The social practice and regulation of cycling as 'A Boy's Thing' in Irish secondary schools

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Abstract:

Despite low levels of cycling to secondary education across the adolescent population in Ireland, there is, in addition, a pronounced inequality in rates of ridership between teenage girls and boys, with nearly 10 times as many boys cycling to school compared to girls. In light of this disparity, the Green-Schools #andshecycles campaign was created to explore and address the cycling gender gap among second-level students. Emerging from this campaign, this paper details qualitative research exploring this gender gap, drawing on focus groups with teenage girls and boys across Ireland. Using grounded theory methodology, a theory of cycling as 'A Boy's Thing' was generated. This theory makes sense of how cycling as a social practice is continually enacted, reproduced and regulated as a practice *of* and *for* boys among Irish adolescents, through related practices of *exemplifying masculinity*, *incompatible femininity* and processes of *gender regulation*. It has significant implications in considering the effects of gender as a configuration of social practice (Connell, 2005) or performance (Butler, 1990) on cycling, and how cycling is a uniquely gendered practice/performance in particular contexts. In light of this theoretical interpretation, two approaches for tackling the Irish second-level cycling gender gap are provided: first, promoting cycling among teenage girls by making cycling more compatible with dominant practices of femininity; second, promoting cycling among teenage girls by publicly rejecting and subverting dominant practices of femininity and processes of gender regulation relating to cycling in present day Ireland.

Keywords: cycling; gender; school; harassment; femininity; masculinity.

Introduction

Ireland has relatively low levels of secondary school cycling compared to other European countries with only 2.1% of students between 13 and 18 years of age cycling as a means of travel. Nevertheless, within this small percentage of students who cycle for travel, there lies a stark gender disparity in rates of ridership: compared to 3.7% of boys, only 0.4% of girls cycle to school (Central Statistics Office, 2016). Emerging from the Green-Schools Travel Programme, the #andshecycles campaign (Green-Schools, 2020) originated from a curiosity with the cycling gender gap in Irish second-level schools. With a similar destination and travel environment, the question was posed: why do almost no teenage girls cycle to school when teenage boys in many parts of the country frequently do? In the context of Irish policy aiming to promote cycling as a mode of sustainable travel (Smarter Travel, 2009) and broader organisational research examining gender and mobility (e.g. Cahill et al., 2020), it is of vital importance to understand what prevents teenage girls from cycling to school so that targeted interventions that enable more inclusive cycling can be implemented. Indeed, this matter may be symptomatic of a wider problem of gender disparities in cycling ridership moving into adulthood; for example, in Ireland, only 0.7% of women's journeys are made cycling, compared to 2.6% of men's journeys (Central Statistics Office, 2019).

In this article, we present our analysis from the #andshecycles focus group research exploring the cycling gender gap in secondary schools and make a number of recommendations for addressing this gender gap in Ireland. First, we provide an overview of significant and relevant existing research in the area of gender and cycling. Second, we describe the grounded theory methodology, focus group data

collection approach and ethical protocols of the research. Third, we impart the main qualitative concepts – primarily the process by which cycling as a practice is continually performed and regulated as ‘A Boy’s Thing’. Fourth, we discuss the significance of the grounded theory generated in relation to relevant theory and empirical research, drawing particularly on literature to do with gender, masculinity, femininity, and feminism. Fifth, we offer several recommendations to address the cycling gender gap in light of this theoretical interpretation. These recommendations are centred on two approaches: one involving efforts to make cycling as a practice more compatible with femininity (compatibility approach), another involving the critique and subversion of regulated binary gender performances that intersect with the practice of cycling among Irish adolescents (critical approach).

Background: Gender and Cycling

In light of evidence that increasing cycling levels does not necessarily lead to increased diversification of users, there have been calls for policy measures that explicitly consider the needs and preferences for cycling among underrepresented groups such as women (Aldred, Woodcock and Goodman, 2016). One salient stream of inquiry examining the specific needs and preferences of women for cycling is quantitative research primarily investigating geographic and infrastructural variables (e.g. Garrard, Rose and Lo, 2008; Aldred et al., 2017; Aldred and Dales, 2017; Carroll et al., 2020). In this field, researchers have reported a pattern of distinct preferences among women for segregated cycle infrastructure (Garrard, Rose and Lo, 2008; Aldred et al. 2017; Aldred and Dales 2017). However, it has been pointed out that there may be a ‘tipping point’ for increasing cycle ridership in women in relation to the safety of infrastructure (Aldred, Woodcock and Goodman, 2016; Carroll et al., 2020). Accordingly, any increase in segregated cycle infrastructure may not necessarily increase rates of female ridership but, rather, a threshold level may need to be reached. In addition to cycle infrastructure, distance has been found to be a considerable influence on rates of female ridership, with longer distances appearing to deter cycling among women (Garrard, Rose and Lo, 2008; Carroll et al., 2020). However, whilst these studies examining female preferences and needs may help us to understand the associations between particular variables (such as infrastructure) and rates of female ridership, they do not necessarily help us to understand *why* there may be gendered patterns of preference and need in the first place.

In a systematic review of research investigating gender and transport with a focus on cycling, Ravensbergen, Buliung and Laliberté (2019) reported two primary hypotheses at play in explaining the cycling gender gap in contemporary work: women cycle less due to greater ‘risk-aversion’ relative to men and/or different trip characteristics involving ‘trip-chaining’ (p5). In this paper, they draw attention to how ‘gender’ is often used in such studies – in a relatively simplified manner that does not engage in any great depth with social theory around gender, that may simply document gender differences in perceptions and behaviour. Similar to the claims of Shaw et al. (2020), Ravensbergen, Buliung and Laliberté (2019) argue that, in relation to cycling practices and perceptions, “male-female patterns are identified, but the underlying processes that may produce observed outcomes such as risk-aversion or trip-chain travel characteristics in the first place are not adequately or deeply considered.” (p6). In this respect, they highlight the scarcity of social theory informed gender cycling gap research, and the need to examine potential social processes of which many quantitative studies document the effects. As Ravensbergen, Buliung and Laliberté (2019) put it: there is a need for research exploring “how mobility shapes gender” in light of a dominant focus on “how gender shapes mobility” (p6). To date, there has been a considerable proliferation of research using qualitative methods to explore cycling in a way that engages with how mobility might shape gender focusing on adult women (Steinbach et al., 2011; Ravensbergen, 2020; Heim LaFrombois, 2019) and, to a lesser extent, adolescent girls (Frater and Kingham, 2020; Hopkins and Mandic, 2017; Bonham and Wilson, 2012; Russell et al., 2021), with a only a few of these adolescent focused studies engaging with feminist or gender theory in their study design or analysis (Bonham and Wilson, 2012; Russell et al., 2021).

As Aldred and Jungnickel (2014, p86) argue, if we want to promote cycling among different groups, the practice of cycling must be compatible with the other practices of everyday life. The qualitative work investigating the experiences of women at different stages of the life-course in different contexts shows how there comes a period when cycling no longer fits with practices required for everyday life as a young woman (e.g. Bonham and Wilson, 2012; Russell et al., 2021). In this study, we contribute to an understanding of how the social practice of cycling distinctly becomes a social practice of masculinity in early adolescence and the social practice of (hegemonic) femininity becomes something that is fundamentally incompatible with the practice of cycling to secondary school in the social context of Ireland. In keeping with the call of Ravensbergen, Buliung and Laliberté (2019), this research is influenced by – although not underpinned by – social theory in the area of gender, most notably the work of Connell (2005) and Butler (1990), and it can contribute to a greater understanding of how both mobility shapes gender and gender shapes mobility in an Irish context.

Methodology

In this study, we used classical grounded theory methodology and employed semi-structured focus groups as the primary mode of data collection (N: 17). Grounded theory is a method for generating theory that is 'grounded' in empirical data (Glaser and Strauss, 1967). Due to its open-ended, exploratory nature, grounded theory is an exceptionally useful and systematic method for generating theoretical explanations/descriptions of social phenomena that have not been well explored. These theories can then be used to practical effect to inform interventions and policies relating to the area of interest. As this research involved teenage girls and boys exploring a potentially sensitive topic, focus groups were selected as an ideal method for data collection, since they not only allow for peer support and solidarity or "safety in numbers" (Barbour, 2007, p42) on sensitive topics but also enable participants feed off and add to one another's recollection of experiences for a group that may otherwise be reluctant to speak (Barbour, 2007; Kamberelis and Dimitriadis, 2014). Furthermore, focus groups can provide a bridge between the social world and the personal lives of participants and can contribute to personal experience being reinterpreted and politicised, thereby enabling the production of 'voice' (Kamberelis and Dimitriadis, 2014).

Focus groups lasted on average one hour and were conducted both in person (N: 13) in a private classroom, and, later in the study, online (N: 4). Accordingly, there were 17 focus groups in total. Participants were selected based on responses to a recruitment advertisement primarily shared with second-level Green-Schools participating in the 'Travel' theme. Later in the study, recruitment was opened to any secondary school in Ireland. Informed consent forms were sent to potential volunteers to ensure informed consent from both their parents/guardians and themselves. At the beginning of the study – the open coding phase (Glaser and Strauss, 1967) – initial focus groups were carried out by Green-Schools Travel staff, employing a flexible but semi-structured focus group agenda that was rigorously developed. During the selective coding phase, only the first author carried out focus groups in order to engage in more targeted data collection known as theoretical sampling (Glaser and Strauss 1967). In both phases, various ethics considerations were integrated into the conduct of focus groups. Moderators reiterated the purpose of the focus group to participants; described how data gathered would be used, managed, deleted and anonymised; requested respect for group confidentiality following participation; and affirmed the right for participants to withdraw at any time without negative consequence. Consistent with methodological recommendations (Barbour, 2007), focus groups involved seven participants on average, however, the number of participants involved across the focus groups ranged from 3 – 12 people. In nearly all focus groups there was a mix of year groups anywhere between 1st year – 6th year and, therefore, there was a range of ages (13 – 18yrs) involved in most of the focus groups. Focus groups involved students from a variety of schools across the Republic of Ireland, including students attending school from the provinces of Leinster, Munster and Connacht. The vast majority of focus groups involved female participants only and this reflected the early aim to explore the experiences and perceptions of cycling to school among teenage girls in

Ireland. However, as analysis progressed, two focus groups were carried out with boys only to theoretically explore and develop the concept of 'Exemplifying Masculinity'. The study concluded with 17 focus groups as the first author was satisfied that a point of 'theoretical saturation' (Glaser and Strauss, 1967) had been reached.

Cycling as 'A Boy's Thing'

i. 'A Boy's Thing'

The 'core category' of this grounded theory is centred on the social practice, construction, and regulation of cycling as 'A Boy's Thing'. Based on data collected and analysed in the development of this grounded theory, cycling amongst Irish adolescents – particularly cycling to secondary school – is widely considered to be a social practice that is normal for boys to engage in and socially deviant for girls. In a variety of contexts across Ireland, the visible, everyday practitioners of cycling among adolescents are boys. However, it is not only, as Central Statistics Office (2016) data shows, a social practice that is primarily performed by boys. It is also a gender norm *for* boys to cycle. In this way, cycling is 'A Boy's Thing': a practice both *of* and *for* boys.

For many participants, akin to the findings of Bonham and Wilson (2012), cycling in primary school was not considered so rigidly gendered a practice. Instead, it was – as some participants described – "*natural*" for girls and boys to engage in cycling. Participants described a marked shift in their cycling engagement in the transition between primary and secondary school, specifically referring to a gendering process in which those who are identified as male are orientated (or coerced) toward certain masculine practices such as sports, and, likewise, those who are identified as female are "pushed" toward particular –and different(iating) – feminine practices, such as 'doing' one's hair and make-up in the morning. Cycling itself, then, is one of these gendered practices; a practice that is primarily carried out by groups of boys and is considered, as one participant described, as "just their nature". Being a teenage girl, then, is defined in a negative relation to being a teenage boy; namely, whereas boys are defined by what they do (cycle), girls are defined by what they don't do relative to boys:

I think it's like a *thing* for boys to cycle, like. Like, I think it's just a thing for girls *not to* and for boys *to*.

Alongside, this reification of cycling as a boy's thing, participants alluded to the ongoing social construction process that maintains cycling as 'A Boy's Thing', demonstrating how its naturalness in second-level education is actively produced:

Everyone's always saying it's for boys.

It is part of adolescent boyhood in Ireland, then, to engage in – and indeed hang out and meet up through – cycling, particularly with (male) friends. Cycling as a girl, on the other hand, constitutes a transgression of the gender norm that cycling is "A Boy's Thing"; as a result, cycling as a girl is a deviant social practice that comes with negative social consequences for the practitioner (i.e. gender regulation) and a sense that they are transgressing the norm. As one participant described, as a girl, one feels social pressure to *not* cycle and to walk instead. As a boy, on the other hand, "They all, like, do it together. Like, you always see boys cycling in groups." Indeed, female participants who did engage in cycling to school felt the need to account for and excuse their deviance. Furthermore, since cycling as a means of travelling to secondary school is primarily practiced by teenage boys, and much of this cycling may be amongst other boys cycling, cycling as a girl constitutes a particularly high-visibility form of deviance since one would likely, similar to the findings of Frater and Kingham (2018;

2020), travel solo rather than as part of a group, often within view of other individual and groups of students travelling to school (perhaps in gender *normal* ways, such as by walking).

In this theoretical interpretation of the cycling gender gap amongst Irish second-level students, we argue that cycling as *A Boy's Thing* – a social practice *of* boys and a social practice *for* boys – is socially constructed, regulated and reproduced through prevailing social configurations of practice relating to (adolescent forms of) masculinity and femininity – or 'gender' – in Ireland and through social processes of gender regulation. As the core category of this grounded theory, the subsequent categories we will present and illustrate with reference to focus groups with male and female secondary school students relate to how cycling is continually reproduced as 'A Boy's Thing'.

ii. Exemplifying Masculinity

With *A Boy's Thing*, we show how cycling among adolescents in Ireland is socially interpreted and coded as a practice that is normal for adolescent boys and deviant for adolescent girls in Ireland. With the category of *exemplifying masculinity*, we seek to impart how various idealised masculine characteristics for adolescents in Ireland – namely, *athleticism*, *audacity* and *indifference* – are exemplified through cycling itself, but particularly by cycling in a particular style. These performances of masculinity through cycling socially reproduce cycling as *A Boy's Thing*. However, although primarily practiced by teenage boys, they can be practiced by others aspiring toward and identifying with masculinity as a social configuration of practice, including teenage girls.

First, through cycling – at all, or in a particularly physically demanding way – teenage boys (and in some cases teenage girls) exemplify an idealised masculine characteristic of *athleticism*: the quality of having athletic ability and physical fitness. This pattern builds on existing work evidencing how cycling may be associated with "physical prowess" amongst men (Steinbach et al., 2011, p1127). In focus groups, cycling was widely perceived by girls in particular as something requiring athleticism to engage in, rather than being a relatively modest form of physical activity. Although many of the male participants did not engage in cycling as a sport or as a form of physical conditioning per se, there was no shame – and perhaps even some pride – for those who used it as a public means for cultivating athleticism. For teenage girls to engage in cycling, however, judgement may ensue, perhaps in part due to exemplifying the masculine trait of athleticism for a practice that is socially coded as 'A Boy's Thing'. One male participant described how teenage girls are consistently subject to judgement for their behaviour to a greater degree than teenage boys and may be subject to 'body-shaming' if engaging in cycling. In particular, he points out that girls may be perceived to be cycling as a means of losing weight, which may incur social stigma. However, interestingly, he also mentions how a girl cycling can come across as a girl trying to 'show up a guy'. This indicates that stigma may not only occur due to 'body-shaming' but also because a teenage girl cycling can be perceived by boys as a threat to their masculinity – a practice that emasculates them and cycling as 'A Boy's Thing':

Guys might go on a cycle to get fit but when a girl goes on a cycle, people will tend to associate that with the girls trying to lose weight. So, the girl is trying to, like, show up a guy and...that's not r...

Indeed, one female participant who cycles to secondary school daily described how she used to cycle to primary school and engage in physical competition with boys. Unlike her present cycling experiences where she is subject to negative backlash, cycling then was normal and even a matter of pride. In this instance, athleticism as a quality and practice does not yet appear to be reified as a signifier for masculinity and one can see this participant actively 'showing up' her male classmates:

I'd *race* them – (puts hand on heart) [...] we'd race them to the end of the primary school – it would only be, like, 15 metres. And, um...I mean, most of the time I'd win because, you know,

they're slow coaches thinking they look great (fellow participant gives amused nod) on their really super-duper bikes.

In contrast, another female participant cycles to secondary school daily and appeared to be concerned with failing to live up to the masculine ideal of athleticism amongst others cycling – especially teenage boys – by being embarrassed if she fails to 'keep pace' with others. Engaging in cycling as a girl, then, may involve a pressure to compensate for not being a boy by matching the speed of any boy cycling and therefore show how one can meet the criteria of masculine athleticism for engaging in 'A Boy's Thing'. Indeed, many female participants commented on the speed that some boys may travel when cycling to school referring to boys "flying up" the road and "going really fast". In a sense, one may feel as a teenage girl the need to prove one is worthy to engage in 'A Boy's Thing' by doing it in the same manner as boys; in this case, by matching the physical speed of other teenagers cycling:

I don't know if this is just me because I'm a very competitive person, especially since we're right beside a boy's school, I'm cycling up alongside other students and I'm (smiles)....it's probably just me but I always feel like if I'm going too slow, I feel really embarrassed, so I, like, try to *keep pace* with other people which ends up, like, pushing myself too far.

Second, cycling is used by adolescents boys (and, less frequently, girls) as means of exemplifying the masculine characteristic of *audacity*: the willingness to take bold risks. This pattern is suggested in Steinbach et al. (2011) amongst adult male participants in relation to the 'thrill' and 'risk' of cycling in London, but also by accounts of the bold assertiveness required for cycling in similar contexts by Green, Steinbach and Datta (2020) and Larsen (2014). For some boys in this study, being a teenage boy was synonymous with engaging in acts of audacity/risk-taking and a requirement for social acceptance, and means of building social status, amongst boy-centric groups:

I think guys need to be more risk-taking to fit in. A group of guys might take risks just to look good to each other. And that might be a thing with cycling. If it's on a busy road, more guys might do it because it's taking a risk, if it's very, very busy. Like, it's not a huge risk, it's the tiniest risk possible, but it is *a* risk. And then not using a helmet – the exact same. But, I think risk-taking in guys is just...(shakes head) like...it just almost *has* to be done.

From this perspective, audacity is a mandatory performance of masculinity. It is a means of proving one's masculinity, or, as one participant describes, a means of competition and 'one-upping' other boys, rather than being an unsanctioned voluntary matter. Cycling in a way that is safety-conscious, then, would render one open to social stigma as a boy cycling.

Overall, the most conspicuous demonstrations of audacity involve performing wheelies, travelling at high speed, and cycling without holding the handlebars. These acts can be interpreted as a highly publicised performance of the masculine characteristic of audacity; a form of social peacocking that demonstrates one's masculinity to one's peers within a social group and outside of it. During one focus group, multiple female participants discussed the public performance of audacity and how they are often timed by boys to impress girls:

Participant 1: Do you ever see, like, when boys do it like when a girl's walking down the road?

Participant 2: *Yeah!*

Participant 1: They *always* just do a wheelie in front of a girl.

Participant 3: To *show off*.

Participant 1: Just to show off, yeah.

Participant 3: Thinking they're mad.

In the majority of cases, audacity appears to be a *collective* rather than individual practice of masculinity involving groups of teenage boys. Some participants' described such as groups engaging in practices and displays of audacity – particularly ignoring the rules of the road – as 'Hell's Angels', drawing an analogy with the practices of the macho motorcycling club, widely viewed as an embodiment of masculinity.

Third, whereas audacity refers to the practice of active risk-taking, indifference is another masculine social practice which reifies cycling as 'A Boy's Thing'. This involves the active practice of 'not caring' or not showing concern, particularly in relation to matters of danger and toward any indicators of a 'safety-conscious' or 'responsible' form of cycling; a pattern that also emerged in the study of Balkmar (2018), who imparted the 'careless' behaviour of racing male cyclists in Sweden. There are various ways in which indifference is exemplified in the practice of cycling, one of which is the non-wearing of helmets, illustrated by the frequent sight reported by many girls in the focus groups of boys cycling to school with their helmets appended to the cycle handlebars. As one male participant described "I've just never really been the type to wear a helmet." On the other hand, other male participants who did (or, rather, were forced to) wear helmets were acutely aware of how wearing a helmet was a transgression of the masculine ideal of indifference to danger, with some describing their intuitive knowledge of this deviance presenting as embarrassment and a sense of being the "odd one out".

Beyond non-use of helmets, indifference toward complying with the rules of the road – and the perceived risks that non-compliance may entail – appeared to be a noticeable pattern across the focus group participant accounts. The most notable form of this practice of indifference involved cycling as part of a boy-centric or all-boy group in a horizontal, as opposed to single-file or two-abreast, formation on the road or indeed on the pavement. One female participant complained about the indifference demonstrated by such "clans of boys" for other public space users by "taking up the whole road or taking up the whole footpath". Indeed, it was clear in discussion with male participants that the rules of the road and matters of safety were not necessarily a performance of indifference but were, in many cases, a matter of indifference. As this male participant demonstrates, the rules of the road and cycling in a mainstream 'responsible' fashion is not a foremost concern or consideration for him when cycling:

It wouldn't be something you'd just...nobody would sort of bring it up – mostly because you don't *think about it*. You don't think about it that way because you're not...it's not really the focus of the conversation you have or something like that.

This stands in sharp relief with one female participant's expression of concern for compliant and knowledgeable cycling:

I think you need to be *really* well informed and know exactly what to do if you're going to have the confidence to cycle on the road. Like I would wanna know exactly what to do in every situation before I...cycled on the road, just to be...sure.

iii. Incompatible Femininity

Incompatible femininity refers to the social practices required to achieve successful performances of femininity that are experienced as incompatible with the social practice of cycling in Ireland. These practices – *modesty, beauty, continence, and caution* – revolve around idealised feminine characteristics that render cycling in its present form incompatible with the achievement of such

practices. In many respects, these phenomena of femininity can be contrasted with the highly compatible aspects of masculinity that can be exemplified through one's style of cycling and, indeed, simply through practice of cycling itself in an Irish context. Importantly, many of the female participants in this study described how, in transgressing these ideals of femininity in practice, they became acutely uncomfortable, 'awkward', 'self-conscious', and/or embarrassed. In contrast, when conforming or 'achieving' these ideals in practice, they felt relatively comfortable. Their degree of comfort, 'self-consciousness' and embarrassment, then, seemed to be dictated to a great degree by the extent to which they conformed with, and played out, these components of femininity in everyday life. As a result, these gender phenomena, much like those of masculinity, can be critically understood as regulatory gender norms that affect control in one's experience of public embodiment.

First, participants struggled to engage in cycling whilst simultaneously practicing *modesty*: the practice of 'covering up' or concealing one's sexualised physical features as a teenage girl; a concern and pattern also raised in the studies of Russell et al. (2021) and Ravensbergen (2020). In particular, practicing modesty was made exceedingly difficult for many participants if cycling on the basis of many girls' school uniform – a skirt. When wearing a skirt cycling there was a perceived risk of the skirt blowing up, particularly during windy conditions but also in motion cycling, thereby revealing one's exposed lower body to public passers-by, and maybe even fellow students or peers on the way to school. One female participant, who wears tights or cycling shorts to cover her lower body all year round, described her experience of regularly cycling to school in a skirt:

...you're always kind of thinking – especially when there's a lot of wind – like, you don't want your skirt to go up, if you know what I mean, like...especially like going up a hill (uncomfortable laugh) when you have to, like, stand up kind of when you're cycling as well. It's the most *awkward* thing ever, you feel like everyone is just staring at you, you know...

As one participant described: "it's physically impossible to cycle in one of these skirts without like showing...d'ya know", or, as another confided, when cycling in a skirt "You never know what someone can see". Nevertheless, a concern with the practice of modesty was not necessarily specific to the use of skirts. Indeed, participants also mentioned concerns about immodestly exposing oneself to others through the use of alternative clothing when cycling into school - "the cars passing would be looking at you in leggings" – or even trousers if these were an option in the school – "they're a bit low waisted...so they kinda fall down a lot (laughs)". Furthermore, when mounting a bike with a high crossbar, one participant referred to the exposure required to manoeuvre her leg over the crossbar to mount the bike, which exposes one's lower limbs and body in public, leading to 'self-consciousness'. Irrespective of clothing, the practice of modesty for some was challenged simply by the position in which one cycles, for example, having to stand up when cycling up a hill.

Second, participants described how *beauty* – the practice of cultivating and maintaining a particularly 'feminine' physical appearance or, as many referred to, "looking good" as a teenage girl – was largely incompatible with cycling. This is in accord with existing studies indicating that maintaining a feminine image was a barrier to cycling (Steinbach et al., 2011; Frater and Kingham, 2018); including through wearing a skirt as part of the school uniform (Hopkins and Mandic, 2017; Frater and Kingham, 2020). One particularly salient pattern among female participants in this respect was the difficulty of maintaining "presentable" hair and appearance during and following cycling. For example, many participants were made by their parents to wear helmets when cycling and, as a result, would often end up with unkempt and 'messy' 'helmet hair' due to the pressure of the helmet, the difficulty of fitting one's hair into the helmet but also potentially the proliferation of sweat the helmet can induce. Indeed, wearing a helmet itself was seen as major transgression of acceptable feminine appearance (as well as a transgression of performing the masculine trait of indifference and audacity) with many participants, similar to the findings Russell et al. (2021), describing how they would feel 'ugly' if using one whilst cycling. As one participant commented: "when you wear the helmet it just doesn't look good at all [...] when you take it off it's even worse." Others would cycle to school without a helmet

but, because of wind and/or rain, their originally styled, generally long hair would become un-styled and 'wild'; as one participant described:

I straighten my hair (points). If it rains, my hair's gonna go *mad*, like. It's not a *glamorous* way to school but you're not in school to look good either.

Aside from helmet use and exposing one's hair to the elements, wearing a skirt was widely practiced as an element of achieving a threshold standard of femininity that presented difficulties for cycling. The skirt – already detailed in relation to its challenges in practicing modesty when cycling – could be imposed as a mandatory standard of feminine dress in some schools in the form of an institutional rule that 'All girls must wear skirts' most or all of the time. However, there were many participants who attended schools where trousers were an option alongside the skirt. Despite the availability of this option, many felt uncomfortable or 'awkward' wearing trousers, since trousers were associated with boys and a 'masculine look', compounded by the fact in many schools that not many girls would take up the trouser option. One participant bluntly described the social equivalent of wearing trousers as a girl: "It's like a boy wearing a skirt". Another participant in the same focus group detailed how, despite having the option to wear trousers, skirts were more conforming with an 'ideal' form of dress for girls in the school.

In addition to the fear of exposure when cycling in a skirt and the practice of modesty, participants raised two particular issues: first, cycling in a skirt could be experienced as dangerous due to the perceived risk of the skirt getting 'caught' in the chain or wheel of a bicycle or being 'in the way' of the pedals; second, in trying to practice the feminine ideal of beauty by wearing the skirt in school irrespective of uniform policy, female students had the extra burden relative to some teenage boys of having to carry a change of clothes – and having to change clothes – as part of their cycling journey. As a result, some participants concluded: "it's probably too much hassle to come in not wearing a skirt, because you'd have to change".

Third, alongside regulating the exposure of one's sexualised body parts to others and regulating one's appearance to ensure it conforms with threshold standards of 'femininity', cycling was largely imparted as a practice that was incompatible with *continence*: the practice of regulating one's natural bodily processes – in this case, the excretion of sweat and the accompanying body odour produced when undertaking physical activity. Put simply, based on this focus group research, perspiring as a teenage girl is taboo; it is a violation of the gender practice of continence – regulating the excretion of one's body. Many female participants claimed that wearing heavy school bags, having to travel long distances, and encountering hills on a cycle deterred them from cycling to school. At first glance, this could be interpreted, for example, as a lack of perceived physical fitness amongst female participants relative to males. However, when interrogated, it became clear that many teenage girls were deeply concerned with exerting themselves to a degree that would stimulate perspiration. Descriptions of even the notion of cycling to school and sweating evoked widespread disgust, with some participants describing the idea of coming into school sweaty as 'horrible', 'rank', 'disgusting', and 'unclean', thereby echoing the perspectives of women in the study Ravensbergen (2020) and Russell et al. (2021) in relation to sweating when cycling. As a result, if cycling required a level of physical intensity as an activity by itself or due to exacerbating factors such as weight, distance, incline, or other factors that would contribute to a process of perspiration, this would mean that the teenage girl in question would be transgressing the gender practice and norm of continence through sweating. One participant, who regularly cycles to school, describes the challenge and experience of cycling and sweating as a teenage girl, in particular how it feels to transgress a feminine norm of continence irrespective of other's judgement:

I know for myself, I'm only ever conscious of how I look when I'm cycling if I do wind up working up a sweat and I kind of, like, *just don't look your best coming off the bike* [...] it's not

even that other people will say anything...you're just embarrassed because you yourself don't feel that you look your best coming off the bike.

However, it is clear there is a perception that one will be judged, unlike a boy, for perspiring as a girl. In this instance, one participant describes how exerting oneself as a girl transgresses the feminine ideal of continence, as well as beauty, and – unlike boys – how conforming with this norm is policed by other people:

there's an expectation – there *is* an expectation – for girls to 'look good' all the time, be 'presentable' and, like, boy's can kind of rock up to school and be smelly and sweaty and whatever and, you know, they're being boys, they cycle to school, they have fun with their friends. Like, if you smell as a girl... 'BO (tuts), like, you better...you'd want to take care of that (shakes head)'. There's not the same standard held for both of us.

Although it did not emerge over the course of data collection, Ravensbergen (2020) points out how menstruation is also a concern for women cycling; in this respect, avoiding 'leaking' (p11) while cycling or avoiding cycling altogether while menstruating could be an additional component of the practice of continence as a teenage girl that may be challenging to achieve in the practice of cycling.

Fourth, the last practice of an incompatible femininity in relation to cycling for girls is one that starkly contrasts with the masculine ideals of audacity and indifference: the practice of *caution*. Much like *modesty*, *beauty* and *continence* – practices that one could describe broadly as practices of self-regulation – caution is characterised by a highly constrained approach to engaging with potentially dangerous activities and could be seen in part as a constraint on practices itself, unlike the predominantly positive and relatively *unconstrained* practices of masculinity. Whereas boys enacting masculinity take and ignore risks, girls enacting femininity appear to avoid and mitigate them. This practice of femininity has indeed been discussed at length in the cycling literature in relation to the notion of 'risk-aversion' (e.g. Ravensbergen, Buliung and Laliberté, 2019). Minor concerns regarding the practice of caution related to fears of bike theft and lack of spaces to park one's bicycle safely. Additionally, numerous female participants voiced a concern with losing balance and falling off one's bike, particularly when wearing a heavy school bag that could destabilise them. It could be argued, additionally, that teenage girls who wear skirts and have long hair face greater risks of falling or crashing when cycling due to the impediments these materials of femininity present (e.g. blocked vision, keeping skirt from blowing up or getting caught in pedals). Nevertheless, it was clear from focus groups that teenage girls were nearly unanimously concerned with the dangers of cycling on the road when sharing space with drivers. Cycling on the pavement, on the other hand, was in many cases not considered an option due to the scarcity of space, the danger one may pose to walkers and backlash from pedestrians who may tell a cyclist to 'get on the road'. One participant described the scenario of where to cycle on the basis of practicing caution:

when you're on a bike you don't want to be cycling on the road cos, like, there's like cars an all...but then when you're on a path you don't wanna, like, cycle into anyone, because that could hurt, like, both of yis.

In particular, female participants were fearful of cycling on the road without a robust working knowledge of the rules of the road: a matter of indifference for most of the teenage boys involved in this study. In this way, the practice of cycling on the road to school was, for many female participants, an unrealistic option since they perceived the need for training to cycle in the 'proper' or 'right' way on the road in order to engage in cycling in a safe and confident manner. As one participant put it: "*if you put me out...onto that road...on a bicycle...I'm telling you I'd be dead in ten minutes. I don't know to cycle on a road!*". Various aspects of cycling on roads in the 'right' manner were cited, such as

correctly using yellow box junctions, engaging with roundabouts, using hand signals, and knowing “where to go on the road”.

However, many participants were not necessarily only fearful of endangering themselves through non-compliance with the rules of the road. In fact, multiple participants cited disregarding and endangering driver behaviour for cyclists as a unique concern they would have if they engaged in cycling due to a widespread perceptions among drivers that cyclists are a ‘nuisance’. ‘Knowing how’ to cycle, then, extended beyond knowing and complying with the rules of the road. Additionally, it related to knowing how to deal with disregarding and endangering driver behaviour as a cyclists:

If I was on a bike lane, I would feel so much more...like, I’d feel more comfortable...but, it’s like...I don’t know *how* to cycle on the road. Like, I wouldn’t know how to deal with it if...some car came too close to me [...] Like, I don’t know if I’d just freak out.

iv. Gender Regulation

Having discussed the gender norms and practices with respect to the social practice of cycling, with the final category of this theory – *gender regulation* – we refer to a process by which conformity with these gender norms and practices of masculinity and femininity are regulated. This regulation of gender involves informal and formal disciplinary sanctions that regulate gendered bodies to comply with gender norms. We will illustrate three main patterns of gender regulation that maintain and reproduce cycling as ‘A Boy’s Thing’: *cycling as a girl*, *‘responsible’ cycling*, and *dressing like a boy*.

First, female participants involved in this study overwhelmingly provided personal examples of being subject to gender regulation for cycling as a girl. Indeed, when talking about cycling as a girl, some were even subject to regulation in the focus group situation with other female participants engaging in laughter and mild ridicule. For the most part, female participants recounted experiences and fears of being ‘looked’ and ‘stared at’, being the subject of socially stigmatising gossip (‘talked about’), being ridiculed (‘laughed at’), and being ‘heckled’ and intimidated primarily by groups of teenage boys for engaging in ‘A Boy’s Thing’. Such a pattern of disciplining teenage girls and women for engaging in cycling fits with those imparted by Ravensbergen (2020) and Russell et al. (2021); for example, Ravensbergen (2020, p13) reported how “some girls may avoid the bike out of fear they will be called a ‘tom boy’”. Although regulation was often subtle, frequently involving “odd looks” for engaging in cycling as a girl, more conspicuously humiliating practices were common.

Some comments made by groups of teenage boys for girls engaging in cycling had a particularly gendered and sexualised nature. For example, one participant was labelled as a homosexual – “a dyke on a bike” – for engaging in the practice of cycling. In the school that this participant attended, fellow participants revealed that this was a common slur used by groups of boys for sanctioning girls who engage in cycling. This instance clearly indicates a form of gender regulation that is distinctly heteronormative (i.e., based on a dominant framework of normatively heterosexual gender relations) with cycling being a form of deviance among girls. Likewise, another female participant who cycled in the presence of her boyfriend was labelled a “man” for being able to cycle – another common slur in this context. Accordingly, this instance once again presents that cycling as a girl is a transgression of heterosexual gender relations and heteronormative gender performances in which girls conform with gender norms of femininity and boys conform with gender norms of masculinity. Evidently, both incidents indicate what one cannot successfully be if one engages in cycling: a heterosexual ‘girl’. As one participant eloquently described cycling as a practice in this context: “it’s more for like...leaving to the boys than...a girl.”

Goading was another pattern of gender regulation for cycling as a girl. For example, some female participants recalled groups of teenagers prompting them to engage in fast cycling – and perhaps exemplify masculinity – while on the bike such as “Go on ninety!”. Indeed, in one instance, a participant was literally challenged to a race having overtaken a group of boys. Nevertheless, much intimidation and ridicule by groups of boys for cycling as a girl was more about the production of any

noise at all than saying something in particular. One female participant recalled a particularly sinister instance of intimidation that involved being chased out of public space accompanied by indiscriminate shouts when cycling home from school by a group of older teenage boys cycling. Having cycled home as quickly as possible to escape from the harassers, this participant was traumatised and confused by the experience. The remnant of the experience was an exacerbated sense of vulnerability when cycling:

I just broke down and I started crying and I was telling my parents and I just didn't know what to do about it and [...] yeah, I didn't really feel *safe* afterwards.

Indeed, some female participants were even forbidden from cycling on the basis of the possibility of being socially sanctioned, albeit in a less severe by being 'made fun of' for cycling as a girl:

My mom...she's, like, really honest...and she said...she actually told me that people would make fun of me if they (on the cusp of laughing)...if they saw me cycling!

While cycling was a deviant practice for a teenage girl, cycling – for both those who identified as boys and as girls in this project – was regulated as 'A Boy's Thing' and in line with the performance of masculinity beyond simply *who* cycles; namely, *how* one cycles was also regulated as a means of exemplifying masculinity. In this respect, any attempt to cycle in a way that displayed 'responsibility' or 'caution' was subject to severe regulation for transgressing cycling as a performance of masculine indifference and audacity. Many male and female participants recounted incidents of being sanctioned for wearing a helmet in particular. As one male participant recounted "I used to unhook my helmet and put it on the handlebars" as he approached the school in order not to be "seen in the helmet". Another male participant was asked about what happens when he wears a helmet and described how he would be subject to 'slagging', 'looking' but also 'slapping' from his male and female peers that he would cycle with. Indeed, many of the female participants were acutely aware that cycling in a helmet, irrespective of sex, was a transgression of how one should cycle:

Like, if someone...even if a fella was, like....*seen* wearing a helmet, they'd be made a show of, like. People would be like "Why are they wearing a helmet?" and all that and, like, "helmets are, like, stupid" and all, like...

However, for girls, helmets present a double burden: they conflict with the feminine practice of beauty and continence but are subject to gender regulation on the basis of transgressing cycling in the 'proper' masculine way. In this way, one may feel "ugly" wearing a helmet as a girl, while also being "mocked for being safe".

Lastly, gender regulation took place in relation to the practice of wearing trousers. For a sizeable proportion of female participants, skirts are a mandatory component of their school uniform. In this respect, girls are formally regulated to dress in a way that is designated as 'feminine' whereas for all male participants, trousers were mandatory. A clear distinction is made, then, between being a girl and being a boy and this is reflected in the formal regulations of what one wears to school. However, many female participants were in fact permitted to wear trousers to and in school as their uniform. Nevertheless, in these circumstances, informal gender regulations made wearing trousers a 'costly' option. In one respect, wearing trousers would constitute 'dressing like a boy' since boys wore trousers. Consequently, many female participants described how they would be 'stared at' particularly by boys if they opted for this uniform choice since it would constitute deviance from dressing like a girl – namely, in a skirt. In another respect, whilst formally an option, some participants revealed that there could be subtle regulations and penalties for wearing a skirt in their school. First, they would have to purchase two uniforms; second, they could only wear trousers at certain times of the year;

and third, the principal could express subtle disapproval for a student opting for trousers despite it being a formal option in the school. As one participant described in relation to the principal's preference for girls wearing the skirt rather than trousers: "She mightn't say it, but...we all know she does!!".

Discussion

This grounded theory postulates how cycling among Irish adolescents is socially practiced and regulated as 'A Boy's Thing' and indeed how regulated social practices of masculinity and femininity reproduce cycling as 'A Boy's Thing' in Ireland. Substantively, this work contributes to a growing body of literature exploring the relations between cycling and gender in which gender is generally conceived of in binary terms (e.g. Steinbach et al., 2011; Hopkins and Mandic, 2012; Ravensbergen, Buliung and Laliberté, 2019; Ravensbergen, 2020). Throughout the theoretical section of the article, we have shown how the theory provides novel conceptualisations of patterns indicated in existing literature relating the incompatibility of cycling with practices of femininity, such as how the avoidance of sweating as a girl (Ravensbergen, 2020; Russell et al., 2021) can be viewed as a practice of femininity in the form of continence. Furthermore, we have shown how cycling as a means of exemplifying masculinity through various sub-practices relates to existing literature in the field of mobility that evidence the masculine nature of cycling practices in different contexts (e.g. Steinbach et al., 2011; Green, Steinbach and Datta, 2012; Larsen, 2014; Balkmar, 2018).

The practices of masculinity delineated in exemplifying masculinity can be seen broadly as a practices of an (adolescent) hegemonic masculinity (Connell, 2005), in that they are practices that can be seen to legitimise the domination of teenage boys over girls in everyday life through displaying physical superiority (athleticism), an ability to take risks (audacity) and an indifference to danger, all of which are arguably required to enact the social practice of cycling in Ireland as it is currently constituted (see Egan, 2019; Egan and Philbin, 2021). The practices of femininity imparted in the category of incompatible femininity may be viewed as practices of hegemonic femininity (Schippers, 2007), in that they – much like those of exemplifying masculinity – reinforce and legitimate relations of domination and subordination between boys and girls. Gender regulation, then, shows how non-conformity with these Irish hegemonic forms of adolescent masculinity and femininity are subject to social sanctions, particularly when cycling as a girl which is seen as not only engaging in a 'A Boy's Thing' but also practicing and displaying aspects of hegemonic masculinity. Cycling as a teenage girl, then, can be seen to threaten men's exclusive possession of hegemonic masculine characteristics, and most importantly, constitutes a refusal to embody the *relationship between masculinity and femininity* demanded by gender hegemony and, as a result, is subject to gender regulation in the form of stigma and other forms of informal and formal policing. In summary, this grounded theory shows how gendered patterns of cycling in Ireland during adolescence can be seen as a product of a 'gender regime' within the institutions of Irish secondary schools but also an effect of a wider 'gender order' in Irish society (Connell, 2012) in which 'gender difference' is performed by gendered bodies and regulated both formally and informally.

This work can inform intersectoral policies to make cycling more accessible for teenage girls and, indeed, it shows how intersectoral policies and programmes are *required* in order to undo cycling as 'A Boy's Thing' during adolescence. With the gender regime in mind that reproduces cycling as 'A Boy's Thing', two approaches may be considered to enable and promote cycling among teenage girls: a compatibility approach and/or a critical approach. With a compatibility approach, efforts could be made to make the materials, meanings and competences of cycling (Shove, Pantzar and Watson, 2012) in Ireland compatible with the practices of femininity delineated in the category of 'incompatible femininity': modesty, beauty, continence, and caution. Examples of this could be making upright and step-through Dutch bikes widely available and affordable to enable the practice of modesty and feminine dress (in the form of wearing a skirt) (Frater and Kingham, 2020) while cycling; promoting e-bikes as means of cycling that is compatible with the practice of continence due to the decreased

exertion required (Russell et al., 2021); creating segregated cycling infrastructure to cultivate slower cycling that enables continence and caution to be practiced and, fundamentally, does not require masculine practices of audacity, indifference and athleticism. Such interventions could be seen, in general, as an approach to diversify cycling (Aldred and Dales, 2017), which, in time, could potentially dilute the masculinised meanings of cycling in Ireland at present; however, it may also be seen as a way of cultivating a feminised form of cycling, alike to that seen in Copenhagen with the cycle chic movement (Steinbach et al., 2011; Frater and Kingham, 2018) – which is not beyond critique.

With a critical approach, the object of change would not necessarily be cycling itself but the regulated gender performances that prevent cycling amongst teenage girls in Ireland. In this study, alike the female participants of Steinbach et al. (2011), many of the girls enacted resistance to hegemonic femininity. Likewise, many boys rejected hegemonic masculine practices or were acutely aware that they failed to live up to them. Critical interventions could take place at the individual, interactional and institutional level (Risman, 2004). First, efforts could be made to promote and facilitate a rejection and subversion (Butler, 1990) of the hegemonic feminine practices detailed in this study amongst teenage girls in relation to cycling and to promote aspects and capacities to enact cycling in its current form. Accordingly, programmes that enable and facilitate bodily practices that subvert and reject modesty, beauty, continence and aspects of caution as a girl without being subject to social sanctions (i.e. gender regulation) and perhaps even provide scope to practice athleticism, audacity and indifference could challenge aspects of a gender regime that limits teenage girls from having a genuine choice to cycle, thereby undermining cycling as ‘A Boy’s Thing’. Second, at an interactional level, initiatives that look to challenge informal gender regulation as it relates to cycling could be implemented in a way that is founded on ‘alliance’ (Connell, 2005) or ‘coalition’ (Butler, 1990) with any person – girl, boy, non-binary, or otherwise gendered – who is against the forms of gender regulation conceptualised in this study. This could tackle the harassment and stigma received for ‘cycling as a girl’, ‘responsible cycling’ and ‘dressing like a boy’. Third, actions that transform the *mandatory* performance of gender difference in the institutions of Irish secondary schools and render this performance, instead, more voluntary, could also be implemented to address the cycling gender gap. The #andshcycles Ambassador Programme of Green-Schools itself (Green-Schools, 2020), informed by social practice theory (Shove, Pantzar and Watson, 2012), could be seen as one example of a multi-dimensional programme to tackle the cycling gender gap that incorporates aspects of an individual, interactional and institutional approach.

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The authors have no competing interests to declare.

Authors’ Contributions

Robert Egan contributed to the design, methodology, data collection, data analysis, and writing of the research. Jane Hackett contributed to the conception, design, methodology, drafting, critical revision, and approval of the research.

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