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A STUDY OF SPECTATOR EMOTIONS AT THE TOUR DE FRANCE

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ABSTRACT

This paper contributes to the canon of literature on spectator emotions by examining spectator emotions at a major hallmark event. Spectator experience emotions were surveyed via an online questionnaire resulting in 188 valid responses. This resulted in three groups of spectators being surveyed: i) those who watched live from the roadside ii) those watching via a spectator viewing hub and iii) those watching on television. Variables tested were via PANAS scale emotions. They included the positive emotions of interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive and active. The negative emotions were distressed, upset, hostile, irritable, scared, nervous, afraid, guilty, ashamed and jittery. There are also nine categories within the model which are (1) attentive, (2) excited, (3) proud, (4) strong, (5) distressed, (6) angry, (7) fearful, (8) guilty and (9) nervous.The highest positive value feelings of 'Interested, Excited and Enthusiastic' occurred during the live action by those watching on the roadside. Negative feelings were more variable but a highest rating for 'Afraid' increased during the event, suggesting feelings of not wanting to miss anything (action). Further exploration of the emotions experienced before, during and after an event is required in order to more fully understand the complexity of the factors. For those planning and staging cycling and similar multi-stage or multi-site events the mapping (route) and layout of the active spectator and participant arena can be carefully constructed to provide potential emotional hot spots. Emotions vary across time and this appears to be related to mode and location of spectating. It implies that event organisers can utilise different 'experiential components' within an event setting to create conditions that would be conducive to an optimal viewing environment.

Keywords: Affective experiences; Spectator emotions; Tour de France; Sports events impacts; Optimal viewing environment.

INTRODUCTION

Social impacts are increasingly used as one of the main justifications for staging and funding large scale or cultural and sporting events (Leopkey & Parent, 2012). Yet there is very little empirical evidence on the extent to which these impacts are realised by different kinds of events or in different settings (Richards & Palmer, 2010; Fredline, Jago, & Deery, 2003). Literature on socio-cultural impacts of sport events is limited, often as a result of researcher limitations of what represents socio-cultural impact or because events are of varying length. The reason for this lack of attention is that social and cultural impacts are less tangible than economic impacts and therefore it is harder to measure them (Preuss, 2007; Getz, 2005; Kim & Petrick, 2005). Much of the research is concerned with the after effects of sports events. Often the remit is to investigate the association between sport participation and post-event cultural engagement leading to a range of social outcomes (Fujiwara, Kudrna, & Dolan, 2014). Aspects of sports event impacts are mostly concerned with benefits for the community (Gratton, Shibli, & Coleman, 2005) and often characterised by a positive economic impact (Getz, 2005; Gursoy, Kim, & Uysal, 2004). However, these economic impacts have been called into question by some sport economists (Jeanrenaud, 1999; Maennig & du Plessis, 2007).

Despite the lack of research into this area, more recently there have been authors offering examples of how social impacts can contribute to the justification for staging events. The sense of community amongst volunteers was one such study (Kerwin, Warner, Walker, & Stevens, 2015) which illustrated how volunteering can facilitate opportunities to interact and develop bonds with others who have a shared interest in the sport. Public health benefits through increased physical activity leveraged by sports events (the Tour of Flanders cycle race) is another

instance (Derom & VanWynsberghe, 2015). Although in this case empirical evidence to support claims of longitudinal health outcomes were not available.

Often dismissed are the negative impacts of events (Higham, 1999). Aside from the expected benefits, hosting major sport events is also associated with environmental damage, excessive spending, security problems, traffic congestion, prostitution, and displacement of residents (Gursoy, Kim, & Uysal, 2004; Kim, Gursoy, & Lee, 2006; Kim & Petrick, 2005; Ohmann, Jones, & Wilkes, 2006). These possible negative impacts, however, are often neglected by local authorities in order to win public opinion for hosting the event (Kim & Petrick, 2005). Instead, positive factors are highlighted, for example the publicity of the event is regarded as an excellent means for international city recognition and for promoting touristic attractions (Jeong & Faulkner, 1996; Kang & Perdue, 1994). City regeneration and revalorization is often cited as a positive outcome (Hall, 2004), potentially resulting in an improvement of the host community's quality of life (Deccio & Baloglu, 2002; Gursoy & Kendall, 2006; Jeong & Faulkner, 1996). Local governments, who may be involved in many sporting events - either as a sponsor, commissioner or organising body - perceive more positive impacts than negative impacts (Djaballah, Hautbios, & Desbordes, 2015).

When it comes to the experiences of the event itself (rather than the preparation) positive intangible benefits of hosting part of a sporting event with an international profile can include an increase in pride (Wood, 2006), economic confidence (Gelan, 2003) and community cohesion (Shone & Parry, 2004). Social factors, such as contact with tourists who visit during an event, can also contribute to a positive experience (Chen, 2011; Viviers & Slabbert, 2012). Finally, the positive effect of crowd enthusiasm has been investigated with reports of positive emotional contagion, emotional entertainment and group identification being experienced by people who

attend an event in person compared to people watching at home or engaging with other everyday activities (Menzies & Nguyen, 2012). A significant motivator for many to be spectators is that the events may be 'one-off' and therefore historical and unlikely to be repeated in their lifetime.

Thus whilst shared social and cultural experience is a feature of Bowdin, Allen, O'Toole, Harris, and McDonnell's (2011) list of positive and negative impacts of events (adapted from Hall, 1992), it rarely features in specific sports event impact research. Experience itself is though largely recognised as a direct outcome from any event (Berridge, 2007; Getz, 2016 Sharples, Crowther, May, & Orecife, 2014). Indeed studies of leisure per se have long since addressed characteristics of experience (Kelly & Godbey, 1992; Wahlers & Etzel, 1985; Mannell, Zuzanek, & Larson, 1988). In event- based literature there is some focus on participation experience with cycling studied through a recreation specialisation lens (Lamont & Jenkins, 2013) and a professionalization lens (Berridge, 2014).

In a sports context, albeit over a full duration of an event, Jones, Coffee, Sheffield, Yanguez, and Barker (2012) explored emotions by contrasting pre and post-tournament feelings of fans of the World Cup winner Spain in contrast to an English sample before and after the 2010 World Cup.

Both sets of fans displayed emotional changes, with the Spanish fans exhibiting positive feelings over four days after their team had won the tournament. By contrast, England's failure to win the tournament produced no significant extended negative state. Spanish fans' changes were a result of more time spent socializing than the English fans rather than as a result of greater team identification.

Moreover, focusing on one game only, emotions can change dramatically as in Sullivan and Dumont's (2014) study of the pre- and post-match emotions of Germans in Berlin before and

after one Euro 2008 game. In this case, supporters of the winning Germany team displayed a worsening attitude towards Turkish migrants who were arguably represented by the losing Turkish national team. Van Hilvoorde, Elling and Stokvis (2010) specifically focused on national pride and national shame in Holland during 2008 in relation to sporting events (Fifa European Championships, Tour de France, Wimbledon Tennis tournament and the Olympic Games in Beijing all in 2008) finding that pride tended to displace instances of group-based shame. Each of these adopted a slightly different approach to measuring the experience of sports event attendees. However, most considered a range of positive and negative emotions which were closely linked to forms of participation in the event and the extent of identification with the relevant team and group.

Further considerations are important here. Football tournaments such as the European Championship or Fifa World Cup can be enjoyed by a host nation even if their own team does not necessarily succeed in the competition. Particular cities may also benefit temporarily from the international attention that is focused upon them in hosting an important game (i.e., city rather than national pride can sometimes be generated) (Pranić, Petrić, & Cetinić, 2012). Furthermore, mega-sporting events such as the Olympics can create a carnival-like atmosphere that continues for days or weeks depending on the level of interest and involvement of different cities or regions (Sullivan, 2009). Accordingly, it is important to consider the nature of the event, the types of direct engagement with the event that are afforded (e.g., brief direct contact with competitors versus extended distant engagement) (Sullivan, 2012), the extent to which it evokes group identities (e.g, as host or competing nation) and the event itself to understand its impact on people's emotions and group identity (Cottingham, 2012).

Specifically, in relation to the Tour de France there is a paucity of literature on social or cultural impacts. Referring to the after–effects or legacy of an event, Berridge (2012a) discussed image formation and policy impact (Berridge, 2012b) of the 2007 Tour de France Grand Depart whilst Bull and Lovell (2007) looked at the pre- event phase with analysis of residents' views of a stage of the 2007 Tour de France. More recently Balduck, Maes and Buelens (2011) considered residents' perceptions both pre- and post-event by identifying the social impacts that predict residents' willingness to host the Tour de France in the future. In contrast, Leeds City Council and partners (Leeds City Council, 2014) report on the impact of the 2014 event mainly focusses upon economic benefit and legacy, although there is some mention of cultural contribution on the day in terms of artistic output.

In considering the live experience of spectating whilst at an event, focusing upon a stage of the Tour de France, this paper presents a unique insight into what spectators emotions were at a moment in time during the event and in doing so extends knowledge on what factors influence sports event spectating. Sport spectacles like the Tour de France are designed to evoke an entire range of human emotions whether that is watching live, on big screen in a hub or on television at home. Each viewing location offers similarities of spectating, notably the opportunity for empathy amongst spectators (Hoffman, 2009), as well as a sense of communitas (Turner, 1974) Watching live is regarded as the quintessential experience, the 'being there' to witness the event as part of what Turner (1974) would call the communitas of experience, being in the zone. Yet modern sport spectating has become much more of a remote mediated, yet communal, experience that it presents an alternative (or challenge) to watch it live (Raney, 2012). This mediated 'event experience' is created on television with its ability to offer an expansive view of the action via camera angles, replays, analysis and so on. Modern sport spectator hubs,

popularized at the 2006 World Cup in Germany (Berridge, 2007), offer the same mediated event, but whereas television viewing in the home is likely to be solo or amongst a small social group, big screen hubs create a social atmosphere similar to a 'live' audience but with the added benefits of a range of screen based content and facilitated communication (Rowe, 2014).

LITERATURE REVIEW

This paper contributes to knowledge by examining variable spectator emotions at an event as affected by mode of spectating and time. The foremost question posed by this paper is: what emotions are experienced by spectators watching a live sports events. A supplementary question is: how do these emotions vary depending on spectating mode and time spent at the event.

The Nature of Experience and the Experience Industry

Modern event management is largely concerned around experience, or experience opportunities, and whether they are the result of planned environments or individual attendee interaction (Sullivan, 2015). Crowd research has benefitted from new ways of modelling collective behaviour (Templeton, Drury, & Philippides, 2015) and exploring how crowd density may undermine group identification and positive emotion (Novelli, Drury, Reicher & Stott, 2013) but has not attended to how shifts occur between personal interests and genuinely shared collective emotions at mass sporting events (e.g., between being irritated by the crowd and enjoying acting *as a group*; Sullivan, 2015). Events present attendees with unique perspectives and with an opportunity to engage in a collective experience where novelty is assured because they are infrequent and are differentiated by time, place and type (Tassiopoulos, 2010). Such differentiation means that event experiences vary considerably across different event types. In

explaining what an experience is, Schmitt (1999) indicates they are private events (moments), the consequence of stimulation prompting a response that moves the entire living organism.

Experience has also been described as an interactive sensation triggered by a product, service or event and that affects physical and cognitive levels over a period of time (Diller, Shedroff & Rhea, 2008). These sensations are expanded and include the sensorial, symbolic, temporal and meaningful. Insight into the nature and character of this experience is made difficult, however, by its complicated, multi-faceted and variable nature (Rossman & Schlatter, 2008; Ooi, 2005).

Models and Concepts of Experience

Experiences play a central role in people's choices with many seeking an absorbing and immersive experience rather than mundane transactional exchanges (O'Sullivan & Spangler, 1998; Pine & Gilmore, 1999). The role of the event manager is, as far as is possible, to create the setting for experiences to be possible and to manufacture an emotional connection amongst attendees through careful planning of tangible and intangible features of events (Pullman & Gross, 2004). So as experiences have evolved to meet peoples' inner or psychic needs, those designing experiences are taking greater efforts to ensure customers recognise their quality (Ting-Yueh & Shun-Ching, 2010; Peric, 2015). This has attracted academic study and has drawn the attention of researchers who have begun to develop a more detailed understanding and analysis of the way in which events are designed and what occurs during the resulting engagements and collective effervesence of people at the event (Schmitt, 1999; Berridge, 2007; Nelson, 2009; Ayob, Wahid, & Omar, 2013; Cottingham, 2012). Getz (2016) observed that there is a significant amount of relevant discourse on experience and meaning and that an awareness of these is essential if events and their design are going to foster high-level engagement. Getz

argues the basic foundation is to focus on emotions in a personal manner that will then lead to better consumer engagement at events.

It is worth noting there are several models of experience. The aforementioned experience economy of Pine and Gilmore (1999) consists of degrees and levels of emotional involvement, participation and sharing. Their use of Goffman's (1959) theory of dramaturgy offers a distinct understanding of what a staged experience should contain; namely, a theme that provides positive cues engaging all five senses. Grönroos (1990) produced a well-regarded service model where the core of the total experience occurs on the front stage and is supported by other experiential features that add value (Sundbo & Hagedorn-Rasmussens, 2008). Walls, Okumus, Wang, and Kwun (2011) saw experiences as ordinary or extraordinary, noting that they vary on a cognitive and emotional level and where physical and interactive elements of the experience can be affected by the service provider. Using the physical and social environment for experience dependency is central to Mossberg's ideas (2003). This model draws extensively on servicescape (Bitner, 1992) where a range of sensory factors affects the environment (tangible and intangible). O'Dell and Billing (2005) extended this to embrace cultural influences which he termed experiencescape where the attendee helps create meaning of the space for themselves. More recently the term eventscape has been introduced (Tattersall & Cooper, 2014) as a tool for designing event experiences, the model is based around the idea of combining the tangible elements of an event and understanding how they shape and influence the event environment and stakeholder responses.

The prism of experience model (Morgan, Lugosi, & Ritchie, 2010) suggests personality and physical operation factors can be influenced. Building upon pull and push factors, physical and personal operations form the pull of the experience, whilst personal benefit and meaning

form the push. In a more specific event context is Pettersson and Getz's (2009) model that utilises the multi-dimensional nature of experience with three core aspects that affect people. The conative dimension is their behaviour and what people actually do; the cognitive dimension is how they make sense of experience through awareness & judgement; and the affective dimension reflects the feelings and emotions that they use to describe the experience (Mannell, Zuzanek, & Larson, 1988). Central to this is the liminal zone (Turner, 1974) that seeks to also highlight the importance of communitas at an event. This refers to the transient state where attendees are together away from everyday life and are at the event for a common goal. Together they suggest an umbrella of experience is available that covers the multitude of feelings and emotions that individuals get on a physical and cognitive level from their presence at an event. The meaning attributed to the event and the experience is then transmitted via symbols and objects that reaffirm the spatial and temporal purpose of the event.

While authors argue that liminality and communitas at events exists, Chalip (2006) suggests ways in which it can be facilitated through five strategies: i) Enabling sociability - the example of US sports using a tailgate party is provided. The Wimbledon tennis open provided another good illustration of venues facilitating sociability when those without tickets congregate on Murray Mount (formally Henman Hill) to watch the action on Centre Court on large television screens; ii) Event related social events - these are described as "social mixers" sometimes in the lead up to the main sports event; iii) Informal social opportunities - the creation of planned or otherwise spontaneous celebratory space; iv) Ancillary events - where arts events can be used to complement sport events (see the 100 day Yorkshire Festival that preceded the first two stages of the 2014 Tour de France as a good example of this where the local countryside

and traditions were the focus of the celebration); v) Theming - used to enhance the celebration and reinforce the messages for those who attend the event.

Measuring Experience

Studies where they claim to measure actual experience have proven to be misleading as many studies focus upon the design or creation processes of experience (Getz, 2016). Never the less in some studies, measuring event experience has seen a recent shift from a positivistic approach to embrace ethnographic methods (Mackellar, 2013; Jaimangal-Jones, 2014; Stadler, Reid, & Fullagar, 2013; Holloway, Brown, & Shipway, 2010; Green, 2001; Borchard, 1998; Sullivan, 2012). To allow researchers a deeper understanding of the event experience then immersing oneself at the event through participation and speaking to others in the natural setting allows the richness and detail of the human experience to be explored (Holloway, Brown, & Shipway, 2010; May & May, 2014; Berridge, 2014). There have been some attempts to capture the essence of the lived in-situ moment and record the trigger for experience emotions and the variability of feelings across the duration of an event (Berridge, 2012a). Whilst Petterson and Getz (2009) study of visitors at a ski event provided a better understanding of how visitors interact with the event setting and with each other. Investigating the effect of group size in event experiences yielded some interesting emotional states as a result of temporal variability (de Geus, Richards, & Toepoel, 2013). This highlights the need to examine the ways that spectators view the event, as this will have implications on the experience. In psychology, a structured questionnaire approach to experience has been used to measure emotions. This is called the Positive and Negative Affect Scale (PANAS) and uses a set group of emotions to capture feelings during an experience (de Carvalho, Andreoli, Lara, Patrick, Quintana, Bressan, …, & Jorge, 2013).

Sport Event Experience

The theory of the experience of sport spectators has been developed through various studies. Funk, Mahony, Nakazawa, and Hirakaw (2001) considered some aspects of emotional experience within their Sports Interest Inventory and of ten key factors identified they included emotional states of excitement, achievement, pride, and drama. Jacucci, Oulasvirta, and Saolovaara (2007) studied the socio-cultural dimension of rally spectating via a field study on two groups of rally spectators who were equipped with multimedia phones, and shared software that supported groups in creating and sharing experiences. Bee and Havitz's (2010) study of sports spectators' behaviour and loyalty found that psychological commitment and resistance to change are influenced by the involvement and attraction of the fans and mediate the behavioural loyalty i.e. the emotional connection to the sport is like an embedded part of the individual and that bond is strengthened by the habitual engagement with the activity.

Alternatively, some studies have focused on the relationship between sport and money, as sports spectators often financially invest in their sports experience (Kruger & Saayman, 2012). Spending money on attending sports events can influence attitudes, with those spending money placing more importance on sports than those who did not (Gau & Korzenny, 2009). However, the study by Gau and Korzenny (2009) found that people that view sport as important in their lives and are loyal to a team are more willing to take risks, regardless of whether they spent money or not. It could be said that all sports competitions include some level of risks, as the outcome is never certain, and therefore risk taking is a natural part of engaging with a sport (Gau & Korzenny 2009).

In order to provide a good experience, Kruger and Saayman (2012) conducted a factor analysis to determine the critical success factors of a sports experience. They found 4 key

factors: amenities, comfort and visibility, marketing, and personnel and provisions. Other authors (Madrigal, 2003; Phillipe, Vallerand, Andrianarisoa, & Brunel, 2009; Thorpe, 2009) have commented on the nature of leisure experiences, proposing that a sports experience is made up of ongoing experiences and linked to cognitive and affective elements. Madrigal (2003) considers the multiphasic nature of leisure events, including the antecedents, in-situ emotions and evaluative processes, which is particularly pertinent to this study. It was found that goal relevance, in this case how desirable it was for the team to win, was a positive predictor of either positive and negative emotion frequency. Therefore, the interest in the sport and the desire for the team to win can influence emotions. Relating to this study means that those who are more invested in the event will have stronger emotions, whether they are positive or negative. Affective expectations were also found to influence the experience of spectators, thus indicating that it is important to measure spectator's pre-event emotions. Also of relevance to this study is the fact that the means of spectating sport has expanded, and now spectators have the option to watch live, at big screen spectator hubs or on television (Weed, 2008).

METHODOLOGY

Context

The Tour de France is an annual sporting occasion and each year it alternatively traverses a clockwise or anticlockwise route through France. Unusually for a hallmark event it also has a history of partnerships with hosts outside of France offering either a start, parcours or finish for one of the 19 or 20 stage race days that make up the event. With the introduction in the post-war years of a Grand Depart weekend consisting of either a time-trial prologue and 1 or 2 stage days, seven have taken place in other countries including the UK (Berridge, 2012b). The last time the event came to the UK was in July 2007, and attracted between 900,000 and 1.4 million

spectators (Social Research Associates, 2007). It attracts considerable media coverage and includes a large pre-race sponsorship parade and is attractive to towns and cities as hosts (Balduck, Meas, & Buelens, 2011). For the 2014 version there were three stages in the UK. Two were held in Yorkshire and a third ran from Cambridge and finished in London. According to the post-event evaluation conducted by Leeds City Council and partners (Leeds City Council, 2014), 3.5 million unique spectators watched the race over the three stages.

Data Collection

The population for collecting data was spectators who had watched a stage of the Tour de France. A questionnaire was used to collect the data and was administered as a self-completed questionnaire hosted on an on-line website (Survey Monkey). Self-completed questionnaires have been widely used to assess participant motivation to attend other general festival and event research (Getz, 2012) (see for example Nicholson & Pearce, 2001; Van Zyl & Botha, 2004; Kim, Suh, & Eves, 2010; Richards & Wilson, 2004) and in assessing sport based event spectators and fandom (for example Wann, 1995; Madrigal, 2003). During large scale on-site events such as the Tour de France, it is methodologically difficult to achieve probability samples (Kim, Gursoy, & Lee, 2006).

Three areas were identified to hand-out information cards about the study to roadside spectators who could visibly see the race pass by: Leeds City Centre for the start of stage 1, approximately 500 metres from the main Town Hall site and along the route taken by the riders ; Sheffield City Centre for the finish of stage 2, located within approximately 50 metres of the finish line; Elland (Greetland) climb on stage 2, and the length of the climb itself to the peak, approximately 500 metres. The choice of these three was influenced by accessibility in terms of numbers of people likely to attend, convenience, and that they represented three different

segments of the race: a start area; a finish area, and a mid-point race route area. The start and finish areas also had TV hubs in the immediate vicinity, thus potentially enabling some capture of spectators who had watched the race at the hub. Small information cards were created with a short explanation about the research and included the URL link to the on-line survey. These were distributed via a non-random sampling method, which according to Fraenkel, Wallen and Hyun (2012), includes systematic sampling. A form of systematic sampling (non-random sampling with a system) was used to select respondents in each of the three areas (Gibson, Willming, & Holdnak, 2003). This method was adopted largely due to its ease of use, especially amongst large crowds. It also allowed for some removal of the likelihood of a clustered selection being chosen if simple random sampling was used. Every 10th person was selected and approached and once 50 cards had been distributed along a section of the route in the respective areas outlined above, distributors moved to a new section to repeat the process. Movement between route sections was linear rather than as a result of a systematic grid approach to the areas, as some areas were far more populated than others, after 50 cards were handed out distributors moved to a new section that was either 2 minutes' walk or approximately 300-400 metres. As the race route is linear in design being point to point, this approach in theory enabled a wider selection of sections within each area to be sampled. The information cards were handed out across a period of 3 hours at each location which, time wise, covered a 2.5 hour period leading up to the race and 30 minute a period immediately after it had passed. Distributors moved around the areas selected and handed out approximately 500 cards per area = 1500 in total People were asked to complete the survey as soon as was practicable. Additionally, in order to capture more responses, the URL was also distributed via social media, including posting the link on various cycling related discussion forums and this link was available for 14 days after the event 105 people completed the survey

within 7 days of the event (G1) and 83 people between 7-14 days (G2). A total of 188 respondents completed the online survey. Without knowing the exact reach of the forum websites, it is difficult to estimate the response rate, however the response rate given the number of cards distributed was 12.5%.

The survey included a total of nineteen questions. The first 8 questions were closed-questions. These questions focused on the participants' level of interest in cycling; the type of cyclist they were (if applicable); why they watched the race; how/where they watched the Tour de France; feelings, prior, during and after the race; and values associated with the Tour de France. Question 9 was open-ended and asked participants to describe how they felt as the race passed by and was only applicable to those spectators that watched the race on the route. Questions 10 to 16 asked for demographic information on gender, age, ethnicity, education level, relationship status, the city the participant lived in and their employment status. The demographic information was collected for the study, however it was not used at this stage in the analysis on the positive and negative emotions. The last three questions were optional, open-ended and asked on the effect the Tour de France had on the participant, the effect on Yorkshire and on the race returning to Yorkshire again.

There are issues associated with post event evaluation, most notably in self-reported data and accuracy of recall, with a shorter recall period more likely to yield more accurate results (Veal, 2011). The website hosting the questionnaire remained open for 14 days following stage 1.

Measures

The Positive and Negative Affect Scale (PANAS) consists of a number of items and includes two subscales comprised of 10 positive and 10 negative emotions (Merz, Malcarne,

Roesch, Ko, Emerson, Roma, & Sadler, 2013). It has been argued that these subscales (PA and NA) are polar sides of a single dimension (Carrol, Yik, Russell, & Barrett, 1999), whereas others (Larsen, McGraw, & Cacioppo, 2001) believe that it is possible to experience positive and negative emotions at the same time. The positive emotions consist of interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive and active. Whilst the negative emotions include distressed, upset, hostile, irritable, scared, nervous, afraid, guilty, ashamed and jittery. Zevon and Tellegen (1982) have raised the issue of redundancies in the scale and therefore other studies (de Carvalho et al., 2013) have used short forms of the PANAS, however these have usually featured 5 positive and 5 negative emotions. Nine content categories have been acknowledged within the original model: (1) attentive (attentive, interested, alert), (2) excited (enthusiastic, excited, inspired), (3) proud (proud, determined), (4) strong (strong, active), (5) distressed (distressed, upset), (6) angry (hostile, irritable), (7) fearful (scared, afraid), (8) guilty (ashamed, guilty), and (9) nervous (nervous, jittery) (Merz et al., 2013). It is believed that better model fit could be achieved from minimising these overlaps. However, for the purpose of this study the full scale was applied, with the exception of two subscale items (strong and ashamed) which were not deemed to be appropriate. Study participants were asked to report their feelings before, during and after the Grand Depart stages.

Data Analysis

Once collected, data was transferred into SPSS version 20 to allow for analysis. Research using the PANAS scale has previously sought to identify mood content categories in order to determine similar emotions and therefore factor analysis has been widely used in these studies (de Carvalho et al., 2013; Merz et al., 2013). Previous research has applied factor analysis using Maximum Likelihood and Varimax rotation (de Carvalho et al., 2013) and this was applied to the

data in order to explore any clusters of emotions before, during and after the races. After factors had been identified, analysis of variance (ANOVA) tests were carried out to determine whether any significant differences existed depending on how the respondent viewed the event.

RESULTS

Respondents who participated in this study represented a wide spectrum of attendees who had experienced the Grand Depart in various ways. A total of 188 respondents participated in the online questionnaire. To gain a better understanding of the participants, they were asked about their involvement in cycling. The results illustrated that 8% of the survey respondents participated in cycling races, indicating that cycling is a key leisure pursuit for these participants. Club cyclists (defined as those that rode regularly in a cycling club but did not compete in organised race events) (14.4%) were represented in the sample, also indicating a high level of involvement in cycling. A small percentage of respondents (6.4%) were commuting cyclists, whilst the largest group of respondents was leisure cyclists (47.1%). This question also revealed that 22.5% of the respondents do not cycle at all, indicating that the Grand Depart encouraged local residents with no previous affiliation to professional cycling to get involved and watch the event. There was also a small percentage of missing responses (5%). Overall the sample represents groups with varying levels of interest in cycling.

Of particular interest to this study was how participants watched the race as this is a key determining factor of attendee experience. For the Grand Depart it was possible for attendees to view the event live along the route, live on TV or on a big screen at one of the designated 'spectator hubs'. Each of these environments offer some distinction in terms of the spectating experience, atmosphere and social interaction that they offer; therefore, it is important to factor this into the analysis of attendee's experiences.

Respondents were asked to choose one of the options, although some participants may have experienced both days of the Grand Depart, for simplicity participants were asked to reflect on their experience on just one of the two days. Allowing participants to report on both days would have extended the length of the survey which may have led to a lower response rate (Bryman, 2008). The largest proportion of respondents attended the event live on Saturday (33.5%) or Sunday (51.4%). Smaller percentages watched the event at home on Saturday (7%) or Sunday (4.9%). Few respondents watched the event on a big screen at a spectator hub on Saturday (1.1%) or Sunday (2.2%), which limits the possible analysis and comparisons between groups. Nonetheless, these groupings will be used to analyse any differences in experience of attendees.

Attendee's Experience

The PANAS scale (Merz et al., 2013) was used to collect information on the respondent's feelings before, during and after the race. This scale was used to measure the affective experience of the attendees, asking participants to indicate the degree to which they experienced each feeling on a scale of 1-5 with 5 being 'strongly agree'. Analysing the data to determine the reliability of the PANAS scale found a Cronbach's alpha of 0.84 for emotions before the event, 0.80 during the event and 0.81 after the event. This demonstrates that the internal consistency of the PANAS scale as good and is a reliable scale to apply in this context.

Consistent with other studies, (de Carvalho et al., 2013), factor analysis was undertaken using Maximum Likelihood and Varimax rotation. The purpose of the factor analysis was to explore any clusters of emotions before, during and after the races. Analysis of the emotions before the race found five factors which provides a greater understanding of the complexity of emotions in comparison to previous studies which simply group the positive and negative

emotions. The five factors were found to account for 52.82% of variance (Table 1) and four of the factors were found to have an acceptable Cronbach's alpha which illustrates the internal consistency of the factor.

<<<Table here 1 here>>>

Two emotions, guilty and hostile, did not load onto any of the identified factors which demonstrate that they may not be applicable for this context. The first two factors, named stimulated and observant, account for the largest groupings of emotions, however the remaining three factors illustrate that feelings usually classed as negative can be more complex and need to be broken into distinct categories. The factors identified demonstrate some overlap with the nine content categories mentioned in the methodology, however these results could be considered to be more reflective of the events context.

Factor analysis of the emotions during the race also found five distinct factors, however the emotions mapped onto these factors in a slightly different way in comparison to emotions before the race. Table 2 illustrates the five factors that account for 54.60% of variance. Each of these factors has an adequate Cronbach's alpha, with the exception of the 'concerned' factor.

<<<Table 2 here>>>

In this factor analysis, all emotions were categorised with the exception of 'guilty'. Comparing these factors with the ones before the race demonstrates the differences between these two experiences and indicates the tensions and immersion that occurs during the race itself. The categories tend to indicate heightened interest of the crowd during this period.

The final factor analysis explores the emotional groupings after the race, and found four factors that account for 54.04% of variance (Table 3), each factor with an adequate Cronbach's alpha.

<<<Table 3 here>>>

This last factor analysis was the only one that enabled all 18 emotions to load onto the identified factors, indicating that feelings of guilt and hostility are more applicable after the event. Again, some emotions loaded onto factors differently than in the previous analyses which indicates a distinct pattern of emotions that attendees experience after an event. The two factors that appear to be most consistent across the tests are 'stimulated' and 'concerned', however there was still some variability in the emotions included in these categories.

Having identified the emotional factors before, during and after the event, the following table (Table 4) illustrates the mean score for these factors.

<<<Table 4 here>>>

This table demonstrates a change in emotions depending of the timing of the experience. All emotions, both positive and negative, appeared to be highest during the event, which is consistent with literature that suggests that the event experience is heightened during the event (Waitt, 2003). Overall, the analysis illustrates that attendees had higher levels of positive emotions, however other factors such as concern can be a characteristic of events held in public spaces where there may be distress based on the crowd. These results indicate that attendees can be influenced by what happens in the lead up to the actual event (Hsu, Ma, & Chang, 2014). In this particular case feelings of distress and irritability may be influenced by the desire to find a suitable viewing position along the route amongst the crowds. Given that this is a one-time event for Yorkshire, attendees at the live event may have felt anxious to get the most out of their

experience. The nature of cycling events can add to this, because attendee's preparation for the event largely outweighs the duration of the actual experience along the route (Bull & Lovell, 2007) meaning that attendees want to gain the best position for the short time that it takes for the peloton to go past.

Influence of How Attendees Watched the Race

The results were further analysed by conducting Analysis of Variance (ANOVA) tests to determine differences in emotions based on how the event was experienced. First of all, the before the event factors were tested, resulting in two significant differences. The 'stimulated' factor was significantly [F (5,174) = 6.85, p=0.000] higher for those who watched live and watched on the big screen on Sunday. Additionally, the 'observant' factor was significantly [F (5,168) = 2.98, p= 0.013] higher for those who watched live. These results indicate that interest in the event generally coincides with the effort to attend live. Those who are motivated to attend the event live demonstrate higher levels of enthusiasm and interest in the event. Also watching the event live means that attendees need to be attentive due to the fast pace of the event. In contrast, those watching on a big screen or live on television can follow the race along the route rather than just one portion of the route.

Analysis of emotions during the event found that four out of the five factors identified were significant based on how the event was experienced. Like before the event, the 'stimulated' factor was significantly [F (5,175) = 6.64, p=0.000] lower for those who watched live at home and on the big screen on Saturday (see Table 5). The same groups demonstrated significantly lower scores for the 'absorbed' factor [F (5,165) = 3.79, p=0.003]. The group who watched on a big screen on Saturday had the least amount of respondents, so it could be that this affected the results. Further analysis of this group revealed that their key reason for watching the Grand

Depart was the novelty and 'once-in-a-lifetime' factor, indicating that this group is not highly enthused about cycling. Focusing on these cases and exploring their qualitative comments about the experience in response to the open ended questions on the impact on Yorkshire, over 55% of people who watched it on a big screen had positive feelings such as 'Massive - my colleagues and friends were talking about it a lot', 'fantastic' and 'it showed off magnificent countryside and enthusiastic and hospitable people'.

<<<Table 5 here>>>

Interestingly, the 'fearful' factor was significantly [F (5,171) = 4.82, p=0.000] higher for those who watched at home on Saturday and watched on the big screen on Sunday, while the 'focused' factor was significantly [F (5,172) = 3.78, p=0.003] higher for those who attended live and watched on the big screen on Sunday. For those watching on the big screen, respondents could have been irritated by the crowds or their view of the big screen (e.g., see Sullivan, 2012) or similar mixed emotions that occurred during an interrupted and tense but ultimately triumphant football match for a German public viewing crowd). Conversely, the respondents may have been Scared or Afraid of a crash during the race, which did actually happen at the end of this stage with Mark Cavendish crashing just before the finish line.

Last of all, the analysis of emotions after the event only resulted in one significant difference, and this was for the 'stimulated' factor [F (5,167) = 3.86, p=0.002]. It was found that those who watched live at home and on the big screen on Saturday had significantly lower levels for this factor. This indicates that the Sunday route may have been more successful in delivering a lasting legacy of the event and inspiring people to get involved in cycling.

DISCUSSION

The key aim of this study was to gain greater insights into the nature and character of experiences at large scale sporting events (Rossman & Schlatter, 2008; Ooi, 2005; Getz, 2016. The results of the study indicated that experiences of multistage events like the Grand Depart can be multi-faceted with numerous emotions occurring at the same time. Using the PANAS framework it was clear that positive emotions were rated higher than negative emotions for the event. Further exploration of the emotions experienced before, during and after the event highlights the complexity of emotional experiences and the numerous factors that can influence this such as whether the event is regular and local or historical and international.

As indicated in the literature review, the nature of an event experience can differ from other leisure experiences because events operate in the liminal zone (Turner, 1974). In comparison, sports experiences tend to be ongoing experiences (Madrigal, 2003). Yet, Hixson (2014) noted that more engagement and meaning can be derived from events that link to an individual's ongoing leisure pursuits. As such, the event acts as part of their leisure program. Therefore, the interest in cycling and motivations for attending the Grand Depart can influence the emotions and experience of the attendees. Morgan's (2006) prism of experience model agrees with this by explaining that benefit and meaning act as a push factor that encourages attendees to seek out the experience. Therefore, an interest in cycling can influence the experience. An example of this expressed in this study was the results of those watching from home on the Saturday who watched for novelty but did not express an interest in cycling. Consequently, their emotional investment in the event appeared to be much lower than other groups because in many respects this was a carnival of cycling rather than an event with a specific decisive outcome in terms of the overall race (e.g. qualification for a tournament)

A key focus of this study was to examine the emotions of attendees based on how they experienced the event. In this day and age, there are more and more ways that individuals can experience events (Berridge, 2007; Rowe, 2014), therefore this study explored the event experienced by those watching live along the route, those watching live on a big screen at a spectator hub and those watching live on television at home. From the results it was quite clear to see that those attending live along the route tended to report the highest levels of positive emotions. However, the group watching the race on a big screen on Sunday also reported considerably high scores. The complexity of emotions was highlighted in this study, as negative emotions were apparent in conjunction to positive emotions during the event. To further explore this it would be interesting to conduct interviews with attendees to gain deeper insight into this. Further study is needed to determine whether proximity to the riders enhances the experience of roadside spectators in addition to the types of collective crowd emotions that are usually experienced when a crowd has a common focus of attention and individuals feel as if they are acting as a group (e.g., to support a particular competitor such as Mark Cavendish or team that represents their nation such as TeamSky). Distinctions between emotions experienced for personal reasons (e.g., enjoying a spectacle), group-based emotions (e.g., regional pride) and collective emotions (experienced in the crowd if coordinated with others) should be explored in future research.

Another contribution of this study was its insight into the multiphasic nature of experience that enabled the exploration of the different stages of emotions experienced over the time of the event that included the pre, during and post phases. Across the period that the survey was completed, there was no clear correlation that highlighted pre-event emotions were distinctly different between those completing the survey on the day or within a few days (G1) compared to

those a week or so later (G2) . Equally during the live phase of the event no distinct correlation between date of completion emerged, other than to note that those who were only 'quite a bit' excited were less than 10% of the total respondents and were evenly split between G1 & G2. Post-event feelings were extremely high, although notably of those who said they only felt a 'bit excited', 75% were from G1 group. Many event studies propose a longer-term impact, however this study demonstrates that moments are fleeting and the event boosts the attendee emotions only for a short period of time. These results were consistent with Waitt (2003) who found that reactions to the event are usually heightened during the event. Therefore, whilst the event had an impact on the attendees, the effect was short-term. While the affective boost of experiencing the event may appear to have been short-lived, it is important to consider ongoing impact in terms of feelings of pride about Yorkshire and reinvigoration of attachment to and affection for the region.

The event did manage to attract a large number of attendees who were leisure cyclists or not cyclists at all and demonstrated that the event did engage these attendees and elicit an emotional response. In addition to the economic figures generated by the Leeds City Council, claiming 3.5 million spectators, this study demonstrates that the event did have an effect on the attendees and it was the positive emotions such as interest, excitement and enthusiasm that were highest during this event. This highlights the importance of the support and feelings of attendees towards this event that are needed in order for the event to be successful.

In exploring the experience of attendees at the first two stages of the Tour de France, this paper contributes towards the increasing literature base that examines the nature of experience. Experience is a complex entity which numerous researchers have tried to conceptualise and understand (Pine & Gilmore, 1999; Morgan, 2006). To add to this body of knowledge, this paper

has applied the PANAS specifically to one event to explore how the type of viewing experience influences the emotions. The results of this study indicate that the optimal environment for achieving a positive experience for cycling events is live on-route as this appeared to have the most positive effect on emotions. Therefore, the location of the experience is important, but it can also be reflective of the motivations of the attendees. For example, those choosing to attend live on-route may be presumed to be more enthusiastic about cycling and therefore the attendee's interest in cycling may also be linked to the variety of emotions that are experienced before, during and after the event. This is an area that warrants further research to examine the relationship between the cycling interest of the attendee and their emotions.

This study also aimed to determine clusters of emotions in the PANAS scale and how these applied to the various stages of the event. Emotions were clustered into 5 factors before and during the event, but just 4 factors after the event which indicates that the myriad of emotions is more complex before and during the event. However, the two factors that remained constant over the event were 'stimulated' and 'concerned'. This may be due to the nature of cycling events, with attendees being concerned that they may not be able to clearly witness the cyclists as they fleetingly cycle by, but are excitingly anticipating the race and enjoying the surrounding atmosphere. To be certain if these factors are specific to cycling events, this scale would need to be researched in relation to other types of events to determine whether there are any variations.

Naturally, there were limitations to this study which offer directions for further research. For example, this study captured quantitative data in the form of a survey whereas a qualitative form of data collection such as interviews may have provided more in-depth information in regard to attendee's emotions and capturing the full extent of their experiences. Also, the survey

was completed after the event which meant that respondents had to try and recall their emotions. The difficulty with events research is the point of data collection, so that the attendee experience is not disturbed but is not too late that the attendee does not remember how they felt. This raises questions of alternative methods for capturing data on attendee's experience such as photo elicitation during interviews or social media analysis. Future research needs to be conducted on experiences at events in order to establish the variables that contribute towards positive experiences which will help event organisers design and plan their events.

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Table 1.

Factor Analysis of emotions before the race (Note: Maximum likelihood with varimax rotation)

	Factor					
	Stimulated α=0.87	Observant α=0.77	Fearful α=0.74	Concerned α=0.53	Anxious α=0.76	Communality
Interested	0.761					0.688
Excited	0.829					0.729
Enthusiastic	0.870					0.801
Proud	0.622					0.439
Inspired	0.677					0.566
Alert		0.597				0.499
Determined		0.445				0.383
Attentive		0.861				0.867
Active		0.450				0.352
Scared			0.649			0.464
Afraid			0.903			0.846
Distressed				0.676		0.480
Upset				0.775		0.675
Irritable				0.455		0.233
Nervous					0.574	0.463
Jittery					0.937	0.999
Eigenvalues	3.421	1.869	1.438	1.410	1.370	

Table 2.

Factor analysis of emotions during the race (Note: Maximum likelihood with varimax rotation)

	Factor					
	Stimulated α=0.85	Absorbed α=0.79	Fearful α=0.76	Concerned α=0.57	Focused α=0.74	Communality
Interested	0.719					0.670
Excited	0.808					0.825
Enthusiastic	0.728					0.658
Proud		0.483				0.479
Inspired		0.611				0.606
Determined		0.741				0.606
Active		0.801				0.749
Upset			0.484			0.475
Scared			0.996			0.999
Afraid			0.706			0.564
Distressed				0.516		0.541
Hostile				0.622		0.405
Irritable				0.371		0.150
Nervous				0.385		0.312
Jittery				0.528		0.355
Alert					0.905	0.899
Attentive					0.592	0.524

Eigenvalues	2.299	2.261	2.189	1.584	1.494	

Table 3.

Factor analysis of emotions after the race (Note: Maximum likelihood with varimax rotation)

	Factor				
	Stimulated α=0.87	Alarmed α=0.67	Intent α=0.84	Concerned α=0.74	Communality
Interested	0.870				0.818
Excited	0.827				0.743
Enthusiastic	0.740				0.651
Proud	0.574				0.381
Inspired	0.607				0.522
Guilty		0.608			0.387
Scared		0.684			0.484
Hostile		0.501			0.354
Irritable		0.395			0.305
Nervous		0.504			0.290
Jittery		0.405			0.315
Afraid		0.962			0.974
Alert			0.628		0.494
Determined			0.657		0.530
Attentive			0.780		0.712
Active			0.677		0.577
Distressed				0.662	0.505

Upset				0.798	0.687
Eigenvalues	3.149	2.735	2.448	1.395	

Table 4.

Mean scores for emotional factors

	N	Min.	Max.	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Before									
Stimulated	176	1.00	5.00	4.1761	.83310	-1.399	.183	1.866	.364
Observant	170	1.00	5.00	3.3279	.98331	-.277	.186	-.534	.370
Fearful	174	1.00	3.00	1.0747	.27964	4.451	.184	21.600	.366
Concerned	174	1.00	4.33	1.1628	.40029	4.049	.184	23.758	.366
Anxious	174	1.00	5.00	1.6408	.93827	1.538	.184	1.710	.366
Valid N	161								
During									
Absorbed	166	1.00	5.00	3.6446	1.03837	-.478	.188	-.627	.375
Fearful	172	1.00	5.00	1.1027	.38377	7.213	.185	65.582	.368
Stimulated	176	2.00	5.00	4.6155	.67653	-2.029	.183	3.823	.364
Concerned	172	1.00	3.60	1.2674	.46803	2.293	.185	6.028	.368
Focused	173	1.00	5.00	4.0896	1.03951	-1.082	.185	.386	.367
Valid N	161								
After									
Stimulated	168	1.20	5.00	4.1202	.89527	-1.174	.187	.939	.373
Alarmed	165	1.00	3.00	1.1299	.30907	3.472	.189	14.731	.376

Intent	161	1.00	5.00	3.0124	1.07267	-.092	.191	-.736	.380
Concerned	172	1.00	5.00	1.2587	.67856	3.457	.185	13.424	.368
Valid N	151								

Table 5.

Significant differences based on how attendees watched the race

Before					
		N	Mean	Std. Deviation	Std. Error
Stimulated	Attended live Saturday	59	4.1627	.79262	.10319
	Attended live Sunday	91	4.3890	.60396	.06331
	Watch live at home Saturday	11	3.0727	1.10733	.33387
	Watched live at home Sunday	8	3.8250	1.15357	.40785
	Watched on big screen Saturday	2	3.8000	.84853	.60000
	Watched live on big screen Sunday	4	4.2500	.57446	.28723
	Total	175	4.1943	.79984	.06046
Observant	Attended live Saturday	56	3.4241	.89939	.12019
	Attended live Sunday	88	3.4460	.95776	.10210
	Watch live at home Saturday	11	2.4545	.90013	.27140
	Watched live at home Sunday	8	2.8125	1.23020	.43494
	Watched on big screen Saturday	2	2.6250	.53033	.37500
	Watched live on big screen Sunday	4	3.0000	1.41421	.70711
	Total	169	3.3240	.98486	.07576
During					
		N	Mean		Std. Error

				Std. Deviation	
Absorbed	Attended live Saturday	57	3.5526	1.14539	.15171
	Attended live Sunday	85	3.8882	.88599	.09610
	Watch live at home Saturday	11	2.6591	.88227	.26602
	Watched live at home Sunday	8	3.2813	1.00390	.35493
	Watched on big screen Saturday	2	2.7500	.35355	.25000
	watched live on big screen Sunday	3	3.6667	1.52753	.88192
	Total	166	3.6446	1.03837	.08059
Fearful	Attended live Saturday	58	1.0345	.16149	.02121
	Attended live Sunday	89	1.0861	.26366	.02795
	Watch live at home Saturday	11	1.5152	1.18663	.35778
	Watched live at home Sunday	8	1.0000	.00000	.00000
	Watched on big screen Saturday	2	1.0000	.00000	.00000
	watched live on big screen Sunday	4	1.5833	.31914	.15957
	Total	172	1.1027	.38377	.02926
Stimulated	Attended live Saturday	59	4.5932	.68946	.08976
	Attended live Sunday	92	4.7572	.45319	.04725
	Watch live at home Saturday	11	3.9091	1.12636	.33961
	Watched live at home Sunday	8	4.4167	.92152	.32581
	Watched on big screen Saturday	2	3.0000	1.41421	1.00000

	watched live on big screen Sunday	4	4.8333	.19245	.09623
	Total	176	4.6155	.67653	.05100
Focused	Attended live Saturday	59	4.2034	.95646	.12452
	Attended live Sunday	89	4.1966	.98459	.10437
	Watch live at home Saturday	11	2.9091	1.13618	.34257
	Watched live at home Sunday	8	3.8750	1.27475	.45069
	Watched on big screen Saturday	2	3.2500	1.76777	1.25000
	watched live on big screen Sunday	4	4.1250	.62915	.31458
	Total	173	4.0896	1.03951	.07903
After					
		N	Mean	Std. Deviation	Std. Error
Stimulated	Attended live Saturday	56	4.0429	1.00956	.13491
	Attended live Sunday	88	4.3068	.67395	.07184
	Watch live at home Saturday	11	3.1636	1.15868	.34936
	Watched live at home Sunday	7	4.0571	1.06904	.40406
	Watched on big screen Saturday	2	3.5000	1.55563	1.10000
	watched live on big screen Sunday	4	4.1500	.66081	.33040
	Total	168	4.1202	.89527	.06907