An investigation into masculinity among competitive road cyclists

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Abstract: This article investigates masculinities among competitive male road cyclists. The resulting paper reports on a quantitative study, involving a self-report survey that was distributed to a male population of UK competitive road cyclists (n = 105). Results indicate that the sample more closely identify with an explicit notion of masculinity than seen in the general male population, and this finding was consistent across age groups. This study explores the importance of these findings through Inclusive Masculinity Theory, suggesting that competitive road cycling presents a cultural lag, relative to wider societal changes in masculinity. Implications for participation in the sport, risk-taking, and concussion, as well as sexual diversity support, are subsequently discussed.

Keywords: Road Cycling, Masculinity, Orthodox Masculinities, Inclusive Masculinity

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Introduction

Organised and competitive team sport has been understood as a domain in which male boys and adults affirm and exalt their masculinity (Adams, Anderson & McCormack 2010), with the function of meeting the demands of the culture and economy of the Industrial Era (Anderson & White, 2018). This has been achieved through socializing boys into physical violence, aggression, competitiveness, sexism, obedience to authority, willingness to sacrifice bodily health, default heterosexuality, and opposition to homosexuality (Bosson & Vandello 2011; Kimmel, 1994). Competitive sport was a social institution that offered a vehicle to instil these cultural desires for boys and men, producing what Anderson (2005) describes as an orthodox archetype of masculinity.

In the last few decades, however, a paradigm shift has occurred. A new generation of masculinity scholars have documented how athletes have significantly redefined their version of normative masculinity. Housed mostly in the disciplines of Sociology (e.g., Anderson 2009; McCormack 2012, 2014; Roberts 2020), the primary finding is that decreasing homophobia has had a positive impact on the promotion of more inclusive forms of masculinity. This has been theorized as Inclusive Masculinity Theory by Anderson (2009) and has been updated to address substantial developments and critiques occurring across the decade (Anderson & McCormack 2018, see also McCormack & Anderson 2014a, 2014b). Dominant frameworks for understanding the construction of masculinity have shifted from Sex Role Theory (Bem, 1974), to Connell's (1995) concept of hegemonic masculinity, and, more recently, to Anderson's Inclusive Masculinity Theory (2009). Borkowska (2018) thus describes the modern epoch of sociological research into masculinities as 'Andersonian.'

However, at the heart of Anderson's (2009) meso-level Inclusive Masculinity Theory is a micro-level, social-psychological phenomenon that he describes as homohysteria. Homohysteria is described as the fear of being thought gay through behaviour(s) that is/are typically considered gender atypical (McCormack & Anderson 2014). The concept only applies to cultures where it is salient that men cannot be gay, even if closeted, and where homosexuality is stigmatized. This cultural combination leads men into a form of masculinity threat, or overcompensation (Glick et al. 2007), where they fear the performance of behaviours not associated with masculinity will culturally signal homosexuality, thus compelling men to align their gendered performances with masculine stereotypes.

Anderson and McCormack (2018) argue that a culturally contextualized understanding of these variables can help explain linear shifts in nuances between male tactility and emotional intimacy. Male tactility can be

understood as including same-sex touch, such as hugging as a greeting and as a way of providing comfort and support (Anderson, McCormack & Lee 2012). The overall theory of Inclusive Masculinity is employed here because it accounts for other cultural sets that lead to varying levels of masculine adulation among men. In other words, as Vandello and Bosson et al. (2013, P.109) argued in their revised concept of precarious manhood:

> Moreover, the gay civil rights movement has brought greater visibility and acceptance to non-heterosexual persons, as well as broader definitions of manhood that reject the "compulsory heterosexuality" of the traditional male gender role (Anderson, 2009). This all suggests that cultural definitions of manhood may be in flux. How this shifting landscape will affect entrenched beliefs about manhood is an open question, however. Change may lead to a gradual rejection of the belief that manhood is precarious.

Within this theoretical apparatus, we can explain how declining homophobia, and the social promotion of gay and bisexual men toward equality with straight men (Anderson & McCormack 2016), has greatly impacted men and their performance of masculinity (Chvatik, Hardwicke & Anderson, 2022). This theoretical framework has had much utility in understanding progressive changes in sporting domains as applied to masculinity (See Adams, 2011; Anderson & Kian, 2012; Kian et al., 2015; Cashmore & Cleland, 2012).

Road Cycling and Masculinity

The masculine idolization of cycling goes back to the invention of the Rover Safety bicycle in 1885. It is widely understood to have been a pivotal moment in the first wave of feminism by offering women independence in transportation (Strange, 2002); yet men's response was to adopt more risky cycling practices (Mackintosh, 2005). For example, men contiuned using the far more dangerous, high wheel bicycle models (Penny Farthings), as opposed to the Rover Safety bicycle model increasingly being used by women and children, as a mode of transport and leisure pursuit (Norcliffe, 2006). Indeed, the most common injury involved riders being thrown over the handlebars from a height and landing headfirst. Termed 'headers,' these injuries were often fatal (Norcliffe, 2001). Norcliffe (2006) notes the choice of men to use this bike model over the safer Rover bicycle, and accepting the inherent risks, was an overt expression of 'cavalier masculinity,' allowing men to detach themselves from the increasingly feminised connotations of the safety bicycle.

The second technique used to masculinise the bicycle was the introduction of cycling as a sport, bringing in a competitive aspect to further separate cycling from the transport domain that was becoming increasingly popular with women. It is here we see the birth of the sport we recognise today (Mackintosh & Norcliffe, 2007). A subgroup formed at this time, labelled 'scorchers,' which consisted of fearless, young, male riders that took

'substantial risks to demonstrate their prowess' (Mackintosh & Norcliffe, 2007, P.161). It is suggested this sub-group was perhaps the early orchestrators of the 'badass' masculinity later seen in cycling (Mackintosh & Norcliffe, 2007).

The only identifiable study in the literature on competitive road cycling and masculinity comes from Powell and colleagues (2005) based on American males. Using a sample of 32 collegiate male cyclists, aged 20-26, researchers conclude the sample more strongly identified as masculine than the general population. Using the Bem Sex Role Inventory as the instrument, the sample was drawn from a cycling-related conference in the United States. The study's application to the contemporary study of masculinities is thus quite limited, as it was conducted on men who highly conform to the sport. It was also conducted around the time researchers began seeing a shift in team sport athletes from orthodox to inclusive forms of masculinity (Anderson 2009).

Since the Powell et al. (2005) study, mainstream youth culture has shifted in response to declining homophobia. For example, researchers find that behaviours once coded as feminine or gay, such as young, heterosexual men kissing in the UK, are now widely accepted or increasingly accepted social behaviours among heterosexual males in the UK (Anderson et al., 2012; Anderson, McCormack & Ripley 2018; Wignall et al 2019). These changes are apparent in the athletic domain, as well. Empirical research from across western sporting contexts has shown athletes to be increasingly emotionally open (Anderson & McCormack 2015; Robinson et al., 2017), physically tactile (White & Hobson, 2017), and, importantly, gay men are not as stigmatised or excluded in sport as previously seen (Anderson, Magrath & Bullingham, 2016). For example, recent research from White et al. (2021) highlights the positive experiences of LGBT+ athletes coming out and the changing landscape of LGBT+ inclusivity in sport.

However, much of the literature is predicated on organised team sports, such as Rugby and Football. Anderson (2009) has described these sports as primary domains for studying shifts in masculinity because they have been theorized to be social locations of men steeped in orthodox understandings of gender. To date, only two studies have examined inclusive masculinity among individual sport athletes in modern times: one on American high school runners (Morales & Caffyn-Parson, 2017) and one on high school wrestlers (Michael, 2013); both report findings consistent with Inclusive Masculinity Theory.

Crucial to the understanding of road cycling masculinity in the contemporary sport, however, is the focus on high risk and acceptance of injury. In the early conception of cycling as a competitive pursuit, Chauncey (1994, P.114) writes:

> Crashes were quite frequent, their consequent wounds were badges of an aggressive masculinity that exemplified the era's resulting 'cult of muscularity', which identified firm muscles and 'manly' fitness as necessary attributes of bourgeois masculinity.

Therefore, we see that the hypermasculine culture within competitive cycling emerged from the culture of the Industrial Era. The surrounding narratives of pain and suffering we see in the contemporary sport (Dahlquist et al., 2015) originate from a reaction to rising social concerns around homosexuality, and the feminisation of boys, where the assertion of an orthodox masculinity was culturally esteemed and necessary for males.

The structure of the sport has not changed. It remains highly dangerous, with frequent crashes and high injury rates (See; Silberman, 2013; De Bernardo et al., 2012; Barrios et al., 2015; Decock et al., 2016). Research shows that bodily health is often sacrificed in favour of sporting performance in cycling (Hurst et al., 2019; Hardwicke & Hurst, 2020; O'Reilly, 2020; Hardwicke et al., 2022). Dahliquist and colleagues (2015) found a high acceptance rate of injury and willingness to compete when injured among amateur road cyclists.

Moreover, there are no openly gay athletes in the professional cycling ranks, and professional road cycling is notably absent from diversity and inclusion discourses, particularly pertaining to racial issues (Hylton, 2017). Other evidence of a hyper-masculinization of road cyclists comes from Barrie, Waitt, and Brennan-Horley (2019), who comment on the exclusive nature of over-competitive cycling, and Prati and colleagues (2019), who found involvement in cycling incidents was higher among males due to riskier attitudes held. Further, Balkmar (2018) comments on the increasing 'pro-cycling' discourses and competitive cyclists occupying road space resulting in greater conflicts and tensions between various road users.

The Current Study

The multiple avenues of enquiry noted, and under-researched area of masculinity in road cycling, provides the rationale for this preliminary study on UK athletes. This paper is situated within the conceptual framework of Inclusive Masculinity Theory, recognising the wider changes in masculinity towards a more inclusive form that results in behavioural and cultural changes within sport. Prima facia evidence suggests that competitive road cycling appears to be an environment in which orthodox masculinity remains esteemed, even though sports thought to be more squarely masculine, like Rugby and Football, have shown shifts in masculine idolization away from the extreme forms of masculine identification. As such, the purpose of this study was to examine competitive road cyclists' notion of their gender and discuss the implications this may have on athletes' attitudes and behaviours, contributing to an extremely limited field.

Method

Participants and Procedure

The study consisted of a cross-section of 105 athletes from the United Kingdom (UK) involved in competitive road cycling, with a range of ages and abilities (See Table 1). The youngest participant was 15 and the oldest 77, allowing for a cross-generational analysis. Participants for the study were achieved through the distribution of a self-report survey advertised on cycling pages and groups such as Road Cycling UK. The social media platform, Twitter, was also used to advertise the survey. The survey was created on JISC's Online Surveys (JISC, 2020). Data was collected between 1st August 2019 and 1st November 2019. A quantitative approach was favoured to allow comparatives to be made with previous research using the same instrument (see section below). The research also sought to establish patterns in the data and test causal relationships between the variables of interest.

Table 1. Participant ages and abilities.

Age (n = 105)	Proportion of sample (%)
<18	14 (13.3)
19-28	40 (38.1)
29-38	15 (14.3)
39-48	20 (19.1)
49-58	10 (9.5)
>59	6 (5.7)
British Cycling race category (n = 105)	
Elite	6 (5.7)
First category	9 (8.6)
Second category	25 (23.8)
Third category	18 (17.1)
Fourth category	10 (9.5)
Recreational cyclist (not raced before)	12 (11.4)
I race outside of the British Cycling System	22 (20.9)

Measures

Participants' self-reported identification with masculinity and femininity was the measure for this study. An 8-point Likert scale was administered that ranged from 'Exclusively masculine' to 'Exclusively feminine,' with an eighth option of 'Prefer not to say,' provided. Full options were as follows: Exclusively masculine, Mostly

masculine, More masculine than feminine, Equally masculine and feminine, More feminine than masculine, Mostly feminine, Exclusively feminine and Prefer not to say. This instrument was modelled on that used by YouGov (2016) in a survey on the UK general population, allowing a direct comparison to be inferred.

Analysis

All data were exported from JISC's online surveys (Jisc, 2020) to Microsoft Excel 2016 (Microsoft Crop., Redmond, WA, USA). Data were then analysed using IBM SPSS Statistics 26 (IBM SPSS Statistics Arnmonk, NY, version 26.0). The sample data (n=105) was deemed not normally distributed, calculated using a Kolmogrorov-Smirnov test (p=0.04). As such, nonparametric tests were used. Kruskal-Wallis H tests were run to establish any statistically significant differences in associations with masculinity between age and ability groups. The Alpha level was set at $p \leq 0.05$. Descriptive and cohort percentage statistics were generated to present results and provide insight into the data.

Ethics

Potential for harm in the study was deemed low, with sensitivities around gender identity being highlighted. A participation information sheet was provided as a pre-amble to the survey and given its on-line procedure, the ability to withdrawal was salient. Participants were provided options to not answer any questions provided. Ethical approval for the study was granted, following faculty-level review from the University of Winchester.

Results

The sample was most heavily weighted towards younger athletes, with the highest concentration of responses being in the 19-28 age group (39%). The mean age of the sample was 33 years old (SD=14). All respondents were UK based and were currently involved in competitive road cycling. It should be noted that the sample was not evenly distributed. Nonetheless, consideration for the trends found in this data present a range of interesting findings, despite the preservation of generalising results and strength of assertions to be drawn out to wider populations in competitive cycling.

The most selected response from the sample was 'Exclusively masculine' (n=64), with this being the mode choice across age groups. Within those that responded, 'Exclusively masculine' percentages per age groups were: <18, (35.7%, n=5), 19-28 (55.6%, n=25), 29-38 (42.1%, n=8), 39-48 (61.9%, n=13), 49-58 (72.7%, n=8) and 59+ (62.5%, n=5).

The second most selected option was 'Mostly masculine' (n=30). Again, this was across age groups. Within those that responded 'Mostly masculine,' percentages per age groups were: <18, (28.6%, n=4), 19-28

(20%, *n*=9), 29-38 (31.6%, *n*=6), 39-48 (28.6%, *n*=6), 49-58 (27.3%, *n*=3) and 59+ (25%, *n*=2).

With regards to those that identified as 'More masculine than feminine' (*n*=8), there was limited selection of this option and the distribution across age groups was: <18 (7.1%, *n*=1), 19-28 (11.1%, *n*= 5), 29-38 (5.3%, *n*=1) and 39-48 (4.8%, *n*=1).

A Kruskal-Wallis H test was conducted to examine the differences in age groups on the identification with masculinity. No significant differences (p = .539) were found among the six age group categories of participants: (<18, 19-28, 29-38, 39-48, 49-58 and 59+). In this sample, age was not found to be a factor influencing closer identity with exclusive masculinity.

A Kruskal-Wallis H test was also conducted to examine the differences in ability groups on identification with masculinity. No significant differences (p = .629) were found among the seven ability group categories of participants (Elite, First Category, Second Category, Third Category, Fourth Category, Recreational Cyclist and Those that race outside of the British Cycling System). In this sample, ability was not found to be a factor influencing closer identity with exclusive masculinity.

Discussion

Competitive cycling emerged from the Industrial Era, where a strict archetype of orthodox masculinity maintained social utility as a response to the perceived 'threat' of increasing femininity (Chauncey, 1994; Kimmel, 1996) and the growing association of bicycle use as a feminine activity (Mackintosh & Norcliffe, 2007). Since the inception of mass sport in the UK, however, other highly masculinized sports have undergone a fundamental shift in relation to self-identification of masculinity, and a revaluing of inclusive forms of masculinity (Anderson 2009). This research examined this cultural nexus among road cyclists.

The sample of competitive cyclists (*n*=105) demonstrated an explicit notion of masculinity in elevated levels, as compared to the general population. The comparative is made with survey data from 1692 British residents conducted by YouGov (2016). Using the same instrument as the current study, Yougov (2016) data showed males identifying as 'Completely masculine' were at lower rates than found in the current study, across all age groups. Rates from that data were: 18-24 (2%), 25-49 (21%), 50-64 (32%) and 65+ (56%). A similar trend is seen in both data sets of increased explicit identification with masculinity as groups increase with age, but the current study found far higher rates within the sample.

Further, in the younger cohorts of the national data, the mode option across the 18-24 (47%) and 25-49 (28%) age groups was 'More masculine than feminine' (YouGov, 2016). Although the same trend was seen with

younger groups selecting this option in higher rates than older groups, the net responses here were far lower in the current study. This highlights the large cohort differences of these competitive cycling males and the general population, supporting previous findings (Powell et al. 2005). The statistical analysis found that neither age nor ability were predictors of holding the explicit notion of masculinity, but the overall sample trend was towards this explicit notion, regardless of these factors.

These findings contradict what previous research would predict. For example, the older age cohorts would be expected to exhibit closer identification with masculinity than the younger, being reflective of generational, cultural changes. Exemplifying this in the general population, Anderson and Fidler (2018) conducted in-depth interviews with twenty-seven, heterosexual, British men aged between 65 and 91. Findings demonstrated a generational gap in attitudes, with participants expressing negative views towards the softer masculinities that are increasingly visible today. Here, Anderson and Fidler (2018) conclude that these attitudes reflect the cultural homophobia and homohysteria the participants experienced growing up in the early decades of the twentieth century. The data in this study contrarily indicates age was not a factor on notions of masculinity held by participants.

Similarly, holding higher athletic capital and excelling in sport have been cited as characteristics of orthodox masculinities (Wellard, 2010). In this sample, however, the higher ability of the participant (the more they have achieved in the sport) was not a predictor of holding the explicit notion of masculinity. Of course, all participants were involved in competitive road cycling in some capacity, so they may exhibit this close identification with masculinity because of the competitive environment, explaining the elevated rates against the general population.

The structures of competitive sport have been noted as a vehicle to encourage excessive competitiveness and establish masculinity among males (Adams, Anderson & McCormack, 2010). This structure can influence individual behaviours and beliefs towards gender. For example, Ogilvie and McCormack (2020) found the structure of sport leads elite male and female athletes to focus on gender differences, which they attributed to biology, but when mixed-gender training was introduced, this belief was dissipated. Further, Magrath's (2017) research on homosexually themed chanting among football fans found that men use language in sport that they would not in other contexts and that may diverge from their own personal beliefs. This research supports the notion that the structures of competitive sport may still reproduce orthodox notions of gender. This may explain the results of the current study, where cycling exists as a sport that still perpetuates many aspects of orthodox masculinity within its culture.

Ogburn's (1957) concept of Cultural Lag offers a framework to theorise these findings, with the understanding that competitive cycling may hold a strong subculture that influences individual behaviours and beliefs. The concept refers to the differing rates that segments of culture adapt to social change. Inclusive Masculinity Theory recognises the changing nature of masculinities towards a softer archetype as a product of social changes (See; Anderson, 2009 McCormack, 2012; Anderson & McCormack, 2015). This is particularly salient with the sample from the current study being more heavily weighted towards younger age groups, which the literature would suggest are less restrictive in their gender performances (See; Carrillo & Hoffman, 2017; McCormack, 2011; McCormack & Anderson, 2014).

These changes have been observed in other sports, perhaps most notably in Football (See; Adams, 2011; Adams & Kavanagh, 2018; Adams & Anderson, 2012; Magrath, 2019) but comparable findings have also been shown in other sports, such as Rugby (Anderson & McGuire, 2010), collegiate team sports (Anderson, 2009), and even in less culturally dominant sports, such as Equestrianism (Dashper, 2012).

This research has several implications for men in the sport. First, a body of literature examines the role of strong identification with orthodox masculinity in predicting risky or health-avoidant behaviours. Orthodox masculinity has been shown to be a predicter for risky behaviours and higher propensity for injury (See; Adams et al., 2010). Orthodox masculinity is also associated with men refraining from seeking medical help, for fear of this detracting from masculine status, or from seeking help for mental health issues (See; Fleming et al., 2014; Levant and Wimer 2014; Morioka 2014; Reed, 2013). Increased willingness to take risks and under-reporting of medical issues is particularly relevant amid the current concussion crisis in sport (Harmon et al., 2013; Baron et al., 2013).

For example, in a study of male college athletes, Schlosser (2016) found that those who identified closer with orthodox scriptures of masculinity were associated with more harmful attitudes towards concussion, such as that they were not a serious issue. This was also supported by Baron and colleagues (2013), who note the role of orthodox masculinity and the reporting of injury being coded as a sign of weakness. This influence of masculinity has been researched in American football players (Anderson et al., 2012) and seen to impact both male and female athletes (Sanderson et al., 2016). These attitudes are, therefore, a concern for safer cycling, as survey studies on competitive cyclists and concussion reporting have found that cyclists were willing, in significant numbers, to mask injuries to continue in competition (Hurst et al., 2019; O'Reilly et al., 2020; Hardwicke & Hurst, 2020; Hardwicke et al., 2022).

The next area of concern is that orthodox masculinities can negatively impact attitudes towards diversity

and inclusion, particularly regarding sexual minorities. There is a large body of academic work in sporting domains that demonstrates straight athletes accept and support openly gay teammates, particularly among youth athletes (See; Magrath 2017, 2018; Roberts et al. 2017, White et al., 2020); however, academic attention lacks in this cultural aspect of cycling. Prima facia evidence suggests that homophobia might still be a salient issue in cycling (OutSports, 2021). Competitive road cycling is regularly described as having a conservative culture (Cycling News, 2017) and insights from professional riders have noted that being gay is coded as a weakness in competitive cycling (Guardian, 2018). Competitive road cycling, particularly at the professional level, is also noticeably absent from positive gay institutional discourses, as well as there being no openly gay athletes at the time of this study. Findings from the current study, and understanding the context of the sport, therefore highlight the need for academic investigation into this question.

A final problematic area is how this hypermasculine and competitive culture manifests in public spaces. Competitive cycling is unique in that its participants spend large amounts of time training on public roads and a body of literature exists on masculinities in cycling within the transport field (see; Zheng et al. 2020; Ravensbergen et al. 2019; Balkmar, 2018). However, there are no studies on cyclists using these public spaces for sporting pursuits. The concern here is that competitiveness, coupled with aggression, have been cited as aspects of orthodox masculinities (Clyde & Franklin, 2012) and that Wiljhuizen and colleagues (2016) noted competitive attitudes among cyclists as a variable for increased risk of crashing when on public roads. The results from the current study suggest that this sample of competitive cyclists more closely identify with orthodox scriptures of masculinity. An area that would be interesting for future research is if this identification with orthodox masculinity has any association with accidents on public roads with those using them for transport purposes alone.

Limitations and Future Directions

This research is not without limitation. Although a large sample was achieved, verifying the findings from Powell et al. (2005), the self-report nature of the research design may be subject to social desirability bias. Further, as masculinity is a shifting social and psychological phenomenon, there is some limitation in the use of a survey with fixed categories. However, this study is intended as a starting point for future research into the contemporary sport. The current study is also limited to one national cultural context: the UK. Future research into other cultural contexts where competitive cycling is a popular sport would aid the further understanding of these findings.

Future research into masculinities in competitive cycling using qualitative methodologies would build on the present study's findings, providing more contextual insight. Areas of interest that are currently underexplored

in the cycling literature are: 1) Risk and injury 2) Experiences of LGBT+ athletes; and 3) Women's experiences in the sport. Examining the relationship of masculinity to these areas is research that the author has planned. It is also of interest that masculinity performance differs across sports. For example, an American Football Player, Ice Hockey Player, Boxer, and Road Cyclist will express orthodoxy in their gender identities through different means. Future research investigating these differences between sports would build on the broader understanding of masculinities in sporting cultures.

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