type of mechanisms used to rationalize and disassociate harmful actions from individual culpability" (Robertson & Constandt, 2021, p. 717).

The first category focuses on the *behaviour* itself and consists of three mechanisms: *moral justification* (i.e., cognitively reframing unethical acts as being in the service of a greater good), *euphemistic labelling* (i.e., the use of sanitized language to rename harmful actions to make them appear more benign), and *advantageous comparison* (i.e., exploiting the contrast between a behaviour under consideration and an even more reprehensible behaviour to make the former seem innocuous). For instance, match-fixing could be labelled as a strategic choice rather than as a manipulative action, or could be framed as being less detrimental for sport than human trafficking. These mechanisms allow sport actors to convince themselves that their actions are inconsequential, thereby avoiding self-condemnation.

The second category emphasizes the role of the *actors* involved in the behaviour and aims to "remove individual accountability and acknowledgement of harm caused by their detrimental actions," and consists of two mechanisms: *displacement of*

responsibility (i.e., the attribution of responsibility for one's actions to authority figures who may have tacitly condoned or explicitly directed behaviour), and *diffusion of responsibility* (i.e., dispersing responsibility for one's action across members of a group) (Robertson & Constandt, 2021, p. 719). Applied to match-fixing, this category of mechanisms could for instance relate to arguing that everyone is fixing or that one had to fix because their general manager or coach had insisted to do so.

The third category focuses on the *consequences* that result from detrimental behaviour, and involves only one mechanism, namely *distortion of consequences* (i.e., the minimization of the seriousness of the effects of one's actions). Potential consequences of the behaviour under analysis are either downplayed, reframed as less detrimental, or even plainly neglected (e.g., "match-fixing does not yield any negative effects").

The fourth and final category focuses on the *victims* of the act and contains *dehumanization* (i.e., the framing of the victims of one's actions as undeserving of basic human consideration) and *attribution of blame* (i.e., assigning responsibility to the victims themselves, who are described as deserving whatever befalls them). For example, athletes who engage in fixing could attribute blame to sport fans because some of them are pressuring athletes to fix to boost their chances to be successful on the sports betting markets.

Researchers have investigated moral disengagement in various contexts (e.g., support of military force, see McAlister et al., 2006; bullying in schools, see Menesini et al., 2003). In the context of sport, moral disengagement has been linked to antisocial behaviour (e.g., Boardley & Kavussanu, 2009, 2011; Hodge & Lonsdale, 2011; Stanger et al., 2013), consumers' moral reasoning in the aftermath of an athlete scandal (e.g., Lee et al., 2016; Lee & Kwak, 2016), doping (likelihood) (e.g.,

Kavussanu & Ring, 2017; Stanger & Backhouse, 2020), aggression and violence (e.g., Traclet et al., 2015), and corruption (e.g., Kihl, 2019; Lastra et al., 2016). Although Kihl (2019) and Lastra et al. (2016) discussed moral disengagement in relation to corruption in sport, empirical evidence is still missing.

Examining match-fixing from the perspective of moral disengagement is vital because it can provide a more nuanced psychological understanding of why, and how, people decide to consent to a match-fixing proposal. It may help understand how generally good people in everyday life decide to engage in match-fixing and do not feel guilty. It may help develop and strengthen match-fixing prevention initiatives by identifying and outlining the dominant cognitive strategies to justify match-fixing. Consequently, the main research question sounds as follows:

RQ: (How) can moral disengagement help explain an individual's decision to consent to match-fixing, alone and in concert with the possibility of having been offered money, other inducements, and having been threatened or pressured?

Method

Procedure

Data stem from a research project within the Erasmus+ Programme which was co-funded by the European Union. After approval by an independent ethics commission of the university of the first author, an online questionnaire on match-fixing was designed and implemented in the online program LimeSurvey. The questionnaire ran in Austria, Belgium, Croatia, France, the Netherlands, Switzerland, and the United Kingdom from May 2020 to early November 2020. To reach appropriate participants (i.e., sport actors of 18 years or older who are or were involved in football, tennis, basketball, field hockey, or another sport discipline), the online questionnaire was

translated into the respective languages and disseminated through email, social media, and paper and pencil versions. Local and national sport governing bodies were informed and asked to assist in disseminating the questionnaire to their members using their own channels (email, social media and newsletters). Additionally, project members further disseminated the online questionnaire via Facebook, Twitter, LinkedIn, and some of them visited sport clubs in person to recruit participants via paper and pencil versions. Before potential participants could start the questionnaire, they could read the conditions and had the opportunity to read an information letter which explained the purpose of the study, the procedure, and the total confidentiality of the data collection, analysis and reporting. All participants provided informed consent before filling in the questionnaire. Participants completed the questionnaire voluntarily, and could quit the questionnaire at any time without consequences. Completing the questionnaire took approximately 15 minutes. In total, 5014 adult sport actors participated in the questionnaire, and 419 of them indicated that they had already been approached with a match-fixing proposal. The latter subsample was selected for this study, as we focus on an individual's decision to consent to match-fixing.

Since participants had control over whether or not to participate in the study (i.e., non-random sampling), we acknowledge the possible influence of self-selection. More specifically, we might wonder whether the decision to complete the questionnaire may itself have had an influence on the study's variables. For example, if one has fixed in the past, one's decision to complete the questionnaire is likely somehow to be related to whether one still feels guilty about the offence. Moreover, when a proposal had been accompanied by threats or pressure, taking part or not in the questionnaire may also be related to still now feeling unsafe from involvement with fixers. Consequently, we have to be aware that in reality the observed effects in this study could be

influenced by the participants' ability to self-select into this research. In addition, we tried to counter potential concerns related to socially desirable responding, by guaranteeing participants anonymity and consistently controlling for social desirability throughout our analyses (see infra).

Measures

The online questionnaire consisted of two parts. A first part examined the participants' demographics at the time of completing the questionnaire. Subsequently, we asked whether they had ever been approached to fix a game/match. When participants testified that they had already been approached for match-fixing, the second part of the questionnaire (which was used in this study) examined their age, way of involvement and level of sport at the moment of the last or only match-fixing proposal they received. Additionally, the approached participants were asked whether they were offered money, other (material) inducements, and whether they were threatened or pressured to fix the game/match. Eventually, participants could indicate whether they had consented to the match-fixing proposal or not, which was used as the dependent variable in this study. An overview of the study's independent variables can be found in Table 11.

Table 11. Overview of independent variables.

Variable	Description	Scale
Moral disengagement	Propensity to morally disengage of the participant (sum score ranges from 8 to 56)	Metric
Offered money*	Whether the participant was offered money to fix the game/match (0 = no; 1 = less than €100; 2 = between €100 and €500; 3 = between €500 and €1000; 4 = between €1000 and €5000; 5 = more than €5000)	Nominal
Offered inducements	Whether the participant was offered other inducements to fix the game/match (0 = no; 1 = yes)	Dummy
Threatened or pressured	Whether the participant was threatened or pressured to fix the game/match (0 = no; 1 = yes)	Dummy
Control variables		
Country	Country of the participant (1 = Austria; 2 = Belgium, 3 = Croatia, 4 = France, 5 = the Netherlands, 6 = Switzerland, 7 = United Kingdom)	Nominal
Sport discipline	1 = football, 2 = tennis, 3 = basketball, 4 = field hockey, 5 = other	Nominal
Gender	1 = man, 0 = woman	Dummy
Age	Participant's age at the moment of the proposal	Metric
Way of involvement	Participant's way of involvement at the moment of the proposal (1 = athlete; 2 = coach / trainer / assistant coach; 3 = referee / (video) assistant referee / (fourth) official / jury member; 4 = board member / assembly member / manager of a sport club; 5 = in another way)	Nominal
Level of sport	Participant's level of sport at the moment of the proposal (1 = professional; 2 = semi-professional; 3 = amateur)	Ordinal
Social desirability	Participant's degree of socially desirable responding (scores ranges from 0 to 10)	Metric

*The currency was adjusted for the respective countries.

Moral disengagement. Participants' propensity to morally disengage was measured using the 8-item scale developed by Moore et al. (2012). Moore et al.'s (2012) scale was chosen, because it is a validated, parsimonious, and easily administered scale to measure the general propensity to morally disengage among a broad sample of adults. After all, our research focused on a wide variety of adult actors related in different ways to their sport discipline rather than one specific group of actors (e.g., only athletes, see Boardley & Kavussanu, 2007). Moreover, Moore et al.'s (2012) scale also incorporates all eight mechanisms of moral disengagement rather than one or a few mechanisms (e.g. moral justification, see Aquino et al., 2007). Each item assessed one cognitive mechanism of moral disengagement (e.g., "It is okay to spread rumors (sic) to defend those you care about" to assess *moral justification*). Participants' answers were given on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The mean of the sum of the responses to the eight items was calculated (see Table 12), with higher scores indicating a higher propensity to morally disengage. Internal consistency of the scale assessed by Cronbach's Alpha (α = 0.834) was good.

Offered money, offered other inducements, and threatened or pressured. When participants testified that they had already been approached for match-fixing, they could specify whether they were offered money, other (material) inducements, and whether they were threatened or pressured to fix the game/match.

Control variables. In order to control for country specific effects, the nominal variable country was used (see Table 11). Moreover, we controlled for sport discipline, gender, age at the moment of the proposal, way of involvement at the moment of the proposal, and level of sport at the moment of the proposal, as these variables may play a role when it comes to match-fixing (e.g., sport discipline and level of sport, see Carpenter,

2012; Forrest, 2018; age, see Hill, 2015; gender, see Jetter & Walker, 2017; way of involvement, see Lastra et al., 2018), despite a lack of general consensus in the match-fixing literature. Additionally, considering that people who participate in ethics-related research are more likely to answer in a socially desirable way (Fukukawa, 2002), we controlled for social desirability by using Strahan and Gerbasi's (1972) short-form scale X1. Strahan and Gerbasi's (1972) shortened Marlow-Crowne scale consists of 10 items. The first five items describe desirable behaviours (e.g., I'm always willing to admit it when I make a mistake), whereas the last five items describe undesirable behaviours (e.g., I like to gossip at times). The items are scored using a "true" or "false" forced-choice format and scores ranges from 0 to 10, with higher scores reflecting a higher degree of socially desirable responding by the participant. We chose the short-form scale X1 of Strahan and Gerbasi (1972) to avoid participant drop-out/fatigue and because it is considered reliable and is widely used.

Participants

Data of the 419 participants who indicated that they had already been approached for match-fixing were checked for missing values. Cases with missing values on the study's variables were excluded from the analysis (i.e., a complete case analysis was performed, see Molenberghs & Kenward, 2007), leading to a final sample of $n = 383$. The final 383 participants (men = 346; women = 37) were involved in a variety of sport disciplines (67.1% football; 14.4% tennis; 3.9% basketball; 8.9% field hockey; 5.7% other sport discipline). At the time of completing the questionnaire, participants were of varying ages ($M = 40.79$; $SD = 13.23$; min = 18; max = 75), were involved on various levels (15.9% professional; 18.0% semi-professional; 66.1% amateur), and were related in different ways to their sport discipline (49.2% athlete, 9.2% coach / trainer / assistant coach, 26.4% referee / (video) assistant referee / (fourth) official / jury

member, 9.2% board member / assembly member / manager of a sport club, 6.0% other). In the analyses, we used the participants' demographics related to the last or only match-fixing proposal they received (see Table 12).

Data analyses

Data analyses were performed using SPSS 24 software. Descriptive statistics, chi-square analyses, and independent sample t-tests were used to respectively examine the frequency differences and mean differences between the participants who consented to the match-fixing proposal and those who did not consent (see Table 12). The analytical analysis includes (multiple) binary logistic regression analyses to assess the effect of moral disengagement, being offered money, being offered other inducements, and being threatened or pressured alone (see Table 13) and in concert (see Table 14) on the decision to consent to match-fixing. Within all logistic models, we controlled for country, sport discipline, gender, age at the moment of the proposal, way of involvement at the moment of the proposal, level of sport at the moment of the proposal, and social desirability.

Results

As shown in Table 12, 270 participants indicated that they did not consent to the last or only match-fixing proposal they received and 113 participants indicated that they consented to the last or only match-fixing proposal they received.

Table 12. Descriptive statistics of independent variables (descriptive statistics, independent sample t-tests, chi-square analysis; n = 383).

	Total sample			Individuals who did NOT consent to the proposal			Individuals who consented to the match-fixing proposal			*p*-values for mean differences	*p*-values for frequency differences
Variable	Mean	SD	Frequency *n* = 383	Mean	SD	Frequency *n* = 270	Mean	SD	Frequency *n* = 113		
Moral disengagement	23.34	9.43		21.04	7.13		28.85	11.73		< .001	-
Offered money										-	< .001
Less than €100	-	-	35	-	-	28	-	-	7		
Between €100 and €500	-	-	73	-	-	49	-	-	24		
Between €500 and €1000	-	-	40	-	-	20	-	-	20		
Between €1000 and €5000	-	-	31	-	-	15	-	-	16		
More than €5000	-	-	16	-	-	8	-	-	8		
No	-	-	188	-	-	150	-	-	38		
Offered other inducements										-	< .001
Yes	-	-	133	-	-	69	-	-	64		
No	-	-	250	-	-	201	-	-	49		
Threatened or pressured										-	< .001
Yes	-	-	87	-	-	37	-	-	50		
No	-	-	296	-	-	233	-	-	63		
Control variables											
Country										-	< .001
Austria or Switzerland	-	-	16	-	-	12	-	-	4		
Belgium	-	-	157	-	-	126	-	-	31		
Croatia	-	-	45	-	-	43	-	-	2		
France	-	-	23	-	-	18	-	-	5		
Netherlands	-	-	70	-	-	49	-	-	21		
United Kingdom	-	-	72	-	-	22	-	-	50		
Sport discipline										-	.343
Football	-	-	257	-	-	173	-	-	84		
Tennis	-	-	55	-	-	44	-	-	11		
Basketball	-	-	15	-	-	12	-	-	3		
Field hockey	-	-	34	-	-	25	-	-	9		
Other sport	-	-	22	-	-	16	-	-	6		
Gender										-	.062
Man	-	-	346	-	-	239	-	-	107		
Woman	-	-	37	-	-	31	-	-	6		
Age	31.96	11.26		31.99	11.63		31.87	10.36		.917	-
Way of involvement										-	< .001

Athlete	-	-	186	-	-	118	-	-	68		
Coach	-	-	49	-	-	28	-	-	21		
Referee	-	-	114	-	-	103	-	-	11		
Board member	-	-	25	-	-	17	-	-	8		
In another way	-	-	9	-	-	4	-	-	5		
Level of sport										-	< .001
Professional	-	-	53	-	-	28	-	-	25		
Semi-professional	-	-	64	-	-	37	-	-	27		
Amateur	-	-	266	-	-	205	-	-	61		
Social Desirability	5.92	1.81		6.07	1.88		5.56	1.58		.011	-

n = sample size; *SD* = standard deviation

Participants who indicated that they consented to the last or only match-fixing proposal they received, generally had a significantly higher propensity to morally disengage (M = 28.85, SD = 11.73) than the participants who indicated that they did not consent to the match-fixing proposal they received (M = 21.04, SD = 7.13) (independent sample t-test: t = 6.587, df = 148, p < .001). Moreover, our results indicated that moral disengagement has a statistically significant effect on the decision to consent to match-fixing alone (β = .061, Standard error = .0180, Odds ratio = 1.062, 95% CI = 1.026 to 1.100, p = .001) (see Table 13) and in concert with the other independent variables (β = .054, Standard error = .0191, Odds ratio = 1.056, 95% CI = 1.017 to 1.096, p = .005) (see Table 14). Although a higher propensity to morally disengage can thus be associated with increased odds of consenting to the match-fixing proposal, our results should be interpreted with some caution given the fairly low odds ratios.

Table 13. Individual effect of the independent variables on the decision to consent to the match-fixing proposal (dependent variable: 0 = no, 1 = yes) (Binary logistic regression analyses; n = 383).

Independent variables	B	Standard error	Odds ratio	95% Confidence interval	*p*
Moral disengagement	.061	.0180	1.062	[1.026, 1.100]	.001
Offered money					
Less than €100 (ref.: not offered money)	-.076	.5929	.927	[.290, 2.962]	.898
Between €100 and €500 (ref.: not offered money)	.361	.4064	1.435	[.647, 3.183]	.374
Between €500 and €1000 (ref.: not offered money)	.027	.5288	1.028	[.365, 2.897]	.959
Between €1000 and €5000 (ref.: not offered money)	.391	.5469	1.479	[.506, 4.320]	.474
More than €5000 (ref.: not offered money)	.460	.7206	1.585	[.386, 6.506]	.523
Between €100 and €500 (ref.: less than €100)	.438	.6225	1.549	[.457, 5.247]	.482
Between €500 and €1000 (ref.: less than €100)	.104	.6842	1.109	[.290, 4.240]	.880
Between €1000 and €5000 (ref.: less than €100)	.468	.7138	1.596	[.394, 6.467]	.512
More than €5000 (ref.: less than €100)	.537	.8479	1.710	[.325, 9.011]	.527
Between €500 and €1000 (ref.: between €100 and €500)	-.334	.5209	.716	[.258, 1.988]	.521
Between €1000 and €5000 (ref.: between €100 and €500)	.030	.5625	1.031	[.342, 3.103]	.957
More than €5000 (ref.: between €100 and €500)	.099	.7280	1.104	[.265, 4.599]	.892
Between €1000 and €5000 (ref.: between €500 and €1000)	.364	.6007	1.439	[.443, 4.671]	.544
More than €5000 (ref.: between €500 and €1000)	.433	.7485	1.542	[.356, 6.686]	.563
Between €1000 and €5000 (ref.: more than €5000)	-.069	.7437	.933	[.217, 4.009]	.926
Offered other inducements (ref.: not offered other inducements)	.606	.3014	1.833	[1.015, 3.309]	.044
Threatened or pressured (ref.: not threatened or pressured)	1.543	.3669	4.678	[2.279, 9.602]	< .001

Notes: Control variables in each model are country, sport discipline, gender, age at the moment of the proposal, way of involvement at the moment of the proposal, level of sport at the moment of the proposal, and social desirability.

Table 14. Cohesive effect of the independent variables on the decision to consent to the match-fixing proposal (dependent variable: 0 = no, 1 = yes) (Multiple binary logistic regression analysis; n = 383).

Independent variables	B	Standard error	Odds ratio	95% Confidence Interval	*p*
Moral disengagement	.054	.0191	1.056	[1.017, 1.096]	.005
Offered money					
Less than €100 (ref.: not offered money)	-.078	.6139	.925	[.278, 3.080]	.899
Between €100 and €500 (ref.: not offered money)	.547	.4227	1.728	[.755, 3.958]	.196
Between €500 and €1000 (ref.: not offered money)	-.136	.5764	.873	[.282, 2.702]	.814
Between €1000 and €5000 (ref.: not offered money)	.266	.6129	1.304	[.392, 4.336]	.665
More than €5000 (ref.: not offered money)	.009	.8429	1.010	[.193, 5.268]	.991
Between €100 and €500 (ref.: less than €100)	.625	.6531	1.869	[.520, 6.722]	.338
Between €500 and €1000 (ref.: less than €100)	-.057	.7441	.944	[.220, 4.059]	.938
Between €1000 and €5000 (ref.: less than €100)	.344	.7889	1.410	[.300, 6.620]	.663
More than €5000 (ref.: less than €100)	.088	.9653	1.092	[.165, 7.240]	.928
Between €500 and €1000 (ref.: between €100 and €500)	-.683	.5760	.505	[.163, 1.562]	.236
Between €1000 and €5000 (ref.: between €100 and €500)	-.282	.6285	.755	[.220, 2.587]	.654
More than €5000 (ref.: between €100 and €500)	-.538	.8450	.584	[.111, 3.060]	.525
Between €1000 and €5000 (ref.: between €500 and €1000)	.401	.6810	1.494	[.393, 5.674]	.556
More than €5000 (ref.: between €500 and €1000)	.145	.8709	1.156	[.210, 6.373]	.868
Between €1000 and €5000 (ref.: more than €5000)	.256	.8845	1.292	[.228, 7.313]	.772
Offered other inducements (ref.: not offered other inducements)	.511	.3232	1.667	[.884, 3.140]	.114
Threatened or pressured (ref.: not threatened or pressured)	1.517	.3785	4.560	[2.172, 9.576]	< .001
Control variables					
Country					
Belgium (ref.: Austria or Switzerland)	.309	.7600	1.362	[.307, 6.039]	.685
Croatia (ref.: Austria or Switzerland)	-.897	1.0216	.408	[.055, 3.021]	.380
France (ref.: Austria or Switzerland)	.827	.9371	2.287	[.365, 14.354]	.377
the Netherlands (ref.: Austria or Switzerland)	1.359	.9041	3.892	[.662, 22.894]	.133
United Kingdom (ref.: Austria or Switzerland)	1.123	.8020	3.075	[.639, 14.811]	.161
Croatia (ref.: Belgium)	-1.205	.8332	.300	[.059, 1.534]	.148
France (ref.: Belgium)	.519	.7137	1.680	[.415, 6.804]	.467

The Netherlands (ref.: Belgium)	1.050	.5669	2.858	[.941, 8.684]	.064
United Kingdom (ref.: Belgium)	.815	.5608	2.259	[.752, 6.780]	.146
Croatia (ref.: France)	-1.724	1.0188	.178	[.024, 1.313]	.091
The Netherlands (ref.: France)	.532	.7989	1.702	[.355, 8.145]	.349
United Kingdom (ref.: France)	.296	.8120	1.345	[.274, 6.603]	.715
Croatia (ref.: the Netherlands)	-2.256	.9319	.105	[.017, .651]	.015
United Kingdom (ref.: the Netherlands)	-.235	.7350	.790	[.187, 3.337]	.749
Croatia (ref.: United Kingdom)	-2.020	.8922	.133	[.023, .762]	.024
Sport discipline					
Tennis (ref.: football)	-.953	.5574	.386	[.129, 1.150]	.087
Basketball (ref.: football)	.499	.8283	1.647	[.325, 8.350]	.547
Field hockey (ref.: football)	-.508	.6868	.602	[.157, 2.313]	.460
Other sport (ref.: football)	.692	.6820	1.998	[.525, 7.607]	.310
Basketball (ref.: tennis)	1.452	.9766	4.270	[.630, 28.957]	.137
Field hockey (ref.: tennis)	.445	.6191	1.561	[.464, 5.253]	.472
Other sport (ref.: tennis)	1.645	.7944	5.182	[1.092, 24.585]	.038
Field hockey (ref.: basketball)	-1.006	1.0693	.366	[.045, 2.972]	.347
Other sport (ref.: basketball)	.193	1.0467	1.213	[.156, 9.440]	.853
Field hockey (ref.: other sport)	-1.200	.8866	.301	[.053, 1.712]	.176
Gender					
Man (ref.: woman)	1.147	.5647	3.149	[1.041, 9.523]	.042
Age	.014	.0155	1.014	[.984, 1.046]	.362
Way of involvement					
Coach (ref.: athlete)	-.510	.4540	.600	[.247, 1.462]	.261
Referee (ref.: athlete)	-1.987	.4477	.137	[.057, .330]	< .001
Board member (ref.: athlete)	-.979	.6979	.376	[.096, 1.476]	.161
In another way (ref.: athlete)	.307	.9444	1.359	[.214, 8.654]	.745
Referee (ref.: coach)	-1.477	.5422	.228	[.079, .661]	.006
Board member (ref.: coach)	-.469	.7128	.626	[.155, 2.531]	.511
In another way (ref.: coach)	.817	.9703	2.264	[.338, 15.164]	.400
Board member (ref.: referee)	1.008	.7353	2.741	[.649, 11.580]	.170
Referee (ref.: in another way)	-2.294	.9852	.101	[.015, .696]	.020

Board member (ref.: in another way)	-1.286	1.0798	.276	[.033, 2.295]	.234
Level of sport					
Professional (ref.: amateur)	.018	.6132	1.018	[.306, 3.387]	.976
Semi-professional (ref.: amateur)	.093	.5107	1.098	[.403, 2.987]	.855
Professional (ref.: semi-professional)	-.075	.5616	.928	[.309, 2.789]	.894
Social Desirability	-.155	.0855	.856	[.724, 1.012]	.069

Additionally, a significant difference was found between the categories of being offered money and the decision to consent to match-fixing (Table 12) ($\chi 2$ (5) = 28.318, p < .001). For example, participants who had not been offered money to match-fix consented to the proposal in 20.2% of the cases, whereas people who had been offered between €1000 and €5000 consented in 51.6% of the cases. However, being offered money, regardless of the amount, had no statistically significant impact on the decision to consent to a match-fixing proposal – neither alone (see Table 13), nor in concert with the other variables (see Table 14).

Participants who had been offered other inducements consented significantly more to the match-fixing proposal (48.1%) than the participants who had not been offered other inducements (19.6%) ($\chi 2$ (1) = 33.951, p < .001) (see Table 12). Inducements that were offered, as formulated by the participants, ranged from, for example, gifts such as “a brand new car”, “a holiday”, “a luxury watch”, “an Iphone and sport equipment” to “a voucher to buy things online”, “a dinner”, or “(a keg of) beer and food”. As shown in Table 13, being offered other inducements appears to have a statistically significant effect on the decision to consent to match-fixing, when considered alone (β = .606, Standard error = .3014, Odds ratio = 1.833, 95% CI = 1.015 to 3.309, p = .044). However, when analysed in concert, the effect of being offered other inducements is not statistically significant (β = .511, Standard error = .3232, Odds ratio = 1.667, 95% CI = .884 to 3.140, p = .114) (see Table 14). The fact that being offered other inducements is only significant when considered alone, underlines the predominant role of other factors.

Participants who had been threatened or pressured consented significantly more to the match-fixing proposal (57.5%) than participants who had not been threatened or pressured (21.3%) ($\chi 2$ (1) = 42.334, p < .001) (Table 12). Moreover, the fact whether

the participants were threatened or pressured had a statistically significant effect on the decision to consent to match-fixing alone (β = 1.543, Standard error = .3669, Odds ratio = 4.678, 95% CI = 2.279 to 9.602, p < .001) (see Table 13) and in concert with the other independent variables (β = 1.517, Standard error = .3785, Odds ratio = 4.560, 95% CI = 2.172 to 9.576, p < .001) (see Table 14).

To extend on the results that threats or pressure have a greater impact on the decision to consent to match-fixing than (monetary) inducements, we also analysed whether an individual's propensity to morally disengage interacts with (monetary) inducements and threats or pressure. A positive significant interaction effect was found between moral disengagement and being offered money and/or material inducements (β = .0990, Standard error = .0429, p = .0211), indicating that being offered money and/or material inducements increased the effect of moral disengagement on the decision to consent to match-fixing. No significant interaction effect was found between moral disengagement and being threatened or pressured (β = .0272, Standard error = .0340, p = .4238).

Discussion

The present study aimed to advance our understanding of the moral unease component of the cost-benefit assessment which rational-choice thinking presumes individuals to make when engaging in match-fixing. Specifically, we examined the potential of moral disengagement as an explanatory mechanism for individual's decision to consent to match-fixing, alone and in concert with the possibility of having been offered money, other inducements, and having been threatened or pressured.

Our results revealed that moral disengagement had a significant effect on the decision to consent to match-fixing alone and in concert with the other independent variables.

By using moral disengagement mechanisms people justified the match-fixing proposal in their own eyes, countering the negative feelings of going against their moral standards and reducing the anticipated cognitive burden. Moreover, the positive significant interaction effect between moral disengagement and (monetary) inducements, and the insignificant interaction effect between moral disengagement and threats or pressure, may indicate that moral justification/disengagement mechanisms may be activated more easily when someone has control over whether to consent to match-fixing (i.e., (not) take the money or inducement) compared to when someone is threatened or pressured. As such, this adds evidence to "when" moral disengagement mechanisms are more likely to affect one's decision to engage in match-fixing.

Being offered money, regardless of the amount, had no significant impact on the decision to consent to match-fixing. This result provides nuance to Hill's (2015, p. 220) statement that "the consistent, almost-universal, motivation for match-fixing is money." Being offered other inducements had a significant impact on the decision to consent to match-fixing, when considered alone. This result confirms previous studies which showed that a wide variety of other inducements may convince people to consent to match-fixing (e.g., Boeri & Severgnini, 2011; Van Der Hoeven et al., 2020). However, the fact that the effect of being offered other inducements was not significant when considered in concert with the other independent variables, emphasizes that there are other primary factors to engage in match-fixing.

Next to moral disengagement, a primary factor to consent to match-fixing appeared to be threats or pressure. Participants were more likely to consent to a match-fixing proposal when they were threatened or pressured, alone and in concert with the other independent variables. This result is perfectly rational and in line with previous

research that showed how individuals were pressured or threatened into match-fixing (e.g., FIFPro, 2012; Manoli & Antonopoulos, 2015; Yilmaz et al., 2019). However, as we have not measured the seriousness of the threat or pressure, we do not know to what extent the threat or pressure was perceived as serious enough by the involved actor.

Although previous research already suggested the explanatory potential of moral disengagement in relation to sport corruption (e.g., Kihl, 2019; Lastra et al., 2016), this is the first exploration, to the best of our knowledge, of the role of moral disengagement in relation to match-fixing. Our research extends the current match-fixing literature in several ways. First, our results clearly expanded the current dominant rational-choice theory on match-fixing by showing that the decision-making process to consent to a match-fixing proposal can be explained by the propensity to morally disengage of an individual. Additionally, compared to previous research that mainly focused on athletes in relation to match-fixing (Hill, 2015), our study included a more diverse group of sport actors, ranging from coaches to board members, referees, and athletes. As such, a more general decision-making process towards match-fixing was examined. This broadened perspective is important, as fixers often target other sport actors than athletes (Forrest, 2012). Whereas previous research examined attitudes towards or intentions to engage in match-fixing (e.g., Barkoukis et al., 2020), our study had an applied focus by addressing sport actors' real-life behaviour with match-fixing approaches. Obtaining such real-life information from sport actors in the field strengthens the validity of our results. After all, a difference between attitudes and behaviour is often present (Bohner & Dickel, 2011).

In terms of policy and management implications, our study underlines the need to pay more attention to detecting and counteracting moral disengagement mechanisms in

match-fixing prevention initiatives. By showing the existence and use of moral disengagement mechanisms among sport actors when confronted with a match-fixing proposal, this study raises awareness about how individuals cognitively decide to engage in match-fixing. This knowledge may better equip policymakers, sport organizations, and enforcement agencies to recognize and combat moral disengagement mechanisms in relation to match-fixing. Robertson and Constandt (2021) suggested that moral disengagement should be tackled by using a broad integrity management approach in sport organizations. For example, next to individual-level initiatives (e.g., education and awareness raising), the creation, implementation, and enforcement of effective ethical codes could stimulate moral behaviour in sport organizations (De Waegeneer et al., 2017). Moreover, as ethical leadership may lead to an improved ethical climate (Constandt & Willem, 2019), and toxic leadership traits may foster moral disengagement (Matosic et al., 2020), the role of leaders should also play a central role in the prevention of match-fixing, and as such, this study further emphasises the need for a proper education and training to be offered to current and future leaders within the sport ecosystem.

Limitations and Future Directions

Despite its contributions, several limitations of this study need to be acknowledged. First, the participants were self-selected, which raises the possibility that sport actors who have already been approached for match-fixing proposals might have refused to participate in the questionnaire. Additionally, the participants' decision to complete the questionnaire may have influenced the study's variables. Second, given the sensitive nature of the topic, participants may have responded in a socially desirable manner (Fukukawa, 2002). However, to mitigate the potential impact of social desirability bias on our findings, we ensured anonymity in the questionnaire and consistently controlled

for this bias throughout our analyses. In spite of the clear merits of Strahan and Gerbasi's (1972) shortened Marlow-Crowne social desirability scale, the application of this "statistical remedy" has its limitations (Park & Kwak, 2022, p. 176). For example, some scholars have contended that several items in the Marlow-Crowne scale do not seem to measure socially desirable responding (e.g., Ballard et al., 1988), while others have also questioned the validity of shorter forms of the Marlow-Crowne scale (e.g., Barger, 2002). From a methodological standpoint, the forced-choice dichotomous format may have caused methodological flaws in the analytical analysis with the moral disengagement variable measured on a continuous scale (Kuokkanen, 2017). Therefore, Park and Kwak (2022) recently suggested that future studies should apply more rigorous procedural and statistical approaches to identify and control social desirability bias in sport management research. For example, simultaneously incorporating direct and indirect questioning modes as well as social desirability scales could help to detect the existence of social desirability bias in future match-fixing research.

Another limitation, resulting from the research design, was that the majority of the participants were male, involved in team sports (mainly football) on an amateur level, and based in Belgium. Although we controlled for gender, sport discipline, level, and country, this may have had an influence on our variables. After all, some research suggests that males disengage more than females (e.g., Boardley & Kavussanu, 2007; Detert et al., 2008; Kennedy et al., 2017) and that team sports may effect (collective) moral disengagement (mechanisms) (Danioni et al., 2021; Robertson & Constandt, 2021). Robertson and Constandt (2021), for example, stated that diffusion of responsibility is particularly common in team sports. Furthermore, the fact that the majority of our sample was involved on an amateur level at the moment of their last or only match-fixing proposal may have influenced the (monetary) inducements for

potential fixers. After all, as a match-fixing proposal at the amateur level tends to be less related to the betting market, the (monetary) inducements will rather have been used for sporting purposes.

Fourth, our study used a cross-sectional design, and consequently does not provide evidence for the direction of causality between variables. However, arguments for an alternative interpretation would stand on rather less solid theoretical ground, as the cognitive process of moral disengagement is considered “an important prerequisite of harmful behavior (sic), as opposed to being an outcome of it” (Boardley et al., 2020, p. 129). Nevertheless, future research could use longitudinal designs to test the causal role of moral disengagement in relation to match-fixing. However, as it is unethical to ask participants to purposefully fix a match, researchers should rely on hypothetical scenarios or simulated field tests to investigate this (Hurst et al., 2022).

Future research could further explore psychological processes in relation to match-fixing (Barkoukis & O’Shea, 2022). Inspiration can be drawn from related areas such as doping (e.g., Stanger & Backhouse, 2020) and organizational corruption research. Moreover, given the shortcomings of the rational-choice cost-benefit assessment, additional theoretical perspectives are needed in which social, cultural, institutional and organizational conditions are taken into account (van Bottenburg, 2022). For example, the impact of power differences, which is inherent in the “bad barrel” perspective, could be further explored (Ashforth et al., 2008). Next to this, the impact of public secrecies and the code of silence in sport on match-fixing could be further examined (Moriconi & de Cima, 2020). In line with Tzeng and Lee (2021) and Tzeng et al. (2020), future research could also further investigate the role of social capital and the “code of brotherhood” in relation to match-fixing. This could help to integrate the micro (individual), meso (organizational), and macro (societal) level of analysis of

match-fixing. After all, a more holistic understanding of match-fixing is necessary, including individual, social, and structural factors (Kihl, 2018c). Finally, little is known about how formal (e.g., codes of ethics, regulations, monitoring) and informal (e.g., leadership, organizational values) instruments impact or deter moral disengagement mechanisms in sport settings (Constandt, 2019). As such, empirical evidence regarding the effectiveness of match-fixing prevention initiatives is much needed.

Conclusion

This study expands our understanding of the moral unease component of an individual's rational-choice cost-benefit assessment when engaging in match-fixing, by exploring the role of moral disengagement. We showed that moral disengagement has a significant effect on the decision to consent to match-fixing. This suggests that people who are approached with a match-fixing proposal use self-defensive mechanisms to justify the decision to engage in match-fixing. While threats or pressure also had a (greater) significant effect on an individual's decision (than being offered money and/or material inducements), we found that being offered (monetary) inducements increased the effect of moral disengagement on the decision to consent to match-fixing while threats or pressure did not. Given the influence of moral disengagement in the decision-making process to engage in match-fixing, we emphasize the importance of detecting and counteracting this cognitive mechanism in future match-fixing prevention initiatives.

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4 MATCH-FIXING IN EUROPEAN SPORTS: ATTITUDES AND EXPERIENCES

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Abstract

Over the past years, the scholarly interest in match-fixing has grown. Although several empirical studies have tried to map the prevalence of match-fixing, the scope has often been limited to a given country, sports discipline, level of sports, and/or type of match-fixing. Moreover, match-fixing is often stereotyped as a problem caused by external criminals, while match-fixing by internal stakeholders occurs on a larger scale. When it comes to internal stakeholders, research to date has mainly focused on the vulnerability of athletes and referees to match-fixing. Nevertheless, other internal stakeholders in sports can also be the instigators of match-fixing, and may have different attitudes towards match-fixing. This study aims to fill these gaps by examining match-fixing among various internal stakeholders (*n* = 4958) involved in different sports across Europe. The results showed that internal stakeholders' attitudes towards match-fixing were not uniform. Additionally, almost one fifth of the respondents indicated (in)direct match-fixing incidents in the questionnaire. The majority of the cases concerned sporting-related match-fixing, while our results also revealed that sporting- and betting-related match-fixing can happen together. By examining various internal stakeholders' attitudes towards and experiences with match-fixing in European sports, this study could navigate future match-fixing prevention initiatives.

Keywords: Match-fixing, Stakeholders, Sports manipulation, Sports ethics

Introduction

Next to issues such as performance-enhancing drug use, hooliganism, and sexual transgressive behavior, match-fixing has been positioned as one of today's most pressing forms of deviance in sports (Forrest and McHale 2019). Consequently, the academic interest in match-fixing has increased over the past years. Several empirical studies have been conducted to examine match-fixing and its prevalence (for a short overview, see e.g., Tak, Sam, and Choi 2020). However, the scope of these studies has often been limited to a certain country (e.g., the Netherlands, see Spapens and Olfers 2013, 2015), sports discipline (mainly soccer, see e.g., FIFPro 2012), sports level (mainly professional, see e.g., Frenger, Emrich, and Pitsch 2019) and/or type of match-fixing (mainly betting-related, see e.g., Lastra, Bell, and Bond 2018). Nonetheless, match-fixing is a complex phenomenon that takes on many different forms, transcends national borders, sports disciplines and levels of sports (Tak, Sam, and Jackson 2018).

Additionally, match-fixing is often stereotyped as a problem caused by external criminals who infiltrate in sports (Moriconi 2020). However, match-fixing by internal stakeholders (e.g., athletes, coaches, board members, referees) might pose an even bigger threat (Spapens 2021). After all, internal stakeholders are often targeted by (external) fixers or may even be the instigators themselves, which may complicate the detection and prevention of match-fixing (Holden and Rodenberg 2017). While the vulnerability of athletes and referees for match-fixing has widely been acknowledged and studied (e.g., athletes, see Tak et al. 2020; referees, see Visschers, Paoli, and Deshpande 2020), there is still a paucity of research on various internal stakeholders' attitudes towards and experiences with match-fixing. Moreover, empirical figures have

not yet explicitly examined and compared various internal stakeholders in sports when it comes to match-fixing.

Given this context, the first aim of this study is to gain insights into the attitudes of various internal stakeholders towards the seriousness, risk, and acceptability of match-fixing. A second aim of this study is to provide more complete, cross-national, and cross-sports figures on the prevalence of match-fixing, by examining to what extent internal stakeholders in European sports knew of others who had already been approached for match-fixing and whether they had already been approached themselves to fix a game/match.

Literature review

Match-fixing

During the past two decades, there has been much debate about what constitutes match-fixing (Serby 2015). Various match-fixing conceptualizations and definitions have been established by multiple researchers and associations to better describe the phenomenon (for an overview, see e.g., Van Der Hoeven et al. 2020). To date, the predominant definition is the one of the Council of Europe (2014) which defines match-fixing or the "manipulation of sports competitions" as:

> An intentional arrangement, act, or omission aimed at an improper alteration of the result or the course of a sports competition in order to remove all or part of the unpredictable nature of the aforementioned sports competition with a view to obtaining an undue advantage for oneself or for others. (art. 3.4)

Although the Council of Europe's (2014) definition also includes other types of manipulation, such as doping and the falsification of documents, it is more or less

considered the norm to currently describe match-fixing in the literature (Chappelet 2015; Moriconi 2020). Therefore, we also used the Council of Europe's (2014) definition of "manipulation of sports competitions" in this study to define match-fixing.

Based on the underlying motivation for match-fixing, a general distinction is usually made between betting- and non-betting-related (or sporting-related) match-fixing (Spapens and Olfers 2015). In betting-related match-fixing, people aim to fix a match to make profits on the betting market. A specific subtype of betting-related match-fixing is spot-fixing, where people try to fix specific elements within a match (e.g., the first yellow card). In sporting-related match-fixing, on the other hand, people aim to fix a match for sporting purposes (e.g., to avoid relegation of a specific club or athlete, or to enable a specific club or athlete to become champion).

Prevalence of match-fixing

Empirical research on match-fixing steadily increased during the past decade (Vanwersch et al. 2022). A considerable amount of research examined match-fixing based on single cases (e.g., Feltes 2013; Petropoulos and Maguire 2013), on single countries (e.g., Aquilina and Chetcuti 2014; Lee 2017) or single sports events (e.g., Blair 2018). Although suggestions to curb match-fixing could be derived from the presented cases, quantitative figures were frequently lacking (Frenger et al. 2019). Hill (2013) attempted to move beyond single-case analyses by elaborating different databases, and thus enabling a more quantitative investigation into match-fixing. Following Hill's (2013) pioneering work, more empirical studies emerged that examined the size of the problem. Zamante (2012), the Belgian social network site for soccer athletes, for example, examined match-fixing among 945 soccer athletes who were mainly involved on an amateur level. They showed that 14.5% of the respondents had been contacted directly to fix one of their matches, and that 34.5% of the

respondents claimed to know one or more athletes or coaches who had been contacted to fix matches (Zamante 2012).

Within a broader European context, a first large scale attempt to examine the prevalence of match-fixing was made by FIFPro (2012), the global union for soccer players. They interrogated 3,357 professional soccer players across 15 Eastern European countries, and revealed that 11.9% of them indicated that they had been approached to fix a match. Moreover, 23.6% of the professional soccer players was aware of match-fixing cases in their national competition. Another large scale research, as part of the "Don't Fix It!" project, questioned 1,585 soccer players from amateur to professional levels across eight European countries to examine their knowledge of match-fixing, and reported the figures country by country (Harvey and Levi 2014). A third large scale study, conducted by Theodorou (2017), examined match-fixing among amateur and professional athletes in twelve different sports disciplines in Greece, Cyprus, and Austria. Theodorou's (2017) results showed that 12.6% of the respondents indicated that they had already played in a match that was fixed, 15% revealed that they had been approached to fix a match in the last 12 months, and 34.7% believed that matches in their league may have been fixed in the past 12 months. However, a limitation of FIFPro's (2012), Harvey and Levi's (2014), and Theodorou's (2017) research is that the reported prevalence figures did not make a distinction between betting- and sporting-related match-fixing.

It was not until the Dutch study of Spapens and Olfers (2013, 2015) that the prevalence of both, betting- and sporting-related match-fixing, was simultaneously explored. Spapens and Olfers' (2013, 2015) study revealed that people who suspected match-fixing in their sports pointed more to sporting-related (44%) than betting-related match-fixing (20%). Next to measuring suspicions, Spapens and Olfers (2013, 2015) also

examined personal experiences with match-fixing approaches. More specifically, 8% of the respondents claimed to know persons who had been approached to fix matches, and 4% indicated that they had been invited themselves to fix matches. Although Spapens and Olfers (2013, 2015) stated that the majority of the latter cases also concerned sporting-related match-fixing, no specific figures were formulated regarding both types of match-fixing. Building on Spapens and Olfers' (2013, 2015) work, Van Der Hoeven et al. (2020) examined betting- and sporting-related match-fixing in Flemish (Belgian) soccer, tennis, and badminton. Out of the 567 respondents who completed the questionnaire, 36 respondents (6.3%) indicated that they had been approached personally to fix a match, and 101 respondents (17.8%) indicated that they knew someone else who had been approached for match-fixing. Out of the 36 personal match-fixing approaches, 33 cases (91.7%) were about sporting-related match-fixing, whereas only three cases (8.3%) were related to betting.

Although previous studies thus already aimed to map match-fixing, it is apparent that research including both types of match-fixing is still limited, particularly on a cross-national and cross-sports scale (Frenger et al. 2019). The present study aims to fill this gap by examining both types of match-fixing in a European context, in various sports disciplines, on different sports levels, and among various stakeholders.

Match-fixing stakeholders

As illustrated by the multiple match-fixing scandals that already occurred in sports, various stakeholders can be involved in match-fixing (see e.g., Carpenter 2012). Stakeholders are classically defined as "those groups who can affect or are affected by the achievement of an organization's purpose" (Freeman 1984: 49). In the context of match-fixing, Manoli and Antonopoulos (2015) investigated match-fixing in Greek soccer and made a distinction between direct and indirect stakeholders, depending on

the level of their association with match-fixing. Yilmaz, Manoli, and Antonopoulos (2019) examined the Turkish soccer match-fixing scandal (so-called "Sike Davasi"-case), and made a distinction between primary and secondary stakeholders. Primary stakeholders were convicted for match-fixing and were part of one of Turkey's leading clubs (described as the "criminal organization"). Secondary stakeholders were also convicted for match-fixing, but were not part of the "criminal organization" (i.e., players, presidents, and club officials of opposing teams). Caneppele, Langlois, and Verschuuren (2020) examined the main stakeholders engaged in the fight against match-fixing (i.e., sports organizations, regulatory and law enforcement agencies, and the betting industries and related services). They showed that those who fight against match-fixing have only a fuzzy idea of match-fixers' characteristics, but are well aware of the processes used to fix matches. Additionally, they also explained how the interactions between these three groups of stakeholders has progressively grown. Spapens (2021) made a distinction between "outsiders" (e.g., external criminals) and "insiders" (e.g., athletes, coaches, board members, referees), to categorize external and internal stakeholders who can affect or are affected by match-fixing.

Although various stakeholder classifications have thus been used in the match-fixing literature so far, Yilmaz et al. (2019) and Spapens (2021) generally agreed that match-fixing is rather an activity organized by "inside" or internal stakeholders[6] in sports than by "outside" or external stakeholders. After all, internal stakeholders (e.g., athletes, coaches, board members, referees) that actively participate in or manage sports, can be approached by criminals external to sports, and are also the ones who can eventually perform the manipulation on the field. In line with this, this study also focused on internal stakeholders in relation to match-fixing.

[6] In this study, we use the term "internal stakeholder".

Match-fixing research on sports internal stakeholders to date has mainly focused on the involvement of athletes (e.g., FIFPro 2012; Frenger et al. 2019) and referees (e.g., Boeri and Severgnini 2011; Visschers et al. 2020) in match-fixing. Frenger et al. (2019), for example, examined the prevalence of match-fixing among 425 German elite athletes in Olympic sports, and estimated that 8.42% of the athletes had been approached to manipulate a competition. Visschers et al. (2020), on the other hand, revealed that 23.5% of the 595 examined Belgian soccer referees stated that they had already witnessed or suspected match-fixing throughout their career. Moreover, they showed that approximately 44% of the referees believed that at least one in ten Belgian soccer games is fixed (Visschers et al. 2020). The focus on athletes and referees is not surprising, since their vulnerability for match-fixing is widely acknowledged (Manoli and Antonopoulos 2015; Yilmaz et al. 2019). After all, athletes and referees play an important role in the outcome and the course of a match and the overall success of sports (Manoli and Antonopoulos 2015; Yilmaz et al. 2019). In addition, referees' vulnerability is often emphasized by stating that they are frequently the lowest paid stakeholders on the field, certainly in professional soccer (Forrest, McHale, and McAuley 2008).

Nevertheless, other internal stakeholders in sports can also be approached for and involved in match-fixing. Coaches, for example, have earned their position as "the most valuable non-playing individuals on the bench of a club" and have a high impact on a match (Manoli and Antonopoulos 2015: 203). Several scandals have already shown how coaches can play a pivotal role in match-fixing (e.g., Zheyun Ye case, see Visschers et al. 2020). Boucher (2022) even showed how Chinese table tennis coaches were worried about the risk of being denounced when they would fix a match, and therefore rather chose to falsify the age of their athletes. Another primary group of internal stakeholders are board members (Hill 2009; Manoli and Antonopoulos

2015). Yilmaz et al. (2019), for example, revealed the leading role of soccer club's (vice-)presidents, managers, and board members in the Turkish match-fixing scandal. They showed how a sports club hierarchical structure coordinated the overall process of fixing. In addition, Manoli and Antonopoulos (2015) also discussed how board members sometimes entered the dressing room during half-time, specifically aiming to ensure the desired result is achieved. Furthermore, also other (less obvious) internal stakeholders in sports, such as the medical staff or even stadium technicians, can be involved in match-fixing (Boniface et al. 2012).

As such, it becomes clear that we are not seeing the complete picture if we would just focus on athletes and referees when it comes to match-fixing. The present study aims at contributing to fill this gap by exploring various internal stakeholders' experiences with and attitudes towards match-fixing in European sports.

Attitudes towards match-fixing

When it comes to attitudes towards match-fixing, research to date remained rather scarce (Lastra et al. 2018). Lastra et al. (2018), for example, examined the attitudes of athletes and non-athletes in Australian rugby, swimming, and water polo towards the nature and perceived risks of betting-related match-fixing in their respective sports. They found that athletes and non-athletes viewed betting-related match-fixing and the involvement of transnational organized crime as non-existent within their sports (Lastra et al. 2018). While Lastra et al. (2018) only focused on betting-related match-fixing, Van Der Hoeven et al. (2020) assessed the attitudes towards match-fixing in general (i.e., including betting- and sporting-related match-fixing). More specifically, Van Der Hoeven et al. (2020) examined the differences between people involved in soccer, tennis, and badminton regarding the estimation of the seriousness of match-fixing in their sports in Flanders and the risk of being approached personally for match-

fixing. Van Der Hoeven et al.'s (2020) results showed that people involved in soccer assessed the seriousness of match-fixing in their sports higher than the people involved in tennis, who in turn assessed the seriousness of match-fixing significantly higher than the people involved in badminton. Additionally, the people involved in soccer and tennis believed that there is a much higher chance that they could be approached themselves for match-fixing compared to those involved in badminton (Van Der Hoeven et al. 2020). Although Lastra et al. (2018) and Van Der Hoeven et al. (2020) provided valuable insights into the attitudes towards match-fixing, they did not explicitly compare various internal stakeholders in sports. Moreover, Frenger et al. (2019) argued that sporting-related match-fixing may be found more acceptable than betting-related match-fixing among stakeholders, although they did not examine this. Consequently, this study also aims to address these knowledge gaps by examining various internal stakeholders' attitudes towards the seriousness, risk, and acceptability of match-fixing.

Methods

Sampling procedure and final sample

This study has been carried out within the project [not specified for review], which was co-funded by the Erasmus+ Programme of the European Union. Following ethical approval from an independent ethics commission of the university of the first author, data were collected using an online questionnaire in Austria, Belgium, Croatia, France, the Netherlands, Switzerland, and the United Kingdom from May 2020 to November 2020. The target group of the study was current and former internal stakeholders in sports (i.e., people of 18 years or older who were related as current or former athletes,

referees[7], coaches[8], board members[9] or in another way to their sports). The online questionnaire was disseminated through email, social media, and paper and pencil versions. Local and national sport governing bodies of soccer, tennis, basketball, field hockey, and others were informed and asked to help in dispersing the questionnaire to their members using their own channels (email, social media and newsletters). In addition, project members further communicated the online questionnaire on Facebook, Twitter, LinkedIn, and some of them also visited sports clubs in person to recruit respondents via paper and pencil versions. Before potential respondents could start the questionnaire, they had the opportunity to read the conditions and an information letter which formulated the purpose of the study and the fact that we would collect, analyze, and report the data completely anonymously. All participants provided informed consent, completed the questionnaire voluntarily, and could quit the questionnaire at any time without consequences.

A total of 14,303 people across the seven countries started the questionnaire, whereof 5,059 fully completed the questionnaire and 9,244 partially completed the questionnaire. For the partially completed questionnaires to be retained for the analyses, at least the statements about the seriousness, risk, and acceptability of match-fixing had to be completed. Questionnaires with less answers had no substantial value. Only 57 partially completed questionnaires could be retained, as the other 9,187 respondents had answered less questions, or in most cases (almost) nothing. Subsequently, respondents who did not fulfil the criteria (i.e., respondents of 18 years or older who were related as current or former athletes, referees, coaches,

[7] The term “referee” refers to “referee”, “(video) assistant referee”, “(fourth) official”, and “jury member” in this study.
[8] The term “coach” refers to “coach”, “trainer” and “assistant coach” in this study.
[9] The term “board member” refers to “board member”, “assembly member” and “manager of a sport club” in this study.

board members or in another way to their sports) were omitted from the data. More specifically, 96 respondents were removed from the sample because they were younger than 18 years old, 6 respondents were removed because they had not specified their sports, and 56 respondents were removed because they had not indicated how they were mainly related to their sports.

After data cleaning, the final sample consisted of 4,958 adult internal stakeholders in sports (men = 4,170; women = 776; I prefer not to say = 12) of varying ages (M = 40.3; SD = 15.4; min = 18; max = 82), who are or were mainly related to sports as athletes (60.2%), followed by referees (17.4%), coaches (8.4%), board members (5.8%), or in another way (8.3%) (see Table 15). The respondents are or were involved in various sports disciplines (i.e., 58.7% soccer, 15.0% tennis, 5.3% basketball, 11.0% field hockey, and 10.0% other sports), on different sports levels (9.8% professional; 14.4% semi-professional; 75.9% amateur) across the seven countries.

Table 15. Characteristics and descriptive statistics of the questionnaire respondents (descriptive statistics; n = 4958).

	Total *n* = 4958	Athlete *n* = 2984	Coach *n* = 414	Referee *n* = 864	Board member *n* = 286	Other *n* = 410
Country						
Austria	679	589	51	1	31	7
Belgium	958	395	83	347	92	41
Croatia	467	122	33	258	24	30
France	358	225	9	113	6	5
Netherlands	1061	780	105	61	54	61
Switzerland	206	144	20	31	7	4
United Kingdom	1229	729	113	53	72	262
Gender						
Man	4170	2376	371	813	264	346
Woman	776	602	42	49	22	61
I prefer not to say	12	6	1	2	0	3
Age: M (SD)	40.3 (15.4)	37.2 (15.2)	45.7 (12.3)	40.5 (14.7)	52.1 (13.3)	49.2 (14.0)
Sports discipline						
Soccer	2911	1606	239	619	173	274
Tennis	744	586	40	17	52	49
Basketball	261	140	32	52	22	15
Field hockey	544	359	85	51	16	33
Other	498	293	18	125	23	39
Level of sports						
Professional	485	253	70	72	28	62
Semi-professional	712	441	61	160	21	29
Amateur	3761	2290	283	632	237	319

M = mean; SD = standard deviation

There are, however, some limitations to the sampling procedure. Due to the fact that respondents had control over whether or not to participate in the questionnaire (i.e., non-random sampling), we acknowledge the possible influence of self-selection. It is possible that potential respondents who had already been approached for match-fixing refused to participate in the questionnaire and/or that other respondents completed the questionnaire because they wanted to voice a certain opinion on the subject. As such, we have to be aware that self-selection may have influenced our results. Additionally, given the sensitive subject of match-fixing, respondents may have answered in a socially desirable way (Fukukawa 2002). To deal with this concern, we guaranteed respondents anonymity and controlled for social desirability in our analyses (see infra).

Questionnaire

An online questionnaire on match-fixing was developed, based on the work of Van Der Hoeven et al. (2020). However, compared to Van Der Hoeven et al.'s (2020) work, current and former internal stakeholders in sports were included in this study and additional statements (see infra) and more fine-grained questions regarding respondents' match-fixing experiences were added. The questionnaire consisted of 27 questions, and it took on average 15 minutes to complete the questionnaire. After the designing phase, the questionnaire was translated into the respective languages, and subsequently implemented in the online programme LimeSurvey. Prior to the first question, the respondents were explained what betting- and sporting-related match-fixing entails and which example cases have already occurred in sports. The first section of the questionnaire collected demographic information such as gender, age, and main sports discipline. In addition, respondents were asked how they are or were mainly related to their sports discipline and at what level of sports they are of were

mainly involved. Subsequently, the respondents' degree of socially desirable responding was measured using Strahan and Gerbasi's (1972) short-form scale X1. Strahan and Gerbasi's (1972) short-form scale X1 consists of 10 items, whereof the first five items describe desirable behaviors (e.g., I always try to practice what I preach), and the last five items describe undesirable behaviors (e.g., There have been occasions when I took advantage of someone). The items are scored using a "true" or "false" forced-choice format and scores ranges from 0 to 10, with higher scores indicating a higher degree of socially desirable responding. In a second section, we examined the respondents' attitudes towards match-fixing by means of 4 statements, which could be answered on a seven point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). More specifically, Van Der Hoeven et al.'s (2020) two statements to assess the seriousness of match-fixing and the risk of being approached personally for match-fixing were adapted, while two additional statements to assess the acceptability of sporting- and betting-related match-fixing were added. After all, Frenger et al. (2019) suggested that match-fixing for sporting purposes may be found more acceptable than betting-related match-fixing, despite a lack of supporting figures. In a following section, we asked whether they personally knew someone who had been approached to fix a game/match. If yes, further details of the approached person they knew best were examined. In a fourth and final section, the respondents were asked whether they had ever been approached themselves to fix a game/match. When respondents testified of one or more personal match-fixing approaches, further details were asked about the last (or only) time they were approached to fix a match. Eventually, the respondents could indicate whether they had consented to the match-fixing proposal or not.

Data analysis

Data analyses were executed with SPSS 24 software. Data were checked for plausibility and implausible values were set to missing values. We conducted primarily descriptive statistics, describing the respondents' answers to the questions posed. In addition, we performed a one-way multivariate analysis of covariance (MANCOVA, followed by univariate analyses) to compare the various internal stakeholders with regard to their attitudes towards the seriousness, risk, and acceptability of match-fixing. The dependent variables in the one-way MANCOVA were (a) "Match-fixing is a real problem in my sports discipline in my country.", (b) "I could be approached myself to fix a match. (regardless of whether or not you would agree to it)", (c) "Participating in match-fixing to avoid relegation of my team, is acceptable.", and (d) "Participating in match-fixing to make money through betting, is acceptable.", whereas the fixed factor was "how related to sports." The covariates in the one-way MANCOVA were "country", "sports discipline", and the extent of socially desirable responding. Furthermore, an independent sample t-test was performed to examine the difference in socially desirable responding between the respondents who indicated (in)direct match-fixing incidents in the questionnaire and those who indicated that they did not know others who had been approached for match-fixing and had not been approached themselves for match-fixing.

Results

In this section, the results of the questionnaire data are presented. First, we describe the internal stakeholders' attitudes towards the seriousness, risk, and acceptability of match-fixing. Subsequently, we provide an overview of the respondents' (in)direct experiences with match-fixing.

Match-fixing: its seriousness, risk, and acceptability

Results showed that there is a significant difference between the internal stakeholders regarding the attitudes towards match-fixing (one-way MANCOVA: Wilks' λ = .956, F (16, 15114) = 13.978, p < .001, η_p^2 = .011) (see Table 16).

Table 16. Attitudes towards the seriousness, risk, and acceptability of match-fixing (one-way MANCOVA, n = 4958).

		1	2	3	4	5			
	Total	Athlete	Coach	Referee	Board member	Other	Univariate tests		
Statements	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	F (4, 4950)	*p*	η_p^2
Match-fixing is a real problem in my sports discipline in my country.	3.47 (1.74)	3.40 (1.69)	3.50 (1.82)	3.61 (1.84)	3.69 (1.83)	3.50 (1.76)	2.735	.027	.002
I could be approached myself to fix a match. (regardless of whether or not you would agree to it)	2.62 (1.87)	2.46[3,4] (1.78)	2.56[3] (1.81)	3.31[1,2,4,5] (2.07)	2.83[1,3] (1.92)	2.29[3] (1.75)	30.726	< .001	.024
Participating in match-fixing to avoid relegation of my team, is acceptable.	1.80 (1.35)	1.84[3,4] (1.35)	1.85[3] (1.46)	1.44[1,2,4,5] (.98)	2.07[1,3] (1.59)	2.00[3] (1.59)	12.669	< .001	.010
Participating in match-fixing to make money through betting, is acceptable.	1.60 (1.29)	1.61[3] (1.27)	1.72[3] (1.49)	1.33[1,2,4,5] (.90)	1.79[3] (1.54)	1.87[3] (1.56)	6.301	< .001	.005

Notes: Athletes (n = 2984), coaches (n = 414), referees (n = 864), board members (n = 286), other (n = 410); Covariates: country, sports discipline, and social desirability

When it comes to the respondents' belief that match-fixing is a real problem in their sports discipline in their country a significant univariate effect could be identified (univariate effect: F (4, 4950) = 2.735, p = .027, η_p^2 = .002). However, post hoc Bonferroni tests did not reveal significant pairwise differences between the stakeholders regarding the estimation of whether match-fixing is a real problem in their sports discipline in their country (all ps > .05). Moreover, there appeared to be a significant difference between the stakeholders regarding the estimation of whether they could be approached themselves for match-fixing (univariate effect: F (4, 4950) = 30.726, p < .001, η_p^2 = .024). As shown in Table 16, athletes believed that there is a much lower chance that they could be approached themselves for match-fixing than those related as referees (p < .001) or board members (p = .015) to their sports. Moreover, coaches assessed the chance that they could be approached themselves significantly lower than those involved as referees (p < .001). In addition, referees assessed the risk that they could be approached for match-fixing significantly higher than those involved as board members (p = .009). Furthermore, those involved in another way to their sports discipline (e.g., medical staff, administrative assistant, deputy, fan/spectator, grounds man, youth coordinator) assessed the chance that they could be approached themselves for match-fixing significantly lower than those involved as referees (p < .001).

Moving onto matters of acceptability, a significant difference was found between the stakeholders regarding the assessment of the acceptability of match-fixing to avoid relegation of their team (univariate effect: F (4, 4950) = 12.669, p < .001, η_p^2 = .010). More specifically, people involved as referees found match-fixing to avoid relegation of their team significantly less acceptable than athletes (p < .001), coaches (p = .001), board members (p < .001), and people related in another way to their sports (p = .003).

People involved as board members, on their turn, found match-fixing to avoid relegation significantly more acceptable than athletes (p = .013). Lastly, a significant difference was found between the stakeholders regarding the assessment of the acceptability of betting-related match-fixing (univariate effect: F (4, 4950) = 6.301, p < .001, η_p^2 = .005). Referees found betting-related match-fixing significantly less acceptable than athletes (p = .013), coaches (p = .005), board members (p < .001), and people related in another way to their sports (p = .040). Furthermore, the results also indicate that all stakeholders generally perceived match-fixing to avoid relegation of their team as more acceptable than match-fixing for betting purposes.

Direct and indirect experiences with match-fixing

Of the 4958 respondents, 4940 answered both the questions “Do you personally know anyone who has been approached to fix a game/match?” and “Have you yourself ever been approached to fix a game/match?”. No fewer than 945 respondents (19.1%) indicated (in)direct match-fixing incidents in the questionnaire. More specifically, 527 respondents (10.7%) knew one or more persons (not themselves) who had been approached to fix a match, 336 respondents (6.8%) knew one or more persons who had been approached for match-fixing and acknowledged to have been approached personally for match-fixing. Additionally, 82 respondents (1.7%) indicated to have been approached personally for match-fixing without knowing of other persons who had also been approached. In all, the respondents indicated 863 cases (17.5%) of knowing that one or more other persons had been approached for a match-fixing proposal and 418 cases (8.5%) of having been approached themselves. Furthermore, those who indicated (in)direct match-fixing incidents in the questionnaire answered significantly less socially desirable (M = 5.87, SD = 1.82) than the respondents who indicated that they did not know others who had been approached for match-fixing and

had not been approached themselves for match-fixing (M = 6.15, SD = 2.0) (independent sample t-test: t = -4.094, df = 1529, p < .001).

Knowing of others who had been approached for match-fixing

Of the 863 respondents who indicated that they personally knew someone who had been approached to fix, 437 respondents (50.6%) indicated that they knew one person, 127 respondents (14.7%) indicated that they knew two persons, and 299 respondents (34.6%) indicated that they knew three or more persons who had been approached to fix. Subsequently, more details were asked about the approached person they knew best. For example, the respondents indicated that the approached person they knew best was involved in soccer (66.8%), tennis (14.5%), field hockey (7.1%), basketball (4.9%), or in another sports (6.0%) (e.g., handball, cricket, athletics, badminton, fencing, cycling). The remaining 0.7% indicated that they did not know in which sports the person was involved. At the moment of the supposed match-fixing proposal, the approached person they knew best was mainly related as an athlete (53.3%) to his/her sports. In other cases, they indicated that the approached person was related as a referee (19.5%), coach (14.5%), board member (7.8%), or in another way (2.1%) to his/her sports. In the remaining 2.8% of the cases, the respondents indicated that they did not know how the person was related to his/her sports at the moment of the proposal. As shown in Table 17, according to the respondents, the persons they knew best were mainly approached by board member(s), followed by athlete(s), coach(es), bettor(s) / gambler(s), former athlete(s), sponsor(s), agent(s) of an athlete, referee(s), and medical staff.

Table 17. Details of the approached person they knew best (descriptive statistics, n = 863).

Who approached this person?	*n* = 863	%*
Board member(s)	246	28.5
Athlete(s)	241	27.9
Coach(es)	200	23.2
Bettor(s) / gambler(s)	107	12.4
Former athlete(s)	59	6.8
Sponsor(s)	45	5.2
Agent(s) of an athlete	37	4.3
Referee(s)	30	3.5
Medical staff	17	2.0
Someone else	35	4.1
I don't know who	118	13.7

*The sum of the figures exceeds 100%, because multiple answers were possible to the question.

Personal match-fixing approaches

Of the 418 respondents who stated that they had been approached personally for match-fixing, 178 respondents (42.6%) indicated that they had been approached just once, 155 respondents (37.1%) indicated that they had been approached 2 to 3 times, 73 respondents (17.5%) indicated that they had been approached more than 3 times, and 12 respondents (2.9%) had not specified how many times they were approached. Subsequently, more details were asked about the last or only match-fixing proposal they received. Of the 418 respondents, 391 specified their demographics at the moment of the last or only match-fixing proposal they received (see Table 18).

Table 18. Characteristics and descriptive statistics of the respondents at the moment of their last or only match-fixing proposal (descriptive statistics, n = 391).

	Total n = 391	Athlete n = 190	Coach n = 49	Referee n = 117	Board member n = 26	Other n = 9
Country						
Austria	7	6	1	0	0	0
Belgium	160	60	17	67	13	3
Croatia	47	20	1	22	4	0
France	23	14	2	7	0	0
the Netherlands	74	54	8	11	0	1
Switzerland	9	6	1	2	0	0
United Kingdom	71	30	19	8	9	5
Gender						
Man	352	164	46	111	25	6
Woman	38	25	3	6	1	3
I prefer not to say	1	1	0	0	0	0
Age: M (SD)	31.9 (11.3)	29.0 (10.3)	34.3 (9.1)	32.8 (12.3)	41.5 (8.3)	41.8 (13.0)
Sports discipline						
Soccer	261	104	39	91	21	6
Tennis	56	50	2	2	1	1
Basketball	15	3	3	5	4	0
Field hockey	37	22	4	10	0	1
Other	22	11	1	9	0	1
Level of sports						
Professional	53	35	7	5	5	1
Semi-professional	64	30	11	16	4	3
Amateur	274	125	31	96	17	5

M = mean; SD = standard deviation

As shown in Table 18, the majority of the respondents who had personally been approached for match-fixing were men involved in soccer on an amateur level and related as athletes, referees, or coaches to their sports at the moment of their last or only match-fixing proposal. However, Table 18 also clearly shows how widespread and diverse the stakeholders approached for match-fixing can be. Subsequently, 387 respondents further specified the motive behind the last or only match-fixing proposal they received (see Table 19).

Table 19. Motive behind the last or only match-fixing proposal they received (descriptive statistics, n = 387).

	Total n = 387	Professional n = 53	Semi-professional n = 64	Amateur n = 270
Only betting-related motive	37	24	7	6
Both motives	19	11	8	0
Only sporting-related motive	265	13	41	211
Other motive*	47	3	5	39
Sporting-related and other motive*	9	0	1	8
"I don't know"	10	2	2	6

*Other motive has not been specified by the respondents.

As can be seen in Table 19, the majority of the respondents (*n* = 265, 68.5%) indicated that the last or only match-fixing proposal they received had solely a sporting-related motive. These respondents were mainly involved on an amateur level and specified that they were mainly approached by board members, coaches, and athletes, who were mainly affiliated with the opponent (see Table 20).

Table 20. Details of the match-fixing approaches for only a betting-related, only a sporting-related, or both motives (descriptive statistics).

	Only betting-related motive	Both	Only sporting-related motive
How were you related to the sport, at the moment of that proposal? (n = 321, one answer possible)			
	n = 37	*n* = 19	*n* = 265
Athlete	25	11	124
Coach/Trainer/Assistant coach	2	5	37
Referee/(Video) Assistant Referee/(Fourth) official/Jury member	3	2	77
Board member/Assembly member/Manager of a sport club	7	1	18
Other	0	0	9
Who approached you? (n = 310, one answer possible)			
	n = 33	*n* = 18	*n* = 259
Athlete(s)	9	4	68
Former athlete(s)	2	2	2
Coach(es)	2	4	69
Medical staff	0	1	3
Agent(s) of an athlete	1	0	8
Referee(s)	1	1	8
Board member(s)	4	4	83
Sponsor(s)	1	1	5
Bettor(s) / gambler(s)	11	1	2
Someone else	2	0	11
The people who approached you, were affiliated with: (n = 317, one answer possible)			
	n = 37	*n* = 19	*n* = 261
The opponent	10	13	161
Your own club/team	9	5	53
I don't know	13	1	24
Other	5	0	23
What was the motive of the people who approached you? (n = 321, multiple answers possible)			
	n = 37	*n* = 19	*n* = 265
To earn money by betting on the manipulated game/match	37	19	0
To prevent a specific club or player from being relegated	0	12	167
To enable a specific club or player to win the championship	0	13	113
To determine who the next-round opponent would be	0	6	21
To make the competition or tournament more exciting	0	4	15

What were these people seeking to influence? (n = 321, multiple answers possible)			
	n = 37	*n* = 19	*n* = 265
The outcome of the game/match (who wins/loses)	25	12	214
The exact result of the game/match (e.g., 2-0 in soccer, 0-6 in tennis)	13	12	39
Specific events during the game/match (e.g., who gets the first yellow card, who serves the first double fault)	8	5	21
Other things (without specification)	0	1	15
I don't know	1	0	1
What did these people try to make happen on the sport field / during the manifestation of the manipulation? (n = 320, multiple answers possible)			
	n = 37	*n* = 19	*n* = 264
Deliberate underperformance	23	10	126
A specific event during the game/match (e.g., first yellow card, first double fault, first throw-in)	14	16	52
Manipulation of personal information (e.g., gender, age, weight)	4	8	23
Manipulation of the equipment (e.g., manipulation of the ball)	0	8	6
I don't know	3	0	15
Other things	0	1	70
*Were you offered money to fix the game/match? (n = 319, one answer possible)**			
	n = 37	*n* = 19	*n* = 263
Yes, less than €100	5	0	21
Yes, between €100 and €500	7	0	61
Yes, between €500 and €1000	5	7	27
Yes, between €1000 and €5000	8	7	15
Yes, more than €5000	4	4	7
No	8	1	132
Were you promised other material inducements to fix the game/match? (e.g., an iPhone, a voucher to buy online, tickets for sport events, special discount in shops, a keg of beer) (n = 319, one answer possible)			
	n = 37	*n* = 19	*n* = 263
Yes	17	17	94
No	20	2	169
Were you threatened or pressured to fix the game/match? (n = 317, one answer possible)			
	n = 37	*n* = 19	*n* = 261
Yes	14	15	49
No	23	4	212
Did you consent with the proposal to fix the match? (n = 317, multiple answers possible)			
	n = 37	*n* = 19	*n* = 261
Yes, because of the money and/or other material inducements offered	3	11	14
Yes, because I experienced financial difficulties at that time	4	5	10

Yes, because I was pressured by those who approached me	2	6	11
Yes, because I was pressured by my own team	2	6	15
Yes, in the interests of my own club	2	4	13
Yes, as a friendly gesture toward another club or athlete	0	4	17
Yes, out of sympathy for the person who made the proposal	1	2	6
Yes, for some other reason (without specification)	1	2	8
No, I did not consent with the proposal	24	3	191

*The currency was adjusted for the respective countries.

Additionally, the respondents who indicated that the last or only match-fixing proposal they received had solely a sporting-related purpose, further clarified that preventing the relegation of a specific club or player was the main motive (63.0%), followed by enabling a specific club or player to win the championship (42.6%), determining who the next-round opponent would be (7.9%), or making the competition or tournament more exciting (5.7%). The outcome of the game/match (who wins/loses) was mostly at stake, and they mainly tried to execute the manipulation by underperforming. Furthermore, around half of the respondents who indicated that they had been approached solely for a sporting-related purpose, stated that they were offered money. The majority of them received between €100 and €500 to fix the match. Next to this, 35.7% were offered other material inducements. The formulated inducements varied greatly, ranging from, for example, a holiday, to a car, a luxury watch, a dinner, to food and (a keg of) beer. 18.8% of the respondents who had been approached for a sporting-related motive stated that they were threatened or pressured to fix the match. Eventually, 26.8% of the respondents who were offered only a sporting-related match-fixing proposal consented to the proposal, mainly because they saw the match-fixing proposal as “a friendly gesture toward another club or athlete” (see Table 20).

On the other hand, 37 respondents (9.6%) indicated that the last or only match-fixing proposal they received had solely a betting-related motive (see Table 19). The people who indicated that the last or only match-fixing proposal they received had solely a betting-related motive, were mainly involved on a professional and semi-professional level (see Table 19) and were mainly related as an athlete to their sports at the moment of the proposal (see Table 20). Nevertheless, some respondents also indicated that they were related as board member, referee, or coach to their sports at the moment of the betting-related match-fixing proposal. Moreover, they were mainly approached by bettor(s)/gambler(s) and athletes to fix the match. The respondents further

specified that the people who approached them were mainly affiliated with the opponent or that they did not know with whom they were affiliated. Some respondents specified that the people who approached them were affiliated with other instances, such as “the Eastern European gambling circuit,” “an independent bookmaker,” or “nobody.” In the majority of the cases the outcome of the match was at stake, followed by the exact result of the game/match, and specific events during the game/match. Similar to the respondents who had only received a sporting-related proposal, they mainly tried to execute a deliberate underperformance. Furthermore, 78.4% of them were offered money to fix the match, mainly between €1000 and €5000. Furthermore, 45.9% indicated that they were offered other material inducements, 37.8% indicated that they were threatened or pressured to fix the game/match, and eventually 35.1% consented to the proposal, mainly because they experienced financial difficulties at that time or because of the money and/or material inducements offered.

Additionally, 19 respondents (4.9%) indicated that the last or only match-fixing proposal they received had both a betting- and sporting-related motive (see Table 19). These respondents were mainly involved on a (semi-)professional level (see Table 19) as athletes (see Table 20). They indicated that they were mainly approached by athletes, coaches, or board members who were mainly affiliated with the opponent (see Table 20). The main motives behind the proposals were to gain money through the betting market, and to enable a specific club or player to become champion or to avoid relegation. In addition, the respondents indicated that they were mainly seeking to influence the outcome or the exact result of the game/match. They tried to achieve this by trying to make specific events happen during the match. Moreover, almost all of the respondents (18 of the 19) were offered money and never less than €500. 17 of the 19 respondents were also offered other material inducements. The respondents formulated inducements such as “a brand new car,” “a voucher,” “an Iphone,” “more

money after the match," whereas consumer goods were not mentioned. 15 of them were threatened or pressured. Eventually, 16 of the 19 respondents indicated that they had consented to the match-fixing proposal, mainly because of the money and/or material inducements offered, or because they were pressured by those who approached them or by their own team.

As can be seen in Table 19, the remaining cases concerned 47 respondents (12.1%) who indicated that the proposal had another motive (without further specification), 9 respondents (2.3%) who indicated that the proposal had a sporting-related and other motive (without further specification), and 10 respondents (2.6%) who indicated that they did not know what the motive behind the proposal was.

Discussion

This study aimed to gain insights into the attitudes of various internal stakeholders towards the seriousness, risk, and acceptability of match-fixing. Additionally, this study aimed to provide more complete, cross-national, and cross-sports figures on the prevalence of match-fixing, by examining to what extent internal stakeholders in European sports knew of others who had already been approached for match-fixing and whether they had already been approached themselves for match-fixing.

The results showed that various internal stakeholders' attitudes towards match-fixing were not uniform. Athletes, for example, estimated the chance that they could be approached themselves for match-fixing significantly lower than those related as referees or board members to their sports. This finding is remarkable and actually contradictory to our prevalence figures and the literature, which describe athletes as one of the most vulnerable stakeholders in sports for match-fixing. Visschers et al. (2020: 91) clarified this as an "attitudes vs. experience" paradox when it comes to

match-fixing. However, in their case, it was the other way around. More specifically, many referees perceived match-fixing as widespread at the professional level, but none of the referees active at the professional level witnessed or suspected match-fixing (Visschers et al. 2020). Moreover, this result emphasizes that athletes' awareness of the seriousness and risk of match-fixing is still fairly low, despite their proven vulnerability. Referees, on the other hand, assessed the risk that they could be approached themselves for match-fixing the highest. Furthermore, all stakeholders generally estimated the chance that they could be approached themselves for match-fixing lower than the estimation that match-fixing is a problem in their sports discipline in their country. This finding again emphasizes that people generally underestimate their own vulnerability for match-fixing and the overall danger of match-fixing.

When it comes to the acceptability of match-fixing, people involved as referees found both types of match-fixing significantly less acceptable than the other stakeholders. In addition, board members found match-fixing to avoid relegation of their team significantly more acceptable than athletes. As shown by our results, this could be explained by the fact that board members are frequently the people who approach others when it comes to the sporting-related type of match-fixing. Furthermore, the results also indicated that all stakeholders generally perceived match-fixing to avoid relegation of their team as more acceptable than match-fixing for betting purposes. This could be explained by the fact that people often do not view certain sporting-related behavior as deviant, but rather as an integral part of sports (Van Der Hoeven et al. 2022). Deviant behavior is sometimes even expected or may be seen as "desirable" or the norm by athletes, coaches and fans, because it is normalized in sports (Van Der Hoeven et al. 2022). Accordingly, Van Der Hoeven and Willem (2022: 73) further argued that sporting-related match-fixing appears to be more institutionalized, and easier to rationalize and socialize, which could explain why

“sporting-related match-fixing seems to be more normalized in sport (sic) or that it is at least more vulnerable to the normalization process.”

Regarding the prevalence of match-fixing, our results revealed that almost one fifth of the respondents indicated (in)direct match-fixing incidents in the questionnaire. More specifically, 17.5% of the respondents knew one or more persons who had already been approached for match-fixing, and 8.5% indicated that they had already been approached themselves to fix a match. These figures are in keeping with those of Van Der Hoeven et al. (2020) who found that 17.8% of the respondents in Flemish soccer, tennis, and badminton knew someone who had been approached for match-fixing, and that 6.3% of them had already been approached personally for match-fixing. Compared to the other large scale studies of FIFPro (2012) and Theodorou (2017), our figures are fairly low. However, a comparison with the latter two studies is difficult, since FIFPro (2012) focused solely on professional soccer players, and Theodorou (2017) included a time frame of the last twelve months. Nevertheless, our results also showed that those who indicated (in)direct match-fixing incidents in the questionnaire answered significantly less socially desirable than the respondents who indicated that they had not (in)directly experienced match-fixing. This could mean that our study’s figures are actually an underestimation of the prevalence of match-fixing.

Furthermore, of the respondents who indicated that they had been approached personally for match-fixing, 68.5% specified that the last or only match-fixing proposal they received had only a sporting-related motive, while 9.6% indicated that the last or only match-fixing proposal they received had solely a betting-related motive. These figures confirm Spapens and Olfers’ (2013, 2015) and Van Der Hoeven et al.’s (2020) findings that sporting-related match-fixing seems to be more common overall, certainly at lower levels of competition. Nevertheless, the proportion of betting-related match-

fixing cases seems to be higher on a professional level. In addition, this study also found that both types of match-fixing can happen simultaneously, as 4.9% of the approached persons indicated that the last or only match-fixing proposal they received had both a betting- and sporting-related motive. After all, if those involved are aware of the assured outcome or course of the match, they may also take the opportunity to bet on it (Spapens 2021).

By examining match-fixing on an international scale, in various sports disciplines, on multiple sports levels, and among various internal stakeholders, this study offers a multifold empirical and practical contribution. First, by explicitly comparing different internal stakeholders' attitudes towards and experiences with match-fixing, we offer a more fine-grained multi-stakeholder approach to match-fixing. As our results show, various stakeholders may have different attitudes towards match-fixing and can be involved in match-fixing. As such, we suggest that education and prevention initiatives should not only be provided to athletes and referees, but also to coaches, board members and others in the entourage of sports. In addition, all levels of sports should be targeted as shown by our results. Second, this study extends previous prevalence research on match-fixing. We provide a more complete picture of the extent of the problem and show how diverse and widespread the phenomenon is. While our results confirm previous smaller scale studies (i.e., Spapens and Olfers 2013, 2015; Van Der Hoeven et al. 2020) by showing that sporting-related match-fixing seems to be more common overall than betting-related match-fixing, this is the first time that this has been studied on such a broad international scale. Consequently, we also argue that sporting-related match-fixing should be given a prominent place in match-fixing research and prevention initiatives. Additionally, this is the first time, to the best of our knowledge, that prevalence figures show that both types of match-fixing can happen together. This is an important finding that should be taken into account when

elaborating and optimizing future prevention and education initiatives. After all, research to date has mainly considered both types of match-fixing as two separate phenomena. Furthermore, by taking the extent of socially desirable responding into account, this study also revealed that prevalence figures may be an underestimation of the real size of the problem.

Limitations and future research

The present study has some limitations that present opportunities for future research. First, as the respondents had control over whether or not to participate in the questionnaire, we have to be aware that self-selection may have influenced the final sample. After all, it is possible that potential respondents who had already experienced (in)direct match-fixing incidents did not want to participate in the questionnaire and/or that others participated to voice a certain opinion. Moreover, it is possible that certain respondents participated because their club or federation obliged them. As such, we have to be aware that our non-random sampling strategy has not taken these issues into account. Additionally, as we examined the sensitive subject of match-fixing, we cannot exclude the possibility that respondents' answers were influenced by social desirability (Fukukawa 2002). However, by assuring an anonymous approach, and checking for social desirability in our analyses, we have tried to deal with this concern. Future match-fixing research should further apply more rigorous methods to identify and control social desirability bias, such as the randomized response technique (Pitsch 2015). Third, our study only included cross-sectional data, and consequently does not allow to identify any trends.

A fourth limitation of this study is related to the sample characteristics. Despite the fact that we aimed to reach a diverse group of internal stakeholders in different sports, the majority of the final sample were athletes and referees involved in soccer. The large

sample size enabled us to include some other sports in the analyses. Nonetheless, we have been careful and reserved/cautious to draw conclusions at a sport specific level. Although the internal stakeholders of whom the vulnerability for match-fixing has already been widely acknowledged were again strongly represented in our data (i.e., athletes and referees), significant insights were also obtained for other internal stakeholders in sports such as coaches and board members. Future research could further examine the role of coaches and board members in relation to match-fixing. Additionally, in line with the work of Caneppele et al. (2020), it would be worthwhile to further investigate the perceptions of "external" stakeholders, such as betting operators and law enforcement, in relation to match-fixing. Similar to Caneppele et al.'s (2020) approach, focus groups or interviews could be used in order to circumvent the pitfalls that are discussed in this paper. Furthermore, as this study has addressed its aims within a Northern/Central European context, a broader international area should be covered in future research.

Conclusion

Although match-fixing is often stereotyped as a form of deviance in sports caused by external criminals, this study shows that match-fixing by internal stakeholders in European sports might even be the bigger problem in terms of frequency. While different internal stakeholders in sports varied greatly in their attitudes towards the seriousness, risk, and acceptability of match-fixing, this study also demonstrates how diverse and widespread (stakeholders involved in) match-fixing can be. Moreover, this is the first time that a large scale international study shows that sporting-related match-fixing seems to be more common overall than betting-related match-fixing, and that both types of match-fixing can occur simultaneously. As such, by exposing different

stakeholders' attitudes towards and experiences with match-fixing, this study could navigate future match-fixing prevention initiatives.

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PART III: GENERAL DISCUSSION

1 OVERVIEW OF THE MAIN FINDINGS

The main objective of this doctoral dissertation is to better describe and understand match-fixing in sport. Building on the four distinct empirical studies that were outlined, we are able to better describe and explain the complex and multi-layered nature of match-fixing. In the forthcoming paragraphs, the findings of the four distinct empirical studies will be summarized.

Since empirical research on match-fixing has been rather scarce, a first study explored the prevalence of match-fixing in Flemish sport. Moreover, as an ethical framework is rarely used in the study of match-fixing, the first study also explored how match-fixing is related to an individual's moral decision-making process in potentially fixing a match. Based on questionnaire data from 567 respondents in Flemish football, tennis, and badminton, results revealed that 18.3% of the respondents indicated (proposed) match-fixing incidents in the questionnaire. More specifically, 17.8% indicated that they knew someone else who had been approached for match-fixing, and 6.3% stated that they had already been approached themselves to fix a match. Moreover, in the latter case, the results revealed that sporting-related match-fixing occurred more (91.7%) than betting-related match-fixing (8.3%). Additionally, the twofold nature of match-fixing also clearly came into view when looking at the moral decision-making process of the people approached to potentially fix a match. More specifically, the people involved in sporting-related match-fixing often lack (moral) awareness of the issue and/or do not judge it as (morally) wrong, whereas those involved in betting-related match-fixing are usually more confronted with moral challenges such as (external) inducements and/or pressures. As such, this study showed that both types of match-fixing are clearly different issues that require different remedies.

After revealing that match-fixing is not an unknown phenomenon in Flemish football, tennis, and badminton, a second study zoomed in on the unique strategic context of road cycling. The purpose of this study was to investigate road cyclists' perceptions of the existence of match-fixing in their sport, as well as whether and how match-fixing is institutionalized, rationalized, and socialized in road cycling. Through an in-depth qualitative case study design based on semi-structured interviews with 15 active Belgian road cyclists, findings showed that cyclists interpret match-fixing differently. Given cyclists' belief that they did not predetermine competition outcomes, cooperating with competitors was not considered as match-fixing. Moreover, even betting-related match-fixing was not seen as a threat to their sport. Albeit cyclists in general did not acknowledge the existence of match-fixing in their sport, findings also demonstrated how different forms and levels of cooperation between competitors can be seen as institutionalized, rationalized, socialized, and thus normalized in road cycling. This normalized cooperative behaviour contributes to a grey zone that could theoretically imply match-fixing, but is considered an inherent characteristic of road cycling. As such, this study explained why behaviour that could perhaps be seen as corruption in other sports, is actually considered normal in road cycling.

A third study built further on the moral unease component of an individual's rational-choice cost-benefit assessment before engaging in match-fixing. More specifically, the purpose of this study was to examine how individuals cognitively decide to engage in match-fixing by using moral disengagement mechanisms, alone and in concert with money, other inducements, and threats or pressure. Based on questionnaire data of 383 sport actors who indicated that they had previously been approached for match-fixing – and on (multiple) binary logistic regression models – results revealed that moral disengagement has a significant effect on the decision to consent to match-fixing, alone and in concert with money, other inducements, and threats or pressure.

Moreover, a positive significant interaction effect was found between moral disengagement and being offered (monetary) inducements, while no significant interaction effect was found between moral disengagement and being threatened or pressured. These results suggest that individuals who are approached to potentially fix a match use moral disengagement mechanisms to justify the decision to engage in match-fixing in their own eyes. In this way, they counter the negative feelings of going against their moral standards and reduce the anticipated cognitive burden. Moreover, the positive significant interaction effect between moral disengagement and (monetary) inducements, and the insignificant interaction effect between moral disengagement and threats or pressure, may indicate that moral justification/disengagement mechanisms may be activated more easily when someone has control over whether to consent to match-fixing (i.e., (not) take the money or inducement) compared to when someone is threatened or pressured. As such, this study extended the dominant rational choice approach and emphasized the importance of detecting and counteracting moral disengagement mechanisms in match-fixing prevention initiatives.

The final study broadened the scope by examining match-fixing on an international scale, in various sports, on multiple sport levels, and among various internal stakeholders. The purpose of this study was to examine the attitudes of various internal stakeholders towards the seriousness, risk, and acceptability of match-fixing. Moreover, a second purpose was to provide more complete, cross-national, and cross-sports figures on the prevalence of match-fixing, by examining to what extent internal stakeholders in European sport knew of others who had already been approached for match-fixing and whether they had already been approached themselves for match-fixing. Drawing on a sample of 4958 various internal stakeholders involved in different sports across Europe, results showed that different

internal stakeholders in sport have various attitudes towards match-fixing. Moreover, all stakeholders generally perceived sporting-related match-fixing as more acceptable than betting-related match-fixing. Additionally, 19.1% of the internal stakeholders indicated (in)direct match-fixing incidents in the questionnaire. More specifically, 17.5% of the internal stakeholders knew one or more other persons who had been approached for match-fixing, and 8.5% indicated that they had already been approached themselves to fix a match. In the latter case, 68.5% indicated that the last or only match-fixing proposal they received had solely a sporting-related motive, while 9.6% specified that the last or only match-fixing proposal they received had solely a betting-related motive. Furthermore, the results also revealed that both types of match-fixing can occur simultaneously. Consequently, this large scale study allows us to better understand the extent of the problem, which could navigate future match-fixing prevention initiatives.

2 OVERALL DISCUSSION

The empirical work presented in this dissertation offers theoretical and methodological contributions to the match-fixing and (sport) corruption literature. In line with our two first aims of "exploring" and "mapping" match-fixing, we will first discuss the ongoing challenge of measuring (the prevalence of) match-fixing. Subsequently, we will connect and discuss our findings within Ashforth and Anand's (2003) overarching normalization framework, which allows us to provide a more complete "understanding" of match-fixing (i.e., the third aim of this dissertation). We will thereby highlight how the twofold nature of match-fixing, the grey zone between tactics and manipulation, and our individual studies and applied theoretical frameworks contribute to existing theory and our understanding of (sporting-related) match-fixing as a normalized phenomenon. Building on its normalized nature and the grey zone between tactics and manipulation, we will then discuss match-fixing's challenging grey zone in a conceptual, disciplinary, and criminal context. Finally, we will discuss our multilevel insights regarding match-fixing and how these contribute to the current debate on who is responsible for (the prevention of) match-fixing.

2.1 Measuring (the prevalence of) match-fixing: unfinished business

In line with our two first aims of "exploring" and "mapping" match-fixing, our first study revealed that 6.3% of the respondents in Flemish football, tennis, and badminton had been approached for match-fixing, while 17.8% indicated that they knew someone else who had been approached for match-fixing. Our fourth study indicated that 8.5% of the respondents had already been approached for match-fixing, while 17.5% indicated that they knew one or more other persons who had been approached for match-fixing. Although our regional (study 1) and international (study 4) figures are

fairly similar, no clear conclusion can be drawn regarding the prevalence of match-fixing when comparing our figures with other prevalence studies. For example, our international figure on personal match-fixing approaches (8.5%) is in line with the figure of Frenger et al. (2019) who estimated that 8.42% of 425 German elite athletes had been approached for match-fixing. Compared to the studies of FIFPro (2012) and Visschers et al. (2020), our figures are relatively low. The higher figures in FIFPro (2012) and Visschers et al. (2020) could be expected as they both focused on football, which is known as one of the most affected sports (Marchetti et al., 2021; Moriconi & De Cima, 2021; Vanwersch et al., 2022). In addition, it is difficult to compare our figures with the study of Theodorou (2017), who examined match-fixing in twelve different sports using a time variable (i.e., the last twelve months). However, a better comparison should be possible with the study of Spapens and Olfers (2013, 2015), as we used their questionnaire as a starting point for our own research (study 1). Spapens and Olfers (2013, 2015) revealed that 4% of their respondents in Dutch football, tennis, boxing, basketball, and horseracing had been approached personally for match-fixing, and that 8% indicated that they knew people who had been approached to fix a match. As such, compared to the study of Spapens and Olfers (2013, 2015), our figures are relatively high. This could imply that match-fixing happens more in Flanders and the European context in general, than in the Netherlands. However, these figures again need to be put into perspective, given the differences in terms of scope, sports, and sport actors included in the studies.

Moreover, comparisons between and within our own (sub)samples were also difficult to make due to the heterogeneity of the data and the limited size of several subsamples. For example, in our first study only three respondents were approached personally for a betting-related fix, and only seven respondents consented to a match-fixing proposal. Even in our fourth large scale international study there were

subsamples which were quite small. Also regarding the countries, the difference between the largest sample (n = 1229; in the United Kingdom) and the smallest sample (n = 206; for Switzerland) was too big to make a representative comparison. In addition, we acknowledge the difficulty and sensitivity of explicitly stating that match-fixing is more prevalent in one country or sport than in another. After all, prevalence figures do not take cultural and social factors into account, which is indispensable when explicitly comparing a social phenomenon such as match-fixing (Numerato, 2016). Furthermore, the low frequency of match-fixing incidents relative to our sample sizes (e.g., 36 personal incidents on 567 respondents in study 1, and 418 personal incidents on 4940 responses in study 4) also made it difficult to examine the relationships between variables, especially when consenting to a match-fixing proposal is the dependent variable. However, one could argue that this limitation is inherent to low frequency incidents, such as match-fixing. To avoid this limitation, and further enhance the knowledge about the relationships between variables when it comes to match-fixing, future research could apply the factorial survey approach (Taylor, 2006). In this quasi-experimental method, true-to-life case descriptions, so-called vignettes, could be presented to the participants to make a judgment about a realistic type of scenario. In this way, the effect of multiple factors in complex decisions on match-fixing could be investigated. The factorial survey method has already been successfully applied in sport ethics research in the past (see e.g., De Waegeneer & Willem, 2016).

When further unravelling the limitations of our data collection methods (see pp. 235-238 for a more extensive overview), the main limitation identified is the possibility of a social desirability bias (Fukukawa, 2002). To counter concerns regarding social desirability, we used an anonymous approach in our questionnaires and also included Strahan and Gerbasi's (1972) social desirability scale in study 3 and 4. After all, an

anonymous approach should minimize the impact of social desirability, while Strahan and Gerbasi's (1972) scale enabled us to account for the impact of social desirability. Based on Strahan and Gerbasi's (1972) scale, we were able to identify that people who indicated that they had not (in)directly experienced match-fixing, had answered in a more socially desirable way than people who indicated that they had experienced match-fixing (study 4). Following this finding, we suggested that (our) current prevalence figures may be an underestimation of the actual prevalence of match-fixing. However, a possible social desirability bias may not be the only reason for an underestimation of the prevalence of match-fixing. The next section of this discussion will demonstrate how (sporting-related) match-fixing can become normalized and consequently not recognized or identified by the people involved.

As such, it becomes clear that measuring (the prevalence of) match-fixing is an unfinished business that requires further research. Match-fixing scholars could further explore and develop other research methods to map the prevalence of match-fixing, taking into account response biases such as social desirability. For example, in line with Frenger et al.'s (2019) study, future research could rely on the randomized response technique to examine the prevalence of match-fixing. The randomized response technique is an indirect questioning method that could lead to more reliable prevalence figures due to the increased confidence of respondents (Pitsch, 2015). More specifically, by adding "random noise" by letting participants flip a coin (or another randomization device), participants will be asked to answer honestly if the coin lands on one of the two sides (Le et al., 2023, p. 3). If the coin lands on the other side, participants can answer as they wish. As such, the participant's anonymity is protected and (s)he will feel more inclined to answer honestly. The sensitive behaviour prevalence is calculated afterwards. However, as randomized response questionnaires do not completely eliminate the possibility of a social desirability bias

(e.g., see Tracy & Fox, 1981; van der Heijden et al., 2000), require larger sample sizes, and have limited possibilities for statistical analyses, they are not considered superior to direct questionnaires (Pitsch, 2015). Being aware of the limitations of the randomized response technique and the fact that we aimed to go beyond merely mapping match-fixing, we chose to use direct questionnaires in this dissertation (see pp. 234-235 for an overview of the strengths of our applied method). Furthermore, other valuable insights could also be obtained via qualitative research methods such as in-depth interviews (Patton, 2002) or investigative journalism in line with Hill's (2008, 2013) seminal work. For example, in-depth interviews with other stakeholders (e.g. UCI, sponsors, fans) in road cycling could provide more detailed information and additional context to the processes of institutionalization, rationalization, and socialization, offering a more complete picture of what actually happens in the cycling peloton. In addition, investigative journalism could be applied to deeply investigate a single topic of interest within these processes, for example, the role of the team managers within the culture of agreements. For additional opportunities for future research, see pp. 239-243.

2.2 The normalization of (sporting-related) match-fixing in sport

Throughout the PhD project, it became clear that Ashforth and Anand's (2003) lens of normalization could provide the overarching model to better understand the embedded and taken for granted nature of (sporting-related) match-fixing. In the next sections, we discuss how our findings are connected to the three pillars of institutionalization, rationalization, and socialization, and help to explain how (sporting-related) match-fixing can be seen as a normalized phenomenon. The next sections are again strongly related to the book chapter of Van Der Hoeven and Willem (2022) who highlighted the potential of Ashforth and Anand's (2003) normalization of corruption model to explain match-fixing and its underlying mechanisms.

2.2.1 Institutionalization: making (sporting-related) match-fixing seem ordinary

Ashforth and Anand (2003) stated that the institutionalization process consists of three phases, which could be identified in our research. More specifically, our research showed that individuals can decide to engage in match-fixing (i.e., the first phase) for various reasons (e.g., to prevent the relegation of a friendly club or team, or to earn money through the betting market (study 1 and 4), for tactical reasons or from a reciprocal perspective (study 2), or from a rational choice perspective (study 3)). Although our research thus clearly increased the knowledge on individuals' decisions to engage in match-fixing, connections could be made with other dominant theories used in match-fixing research, such as rational choice theory (Becker, 1968).

The second phase of the institutionalization process implies that an initial (successful) corrupt act becomes embedded in an organization's structures and processes (Ashforth & Anand, 2003). The embedded nature of match-fixing mainly came forward regarding the sporting-related type of match-fixing. After all, our prevalence figures of study 1 indicated that of the 36 respondents who indicated that they had been approached personally for match-fixing, 3 respondents (8.3%) indicated that it concerned betting-related match-fixing, while 33 respondents (91.7%) indicated that it concerned sporting-related match-fixing. Additionally, our last study showed that 68.5% indicated that the last or only match-fixing proposal they received had solely a sporting-related motive, while 9.6% indicated that it concerned a betting-related motive. As such, our results clearly confirmed Spapens and Olfers' (2013, 2015) suggestion that sporting-related match-fixing seems to occur more than betting-related match-fixing. Moreover, we showed that people often do not see sporting-related match-fixing as a problem (study 1), and perceived it as more acceptable than betting-related match-fixing (study 4). These findings give an indication that sporting-related

match-fixing is more embedded in the sporting culture than betting-related match-fixing.

Additionally, the endemic and embedded nature of sporting-related match-fixing, or behaviour that could perhaps be seen as match-fixing, explicitly came forward in our second study where a deviant subculture (i.e., the cycling peloton) was identified with its own "unwritten rules." Breaking or refusing these unwritten rules could cause social sanctions for the cyclists. As such, parallels can be drawn with the concepts of public secrecies and codes of silence, as discussed by Numerato (2016) and Moriconi and de Cima (2020). However, Moriconi and de Cima (2020) criticized the concept of a code of silence, as it is inherent to the current preventive narrative which focuses on fear, (illegal) betting, and individual failure. In line with Moriconi and de Cima's (2020) finding that what really exists are informal institutions that create opportunity structures for match-fixing, our results also showed that being part of a certain sporting culture (e.g., road cycling, in study 2) does not only involve knowing and following formal rules, but also respecting the informal structures and rules in the subculture. This could also explain why almost half of the respondents who indicated that they had suspicions or experiences of (sporting-related) match-fixing in our international questionnaire had never reported their suspicions or experiences of match-fixing to anyone (EPOSM, 2021). Moreover, when they had reported their suspicions or experiences of match-fixing to someone, this was mainly to informal contacts within the sporting culture (e.g., teammates, coaches, or board members) (EPOSM, 2021). As such, this also shows that the obligation to report to formal structures remained rather ineffective. While the informal structures are publicly recognized by the institutional actors who fight match-fixing, they are currently neglected in the current preventive narrative. Consequently, we follow Moriconi and de Cima's (2020) suggestion that to effectively counter (sporting-related) match-fixing, measures should consider the embedded informal

structures in sport that create opportunities for (sporting-related) match-fixing to happen.

The third phase of the institutionalization process implies that a corrupt act becomes a habit and a matter of routine (Ashforth & Anand, 2003). This last phase of "making the extraordinary seem ordinary" is often linked to a lack of moral awareness (and judgment) of the issue among the actors (Ashforth & Kreiner, 2002, p. 215). After all, low (moral) awareness and judgment can facilitate a dubious or corrupt behaviour to become routinized and habitual, and vice-versa, the casualness of routinized behaviour blunts individuals' (moral) awareness and judgment of their behaviour (Ashforth & Anand, 2003). Given this association between the institutionalization process and a lack of (moral) awareness and judgment of an issue, we argue that sporting-related match-fixing is more institutionalized, or at least appears to be more vulnerable to the institutionalization process. After all, by applying Rest's (1986) model in our first study, we showed that people who are involved in sporting-related match-fixing often lack (moral) awareness of the issue and do not judge it as (morally) wrong, whereas people involved in betting-related match-fixing are generally aware of the problem and judged it as morally wrong. This lack of (moral) awareness and judgment of sporting-related match-fixing, is reinforced by the grey zone in which sporting-related match-fixing takes place. After all, the often unclear boundaries between acceptable behaviour (i.e., tactics) and misconduct (i.e., sporting-related match-fixing) create a grey ambiguity which facilitates the institutionalization of sporting-related match-fixing. Nevertheless, betting-related match-fixing could also be institutionalized, and subsequently normalized, as shown by Tak et al. (2018) and Marchetti et al. (2021).

By discussing our findings in relation to the institutionalization process, we offered empirical and theoretical contributions to the match-fixing literature. Next to empirically demonstrating the twofold nature of match-fixing, and the moral decision-making process that comes with it, we showed how a micro-level decision to engage in match-fixing may evolve into a macro-level embedded practice (see pp. 230-233 for a more extensive discussion on the multilevel insights). Moreover, our research also offered a contribution to Ashforth and Anand's (2003) institutionalization pillar by explicitly linking Rest's (1986) moral development model to the institutionalization process. After all, Ashforth and Anand (2003) just mentioned that there is a link between low (moral) awareness and institutionalization, but did not explicitly unravel an individual's moral decision-making process. Furthermore, as we were able to identify the grey zone between tactics and manipulation, we enrich Ashforth and Anand's (2003) explanation of how a practice becomes institutionalized.

2.2.2 Rationalization: justifying (sporting-related) match-fixing

Regarding the rationalization process, a wide range of self-serving ideologies to justify and engage in match-fixing were identified in our research. Our second study, for example, identified all eight rationalization strategies as listed by Ashforth and Anand (2003). Cyclists frequently used selective comparison justifications to argue that match-fixing is something that happens in other sports (mainly football), but not in road cycling. Cyclists also frequently tried to shift the attention away from stigmatized features of their behaviour, and often denied or diffused their responsibility by using justifications as "I had no other choice" or "everyone does it." Moreover, the justification that sporting-related match-fixing is "a friendly gesture towards another club or athlete" (study 1 and 4) can also be seen as a rationalization strategy (i.e., trying to realize a higher loyalty). In addition, our third study showed how people cognitively decide to engage in match-fixing by using moral disengagement mechanisms. Moral

disengagement mechanisms enable people to justify the match-fixing proposal in their own eyes, countering the negative feelings of going against their moral standards and reducing the anticipated cognitive burden.

When it comes to the twofold nature of match-fixing, Ashforth and Anand's (2003, p. 15) statement that "corrupt individuals tend not to view themselves as corrupt" by using rationalizations, certainly relates to the sporting-related type of match-fixing. After all, our findings showed that people often do not see sporting-related (match-fixing) cases as corruption, but rather as tactics. This could again be linked to the previously mentioned grey zone that exists between tactics and manipulation. Consequently, we argue that it is often easier for sport actors to use various rationalization strategies to justify sporting-related match-fixing than betting-related match-fixing. Rationalization strategies for betting-related match-fixing may be more difficult to apply by sport actors, as betting-related match-fixing seems to be less common and is considered a clear criminal offense. Nevertheless, betting-related match-fixing could also be rationalized, and subsequently normalized, certainly in cultures where corruption is more widespread (e.g., Marchetti et al., 2021).

By identifying various rationalizations strategies for (sporting-related) match-fixing and linking them to Ashforth and Anand's (2003) rationalization process, the literature on match-fixing has been expanded empirically. Moreover, by revealing the relation between moral disengagement and match-fixing, we contributed not only to the match-fixing literature, but also to Ashforth and Anand's (2003) model. Regarding the match-fixing literature, we clearly extended the current dominant rational choice approach to match-fixing by showing that the decision-making process to consent to a match-fixing proposal can be explained by the propensity to morally disengage of an individual. When it comes to Ashforth and Anand's (2003) model, we extended their eight listed

rationalization strategies by showing that rationalizations are not solely social constructions to convince the collective. After all, while Ashforth and Anand (2003) mainly considered rationalization strategies as social constructions within a group to convince others, Bandura's (1986) concept of moral disengagement mainly focuses on the personal self-regulative process to justify behaviour. As such, Ashforth and Anand's (2003) and Bandura's (1986) perspectives complement each other.

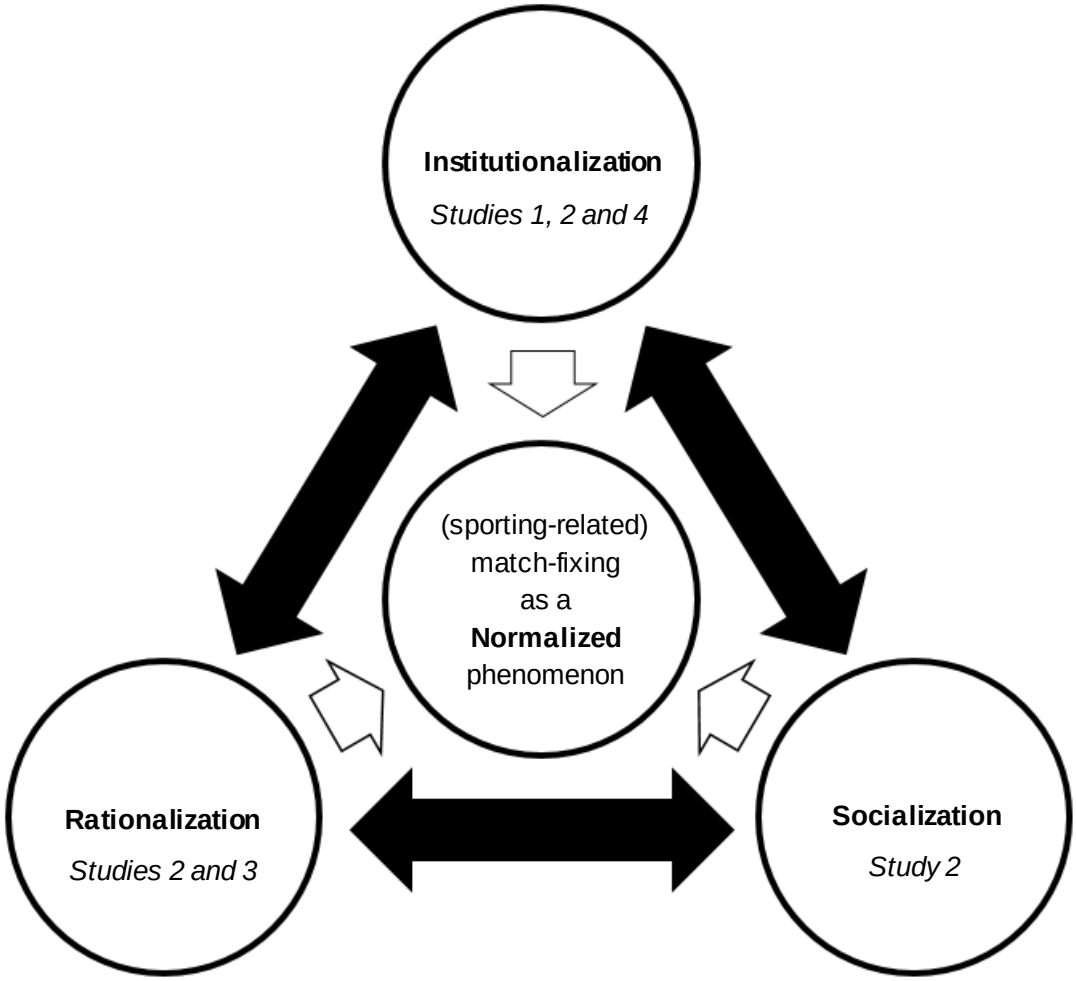
2.2.3 Socialization: inducing newcomers to (sporting-related) match-fixing

Regarding the socialization process, the three mechanisms as described by Ashforth and Anand (2003) (i.e., cooptation, incrementalism and compromise) could be identified in our results. For example, our second study showed how cyclists gradually redefined their norms and values regarding the culture of agreements through interactions with others in the cycling subculture (i.e., incrementalism). Moreover, cyclists often compromised to avoid problems with their competitors or with the people who approached them, and rewards (i.e., cooptation) were considered subordinate to the reciprocal nature of agreements. As such, these findings nuance Hill's (2013) rational choice thesis that individuals mainly engage in match-fixing for financial rewards. In line with this nuance, our third study showed that money, regardless of the amount, was not the most important factor to engage in match-fixing. While other inducements such as consumption goods could also play a role to convince people to engage in (sporting-related) match-fixing, threats and/or pressures came forward as important factors to engage in match-fixing (study 3). However, in our first study none of the respondents indicated that (s)he had been threatened and/or pressured, while our last study showed that threats and/or pressures were relatively more common when betting-related match-fixing is at hand. Furthermore, our last study also showed that internal stakeholders in sport were often the instigators of match-fixing, certainly in the case of sporting-related match-fixing.

Following these findings, we argue that socialization mechanisms for sporting-related match-fixing have little or nothing to do with violent coercion and/or threats or pressures. We rather emphasize the culturally ingrained nature of sporting-related match-fixing which helps people to gradually redefine their norms and values regarding the (dubious) behaviour and start to see it as normal. However, this does not mean that threats and/or pressures cannot be involved in sporting-related match-fixing, as shown by our figures. After all, the aforementioned socialization mechanisms can also happen together and reinforce each other. In the case of betting-related match-fixing, threats and/or pressures are more likely, certainly given the fact that betting-related match-fixing can be related to organized crime. Nevertheless, people can also decide to engage in betting-related match-fixing without threats and/or pressures (Holden & Rodenberg, 2017), and it is also possible that people gradually redefine their attitudes towards betting-related behaviour by performing and interacting in a sporting culture in which betting-related match-fixing is more embedded (e.g., Brazil, see Marchetti et al., 2021).

By linking and discussing our findings in relation to the socialization process, we thus contributed to the literature on how individuals are induced to match-fixing. Nevertheless, further research is still needed to better understand the socialization process underlying match-fixing, as we had not conducted an individual study that explicitly focused on the socialization mechanisms for match-fixing. A summary of how we explicitly linked our individual studies to Ashforth and Anand's (2003) framework can be found in Figure 5.

Figure 5. Overview of the individual studies within the three pillars of normalization.



2.3 The challenging grey zone

2.3.1 Conceptual context

As previously highlighted, the normalized phenomenon of sporting-related match-fixing is associated with the existence of a grey zone between tactics and manipulation. As shown by our second study, depending on who interprets the behaviour in the grey zone, it may be considered corruption (i.e., match-fixing) or not. As such, an important role is reserved for the conceptualization of the behaviour under study.

When looking at the Council of Europe's (2014, art. 3.4) broad definition of "manipulation of sports competitions," we argue that it contributes to the grey zone

between tactics and manipulation. After all, by using the vague term “an improper alteration,” it is unclear which behaviour falls under “manipulation of sports competitions,” or in our case match-fixing. What is considered “an improper alteration” may have different meaning and understanding in various sports. As explained by Chappelet (2015), for example, deliberately losing a competition is not classified as “an improper alteration” by some international federations, some of which consider it a valid competition tactic (e.g., international ice hockey federation), while others consider it as match-fixing (e.g., international badminton federation). Moreover, in line with Loyens et al.’s (2022) research on the social construction of integrity, we argue that whether or not an incident is considered “an improper alteration” may also depend on why and when the incident was perceived as an “improper alteration,” and how the meaning of it was socially constructed. As the Council of Europe’s (2014) definition is thus subject to interpretation, we may wonder whether sport-specific definitions of match-fixing should be compiled. Sport-specific definitions could counter the vagueness of a general definition and take the specificity of the respective sports into account. Nevertheless, as the Council of Europe’s (2014) definition is currently considered the norm to describe match-fixing, we argue that it is better to interpret this definition in a strict way. A loose interpretation could undermine the severity of match-fixing, which could endanger the sport. After all, normalized behaviour that is in the grey zone can still be considered match-fixing. Just because infringements of fair play are normalized in certain sports, does not mean that we may not consider them as corrupt behaviour.

In the same vein, we could also question Masters’ (2015) definition of corruption in sport. The first part of Masters’ (2015, p. 113) definition, which states that corruption in sport is “the deviation from public expectations,” can be questioned as our findings showed that corrupt behaviour can be normalized, and is thus not considered deviant

from the expectations. This was also highlighted by Manoli et al. (2020), who showed that the public expectation was that sport lacked integrity. Moreover, our research also indicated that the "public expectation" is not something universal, but depends on who looks at the behaviour. After all, different stakeholders may have different attitudes towards corruption in sport (study 4). The second part of the definition, i.e., "that sport will be played and administered in an honest manner," can also be questioned. The question can be raised whether it is dishonest behaviour that makes something corrupt? After all, someone can be dishonest, but that does not necessarily mean that (s)he is corrupt. When we look at our second study, for example, the cyclists' behaviour may theoretically look dishonest, but in practice it is not considered as corruption. Consequently, we argue that (dis)honesty may not be the right term to indicate whether something is corrupt or not. Even if we would use the principle of fair play in Masters' (2015) definition, it would not suffice to explain corruption in sport. After all, sport can often be unfair, but not corrupt. As such, it becomes clear that the challenge of providing conceptual clarity on match-fixing and corruption in sport is not finished.

2.3.2 Disciplinary and criminal context

Within a disciplinary and criminal context, the grey zone between tactics and manipulation results in the difficulty to detect, prove, prioritize, and sanction (sporting-related) match-fixing. After all, as the boundary between an "improper alteration" and acceptable behaviour is often unclear, many (sporting-related) match-fixing cases often stay undetected. (Sporting-related) match-fixing cases are often only detected when explicit tips are received and/or the obligation to report is followed. However, even when cases are detected, it is often difficult to sanction the people involved due to a lack of evidence (e.g., Vinokourov case, see Cyclingnews, 2019). Related to this, is the fact that (sporting-related) match-fixing is currently not considered a priority

within sport federations and authorities, partly due to the grey zone that surrounds it, which often makes it seem not important enough (in proportion to the workload). As such, to accurately combat (sporting-related) match-fixing, the grey zone should be clarified in disciplinary terms (Vanwersch et al., forthcoming). For example, Vanwersch et al. (forthcoming) showed that the loose formulation of match-fixing in (Belgian) football's disciplinary code, leaves room for subjectivity, and makes it nearly impossible to determine whether a sporting-related match-fixing incident would in reality lead to sanctions. As such, sport federations should provide clear disciplinary rules to provide a smooth disciplinary procedure when a (sporting-related) match-fixing case is detected.

When it comes to a criminal context, the grey ambiguity could be identified within and between (international) legislation. After all, as mentioned in the general introduction of this dissertation, several countries use specific criminal legislation on sport manipulation in general and match-fixing in particular (e.g., Greece, Italy, and Portugal), while other countries use general criminal law legislation to address match-fixing (e.g., Belgium, Brazil, and China) (Abbott & Sheehan, 2013; Husting et al., 2012; Kos & Gorkič, 2013; Vandercruysse et al., 2022). Consequently, a similar match-fixing case may be sanctioned (or not) differently in various nations, which could cause difficulties in terms of international cooperation (Vandercruysse et al., 2022). Moreover, within national laws, it is often unclear how certain match-fixing cases should be sanctioned, regardless of whether it concerns general criminal law legislation or specific criminal legislation on match-fixing (Vandercruysse & Baert, 2022). In Belgium, for example, the juridical base to legally counteract match-fixing is mainly found in the article on private bribery (both passively and actively) (i.e., art. 504bis, § 1 en 2 Sw.) (Vandercruysse & Baert, 2022). However, Vandercruysse and Baert (2022) discussed how the application of the article on private bribery is not

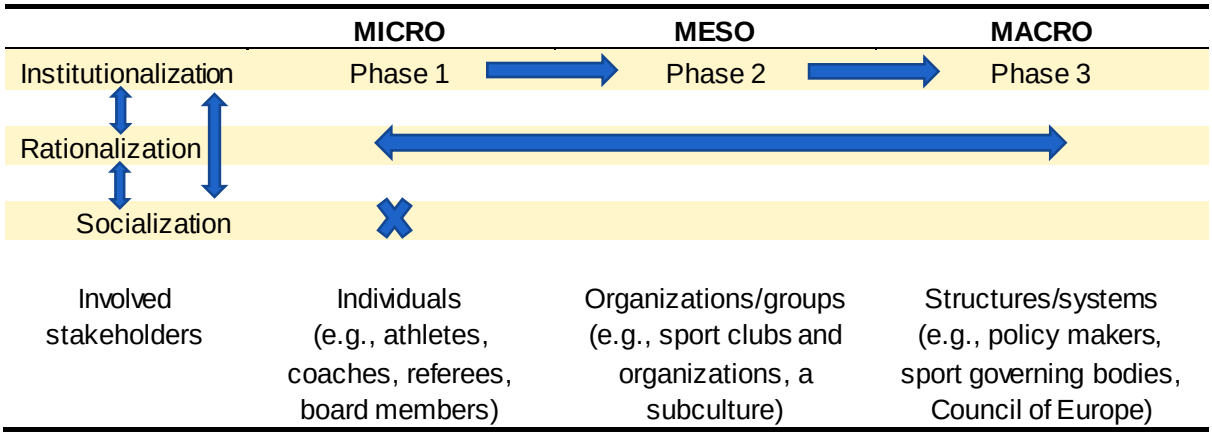
always evident in the context of match-fixing in sport due to its specificities, such as the way people are (contractually) related to their sport (club or federation). For example, according to Vandercruysse and Baert (2022), it cannot be stated with certainty whether an individual athlete who has a contract with the Flemish government (e.g., with Sport Flanders) can be found guilty of passive private bribery when (s)he consented to a match-fixing proposal, since the athlete's function can hardly be considered a "public office" (for a more extensive discussion, see Vandercruysse and Baert, 2022). Nevertheless, as sporting-related match-fixing is often only against the rules of the sport, criminal law often cannot be used for this type of match-fixing (Vandercruysse et al., 2022). In summary, future research should examine how disciplinary and criminal laws should further develop in order to best combat (sporting-related) match-fixing and its grey zone.

2.4 A multilevel (counter)approach to match-fixing: who's responsible?

By discussing our findings through Ashforth and Anand's (2003) lens of normalization, we provided a multilevel model to interpret match-fixing and its underlying mechanisms. As such, we answered Kihl's (2018) call to explain match-fixing within a holistic theoretical framework that considers the three interconnected levels (i.e., micro, meso, macro) together. More specifically, Ashforth and Anand's (2003) institutionalization process allowed us to explain how a decision to engage in match-fixing on the micro-level may evolve into an embedded, systematic, and normalized practice at the macro-level. Additionally, the emergence of a deviant subculture with its own values, beliefs, unwritten rules, and rationalization strategies at the meso-level may provide a bridge between micro- and macro-levels. Moreover, just as match-fixing can become institutionalized at the macro-level, so it can become internalized at the micro-level through the socialization process. As shown in Table 21, it becomes clear

that the three levels of analysis are present within Ashforth and Anand's (2003) model, and are interdependent and mutually reinforcing when it comes to match-fixing. Consequently, we argue that this dissertation offers a major contribution to the sport corruption literature in general, and the match-fixing literature in particular (Kihl, 2018).

Table 21. Interdependence of the three levels of analysis with regard to the normalization of match-fixing.



As explained in the general introduction of this dissertation, match-fixing researchers and practitioners have mainly focused on the individual to respectively explain and counter the problem of match-fixing. More specifically, similar to the development of theoretical perspectives on match-fixing from an individual's rational choice perspective, the current countermeasures have also been created on a functional top-down assessment which concluded that individuals are responsible for match-fixing. However, our findings and Ashforth and Anand's (2003) multilevel model showed that not only individuals play a role when it comes to match-fixing, but also organizations and institutions as a whole. Moreover, Ashforth and Anand's (2003) model allowed us to emphasize the culturally ingrained and normalized nature of (sporting-related) match-fixing, a characteristic which is largely neglected in the current preventive narrative (Moriconi & de Cima, 2020). Consequently, we argue that this dissertation does not only contribute to match-fixing theory development, but also to the current discussion on who is actually responsible for match-fixing.

In line with Ashforth and Anand's (2003) multilevel model, we suggest that a multilevel counterapproach is needed against match-fixing. While individuals have also their place and responsibility in a multilevel model, we mainly highlight the responsibility of organizations (i.e., meso-level) and institutions (i.e., macro-level) to counter match-fixing. After all, they provide the (in)formal structures and processes in which individuals and groups interact, and may thus create opportunity structures for match-fixing (Tak, 2018). Therefore, we suggest that contrary to the current top-down "zero tolerance" approach, which ignores the knowledge and perceptions of individuals who are directly involved and affected by the phenomenon, organizations and institutions also have the responsibility towards individuals to restructure the systems and culture which create the vulnerabilities that lead to match-fixing. In a structural sense, for example, this could imply that organizations have the responsibility to protect whistle-blowers and to secure their anonymity. However, research has already shown that anonymity is often the main shortcoming of the current whistleblowing protection programmes (Moriconi & de Cima, 2020). When it comes to cultural reforms, organizations and institutions should establish a culture of transparency, honesty and integrity, and should promote good governance (Geeraert & van Eekeren, 2022). However, these initiatives should be introduced, implemented (and seen to be implemented), and enforced, so that they are not just considered as window dressing (Constandt et al., 2019). Moreover, the principles of fair play and setting a positive example have to be applied in daily life (i.e., walk the talk), not just written down in a formal regulations, obligations, and declarations. Although we found that sporting-related match-fixing seems to be more normalized than betting-related match-fixing, the dangers of the institutionalized relationship between betting and sport should also be acknowledged (Tak et al., 2018). Sport governing bodies and clubs should be conscious about the impact of collaborating with the betting industry and critically

assess the hidden agendas. After all, the current discussion of sport integrity seemed to be about creating attention for and defending specific betting interests (Moriconi, 2020; Tak et al., 2022). Furthermore, sport governing bodies and clubs should ask themselves whether the visibility of sport betting does not only contribute to the danger of match-fixing, but also to other related harms such as problem gambling (Constandt et al., 2022). More practical suggestions are outlined in the practical implications of this dissertation on pp. 244-249.

3 STRENGTHS AND LIMITATIONS

3.1 Strengths

The broad and multi-theoretical perspective can be considered a first strength of this dissertation. After all, match-fixing research remained under-theorized and therefore several scholars urged to elaborate more theoretically informed studies on match-fixing (e.g., Constandt & Manoli, 2022b; Kihl et al., 2017; Numerato, 2016). Although the rational choice approach also formed an important angle in our research (see e.g., study 3), we added moral development (study 1), normalization of corruption (study 2), moral disengagement (study 3), and multi-stakeholder perspectives (study 4) to the match-fixing discourse. Using these different theoretical perspectives has allowed us to provide a polyphony of views on match-fixing, which is important in the study of a social phenomenon (Bhaskar, 1978, 2008).

Although only our second study explicitly used a multilevel approach, discussing our findings through the lens of normalization has enabled us to move beyond individual-level explanations for match-fixing. As such, a second strength of this dissertation is the provision of a multilevel model to explain match-fixing and its underlying mechanisms. After all, by interpreting our results post hoc within Ashforth and Anand's (2003) theoretical framework, we explained how individual, organizational, and systematic factors may play a role in the normalization of match-fixing. Thus, although we concluded that match-fixing is a normalized phenomenon, we did not explicitly measure the normalization processes. Consequently, we argue that future research should explicitly examine the institutionalization, rationalization, and socialization processes that underlie match-fixing. Therefore, qualitative research methods may be more appropriate.

A third strength of this dissertation is its empirical richness. After all, our empirical work generates important knowledge on match-fixing and its underlying mechanisms, while it also responds to recent calls to increase empirical research on match-fixing (e.g., Moriconi, 2020; Nowy & Breuer, 2017; Numerato, 2016; Vanwersch et al., 2022). Moreover, by applying a broad empirical scope in multiple ways, we provided a more complete picture of match-fixing. First and foremost, we were able to include both types of match-fixing, whereas previous research has mainly focused on betting-related match-fixing. By showing that sporting-related match-fixing occurs more than betting-related match-fixing, and that both types can happen together, we extended Spapens and Olfers' (2013, 2015) preliminary insights. Additionally, by examining six sports in total, we clearly extended past research that mainly focused on football. However, a possible critique of this approach is that by examining so many different sports, it is not completely possible to fully understand the specificity of one sport with regard to match-fixing. Nevertheless, our focus was on the concept of match-fixing, and we argued that multiple viewpoints could enhance the understanding of the phenomenon. In the same vein, we included various sport levels (i.e., amateur, semi-professional, and professional) and (internal) stakeholders in our research. Furthermore, by gradually expanding from a regional, to a national, to an international scope, we increased knowledge on the respective geographical levels. However, as previously mentioned on pp. 215-216, explicit cross-country comparative analyses were difficult (and beyond the scope of this dissertation) due to the heterogeneity of the data. This again emphasizes the difficulty and sensitivity of measuring match-fixing.

3.2 Limitations

Being exploratory in nature, this dissertation logically suffers from some limitations. As previously mentioned, a major difficulty in ethics-related research is the possible

influence of a social desirability bias (Fukukawa, 2002). To counter potential concerns related to socially desirable responding in our research, we guaranteed all participants anonymity (or pseudonymity in study 2). After all, a strong claim of anonymity should reduce the influence of this possible limitation (Joinson, 1999; Nederhof, 1985; Paulhus, 1984). In addition, we controlled for participants' tendency to respond in a socially desirable way by using Strahan and Gerbasi's (1972) short-form scale X1 in our third and fourth study. In spite of the clear merits of Strahan and Gerbasi's (1972) scale, one could question the extent to which this short scale is able to measure an individual's tendency to respond in a socially desirable way. Therefore, future match-fixing research should further try to deal with this inherent limitation. As mentioned in the overall discussion, future research could use the randomized response technique to minimize response bias, although this technique also has its flaws (Pitsch, 2015).

A second limitation of this dissertation is the possible influence of a self-selection bias in our questionnaire data (i.e., study 1, 3, and 4). After all, participants had control over whether or not to participate in our questionnaires (i.e., non-random sampling). Consequently, it is possible that potential respondents who had already been approached for match-fixing refused to participate in our questionnaires and/or that other respondents completed the questionnaires because they wanted to voice a certain opinion on the subject. We have to be aware that participants' ability to self-select into our questionnaires may thus have had an influence on our data. Future research should therefore preferably use random sampling methods to collect data for studying match-fixing.

Additionally, this dissertation used a cross-sectional design, which does not allow to identify any trends. Therefore, we suggest that future match-fixing studies should include longitudinal research designs to prove the causality of the findings. Moreover,

as we mainly used quantitative methods in this dissertation (i.e., three of the four studies), more qualitative research designs could be an avenue for future research to strengthen our understanding of why and how match-fixing occurs. After all, qualitative research designs could provide deeper insights into motives, emotions, and processes underlying match-fixing (e.g., an ethnographic approach, see Numerato, 2016).

A fifth limitation is related to the characteristics of our studies' samples. Next to the possible influence of a self-selection bias, it should also be noted that our samples had some restrictions. First of all, due to the broad empirical approach, our questionnaire data were quite heterogeneous. Consequently, it was difficult to make explicit comparisons between certain categories, such as countries. After all, some subsamples were quite small, whereas others were relatively big. Moreover, our research included a limited number of participants involved on a (semi-) professional level (except for our second study). Accordingly, it is difficult to draw strong conclusions from this group. In addition, some subsamples were quite small, which made it difficult to investigate certain subgroups in detail. In line with the restrictions of the data, our samples bear a restricted representativeness. Future research could, for example, try to use member panels of sport federations to counter self-selection bias and increase the representativeness.

Additionally, related to the fact that we studied a wide variety of sport actors, we used Moore et al.'s (2012) scale to measure moral disengagement in our third study. Consequently, a possible critique could be that we did not use a sport-specific measurement scale to examine moral disengagement, although there exists one for sport (i.e., the moral disengagement in sport scale, see Boardley & Kavussanu, 2007). However, Boardley and Kavussanu's (2007) moral disengagement in sport scale only includes athletes, which was way too narrow for our approach. Future quantitative

research should thus try to develop a general sport-specific moral disengagement scale for all sport actors. After all, the development and use of sport-specific measurement scales may help to provide a stronger contribution to sport management theory (Doherty, 2013).

Furthermore, some other inconsistencies could be identified regarding our lens of normalization. More specifically, while we discussed our findings through the lens of normalization, we did not actually measure the normalization processes. As our data were cross-sectional, we rather provided a snapshot of the reality which could be linked to the three pillars. However, as the normalization process is not something static, but dynamic, future research should try to examine the specific processes underlying match-fixing. Therefore, qualitative and longitudinal research may be more appropriate. Another limitation we could identify when discussing our results, was that we had the least supportive data for the socialization process. Although our second study used Ashforth and Anand's (2003) model in its entirety, and thus examined institutionalization, rationalization, and socialization mechanisms, no other individual study explicitly examined the socialization pillar. As such, this is a knowledge gap that future research could try to address. Lastly, we relied on the Council of Europe's (2014) broad definition of "manipulation of sports competitions," and consequently, it is not ideal to examine the specific practice of match-fixing. As other practices could also be included in the Council of Europe's (2014) definition, one could argue that the definition of match-fixing should first be refined in order to conduct further research into match-fixing.

4 FUTURE RESEARCH

Besides the specific avenues for future research that were briefly touched upon in the original research and the previous section, we would like to add some other possibilities for future research. The forthcoming overview is of course not exhaustive.

First, in line with our statement that "measuring (the prevalence of) match-fixing is an unfinished business," we argue that a large improvement area for both scholars and practitioners – ideally in collaboration – lies in measuring match-fixing. When it comes to the "detection" systems, for example, current monitoring systems are able to identify betting-related cases of match-fixing, but not sporting-related match-fixing cases. However, Duggan and Levitt (2002) and Jetter and Walker (2017) retrospectively analysed competition data to uncover the likelihood of sporting-related match-fixing in respectively sumo wrestling and tennis. Although Duggan and Levitt (2002) and Jetter and Walker (2017) analysed past competition data, we believe that real-time competition data could also enable us to detect sporting-related match-fixing cases. Future (experimental) research could try to rely on electronic performance and tracking systems, for example, to examine the relation between unusual changes in an athlete's movement behaviour and (sporting-related) match-fixing. To create and test such a match-fixing detection system, which covers both types of match-fixing, artificial intelligence could be an option (see e.g., Kim et al., 2023). Moreover, although some research states that match-fixing is now more common than in the past, there is currently no solid evidence to underpin this statement (Huggins, 2018; Moriconi, 2020). While it is clear that the digital era has expanded risks, future research should explicitly analyse whether and how the expansion of the online betting industry has changed and increased the occurrence of match-fixing.

To further address the empirical poverty in match-fixing research, we would like to advocate future studies to apply various research methods. Although we strongly believe in our exploratory approach, which was mainly based on quantitative questionnaire data, we acknowledge that the integration of other (multilevel) methods could be beneficial for a more complete view on match-fixing. After all, the qualitative research design of our second study largely enhanced the multilevel insights of this dissertation. Therefore, we would suggest future scholars to further increase the use of qualitative research methods. For example, similar to the study of Numerato (2016), researchers could use an ethnographic approach to provide extensive and in-depth findings about match-fixing in a specific culture. Given the long-lasting history of match-fixing, historical studies could also be valuable to identify, locate, and evaluate the historical background of match-fixing in a specific sport (Huggins, 2018, 2022). Moreover, given the lack of theoretical insights on match-fixing, grounded theory studies are also encouraged (Corbin & Strauss, 2015). In addition, mixed-methods case studies on match-fixing could form the ideal way forward, incorporating the strengths of qualitative and quantitative methods, while at the same time mitigating their weaknesses. For example, our qualitative research on match-fixing in road cycling could be complemented by quantitative research involving more and different internal and external stakeholders. Quantitative multilevel questionnaire data could be collected to enhance the insights about how the micro- (e.g., cyclists), meso- (e.g., teams), and macro-levels (e.g., UCI) behave within the culture of agreements. Furthermore, this could enable the researcher to perform regression analyses, for example, between the age of the cyclists and the propensity to behave more “cooperative” in certain situations, which could enhance the knowledge about the socialization process.

When it comes to the research scope, it would be interesting to continue examining match-fixing in other sports and countries. While most of the studies so far have mainly focused on football and tennis, other sports such as field hockey and darts also deserve further investigation. After all, allegations of match-fixing have also appeared in these sports (e.g., darts, see ACGCS, 2022; field hockey, see RTL Nieuws, 2022). Besides focusing on the traditional sports, it would be worthwhile to further explore match-fixing in the relatively new phenomenon of esports (Abarbanel & Johnson, 2019; Toomey, 2019). For example, researchers could try to verify whether the existing anti-match-fixing measures from traditional sports can also be applied in esports, given its peculiarities. Moreover, as our research happened within a Northern and Central European context, it would be useful to further expand the geographical scope. Additionally, while we mainly focused on internal stakeholders in sport, future research should also try to examine the role and perceptions of other (external) stakeholders (e.g., betting operators, law enforcement, governments, media, and sponsors) regarding match-fixing. When it comes to sponsors, for example, there is little research examining the impact of match-fixing on sport-sponsor and athlete-sponsor relationships (Chien et al., 2016; Gorse & Chadwick, 2010). However, it would be very interesting to know how sponsors react if it is reported that their star endorser has fixed the result of a match. Although Rebeggiani and Rebeggiani (2013) argued that a sponsor would withdraw its support when match-fixing is announced, Manoli et al. (2020) showed that even though sport is viewed as untrustworthy, people's propensity to participate in and spectate sport remains unchanged. Consequently, one could question whether a sponsor would instantly withdraw its support to the sport and/or athlete when match-fixing is denounced.

Given the lack of understanding of the mechanisms underlying match-fixing, future research is also encouraged to increase the theoretical perspectives on match-fixing.

Although we revealed the relation between moral disengagement and match-fixing, future research could further explore the psychological processes underlying match-fixing (Barkoukis & O'Shea, 2022). Inspiration could be drawn from other domains such as doping (e.g., the role of moral identity, see Kavussanu & Ring, 2017) and organizational psychology literature (e.g., the role of self-control, see Marcus & Schuler, 2004). Moreover, as we highlighted the shortcomings of the micro-level rational choice approach, additional multilevel theoretical perspectives are needed in which social, cultural, institutional and organizational conditions are taken into account (van Bottenburg, 2022a). For example, future research could examine various levels of social capital (i.e., at the micro-, meso-, and macro-level) in relation to match-fixing. Although our overarching (and multilevel) normalization perspective can also lead researchers into the right direction, more research is still needed to better understand the processes underlying normalization. Regarding the institutionalization process, for example, the impact of power differences could be further explored (Ashforth et al., 2008). In the same vein, the influence of ethical leadership in the institutionalization process also forms a potential avenue for future research (Constandt & Willem, 2019). Next to this, the role of public secrecies and the code of silence in sport could be further investigated (Moriconi & de Cima, 2020; Numerato, 2016). Future research could also further investigate the role of social capital in relation to match-fixing (Numerato & Baglioni, 2012; Tzeng & Lee, 2021). This could help to integrate the micro-, meso- and macro-level of analysis of match-fixing. Additionally, it would be interesting to further examine how a sporting structure and culture impact an individual's decision to engage in match-fixing. As such, emphasis could be placed on how young sport people are socialized into match-fixing and how this can be protected. Future research might also look deeper into the grey zone.

Furthermore, empirical evidence regarding the effectiveness of match-fixing countermeasures and policy measures is much needed. Crucially, we need research which investigates the effectiveness of initiatives at a variety of levels. At the level of the Group of Copenhagen and its national platforms, for example, researchers could rely on network governance theory to describe and understand how the problem of match-fixing is addressed by the actors involved (van Bottenburg, 2022b). After all, the national platforms have varying network forms, which may result in a varying effectiveness. At the level of the sport organizations, little is known about how formal (e.g., codes of ethics, regulations) and informal (e.g., leadership, organizational values) instruments impact or deter moral disengagement mechanisms in sport settings. Furthermore, at the individual level, there is a lack of knowledge on the effectiveness of education and awareness raising programmes.

5 PRACTICAL IMPLICATIONS

Our findings have important implications and suggestions to enhance the current fight against match-fixing. Although the recommendations mentioned below are not exhaustive, nor prescriptive of how the fight against match-fixing should move forward, we hope this work may (have) help(ed) to tackle the intractable problem of match-fixing. In what follows, we will first describe how our research met (and is still meeting) practice, and subsequently we will provide some additional practical suggestions on multiple levels of analysis.

5.1 Theory meets practice

During this PhD project, we were able to collaborate with practitioners at various levels. At an international level, the Council of Europe's Macolin Convention and its Group of Copenhagen supported the elaboration of our EPOSM project. This enabled us to present and discuss our research with practitioners at the highest policy level, and to respond to their needs. For example, based on the Council of Europe's interest in our first exploratory study and their request to geographically broaden the scope, we elaborated the third and fourth study of this dissertation. Moreover, by presenting and discussing our results during two EPOSM multiplier events in Lausanne, we were able to reach policy members of the IOC, NOCs, and other sport governing bodies (e.g., UEFA). As such, we can state that this dissertation also contributed to practice and that practitioners relied (and can still rely) on our findings and figures to further enhance the fight against match-fixing. Next to disseminating our research at a high international policy level, we also disseminated our findings at national levels. In some countries, such as Switzerland, this was the first time that the extent of match-fixing was explored. As such, our research also provides fertile ground for the (further) development and political justification of numerous national platforms. Moreover,

based on the findings of the EPOSM project, including study 3 and 4 of this dissertation, national action plans and 58 workshops were elaborated in various countries. As such, we also literally contributed to practice by providing workshops through the EPOSM project.

When we specifically focus on one national context, in our case Belgium, this PhD project started almost simultaneously with the unveiling of Operation Clean Hands in October 2018. Together with this major sporting-related match-fixing scandal, this PhD project raised and still raises awareness on match-fixing in Belgium (and Flanders). Under these impulses, some policy changes have been implemented (e.g., the inclusion of a “hard indicator” for combating match-fixing within the decree on the recognition and subsidization of the organized sport sector). A “hard indicator” means that sport federations must work on the prevention of match-fixing in order to qualify for subsidies. Furthermore, I was also invited by the Belgian national platform to present my research to their representatives (including representatives of various sport federations and the government), and my research informed and still informs ICES (Centre for Ethics in Sport), an organization funded by the Flemish government, which offer(s)(ed) trainings and workshops on match-fixing for various stakeholders in Flemish sport. In summary, our research has (had) an important influence on various levels, which has led to (and is still leading to) some practical applications.

5.2 Towards a multilevel counterapproach to match-fixing

Based on our (multilevel) findings, and the current discussion on who is actually responsible for match-fixing, we suggest that all levels (i.e., individual, organizational, and systematic) have their part in (preventing) match-fixing. However, as we mainly emphasized the responsibility of organizations and institutions, we suggest that first and foremost initiatives should be taken to restructure the social, cultural (meso-level)

and systematic (macro-level) context which create vulnerabilities that lead to match-fixing (Souvenir et al., 2023). To help reduce the culturally embedded nature of match-fixing and the development of rationalizations strategies within a sporting culture, a broad integrity management approach could be a solution (Robertson & Constandt, 2021). Integrity management within organizations could enhance the ethical climate in sport organizations, and install and promote values and norms that counter match-fixing (Constandt, 2019; Maesschalck & Vanden Auweele, 2010). Next to the importance of external controls and formal procedures (i.e., rules-based preventive measures) to combat ethical issues, sport ethics scholars also emphasized the importance of informal instruments (i.e., values-based measures) (Constandt, 2019; Jeurissen, 2004; Paine, 1994; Vanden Auweele, 2011). While the current match-fixing preventive narrative has mainly focused on rules-based, or in other words, compliance initiatives to counter match-fixing (Jones, 2013), we thus argue that more attention should be paid to the values-based approach of integrity management to prevent match-fixing. Next to rules-based measures such as the creation, implementation, and enforcement of effective ethical codes (De Waegeneer et al., 2017), more attention should also be paid to ethical leadership and organizational values (Constandt & Willem, 2019). Moreover, given the lack of awareness of match-fixing that was detected in our findings, awareness should be raised among sport organizations (and actors) that match-fixing can also occur in their sport, and therefore, cultural change is needed. More in practical terms, and related to the current situation in Flanders, I would also advocate for "rationalizations" (i.e., efficiency gains; one of the policy focuses of Sport Flanders) among sport clubs and federations. After all, the (Flemish) sport sector heavily relies on volunteers, which adds an additional challenge to the task of dealing with match-fixing. For example, "API's" (i.e., Aanspreekpersoon Integriteit in Dutch, or "point of contact for integrity issues" in English) are volunteers

in sport clubs and/or federations who currently mainly work on the topic of (sexual) transgressive behaviour. However, they could broaden their scope, and also work on other integrity issues, such as match-fixing. By broadening the function of the API, it would be possible to efficiently incorporate the fight against match-fixing more in the structures and processes of clubs and federations. Moreover, bundling the preventive initiatives against several ethical issues could also increase “the sense of urgency” and awareness among clubs and federations to do something about it.

Additionally, more systematic initiatives at the macro-level could also hinder match-fixing from becoming institutionalized and subsequently normalized. Tournament structures and competition formats, for example, should prevent the possibility of match-fixing (Caruso, 2009). After all, as shown by the 2012 badminton scandal at the London Olympic Games, a change in the competition format from a single elimination competition system to a combination of round robin play and knock out rounds, facilitated the occurrence of sporting-related match-fixing (Blair, 2018). Moreover, as indicated by the grey zone between tactics and fixing, sport governing bodies’ (disciplinary) rules should make a clear distinction between acceptable behaviour and misconduct (Vanwersch et al., forthcoming). As such, we highlight sport governing bodies’ responsibility to provide conceptual clarity and develop unambiguous rules. In line with the rules and regulations, we acknowledge that the criminalization of match-fixing and the associated legal sanctions are necessary, certainly when it comes to betting-related match-fixing. However, as our research mainly focused on sporting-related match-fixing, we also highlight the importance of (further improvement of) disciplinary sanctions. After all, sporting-related match-fixing is often considered only against the rules of certain sports and not always against the law (Van Rompuy, 2013; Vandercruysse et al., 2022). As such, disciplinary proceedings should continue to improve and the interaction with criminal law should further be optimized. For example,

the Group of Copenhagen and its national platforms should continue to elaborate a globally harmonized regulatory and disciplinary approach to combat match-fixing. Furthermore, in relation to the efficiency gains I mentioned before in the Flemish sport context, I would also suggest that “het Vlaams Sporttribunaal” (or “Flemish Sports Tribunal” in English), the overarching disciplinary body for doping and (sexual) transgressive behaviour, could also add match-fixing to it topics. In this way, one has not to “reinvent the wheel,” and this could again efficiently enhance the (disciplinary) approach against match-fixing.

Although large improvement areas lie at the meso- and macro-level, initiatives at the micro-level must also continue to develop. As indicated by our results, further effort needs to be put into raising (moral) awareness and guiding moral judgment regarding match-fixing. However, while current education programmes and awareness raising initiatives have mainly focused on betting-related match-fixing, our research advocates to intensify awareness raising on sporting-related match-fixing. After all, sport actors have to clearly stay away from the so-called “friendly gestures,” and therefore awareness raising and subsequent cultural change is needed. Regarding the Flemish sport context, for example, I would suggest that the “Vlaamse Trainersschool” (or in English the “Flemish Trainers School”) could also play a role in these education and awareness raising initiatives by providing a specific course on (dealing with) ethical issues, such as match-fixing. When it comes to betting-related match-fixing, our research suggested that other preventive measures are necessary, such as whistleblowing protection programmes. However, as the effectiveness of whistleblowing protection programmes has been questioned, we again highlight the responsibility of sport governing bodies to enhance the effectiveness and ensure whistle-blowers’ anonymity.

Furthermore, I would like to refer to the ongoing, ambitious, and multidisciplinary project, called “Prevention Of Fraud in Sports” (PrOFS), which uses scientific methods to develop and test practical tools (e.g., risk assessment, fraud in sport barometer, and crime proofing) and solutions (e.g., reforms of laws and regulations, moral education workshop, and tournament restructuring) in optimizing the detection, prevention, and sanctioning of fraud in sport. Particular focus is put on those types of fraud in sport (i.e., match-fixing, human trafficking, bribery, and financial and social fraud, including money laundering) that are most strongly present, yet lack an integrated counter approach. As such, the PrOFS project could be considered a follow-up to my PhD research and will provide more (multilevel) practical suggestions to combat fraud in sport, including match-fixing.

6 MATCH-FIXING, IS IT A NORMALIZED PHENOMENON?

To close this dissertation, I would like to reflect on the title and its question “match-fixing, a normalized phenomenon?”

Based on the overall discussion of my findings, in which I explain the link between a lack of (moral) awareness (and judgment) of match-fixing and the institutionalization process, I would argue that certain forms of sporting-related match-fixing seem to be more institutionalized, or at least appear to be easier to institutionalize, than betting-related match-fixing. Sporting-related match-fixing seems to be more common, accepted and is often enacted mindlessly. Additionally, sporting-related match-fixing also seems to be easier to rationalize and socialize, as people often do not consider it as corruption, but rather as tactics. Following this, I would argue that certain forms of sporting-related match-fixing seem to be more normalized in sport, or that certain forms of sporting-related match-fixing are at least more vulnerable to the normalization process than betting-related match-fixing. Nevertheless, betting-related match-fixing could also be vulnerable to the normalization process, as shown by other research (Marchetti et al., 2021; Tak et al., 2018).

However, as some forms of sporting-related behaviour are not considered match-fixing (e.g., see study 2), I acknowledge that the conclusion “match-fixing is a normalized phenomenon” would not be nuanced enough and too short-sighted. One could also argue that certain practices in road cycling, and other forms of (dubious) sporting-related behaviour in other sports, have long been normalized and since the growing emphasis on match-fixing, are now being problematized. As such, I acknowledge that the principle and framework of normalization does not apply to all forms of match-fixing. This discussion also relates to the conceptual vagueness that currently exists around match-fixing. After all, the current definition of the Council of

Europe (2014) is too broad to specifically describe match-fixing, and consequently, one could argue that before we could say that match-fixing is normalized, a clearer conceptualization of match-fixing is needed.

7 REFERENCES

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APPENDIX

CURRICULUM VITAE

Stef Van Der Hoeven

Experience

2018 – 2023	**PhD Researcher Team Sport Management** – Ghent University Faculty of Medicine and Health Sciences – Department of Movement and Sports Sciences Doctoral dissertation: "Match-fixing, a normalized phenomenon? Exploring, mapping, and understanding match-fixing in sport"
2020 – 2021	**Project Manager** – Erasmus+ Sport Project "Evidence-based Prevention Of Sporting-related Match-fixing" (EPOSM)
2017 – 2018	**Internship** – Basketball club Oostende non-payed internship of 360 hours in the daily management of a professional basketball club in the city of Ostend
2017	**Student Job** – Monitor sport youth camps municipality of Herzele
2016 – 2017	**Internship** – sport service of the city of Zottegem non-payed internship of 180 hours in the daily management of the sport service of the city of Zottegem
2015 – 2016	**Internship** – training / practical lessons to 1st bachelor students non-payed internship of 30 hours at the department of Movement and Sports Sciences of Ghent University as part of the course "Verdieping voetbal in de bewegings- en sportactiviteiten"

Education

2018 – 2023	**PhD in Health Sciences** – Ghent University (Belgium) Concentration: sport management Doctoral dissertation: "Match-fixing, a normalized phenomenon? Exploring, mapping, and understanding match-fixing in sport"
2016 – 2018	**Master** in Physical Education and Movement Sciences – Main Subject Sports Policy and Sports Management (Magna Cum Laude) – Ghent University
2013 – 2016	**Bachelor** in Physical Education and Movement Sciences (Magna Cum Laude) – Ghent University

Advanced Training

2018 – 2023 **Doctoral Training Program** – Doctoral Schools Ghent University

Transferable Skills
- Advanced Academic English Writing Skills (Communication skills)
- Communication Skills and Negotiation Skills (Leadership & Personal Efficiency)
- Project Management (Career Management)

Specialist Courses
- PhD Seminar 27th European Association for Sport Management Conference in Seville (Spain)
- Effective management of Erasmus+ Projects – course hosted and organised by the European University Foundation
- Introduction to Mediation, Moderation and Conditional Process Analysis – online course organised by The Haskayne School of Business of the University of Calgary (Canada)

2016 **VTS Diploma** – Basic rescuer

2016 **Basic Life Support / Automated External Defibrillator Provider**

Mobility

2022 **Visiting Research Fellow** – Utrecht University School of Governance (the Netherlands)

Funding and grants

2022 **Mobility Fund of the Faculty of Medicine and Health Sciences of Ghent University**
€1623,92 funding for a research stay abroad at Utrecht University (the Netherlands)

2019 **Erasmus+ Sport grant**
€358.425,86 co-funding from the Erasmus+ Programme of the European Union for the elaboration of the project “Evidence-based Prevention Of Sporting-related Match-fixing” (EPOSM)

Awards

2021 **Best Paper Award Runner Up** – European Academy of Management (EURAM)
Managing Sport Special Interest Group

Publications and presentations

International peer-reviewed journal articles

Van Der Hoeven, S., Constandt, B., Manoli, A. E., van Bottenburg, M., Caneppele, S., & Willem, A. (2022). Match-fixing in European sports: Attitudes and experiences. *Deviant Behavior*. Accepted pending minor revisions.

Van Der Hoeven, S., Constandt, B., Manoli, A. E., van Bottenburg, M., Caneppele, S., & Willem, A. (2022). Understanding how individuals engage in match-fixing: The role of moral disengagement. *European Sport Management Quarterly*. Accepted pending minor revisions.

Constandt, B., Rosiers, J., Moernaut, J., **Van Der Hoeven, S.**, & Willem, A. (2022). Part of the game? Exploring the prevalence and normalization of gambling in Belgian sports clubs. *International Journal of Environmental Research and Public Health*, *19*(11), 1–14.

Van Der Hoeven, S., Constandt, B., Schyvinck, C., Lagae, W., & Willem, A. (2022). The grey zone between tactics and manipulation: The normalization of match-fixing in road cycling. *International Review for the Sociology of Sport*, *57*(5), 798–817.

Van Der Hoeven, S., De Waegeneer, E., Constandt, B., & Willem, A. (2020). Match-fixing: Moral challenges for those involved. *Ethics & Behavior*, *30*(6), 425–443.

De Waegeneer, E., Constandt, B., **Van Der Hoeven, S.**, & Willem, A. (2019). Badminton players' moral intentions: A factorial survey study into personal and contextual determinants. *Frontiers in Psychology*, *10*, 1–9.

Book chapters

Van Der Hoeven, S., & Willem, A. (2022). Understanding match-fixing from a normalization perspective. In B. Constandt & A.E. Manoli (Eds.), *Understanding match-fixing in sport: Theory and practice* (pp. 67–77). Routledge.

International academic conference presentations – Oral sessions

Van Der Hoeven, S., Constandt, B., Willem, A., Manoli, A. E., van Bottenburg, M., & Caneppele, S. (2022, September 5-8). *A multi-stakeholder perspective on match-fixing*. 30th European Sport Management Conference (EASM 2022): Bridging Sport, Tourism & Leisure Management, Innsbruck, Austria.

Van Der Hoeven, S., Constandt, B., Willem, A., Manoli, A. E., van Bottenburg, M., & Caneppele, S. (2021, October 14). *How do people in sport facilitate their involvement in match-fixing? Exploring the role of moral disengagement*. 29th European Sport Management Conference: EASM 2021 Festival of Sport Management Research and Practice, Online.

Van Der Hoeven, S., Constandt, B., Schyvinck, C., Lagae, W., & Willem, A. (2021, June 16-18). *The grey zone between tactics and fixing: An explorative study of match-fixing in road cycling*. EURAM 2021: Reshaping capitalism for a sustainable world, Online.

Van Der Hoeven, S., Constandt, B., Lagae, W., & Willem, A. (2020, September 17-25). *The grey zone between strategy and fixing: An analysis of road cyclists' awareness of match-fixing*. 28th European Sport Management Virtual Conference (EASM 2020), Online.

Van Der Hoeven, S., De Waegeneer, E., Constandt, B., & Willem, A. (2019, September 18-21). *Match-fixing: moral challenges for those involved*. 19th Annual conference of the European Society of Criminology (EuroCrim 2019), Ghent, Belgium.

Van Der Hoeven, S., Constandt, B., & Willem, A. (2019, September 3-6). *Ethics management and the prevention of match-fixing: A study on the determinants of being approached to fix*. 27th European Association for Sport Management conference (EASM 2019): Connecting sport practice and science, Seville, Spain.

Invited presentations and lectures

Van Der Hoeven, S., & Souvenir, G. (2022, October 18). *Fraud in sports vs sports fraud: Deviance in sports*. Lectured within the sport sociology module for first bachelor students. LUNEX University, Luxembourg.

Van Der Hoeven, S. (2022, October 7). *Evidence-based Prevention Of Sporting-related Match-fixing*. Presented at the general assembly of the Belgian national platform. Belgian Cycling, Belgium.

Van Der Hoeven, S. (2022, May 25). *Evidence-based Prevention Of Sporting-related Match-fixing*. Presented at the Mulier Instituut, the Netherlands.

Van Der Hoeven, S. (2022, April 14). *Fixing the match: The prevalence, moral challenges, and normalization of match-fixing*. Lectured during the "Fixing the Match" short lecture series of Studium Generale Tilburg. Tilburg University, the Netherlands.

Press references

Van Baelen, J. (2021, September 1). Worden profkoersen nog verkocht? [Are professional cycling races still being sold?]. *Knack*, pp. 98–101.

Redactie Knack (2021, May 4). Schone sport, wat is dat? [Beautiful sport, what is that?]. *Knack*, p. 81.

Schepers, A., & Mertens, R. (2021, March 31). Bijna één of de vijf sporters al geconfronteerd met matchfixing [Nearly one in five people in sports have already been confronted with match-fixing]. *Het Belang van Limburg*, p. s6.

Schepers, A., & Mertens, R. (2021, March 30). Bijna één of de vijf sporters al geconfronteerd met matchfixing [Nearly one in five people in sports have already been confronted with match-fixing]. Gazet van Antwerpen, Online.

Teaching experience

Lectures in a course at Ghent University
Lecture on “Match-fixing in sport” in the strategic sport management course (2nd Masters)

Master thesis and minor research guidance – 2018-2023
Master thesis: 1
Minor: 2

Professional service and professional memberships

Commitments at the university department
Member of the department council of Movement and Sports Sciences

Professional membership
European Association for Sport Management (EASM)
European Academy of Management (EURAM)

Administrative support
EPOSM overall coordination
Website maintenance EPOSM (www.eposm.net)

Languages and software skills

Languages:
Dutch: mother tongue
English: very good
French: good

Software:
Microsoft Office (Word, Excel, PowerPoint): very good
SPSS: very good
Nvivo: good