Exploring Prosocial and Antisocial Behaviour in Sports and Household

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Abstract

Little is known about how morality is reflected from sports toward the household context. This study aims to investigate how morality as in prosocial and antisocial behaviours of athletes in contact team sports is reflected into the household context and the role of Gender.

17 Dutch university students between 18-27 years old completed two questionnaires assessing prosocial and antisocial behaviour in sports and in the household context,

The newly developed measure, Prosocial and Antisocial Behaviour in Household Scale, PABHS, shows excellent reliability results. Pearson's correlation was applied between the continuous variables of the study and showed almost no significant predictors of the prosocial behaviour household (P-h) neither of antisocial behaviour (A-h). In line with the literature, mean scores of frequency in P-h are significantly smaller than for prosocial behaviour teammates (PT-s). No moderating or mediating role for Gender has been found.

The new measure PABHS shows to be a reliable tool for futher research aimed at development of targeted interventions and programs aimed at promoting moral development within both sports and family contexts.

Introduction

From soccer player Zlatan Ibarhimovic' having a short temper on the field to AS Roma coach José Mourinho's verbal outburst to referee Anthony Taylor, the world of sports has been no stranger to moral dilemmas and ethical debates. But what about the moral behaviour of athletes off the field or court, like the soccer player Quincy Promes stabbing his cousin at a family party? Do gender roles and expectations shape the moral decisions of female and male athletes in both sport and household settings? This article delves into the complex interplay between morality, gender, and athletic performance, exploring how athletes navigate the often-conflicting demands of competition, family, and social responsibility.

Different fields, such as philosophy, psychology, sociology, and anthropology, have offered different definitions of morality based on their respective methods and assumptions.

However, there are some common elements that are often included in the definition of morality across different disciplines. Morality typically involves distinguishing between right and wrong, good and bad, just and unjust, and fair and unfair actions and behaviours. Psychology is one of the disciplines that has significantly contributed to the understanding of morality, particularly through the study of moral development and decision-making. In psychology, the definition of morality often emphasizes the cognitive, such as reasoning, problem-solving, and decision-making, and emotional processes involved in moral reasoning and behaviour (Haidt, 2001). Emotions like frustration, guilt, shame, and compassion can influence how we perceive moral situations and guide our moral choices.

Researchers have extensively examined the moral behaviours displayed by athletes in sport, shedding light on their prosocial and antisocial tendencies (Boardley & Kavussanu, 2009; Boardley & Kavussanu, 2010; Bruner et al., 2014; Hodge & Gucciardi, 2015; Kavussanu & Boardley, 2009; Kavussanu et al., 2006; Kavussanu et al., 2015; Rutten et al., 2011). By delving into these behavioural aspects, deeper insights are gained into how athletes embody and navigate the abstract principles of morality, taking the circumstances into account, within the realm of sports. Prosocial and antisocial behaviours are two aspects of "morality" (Bandura, 1999). These behaviours can be seen as manifestations of moral choices and judgments within a social context. Prosocial behaviour is characterized by the protection of others' interests (Pursell et al., 2008) and defined as voluntary acts that benefit or help individuals or groups (Eisenberg & Fabes, 1998; Eisenberg et al., 2006a). For instance, helping an injured opponent is an example of prosocial behaviour in sport (Bruner et al., 2014). On the other hand, antisocial behaviours are actions that cause harm or disadvantage to others, such as physically threatening or intimidating an opponent (Sage et al., 2006). It is important to note that while prosocial behaviours are generally regarded as morally desirable,

the categorization of specific behaviours as prosocial or antisocial can be context-dependent and subject to cultural and societal norms.

Several studies in the literature have suggested that males exhibit more antisocial behaviour than females in the sports (Kavussanu, 2007, 2012; Kavussanu et al., 2013; Kavussanu et al., 2015; Shields et al., 2018). However, Stone (2008) conducted a study with university students and found that females had higher levels of antisocial personality traits than males. Regarding prosocial and antisocial behaviours in sports, Al-Yaaribi et al. (2016) found that male basketball players reported higher antisocial teammate behaviour (e.g., being argued at or physically threatened) than their female counterparts. Similarly, Yildiz et al. (2015) discovered that male athletes scored higher on prosocial teammate behaviours than females. Pursell et al. (2008) found that in both males and females, prosocial behaviour was negatively associated with aggression, and that moral identity did not differ between genders. The study suggests that moral identity, which reflects the importance of morality in one's self-concept, does not vary significantly between males and females. Therefore, it implies that moral considerations and the potential for prosocial or antisocial behaviour are not inherently gender-specific in the sports domain.

Theoretical Framework

One influential theory of moral development is the social learning theory (Bandura & Walters, 1977), which suggests that moral behaviour is learned through observation, imitation, and reinforcement. This theory posits that children learn social behaviours, norms, and values primarily from their parents and siblings, like sharing toys, snacks, or other belongings (Eisenberg & Mussen, 2003; Smetana, 2015); secondarily from teachers and peers, like being accepting and inclusive of others (Murray & Greenberg, 2000); and tertiarily from other social influences, like sports and cultural activities (Eisenberg et al., 2006b). As athletes get more involved in their sport, coaches gradually become their primary source of

moral sports behaviours. Moral sports behaviours can be both positive or prosocial, like valuing effort and hard working over winning at all costs, and negative or antisocial, like verbally abuse or physically assault toward opponents, teammates, and officials (Kavussanu et al., 2013; Kavussanu & Roberts, 2001; Shields & Bredemeier, 1995). These behaviours are linked to the two dimensions of morality (Al-Yaaribi et al., 2016; Kavussanu et al., 2006).

There are “orthogonal” domains that characterize moral thinking in addition to the three domains mentioned above. People acquire diverse sets of norms and values for various domains through their interactions with family, friends, and cultural organizations during their socialization process (Turiel, 1983). The moral domain encompasses matters pertaining to justice, rights, and human welfare, such as stealing or injuring others. Social norms and conventions, such as collaboration, fair play, leadership and communication, are dealt with in the socio-conventional domain. The personal domain, at the very least, deals with aspects of independence and individual preference, such as hairstyle or choice of friends (Van de Vondervoort & Hamlin, 2017). Children typically consider moral offenses, such as assaulting another child, to be more severe and punishable than violations of private sphere. This difference is formed because the activities are classified as prohibited regardless of laws or authority decrees, not just because they are forbidden but also because they have an adverse effect on the rights and welfare of others. Children are aware of the value of social norms in sustaining social order, but they do not often view transgressions of these standards as morally wrong. Traditions in society are only bad if laws or authorities declare them to be so; their acceptability depends on the circumstances. Children generally perceive violations of personal choice as a matter of taste rather than as wrong or deserving of punishment since they are still developing their understanding of others' rights to make their own decisions in the private sphere (Smetana et al., 2012). Even very young children are able to distinguish

between moral and social-conventional issues (Smetana, 1989; Smetana et al., 2012), and with time, they gain more sophisticated judgments regarding these domains.

Individuals may have different moral intuitions and beliefs depending on the context, but these moral frameworks are not necessarily contradictory or incompatible. Instead, when individuals engage in various circumstances, these moral frameworks are viewed as distinct and "bracketed" or left aside. (Bredemeier & Shields, 1986a, 1986b; Kavussanu & Ring, 2016; Shweder, 1991). To be able to navigate and interact more effectively with different contexts, people adapt their moral standards and beliefs to fit different social contexts.

In one study, Kavussanu and colleagues (2013) investigated the relationship between athletes' views on the appropriateness of aggression in sports and their moral thinking and conduct in both sports-related and non-sports-related circumstances. The findings revealed that aggressive behaviour was more likely to be displayed in that setting, but not outside of sports, by athletes who thought that aggressive behaviour was more acceptable in sports. According to the study, athletes can isolate violent behaviour in sports from other aspects of their lives and may base their moral judgments on the expectations of the athletic environment. The effect of situational circumstances on athletes' violent behaviour in sports was the focus of another study (Kavussanu et al., 2007). The findings demonstrated that athletes were more prone to respond aggressively in reaction to situational elements including perceived unfairness, annoyance, and provocation, and that the rules of the athletic environment could exaggerate these elements. The study implies that athletes may participate in bracketed morality, where they defend violent behaviour as essential and appropriate in the context of the game, even if it violates with their moral norms in everyday life. Additionally, the connection of athletes with their team may also affect their moral behaviour (Brown & Cushion, 2013).

Morality can be bracketed due to different contexts (sport vs household), but is also a function of the recipient (teammate vs. opponent). Several contrasting prosocial and antisocial behaviours between opponents and teammates were noted by Kavussanu and Boardley (2009). Based on Bandura's Social Learning Theory (Bandura, 1991a), they developed the Prosocial and Antisocial Sport Scale (PABSS), a questionnaire containing four subscales, for measuring these two behaviours toward teammates and toward opponents. Over the past 10 years, the PABSS has been employed in several research. The association between the two sets of behaviours was recently addressed by a meta-analysis of some of this research (Graupensperger et al., 2018). According to these data, the two antisocial behaviours resemble one another more than the two prosocial behaviours do, which are more different from one another. In other studies, relatively weak correlations between prosocial and antisocial behaviours have been found (Kavussanu & Boardley, 2009), suggesting that these behaviours are largely unrelated to one another and that one can behave in both prosocial and antisocial ways toward both teammates and opponents.

Research has shown that morality developed in the parental and school domains can transfer to the sports domain (Hodge & Lonsdale, 2011; Kavussanu & Boardley, 2009). For instance, parents who teach their children the importance of fairness and respect in daily life can also influence their moral behaviour on the field (Shields & Bredemeier, 1995). Similarly, schools that prioritize character development and social responsibility may see an increase in prosocial behaviour in sports (Lerner et al., 2005). The morality will be adapted to the context and is different for males and females (Gould & Carson, 2008; Kavussanu et al., 2013). The existing research has predominantly focused on how external factors, such as parents and schools, shape moral behaviour in sports. But sport is not an isolated domain, and ethical issues within sport often intersect with issues outside sports. However, there is much less knowledge about the transference of morality from sports to the household setting (Gould &

Carson, 2008). This gap highlights the need for further research to explore the potential transfer of moral values and behaviours between sports and the household context. Research findings in this area can inform the development of targeted interventions and programs aimed at promoting moral development within both sports and family contexts. Strategies and practices can be implemented to maximize the positive transfer of moral values between sports and the household, benefiting individuals, families, and communities.

When competing in various athletic situations, athletes appear to "bracket" their moral convictions. But, according to some studies (Šukys & Jansonienė, 2012; Tsai et al., 2014), bracketed morality in athletes may be driven by gender. In both team and individual sports, male college athletes were more prone than female athletes to engage in justification of immoral behaviour. Additionally, male athletes may be more prone than female athletes to bracketed morality in sports. Gender role socialization may play a role. Women are often socialized to be more cooperative and caring, whereas males are frequently socialized to be more competitive and aggressive in sports and view athletics as a separate domain from everyday life (Kavussanu et al., 2017; Shields et al., 2008; Trudel & Gilbert, 2006). Because the particular elements that lead to these disparities vary depending on the situation and the sport in question, it is crucial to emphasize that the study on gender variations in bracketed morality in athletes is not consistent across all studies. Overall, these examples imply that male and female athletes may have various moral frameworks depending on the context of their activity, and that these frameworks may differ from their moral beliefs and actions outside the sports context.

The Current Study

Extensive research has been conducted on the development and reasoning of morality, the fact that morality can be bracketed, the bracketed morality in the daily life and sports, and the differences between male and female. Also the relation of moral behaviour from the

household setting to sports has been extensively studied. However, the research on the inversed relation of moral behaviour, i.e. from sports to the household setting, is limited. This study primarily aims to investigate the impact of gender differences and how morality as in prosocial and antisocial behaviours of athletes in contact team sports is reflected into the household context. Contact team sports are chosen there moral dilemmas may occur more easily since athletes come into physical contact with teammates and opponents during play. Based on the above highlighted literature and theories it was hypothesized that:

H1: Male athletes exhibit more antisocial behaviour in the household context compared to the sports context.

H2: Male athletes exhibit less prosocial behaviour in the household context compared to the sports context.

H3: The relationship between the prosocial behaviour in the sports context and the prosocial behaviour in the household context is negatively influenced by the gender of the athlete.

H4: The relationship between the antisocial behaviour in the sports context and the antisocial behaviour in the household context is negatively influenced by the gender of the athlete.

H5: The relationship between prosocial behaviour in sports and prosocial behaviour in the household context is different for men and women.

H6: The relationship between antisocial behaviour in sports and antisocial behaviour in the household context is different for men and women.

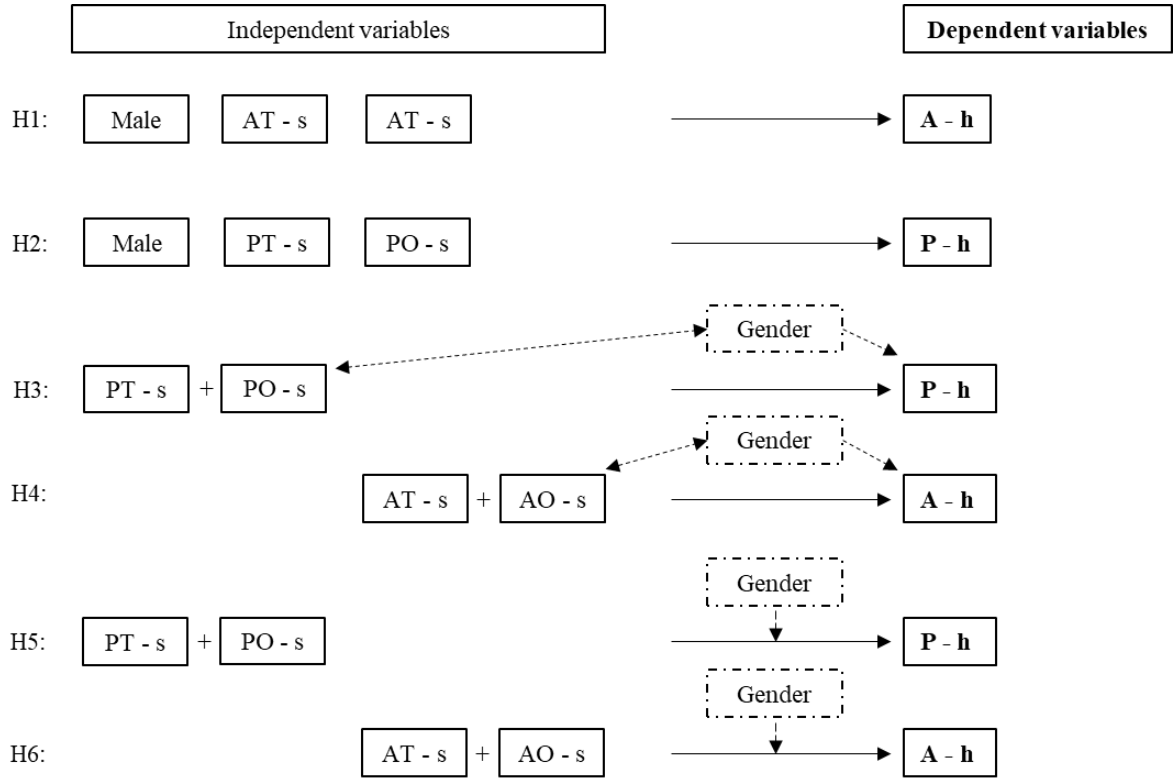
Method

Design

This quantitative study employed a twofold self-administered questionnaire within-subject design to present data of 18-35 year athletes' moral behaviour in sporting contexts to their moral reasoning in household contexts. Two surveys were used in this study, the Prosocial and Antisocial Behaviour in Sport Scale (PABSS) and a for this research adapted version, the Prosocial and Antisocial Behaviour in Household Scale (PABHS) (see appendix 1). For the sports context (PABSS), moral behaviour is expressed in antisocial behaviour toward teammates (AT-s), antisocial behaviour toward opponents (AO-s) and prosocial behaviour toward teammates (PT-s) and toward opponents (PO-s) of team sport athletes. For this study, these are the independent variables. For the household context, moral behaviour is expressed in antisocial behaviour (A-h) and prosocial behaviour (P-h). These are the dependent variables. It was hypothesized the variable Gender might influence the results by functioning as a mediator or moderator. To be able to investigate the relation between the participants' PT-s and PO-s and AT-s and AO-s in sport and their household context P-h and A-h behaviour a within-subject design is chosen. The usage of the same group of participants for both surveys allows control for individual differences between participants that could potentially affect the results. The overall conceptual model is laid-out in figure 1.

Figure 1

The Conceptual Models Being Tested



Participants

A convenience sample of Dutch University student team sport players (range = 18-27 y, PABSS: female (*N* = 8 (32%), M_{age} = 22, *SD* = 2.61; male (*N* = 17(68%), M_{age} = 22, SD = 2.59; PABHS: female (*N* = 5 (29%), M_{age} = 21, *SD* = 1.71 ; male (*N* = 12 (71%), M_{age} = 22, *SD* = 2.41) currently active in their respective sports was obtained.

To be able to test the hypotheses with 80% power, detecting medium effect, with a significance level of .05, *N* = 55 as minimal sample size for multiple linear regression was determined using G*Power version 3.1.9.7 (Faul et al., 2007). Assuming a 10% rate of incomplete and therefore unusable questionnaires, the researcher estimated that 61 participants should be included in this study. Of the more than 100 sport associations that were emailed, 2 boards forwarded the invitation e-mail to their members. Other participants

were recruited via the University of Twente Sona system to participate in this study or recruited verbally by the researcher during a sport training on the sport fields at the University of Twente. The obtained sample size of $N = 17$ is inadequate to test the study hypothesis with confidence.

For the PABSS survey, participants' year of study varied from propaedeutic year till second year (obtaining Master's degree - two-year programme), all studying at Dutch universities (Erasmus University: Erasmus School of History, Culture and Communication, $N = 4\%$; Tilburg University: Tilburg School of Economics and Management, $N = 4\%$, University of Twente: Advanced Technology, $N = 4\%$, Applied Mathematics, $N = 4\%$, Business Information Technology, $N = 4\%$, Chemical Science & Engineering $N = 4\%$, Civil Engineering & Management $N = 12\%$, Communication Science, $N = 20\%$, Computer Science, $N = 8\%$ Creative technology, $N = 4\%$, Mechanical Engineering, $N = 4\%$, Psychology, $N = 24\%$, University College Twente (ATLAS), $N = 4\%$).

For the PABHS, participants' year of study varied from propaedeutic year till second year (obtaining Master's degree - two-year programme), all studying at Dutch universities (Tilburg University: Tilburg School of Economics and Management, $N = 5.56\%$; University of Twente: Advanced Technology, $N = 5.56\%$; Applied Mathematics, $N = 5.56\%$, Business Information Technology, $N = 5.56\%$, Civil Engineering & Management, $N = 11.11\%$, Communication Science, $N = 27.78\%$, Computer Science, $N = 11.11\%$, Creative technology, $N = 5.56\%$, Psychology, $N = 22.22\%$).

The data collected concerning Education program, Education level, and Type of Sport has not been taken into account due to too small subgroups for any further analysis more than descriptive statistics. Additionally, this information is beyond the scope of the defined hypotheses.

Procedure

The informed consent process was approved by Ethics approval for the present study was obtained from the ethics committee BMS of the UT (request number: 230283, see attachment 1) on April 4, 2023.

Data were collected within a period of three weeks. Sport associations, student associations and study associations of all Dutch Universities[1] were identified by the researcher via the internet. Participants were actively recruited by the researcher during their sport training through paper flyers with a QR code linking directly to the PABSS survey online via the Qualtrics survey platform. Also, respective board members of sport associations competing at different levels and competitions and university study associations distributed the online flyer with a QR-code to access the PABSS survey online via email, social media and WhatsApp groups. This researcher's email with the flyer attached contained study information like the purpose, procedure, and the request to participate in this survey. If no response within seven days a reminder email was send by the researcher to the board members again asking for their cooperation in recruiting participants among their members for this study. Participants were screened for inclusion criteria (active member of a team sport provided by the university, student at the university). Participants filled in the surveys when it suited them.

Data were collected online via the Qualtrics survey platform. Participants entered this platform via the link in an email or the flyer. First, a cover letter (see appendix 2) was presented including a detailed description of the study, its purpose, procedures, instructions,

[1] University of Amsterdam, VU University Amsterdam, University of Groningen, Leiden University, Maastricht University, Radboud University Nijmegen, Erasmus University Rotterdam, Tilburg University, Utrecht University, Delft University of Technology, Eindhoven University of Technology, University of Twente, and Wageningen University and Research Centre.

and the guarantying the survey will be kept anonymous. Participation in the study was voluntary, and participants had the right to withdraw at any time without penalty. No compensation in any form whatsoever for participating in the study was granted. Than, the informed consent form (see appendix 2) was presented to participants. Next, the PABSS questionnaire of 20 closed items was presented followed by two open questions (see appendix 1) and demographic information regarding current practised team sport, age, gender, education program, education level and email address to receive the notification about the PABSS survey. They were asked to answer each question by selecting the statement which best applied to them, selecting one statement only. The participants were asked to refer to the extra-curricular sport they participated in the current season when reporting their sport behaviours. The questions were programmed in such a manner that answering each question was forced to be able to finally submit the questionnaire. Finally, participants were informed they would receive 23 hours after submission of the PABSS this email containing an anonymous link to complete this second questionnaire (PABHS). This questionnaire was administered one day after the PABSS to include a washout period between the two surveys to minimize any carryover effects. The athletes finished taking the survey and were automatically redirected to the response summary page. Here the randomized ID was shown. This unique identifier had to be filled in in the second survey, the PABHS, to link the data from the second survey to the first survey, the PABSS. To increase participant response rate, up to three e-mails were sent to the participants not responding to the second email with the link to the PABHS survey asking for their participation in the rest of the study (Dillman et al., 2014).

The official language at the Dutch universities is English, hence, the PABSS and the PABHS were directly administrated to the participants (see appendix 1). Data were collected around three-quarters of the academic school year.

Internal consistency for the PABHS was evaluated with Cronbach's alpha coefficient and the Pearson correlation coefficient was used for correlations between scores. The influence of the various dimensions of prosocial and antisocial behaviour was tested using multiple linear regression analysis. A p-value of <.05 was considered as significant. Statistical significance of the standardized regression coefficient was determined by calculating a 95% confidence interval. Statistical analysis was performed with Microsoft Excel (Version 2304) and Rstudio (Rstudio Team, 2020) with multiple packages.

Materials

Two short questionnaires with Likert-scale among the team sport members were distributed to the participants to shed light on the proportion of morality between two contexts.

PABSS Survey

The Prosocial and Antisocial Behaviour in Sport Scale (PABSS) was designed to measure moral reasoning within a sporting context (Kavussanu & Boardley, 2009). The PABSS to assess the prosocial and antisocial behaviour in sport (Kavussanu & Boardley, 2009) contains 20 items that has four subscales measuring prosocial and antisocial behaviour toward teammates and opponents on a 5-point Likert scale: Prosocial behaviour toward teammates (4 items; e.g., "Encouraging a teammate"); Prosocial behaviour toward opponents (3 items; e.g., "Helped an injured opponent"; Antisocial behaviour toward teammates (5 items; e.g., "Criticised a teammate"; and Antisocial behaviour toward opponents (8 items; e.g., "Tried to wind up an opponent"). Participants were asked to report on a scale anchored by 1 (never) and 5 (very often) how often they engaged in that behaviour. The prompt of every question was: "Indicate how often you have engaged in each behaviour during this season (as of September 2022)". The mean scores per scale based on the number items per scale were calculated. The total composite PABSS-subscale score ranges 1 - 5. Higher scores

within each subscale represent a higher frequency of those behaviours. The mean of each subscale was calculated and used in all analyses.

Concerning the PABSS, alpha coefficients showed acceptable to good levels of internal consistency, and were .86 for antisocial opponent behaviour, .83 for antisocial teammate behaviour, and .74 for both prosocial teammate and prosocial opponent behaviour (Kavussanu & Boardley, 2009; Kavussanu et al., 2017). For this study, both prosocial behaviour in sport subscales (PT-s and PO-s) yielded a Cronbach's alpha of .76, whereas the antisocial behaviour subscales for this study resulted in a Cronbach's alpha of .79 (AT-s) and .80 (AO-s), indicating acceptable to good internal consistency, respectively.

In terms of validity, the PABSS questionnaire has been found to have good construct validity. Studies have found significant correlations between the PABSS questionnaire and other measures of similar constructs, such as sportsmanship and aggression (Boardley & Kavussanu, 2009). For example, in one study, the PABSS subscale measuring prosocial behaviour was significantly correlated with a measure of sportsmanship (r = .66), and the PABSS subscale measuring antisocial behaviour was significantly correlated with a measure of aggression (r = .52) (Boardley & Kavussanu, 2009).The PABSS questionnaire has been found to have good test-retest reliability. For example, in one study, the PABSS subscales had test-retest correlations ranging from .70 to .84 (Boardley & Kavussanu, 2009).

Open Questions

After having answered these 20 closed items two open questions were to be answered: "Which behaviour obtained in the sports context you also try to perform in the household setting?" and "Which behaviour would you like to develop in the sports context so you can improve this in the household setting too?" allowing additional research (see appendix 1).

PABHS Survey

The PABHS was to assess the prosocial and antisocial behaviour in the household context and was adapted from the PABSS by replacing the words “teammate” and “opponent’ by “housemate”. The PABHS contained 20 items, 2 subscales measuring prosocial and antisocial behaviour toward housemates: prosocial behaviour toward housemates (7 items; e.g., “Encouraging a housemate”); Antisocial behaviour toward housemates (13 items; e.g., “Criticised a housemate”, which players rated from 1 (never) to 5 (very often) on how often they had engaged in that behaviour (see appendix 1). The mean scores per scale based on the number items per scale were calculated. The total composite PABHS-subscale score ranges between 1 and 5. Higher scores within each subscale represent a higher frequency of those behaviours. The mean of each subscale was calculated and used in all analyses.

This adapted survey was tested prior to data collection to ensure its validity and reliability. A pilot study was conducted with a convenience sample of five individuals, comprising friends and family members, who provided feedback on the clarity, comprehensiveness, and duration of the survey.

The pilot study revealed two important language mistakes in the survey, which were promptly corrected before data collection. Additionally, three positive points were identified by the pilot study participants, including positive feedback on the survey flow and the time required to complete the surveys. Both survey data were collected using Qualtrics Research Suite online survey software.

The PABHS data was matched with the PABSS data using the Qualtrics Respondent ID. All data was downloaded into an Excel file and uploaded onto a password-protected computer. The findings were analysed in Excel and Rstudio to look for visual and statistical differences.

For the two PABHS subscales (P-h: 7 items, and A-h: 13 items) reliability analysis were within the excellent range ($\alpha = .94$ for both).

Results

Data Analysis

Of the 43 participants in the PABSS survey, 18 (42%) participants were excluded for not completing the survey. The remaining 25 participants formed the total convenient group for the PABSS. Solely PABSS analyses are based on these 25 participants.

Before the main statistical analyses, preliminary data screening was conducted to check for normality, missing values, and outliers for each variable. No missing data for each variable was replaced with the mean of the respective variable (Tabachnick & Fidell, 2001).

Validity PABHS

Confidence intervals is not applicable due to the low amount of data points (<30). A *t*-value instead of a *z*-score is used in order to account for the smaller sample size. Correlations between all variables are listed in table 1. There is a statistically significant moderate positive correlation between AT-s and the subscales AO-s ($r = .67$, $p < .01$). When the frequency of antisocial behaviour toward teammates increases also the frequency of antisocial behaviour toward opponents increases. Between P-h and AT-s a significant moderate negative correlation is found ($r = -.56$, $p < .05$) meaning when the frequency of prosocial behaviour toward housemates increases the frequency of antisocial behaviour toward teammates decreases. Further, findings suggest that there is no significant correlation between antisocial behaviour in the household context (A-h) and sport context. Using the Pearson correlation, no significant relationship was found between Gender and the scores on the PABSS and PABHS subscales.

Table 1

Pearson's Correlation Coefficients for Prosocial and Antisocial Behaviour in Sport and Household Context (N = 17)

Variables	n	M	SD	1	2	3	4	5	6	7	8
1. Gender – female	5			--							
2. Gender - male	12			--	--						
3. PT-s	17	3.97	.63	.03	-.03	--					
4. PO-s	17	2.48	1.09	-.07	.07	.25(.22)	--				
5. AT-s	17	1.80	.60	-.37	.37	.37(.07)	.30(.14)	--			
6. AO-s	17	1.66	.54	-.36	.36	.32(.12)	.29(.16)	.67(.00)***	--		
7. P-h	17	3.34	.65	.45	-.45	-.44(.08)	-.35(.17)	-.56(.02)*	-.23(.37)	--	
8. A-h	17	1.59	.54	-.01	.01	.23(.37)	.36(.16)	.10(.70)	.00(.99)	.23(.38)	--

Note. Possible range of scores: 1 to 5 for all variables. Alpha coefficients are presented in the diagonal.

*$p < .05$; **$p < .01$; ***$p < .001$.

Due to the low response rate the only feasible categorization was ‘Gender’. Any further categorization would have lead to insufficient amount of subsamples. Univariate descriptive statistics were generated for the PABSS subscales PT-s, PO-s, AT-s, AO-s and PABHS subscales P-h, and A-h. The scales’ mean scores are presented in the table 2.

Table 2

Summary Univariate Descriptive Statistics PABSS and PABHS (N = 17)

Variable	Gender	Mean	SD	Min	Max
PT-s					
	Female	4.12	.66	3.00	5.00
	Male	3.90	.63	3.00	5.00
PO-s					
	Female	2.12	.87	1.00	3.67
	Male	2.65	1.16	1.00	1.67
AT-s					
	Female	1.48	.48	1.00	2.20
	Male	1.95	.60	1.20	3.60
AO-s					
	Female	1.30	.26	1.00	1.88
	Male	1.83	.55	1.00	2.88
P-h					
	Female	3.77	.28	3.29	4.00
	Male	3.15	.68	1.86	4.14
A-h					
	Female	1.58	.48	1.00	2.15
	Male	1.60	.58	1.00	2.77

For the PABSS survey a paired *t*-test was performed to test whether the mean scores differ between female and male (see table 3). The mean PABSS subscale scores for female and male are not significantly different, except for the AO-s score ($t(23) = 2.58$, $p = .02$). The 95% confidence interval for the difference between the mean of the two groups ranges from .11 to 0.96. The mean subscale scores of the PABHS do not appear to be significantly different between the two groups.

Table 3

Paired T-tests Prosocial and Antisocial Behaviour in Sport and Household Context for Female and Male

Variables	Male (SD)	Female (SD)	T-value (df)	Sig.
PABSS				
PT-s	3.90(.63)	4.12(.66)	- .83(23)	.41
PO-s	2.65(1.16)	2.12(.87)	1.12(23)	.27
AT-s	1.95(.60)	1.48(.48)	1.97(23)	.06
AO-s	1.83(.55)	1.30(.26)	2.58(23)	.02*
PABHS				
P-h	3.15(.68)	3.77(.28)	-1.93(15)	.07
A-h	1.60(.58)	1.58(.48)	.04(15)	.97

*. Mean score difference is significant at the 0.05 level.

Hypotheses 1 and 2

To examine the moral behaviour levels in the household environment and sports environment, paired t-tests were conducted comparing the mean scores on A-h with the mean scores on AT-s and AO-s and P-h with the mean scores on PT-s and PO-s for female (see table 4) and male (see table 5) separately.

For female results show a significant difference in mean scores between PO-s and P-h. For all other mean subscale scores no significant differences have been found.

Table 4

Paired T-tests Prosocial and Antisocial Behaviour in Sport and Household Context for Female

	PT-s		PO-s		AT-s		AO-s	
Variable	T-value (df)	Sig.	T-value (df)	Sig.	T-value (df)	Sig.	T-value (df)	Sig.
P-h	-59(4)	.59	3.39(4)	.03*				
A-h					.52(4)	.63	-.73(4)	.50

*. Mean score difference is significant at the 0.05 level.

For male, results show a significant difference in mean scores between PT-s and P-h. For all other mean subscale scores no significant differences have been found.

Table 5

Paired T-tests Prosocial and Antisocial Behaviour in Sport and Household Context for Male

	PT-s		PO-s		AT-s		AO-s	
Variable	T-value (df)	Sig.	T-value (df)	Sig.	T-value (df)	Sig.	T-value (df)	Sig.
P-h	-2.24(11)	.05*	1.49(11)	.16	--	--	--	--
A-h	--	--	--	--	-1.01(11)	.33	-.72(11)	.48

*. Mean score difference is significant at the 0.05 level.

Hypotheses 3 through 6

A multiple linear regression was planned to predict the scores on the prosocial/antisocial behaviour in the household context (P-h/A-h) based on one or more PABSS subscale scores (PT-s, PO-s, AT-s, and/or AO-s) taking into account a male-female difference. There the Pearson's correlation test, as reported in Table 1, showed no significant correlation between the combination of variables no multiple linear regression analysis for this purpose has been done.

The current study tries to substantiate whether the relation between sports behaviour and household behaviour is mediated or moderated by gender. To test the third and fourth hypothesis, it is investigated whether gender is a moderator in the relation between athletes' pro- and/or antisocial behaviour in the household context and their pro- and/or antisocial behaviour in sports context. For the simple moderation analysis, PT-s and PO-s are the input variables, P-h is the outcome variable, Gender is the moderator. The interaction effects were not significant, $F(5, 11) = 1.847$, $p = .18$, indicating that there is no interaction effect for Gender. Since the regression coefficient (-

.266) for the interaction term PT-s*Gender is not significant at the alpha level .05 with a p-value=.61, there does not exist a significant moderation effect. In other words, the effect of prosocial behaviour toward teammates on the prosocial behaviour toward housemates does not depend on gender. Since the regression coefficient (-.204) for the interaction term PO-s*Gender is not significant at the alpha level .05 with a p-value = .55, there does not exist a significant moderation effect. In other words, the effect of prosocial behaviour toward opponents on the prosocial behaviour toward housemates does not depend on gender.

A similar analysis is done for the antisocial behaviour subscales in sport and household. The antisocial behaviour toward teammates (AT-s) and antisocial behaviour toward opponents (AO-s) are the input variables, antisocial behaviour in the household context is the outcome variable, gender is the moderator. The interaction effects were not significant, $F(5, 11) = .460$, $p = .80$, indicating that there is no interaction effect for Gender. Since the regression coefficient (-1.275) for the interaction term AT-s*Gender is not significant at the alpha level .05 with a p-value = .52, there does not exist a significant moderation effect. In other words, the effect of antisocial behaviour toward teammates on the antisocial behaviour toward housemates does not depend on gender. Since the regression coefficient (3.128) for the interaction term AO-s*Gender is not significant at the alpha level .05 with a p-value=.30, there does not exist a significant moderation effect. In other words, the effect of antisocial behaviour toward opponents on the antisocial behaviour toward housemates does not depend on gender.

Regarding hypotheses 5 and 6, the need for further analysis has been rendered void due to the fact no correlation has been found in this research between the subscales of both surveys.

Open Questions

The open question are of an explorative nature. Based on the data two categories could be distinguished: 1) behaviour regarding others (teammates or housemates) (Others); 2) behaviour regarding oneself (Personal). The first open question is: *"Which behaviour obtained in the sports context you also try to perform in the household setting?"* An example of an answer to question number 1 that fits the first mentioned category, Others, is: "Helping my housemates as I offer my teammates". The second category, Personal, can be illustrated with the following example answer: "Going for every ball". Results presented in Table 6 about the analysis of the first open question show the distribution of the frequency is almost equal concerning behaviour obtained in the sports context and also tried to perform in the household context.

Table 6

Statistics and Frequency Table Open Question 1

Which behaviour obtained in the sports context you also try to perform in the household setting?		
N	Valid	23
	Missing	2

Which behaviour obtained in the sports context you also try to perform in the household setting?				
	Category	Frequency	Percent	Cumulative Percent
Valid	Personal	11	47.83	47.83
	Others	12	72.17	100.00
	Total	23	100.00	

Similarly, the results of the second open question *"Which behaviour would you like to develop in the sports context so you can improve this in the household setting too?"* can be categorized in the same manner. An example of an answer to question number 2

that fits the second mentioned category, Personal, is: “Giving more constructive criticism in the sports as well as toward my housemates”. The first category, Others, cannot be illustrated with an example answer since no answer was provided that fits this category. Results presented in Table 7 about the analysis of the second open question show the distribution of the frequency is almost equal concerning behaviour obtained in the sports context and also tried to perform in the household context.

Table 7

Statistics and Frequency Table Open Question 2

Which behaviour would you like to develop in the sports context so you can improve this in the household setting too?		
N	Valid	16
	Missing	9

Which behaviour would you like to develop in the sports context so you can improve this in the household setting too?				
	Category	Frequency	Percent	Cumulative Percent
Valid	Personal	16	100.00	100.00
	Others	0	0.00	100.00
	Total	16	100.00	

Discussion

General

Consistent research has suggested that individuals tend to bracket their moral reasoning in sports issues compared to moral reasoning in everyday life dilemmas. The purpose of this study was to gain a better understanding of how the bracketed moral behaviour of the athlete in contact team sports is reflected into daily life situations, like in the household context, specifically the prosocial and antisocial behaviour and its dependency on Gender.

For the PABSS, only the determinative factor AT-s was significantly moderate positively correlated with AO-s as previous research stated. This association may indicate that

certain athletes are simply more antisocial in the sport context regardless of the target. But for the prosocial behaviour sets, these results challenge previous research about the PABSS. Athletes are expected to act in a prosocial manner toward both teammates and opponents in order to experience good emotions like pride and to typically refrain from acting in an antisocial manner in order to minimize feelings of guilt and shame (Bandura, 1991b). The current study does not support Bandura's social cognitive theory of moral thought and action. Bandura states athletes' prosocial and antisocial behavioural tendencies may be consistent between contexts regardless of the aim. Therefore from a scientific and intuitive perspective, between-person associations for congruent behavioural variables should show substantial correlations.

The idea that there is substantial inter-individual consistency in moral behaviour across situations, in particular for antisocial behaviour, is not supported by the current study. Only scores on a measure of PT-s were insignificantly low negatively correlated with scores on measures of P-h. Meaning people are, not significantly, slightly more prosocial in the household context than in sports. Additionally, P-h was significantly moderate negative correlated with one of the antisocial behaviour in sports subscale (AT-s). Meaning people more prosocial toward housemates act less frequent antisocial toward teammates. A reason why a correlation may be significant in one group but not the other may simply be due to a lack of statistical power.

Hypotheses 1 and 2

Regarding hypothesis 1, the antisocial behaviour mean scores for male in the household context (A-h) and sport context (AT-s and AO-s) show opposite results. This indicates male athletes exhibit less antisocial behaviour in the household context compared to the sports context. Therefor hypothesis 1 is rejected. According to the mean differences, the participants adjusted their conduct in response to the surrounding circumstances. These results

support the concept of bracketed morality. Context differences in antisocial housemate/sport behaviour were larger in males than females. In fact, female athletes exhibit more antisocial behaviour in the household context compared to the sports context. Males reported more frequent antisocial teammate and opponent behaviour than females with a significant difference for AO-s, but almost similar frequency in the household context for male and female. This may support the suggestion that male athletes may be more prone to bracketed morality in sports compared to female athletes as gender role socialization may play a role (Kavussanu et al., 2017; Shields et al., 2008; Šukys & Jansonienė, 2012; Trudel & Gilbert, 2006; Tsai et al., 2014). A reason why a correlation may be significant in one group but not the other may simply be due to a lack of statistical power.

Regarding hypothesis 2, the mean scores on prosocial behaviour of male in the household context (P-h) is significantly smaller than the prosocial behaviour toward teammates in sports (PT-s). Thus male behave more prosocial in the household than during sports. This is in line with hypothesis 2. It is even consistent across the two genders as well as with previous research (Kavussanu et al., 2013). Arguably, the social relationship between the athlete with teammates and housemates are similar. According to the Social Exchange Theory (Thibaut, 1959) everyone in a relation is searching for something that benefits the person. This principle ensures that teammates help each other and further assist. It is also important for a positive and productive "house culture" that housemates get along well with each other.

The mean scores on prosocial behaviour of male in the household context (P-h) is larger and not significant compared to the prosocial behaviour toward opponents in sports (PO-s). This result is not in line with hypothesis 2, but in line with a large body of work showing that people have prejudices toward others who do not share their group, such as their sporting rivals, which causes them to view and behave less favourably toward them (Hewstone et al., 2002; Kavussanu et al., 2013).

Context differences in prosocial housemate/teammate behaviour were affected by gender, such that they were larger for males than females. Females were more prosocial than males toward their housemates, and the two genders do differ in prosocial behaviour toward their teammates in sport. Despite the fact that these results are not significant, they are consistent with earlier studies that have demonstrated that female are more prosocial than male. It's possible that being a member of a team changes how men behave, making them more prosocial toward their colleagues and erasing the normal gender disparities in prosocial conduct seen in non-sport circumstances.

Similar to hypothesis 1, a reason why means between groups may be significant in study but not the other may simply be due to a lack of statistical power. Finally, hypothesis 2 can be partially accepted.

Hypotheses 3 through 6

Regarding hypotheses 3 and 4, two overarching conclusions can be drawn from the results. One, prosocial and antisocial behaviour in the sports context are not significantly related to the prosocial and antisocial behaviour in the household contexts, respectively. And two, prosocial and antisocial behaviour in the sports context versus the prosocial and antisocial behaviour household contexts are not significantly influenced by gender. Thus, hypotheses 3 and 4 can both be rejected based on these two conclusions.

Hypotheses 5 and 6 can both be rejected based on the Pearson's correlation showing no relationship between the PABSS and PABHS subscales.

In line with hypotheses 3 through 6, literature (Hodge & Lonsdale, 2011; Šukys & Jansonienė, 2012; Tsai et al., 2014) does indeed report on the fact that the relationship between prosocial and antisocial behaviour in the sports context versus the prosocial and antisocial behaviour in the household context is different for male

and female. However, no literature was found concerning the two contexts that supports mediation or moderation effects.

Open Questions

Two open questions were asked: question 1; *"Which behaviour obtained in the sports context you also try to perform in the household setting?"* and question 2; *"Which behaviour would you like to develop in the sports context so you can improve this in the household setting too?"*. The categorisation is based on 1) behaviour regarding others (teammates or housemates) (Others); and 2) behaviour regarding oneself (Personal). In which the first question resulted in almost 50-50 frequencies the second question only had answers related to the second category. From this can be concluded, for future research distinguishing between personal drivers and group oriented drivers should be taken into account.

Limitations

The current results should be considered with several limitations in mind. Tens of thousands of students play team sports across Dutch Universities. However, despite the many efforts, only a limited number of participants could be recruited for this study within the set timeframe. The number of participants in this study represent a very small sample of University team sport players, yielding a low statistical power, thus inducing difficulties to find significant relationships from the data.

The small sample for this study included disproportional diversity characteristics, like gender and variety of sports, when compared to the general population. A larger number of participants would have made it possible to more thoroughly investigate the causes of the inequalities between this and earlier research. With an expanded sample, the gender findings' discrepancy might also be further examined. Comparing gender differences in usually masculine sports and traditionally female sports might also be interesting. Due to increased

chances for women to play traditionally "masculine" sports, their acceptance of aggressiveness as it is viewed in "masculine" culture may change, which might have an impact on their moral reasoning.

Additionally, because all data is obtained by participant self-report, there is a greater chance of bias and variance in reports due to the subjective character of the constructs under investigation. In combination with the lack of prior research studies on the topic and the nonexistence of a valued measure a qualitative research could be more appropriate to answer the question whether there might be transference of moral behaviour from the sports context to the household context.

Potential limits are also shown by the ratio of participants who finished the surveys to those who just opened them once. About 70 items across every participant were included in this study, which may have taken more time from participants than they were prepared to give, leading to a high rate of incomplete responses. There is a need for future research based on designing a different method for gathering data. Perhaps modifying the teammate questions alone would have been sufficient to investigate prosocial and antisocial behaviour in the household context. This would have reduced the amount of time participants spend.

Future Research

For this study the measure PABHS was developed to study prosocial and antisocial behaviour in the household context. It has shown its value for the current research andfuture research given its high reliability and a high validity. Since the PABHS is a newly developed scale, it needs to be utilized in different settings for its continued validation. Further piloting this new measure by testing the original items from the PABSS measure and the new items with a set of participants and examining the correlation and size of difference could yield additional insight into the accuracy and validity of the tool.

In light of the current findings, the fact there is no existing literature about the transference of moral behaviour from sports to the household context future research is needed to explore this phenomenon. Further research should also verify the hypothesis about Gender as mediator or moderator when examining the relationship between athletes' prosocial and antisocial behaviour in the two contexts. The creation of focused treatments, counselling applications, and programs aimed at boosting moral development in both sporting and familial contexts might be guided by research findings in this field. The good moral values that are transferred between athletics and the home may be maximized, resulting in benefits for individuals, families, and communities.

In order to generalize the findings more studies are needed that assess the moral behaviours in the sports context and the household contexts beyond students. Like any laboratory research, experimental studies provide interesting findings and have high internal validity, but they fall short of properly capturing the real-world situation and dynamics that emerge in sport teams over time. There is a need for field research that use novel approaches in this area, such as quantitative studies and studies that measure athlete behaviour in sports and household under different circumstances of the match, e.g., winning or loosing.

Concluding Remarks

In closing, this study provides knowledge about the complex interplay between morality, gender, and athletic performance, exploring how athletes navigate the often-conflicting demands of competition, family, and social responsibility. There is no relationship found of antisocial behaviour and prosocial behaviour between sports and household context. In addition, no influence or dependency of gender could be shown. Assuming a greater statistical power with the same results, this study shows athletes who behave antisocial and/or prosocial on the field do not necessarily behave antisocial and/or prosocial behaviour in the household context, respectively.

Appendices

Appendix 1

Prosocial and Antisocial Behaviour in Sports Scale (PABSS), two open questions, and Prosocial and Antisocial Behaviour in Household Scale (PABHS).

Survey	Type of Behaviour	Subscale	Question:
PABSS	Prosocial against teammate	PT-s	Encouraged a teammate.
			Congratulated a teammate for good play.
			Gave positive feedback to a teammate.
			Gave constructive feedback to a teammate.
	Prosocial against opponent	PO-s	Helped an injured opponent.
			Asked to stop play when an opponent was injured.
			Helped an opponent off the floor.
	Antisocial against teammate	AT-s	Verbally abused a teammate.
			Swore at a teammate.
			Argued with a teammate.
			Criticized a teammate.
			Showed frustration at a teammate's poor play.
	Antisocial against opponent	AO-s	Tried to injure an opponent.
			Tried to wind up an opponent.
			Deliberately fouled an opponent.
			Intentionally distracted an opponent.
			Retaliated after a bad foul.
			Intentionally broke the rules of the game.
			Physically intimidated an opponent.
			Criticized an opponent.
Open questions			Which behaviour obtained in the sports context you also try to perform in the household setting?
			Which behaviour would you like to develop in the sports context so you can improve this in the household setting too?
PABSH	Prosocial against housemate	P-h	Encouraged a housemate
			Congratulated a housemate for something they did good
			Gave positive feedback to a housemate
			Gave constructive feedback to a housemate
			Helped an injured housemate
			Asked to stop the activity when an housemate was injured
			Helped an housemate by offering a helping hand
	Antisocial against housemate	A-h	Verbally abused a housemate
			Swore at a housemate
			Argued with a housemate

			Criticized a housemate Showed frustration at a housemate's poor behaviour Tried to wound an housemate
Survey	**Type of Behaviour**	**Subscale**	**Question:**
PABHS (continued)	Antisocial against housemate (continued)	A-h (continued)	Tried to wind up an housemate Deliberately fouled an housemate Intentionally distracted an housemate Retaliated a housemate after a bad foul Intentionally broke the house rules Physically intimidated a housemate Criticized a housemate

Appendix 2

Ethical approval by the UT.

UNIVERSITY OF TWENTE.

230283 REQUEST FOR ETHICAL REVIEW FACULTY BMS

Request nr: 230283

Researcher: Brinkhof, D.

Supervisor: Haandrikman, M.J.M.

Reviewer: Vries, P.W. de

Status: Approved by commission

Version: 2

1. START

A. TITLE AND CONTEXT OF THE RESEARCH PROJECT

1. What is the title of the research project? (max. 100 characters)

Moral behaviour in two different contexts

2. In which context will you conduct this research?

Bachelors Thesis

3. Date of the application

15-03-2023

5. Is this research project closely connected to a research project previously assessed by the BMS Ethics Committee?

No/Unknown

B. CONTACT INFORMATION

6. Contact information for the lead researcher

6a. Initials:

D.

6b. Surname:

Brinkhof

6c. Education/Department (if applicable):

B-PSY

6d. Staff or Student number:

2173298

6e. Email address:

d.brinkhof@student.utwente.nl

6f. Telephone number (during the research project):

6g. If additional researchers (students and/or staff) will be involved in carrying out this research,please name

them:
M. Haandrikman m.haadrikman@utwente.nl

6h. Have you completed a PhD degree?

No

7. Contact information for the BMS Supervisor

7a. Initials:

M.J.M.

7b. Surname:

Haandrikman

7c. Department:

BMS-PCRS

7d. Email address:

m.j.m.haandrikman@utwente.nl

7e. Telephone number (during the research project):

+31534896010

8. Is one of the ethics committee reviewers involved in your research? Note: not everyone is a reviewer.

No

C. RESEARCH PROJECT DESCRIPTION

9a. Please provide a brief description (150 words max.) of the background and aim(s) of your research project in non-expert language.

Moral behaviour is learned through observation, imitation, and reinforcement at home, at school, and in sport. Multiple aspect might influence moral behaviour in sport pro-socially but also anti- socially. The primary aim of the research is if obtained lower levelsof moral behaviour due to sport are back fired to daily life like towards housemates. The PABSS and a adopted version to make it suitable in the household context is offered to competition teamsportstudents at the University of Twente.

9b. Approximate starting date/end date of data collection:

Starting date: 2023-04-04

End date: 2023-05-29

9c. If applicable: indicate which external organization(s) has/have commissioned and/or provided funding for your research.

Commissioning organization(s):

Not applicable Funding organization(s):Not applicable

2. TYPE OF STUDY

Please select the type of study you plan to conduct:

I will be collecting new data from individuals acting as respondents, interviewees, participants or informants.

4. RESEARCH INVOLVING THE COLLECTION OF NEW DATA

A: RESEARCH POPULATION

20. Please provide a brief description of the intended research population(s):

All competitive teamsport students at the University of Twente.

21. How many individuals will be involved in your research?

100

22. Which characteristics must participants/sources possess in order to be included in your research?

Inclusion: Age: 18 - 35 Gender: male, female Member of a sport association related to the University of Twente. Member of a teamsportactive in a competition Student participating in one of the educational programs offered at the University of Twente. Exclusion: Those who will not answer all questions for whatever reason.

23. Does this research specifically target minors (<16 years), people with cognitive impairments, people under institutional care (e.g. hospitals, nursing homes, prisons), specific ethnic groups, people in another country or any other special group that may be more vulnerable than the general population?

No

24. Are you planning to recruit participants for your research through the BMS test subject pool, SONA

Yes

B. METHODS OF DATA COLLECTION

25. What is the best description of your research?

- (Online) survey research

26. Please prove a brief yet sufficiently detailed overview of activities, as you would in the Procedure section of your thesis or paper. Among other things, please provide information about the information given to your research population, the manipulations (if applicable), the measures you use (at construct level), etc. in a way that is understandable for a relative lay person.

The research population is composed out of Univerisity of Twente male and female students participating in team sports between 17 and 40 years old of all ethnicity. In order to gather data to test hypotheses
2 surveys will be administered: both questionnaires will be preceded by demographic questions (age, ethnicity, gender and precise teamsport). The first questionnaire (22 questions, 20 answers on a 5- point Likert scale, 2 open questions) is about behaviour dedicated tosport towards teammates and opponents (PABSS). To give an example: root of the question "Indicate how often you have engaged in each behaviour during this season (as of September 2022):" completed with "Encouraged a teammate" or "Helped an injured opponent" or "Verbally

abused a teammate" or "Tried to injure an opponent" or alike. The two open questions about behaviour learned in sports and practices in daily life in household context are: "Which behaviour obtained in the sports context you also try to perform in the household setting?" and "Which behaviour would you like to develop in the sports context so you can improve this in the household setting too?". The second questionnaire (20 questions, answers on a 5-point Likert scale) is adapted to household context. The root of the question is: "Indicate how often you have engaged in each behaviour during this academic year(as of September 2022):" completed with "Encouraged a housemate", or "Helped an injured housemate", or "Verbally abused a housemate", or "Tried to wound an housemate", or alike. The second questionnaire willbe administered 24 hours after the first questionnaire is finished.
The first questionnaire shall be precedes by the Informed Consent information as required by the UT. Both questionnaires are consideredto give insight into prosocial and antisocial behaviour in the two contexts.

How much time will each participant spend (mention the number of sessions/meetings in which they will participate and the time per session/meeting)?

2 questionnaires - each 15 minutes.

C: BURDEN AND RISKS OF PARTICIPATION

27. Please provide a brief description of these burdens and/or risks and how you plan to minimize them:

Any possible discomfort participation in the research project could because by being asked about certain behaviour that might be seen with anegative connotation. Ex. questions about harming a teammate or opponent in the past. This may result in discontinuing the research.
In the informed consent and the e-mail to each individual student iswritten that participation is voluntarily and discontinuation may beupon every reason without any clarification of reasons doing so.

28. Can the participants benefit from the research and/or their participation in any way?

Yes

Please Explain:

Participants may benefit from the research by the obtained finalresults.

29. Will the study expose the researcher to any risks (e.g. when collecting data in potentially dangerous environments or through dangerous activities, when dealing with sensitive or distressing topics, or when working in a setting that may pose ‘lone worker’ risks)?

No

D. INFORMED CONSENT

30. Will you inform potential research participants (and/or their legal repsentative(s), in case of non-competent participants) about the aims, activities, burdens and risks of the research before they decide

whether to take part in the research?

Yes

Briefly clarify how:

Via an information letter.

32. How will you obtain the voluntary, informed consent of the research participants (or their legal repsentatives in case of non-competent participants)?

Active online consent

33. Will you clearly inform research participants that they can withdraw from the research at any time without explanation/justification?

Yes

34. Are the research participants somehow dependent on or in a subordinate position to the researcher(s) (e.g. students or relatives)?

No

35. Will participants receive any rewards, incentives or payments for participating in the research?

- For student participants: Human research participant credits (if you use the SONA test subject pool)

36. In the interest of transparency, it is a good practice to inform participants about what will happen after their participation is completed. How will you inform participants about what will happen after their participation is concluded?

- Participants will receive the researcher's contact details, so that they can contact the researcher if they have questions/would like to know more.

E. CONFIDENTIALITY AND ANONYMITY

37. Does the data collected contain personal identifiable information that can be traced back to specific individuals/organizations?

No

39. Will you make use of audio or video recording?

No

5. DATA MANAGEMENT

- I have read the UT Data policy.
- I am aware of my responsibilities for the proper handling of data, regarding working with personal data, storage of data, sharing and presentation/publication of data.

6. OTHER POTENTIAL ETHICAL ISSUES/CONFLICTS OF INTEREST

40. Do you anticipate any other ethical issues/conflicts of interest in your research project that have not been previously noted in this application? Please state any issues and explain how you propose to deal with them. Additionally, if known indicate the purpose your results have (i.e. the results are used for e.g. policy, management, strategic or societal purposes).

No additional issues of interest in my research project.

7. ATTACHMENTS

E-mail Student - Finale versie.pdf, Informed Consent - Finaleversie.pdf

8. COMMENTS

Brinkhof, D. (04-04-2023 10:17):

Beste meneer De Vries, beste Peter,

Naar aanleiding van de feedback heb ik aanvullingen gegeven bij vraag 26. Hopelijk is het hiermee duidelijk.

Met vriendelijke groet,

Dorien Brinkhof

9. CONCLUSION

Status: Approved by commission

The BMS ethical committee / Domain Humanities & Social Sciences has assessed the ethical aspects of your research project. On the basis of the information you provided, the committee does not have any ethical concerns regarding this research project. It is your responsibility to ensure that the research is carried out in line with the information provided in the application you submitted for ethical review. If you make changes to the proposal that affect the approach to research on humans, you must resubmit the changed project or grant agreement to the ethical committee with these changes highlighted.

Moreover, novel ethical issues may emerge while carrying out your research. It is important that you re-consider and discuss the ethical aspects and implications of your research regularly, and that you proceedas a responsible scientist.

Finally, your research is subject to regulations such as the EU General Data Protection Regulation (GDPR), the Code of Conduct for the use of personal data in Scientific Research by VSNU (the Association of Universities in the Netherlands), further codes of conduct that are applicable in your field, and the obligation to report a security incident (data breach or otherwise) at the UT.

Attachment: E-mail Student - Finale versie.pdf

Dear Student,

You are being invited to participate in a study about judgment or consciousness in certain social situations like sports and daily life. For instance, you have the opportunity to bet on your own match. You make a considered choice: You know it is not allowed but you decide to do it. How does this behaviour affect on you, that is what I am interested in.

This research study is being conducted by Dorien Brinkhof, a Bachelor candidate in the Department of Psychology of Conflict, Risk and Safety (PCRS) at the University of Twente. All responses to the two surveys are confidential.

You will be asked to fill in two online surveys anonymously over a time period of at least 24 hours in between each survey. The amount of time required to complete each questionnaire is approximately ***10 minutes***.
The responses to the two surveys that you have anonymously filled in, will be stored confidentially. More information about this will be explained in the informed consent of this study when you click on the link of the survey. It is still possible to withdraw from participation at that point.
You are currently invited to the first online survey. At least 24 hours after the final question of the first questionnaire, you will receive a second questionnaire via e-mail which should be completed as soon as possible (but no later than 24 hours after receipt of the email with the second link).

If you wish to participate, please click on the link, and you will go directly to the questionnaire. ***Here is the link to the questionnaire:***
If you have any questions or concerns, please contact us (researcher: d.brinkhof@student.utwente.nl or supervisor: m.j.m.haandrikman@utwente.nl)

Thank you for your time and consideration!

Dorien Brinkhof Student
Psychology University of
Twente

Attachment: Informed Consent - Finale versie.pdf

Qualtrics Survey

CONSENT TO PARTICIPATE IN RESEARCH

The Comparison of Moral behaviour Within Two Contexts

You are asked to participate in a Bachelor dissertation research project conducted by Dorien Brinkhof, a Bachelor student in the Faculty Behavioural, Management, and Social Sciences at University of Twente. The supervisor for this project is Marleen Haandrikman, MSc, faculty member of the department Psychology of Conflict, Risk and Safety (PCRS) at University of Twente.

Purpose of the Study

The primary purpose of this study is to explore if there is a correlation between a club sport athlete's moral behaviour in sport situations and their moral behaviour in daily life situations. The results will be presented in a Bachelor dissertation and possibly submitted foracademic publication.

Procedures

When participating in this study, we ask you to respond how you feel at that particular moment via a written survey that contains questions related to morality in sport (first questionnaire) and in daily life situations (second questionnaire). **There are no right or wrong answers.** The survey is designed to be completed in approximately 10 minutes per survey.

Participation and Withdrawal

You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study. After having finished the second survey your participation in the study will be over.

Confidentiality

We will do everything we can to protect your privacy and confidentiality. As a safeguard to protect your privacy, we pseudonymize (key-code) your personal data. When the results of the research are published or discussed in conferences, no information will be included that would reveal your identity to secure confidentiality.
Data will be aggregated via the Qualtrics reporting function. The data will be stored for 12 months after data collection period. This to allow other researchers to check my research. Your research information will not be used or shared for future research studies. Your name and other information that can directly identify you will be stored securely and separately from the research information we collected from you. We will minimize any risks by password-protected storage of data.

Identification of Investigators

If you have any questions or concerns about the research, please feel free to contact the supervisor of this study, Miss Marleen Haandrikman (m.j.m.haandrikman@utwente.nl, +31534896010

Rights of Research Subjects
If you have any questions or concerns about your rights in this research study, please contactthe secretary of the ethical committee BMS/HSS ethicscommittee-bms@utwente.nl
or
+31534893399.

Clicking on the "agree to participate" option indicates that:

- ✓ You have read the above information
- ✓ You voluntarily agree to participate
- ✓ You are at least 18 years of age

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