The Social Functions of Intergroup Schadenfreude

Pak Chun Yam

Lady Margaret Hall



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Department of Experimental Psychology

University of Oxford

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For Mum and Dad

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ABSTRACT

Schadenfreude is a German word, which describes the pleasure that people take in someone else's misfortune. The aim of the present research was to investigate the social functions of intergroup schadenfreude. Chapter 2 presents Studies 1 – 3, focusing on the social functions of experiencing intergroup schadenfreude in the context of football tournaments, using both concurrent and retrospective methods. Study 1 did not find any relation between change in perceived relative status and intergroup schadenfreude, possibly because of the sample's low domain interest and identification. However, schadenfreude was positively associated with change in status in Study 2 and with change in performance evaluation in Study 3 as expected. Also, across all three studies, intergroup schadenfreude was associated with consequences corresponding to its social distancing (e.g., distance from or dislike of the outgroup and intention to humiliate its members) and social affiliation functions (e.g., intention to celebrate with ingroup members). Importantly, schadenfreude mediated the effects of change in status (Study 2) and performance evaluation (Study 3) on these consequences. Chapter 3 presents Studies 4 and 5, which investigated whether social status is specifically associated with intergroup schadenfreude, and examined whether this social concern helps to differentiate intergroup schadenfreude from victorious joy (i.e., happiness about a third-party's victory). I developed a new experimental paradigm to manipulate participants' concern for status to elicit feelings of intergroup schadenfreude. I also manipulated participants' concern for external rewards associated with the third-party's victory to prompt victorious joy. However, in both studies, the concern for external rewards was the main influence on both intergroup schadenfreude and victorious joy, although a multivariate interaction between the two motives affected these emotions in Study 4. Hence, these studies suggest that status may be only one of the many motives underlying intergroup schadenfreude. Chapter 4 presents Study 6, which was a vignette-based study investigating the social affiliation functions of sharing intergroup schadenfreude as a function of ingroup identification. Participants read tweets from an ingroup member expressing either intergroup schadenfreude or victorious joy. Identification was also manipulated. However, results showed that recipients of intergroup schadenfreude messages formed more negative impressions of the tweeter and intended to distance themselves from him/her more than recipients of victorious joy messages. Chapter 5 provides an overview of the findings, contributions, and limitations of these six studies and discusses directions for future research. Overall, this thesis went beyond the current focus on the antecedents of schadenfreude and took steps towards the development of a social-functional account of intergroup schadenfreude.

DETAILED ABSTRACT

The research presented in this thesis aimed to develop a social-functional account of intergroup schadenfreude (i.e., pleasure about an outgroup's misfortune). Chapter 1 introduces the concepts of schadenfreude and reviews previous literature on schadenfreude, which has mainly focused on the antecedents of this emotion. Chapter 1 also provides an overview of theories guiding the present conceptual framework and methodological approach, including Intergroup Emotions Theory and the Social Functional Account of Emotions, and highlights the role that emotions may play in helping group members to attain or maintain social status. This chapter thus argues that the central function of intergroup schadenfreude is to regulate social status, and emphasises the importance of ingroup identification in intergroup schadenfreude. It ends with an outline of the research aims and a summary of the six studies reported in this thesis.

Chapter 2 investigates the social functions of experiencing intergroup schadenfreude and presents findings from my first three empirical studies (Studies 1 to 3). Many of the previously proposed antecedents of schadenfreude (e.g., envy, self-esteem and inferiority) imply that individuals or ingroup members feeling schadenfreude were temporarily in an inferior position relative to the other person or to the outgroup prior to the onset of schadenfreude. Further, social functionalists have suggested that emotions

can serve both social distancing and social affiliation functions. Thus, I propose that intergroup schadenfreude should serve both of these functions in response to status differentials. In Study 1, undergraduates read scenarios about the England football team losing to Italy, and about Italy then losing to Spain in the 2012 European Championship. Results showed that intergroup schadenfreude was positively related to perceived distance between England and Italy, and to the intention to humiliate Italy's fans, consistent with a social distancing function. Intergroup schadenfreude was also associated with the intention to celebrate with other England fans, consistent with a social affiliation. However, contrary to my hypothesis, change in perceived relative status was not reliably correlated with intergroup schadenfreude, possibly because the sample was low in domain interest and ingroup identification. Study 2 therefore took place during the 2014 FIFA World Cup, assessing genuine football supporters' real-life emotional reactions to their team's elimination by a second-party outgroup and their schadenfreude following the subsequent defeat of this rival by a third-party team. Results showed the expected relations between change in perceived status and intergroup schadenfreude. Furthermore, consistent with Study 1, schadenfreude was negatively associated with liking of the second-party rival and positively associated with the intention to humiliate its fans, indicating a social distancing function. Schadenfreude was also positively associated with the intention to celebrate with other ingroup members, supporting a social affiliation

function. Importantly, schadenfreude mediated the effect of change in status on these hypothesised consequences. Study 3 was conducted four months later to replicate findings of Study 2 by having England supporters read several news articles describing the same events that happened during the tournament. Results were similar to the findings of Study 2; schadenfreude mediated the effects of change in performance evaluation on the hypothesised consequences. These findings also highlight the fact that both concurrent and retrospective methods produced similar results relating to social consequences of experiencing intergroup schadenfreude. Together, these three studies provide the first evidence concerning the functionality of intergroup schadenfreude in regulating social status.

Chapter 3 presents two experimental studies that examined whether social status is a specific cause of intergroup schadenfreude and whether status concern helps to distinguish schadenfreude from victorious joy (i.e., feeling happy about a third-party's victory). Considering limitations of previously used methodologies in creating suitable comparison groups, I developed an emotionally engaging experimental paradigm that could manipulate motives for experiencing intergroup schadenfreude and victorious joy in the laboratory. In Study 4, participants represented their colleges in an intercollegiate competition allegedly playing against other colleges. Status motive (high vs. low) was manipulated to elicit intergroup schadenfreude by changing the sequences of the games

and by providing bogus performance feedback to participants. Instrumental motive (high vs. low) was introduced to elicit victorious joy by providing rewards associated with a third-party's victory. It was predicted that, if status is a specific concern underlying intergroup schadenfreude, then only the status motive manipulation should have an effect on intergroup schadenfreude, whereas only the instrumental motive manipulation should have an effect on victorious joy. In fact, only the instrumental motive manipulation had significant main effects on both intergroup schadenfreude and victorious joy, providing preliminary evidence for a non-specific account of intergroup schadenfreude. Nevertheless, a multivariate interaction between status and instrumental motives affected both emotions. Further, after controlling for victorious joy, the status motive manipulation had the predicted effect on intergroup schadenfreude, thus partially supporting the role of social status in intergroup schadenfreude.

Study 5 was conducted to replicate the findings of Study 4 after improvements to the experimental method. In particular, I introduced external rewards associated with the victory of the second-party rival to Study 4's low instrumental motive (positive vs. negative) condition to ensure participant's involvement in the competition. The results again only found significant main effects of the instrumental motive on intergroup schadenfreude and victorious joy, providing further evidence that status may only be one of the many motives underlying intergroup schadenfreude. However, after controlling for

victorious joy, there were no significant effects of either motive on intergroup schadenfreude, suggesting that the intergroup schadenfreude measure may have been contaminated by victorious joy. Hence, the conclusion drawn from these two studies relating to the non-specific role of social status in intergroup schadenfreude should be considered as tentative.

Chapter 4 presents the sixth and last study of this study, intended to examine the communicative functions of intergroup schadenfreude. Following previous research showing that expressing schadenfreude facilitates social bonding, and that intergroup schadenfreude is related to the intention to celebrate with ingroup members (Studies 1 – 3), I predicted that sharing intergroup schadenfreude with ingroup members would serve a social affiliation function. English football fans read tweets (edited from genuine messages posted on Twitter during 2014 FIFA World Cup) written by a fictional English football supporter, expressing either schadenfreude after Uruguay's defeat against Colombia or victorious joy about Colombia's victory. Ingroup identification (high vs. low) was also manipulated to examine its moderating effect on the influences of these emotional tweets on the hypothesised social consequences. Contrary to my prediction, recipients of intergroup schadenfreude messages were more likely than their counterparts in the victorious joy condition to form negative impressions of the tweeters and to distance themselves from him/her. These findings suggest that the social affiliation

function of communicating intergroup schadenfreude depends on the appropriateness of the social context. Interestingly, there was a significant interaction between emotion and identification. In the high-identification condition, recipients of schadenfreude tweets reported feeling more schadenfreude than recipients of victorious joy tweets. In the low-identification condition, both recipients of emotional messages reported similar level of schadenfreude. These results suggest that high identifiers might have conformed to the existing emotional norms and consequently upregulated their experiences of intergroup schadenfreude. Overall, this study provides the first evidence concerning the communicative effects of intergroup schadenfreude and also opens several avenues for future research.

Chapter 5 is the final chapter. It summarises the major findings of the six studies with reference to the overarching research aims. Overall, the first three studies on the social consequences of experiencing intergroup schadenfreude provided the first evidence for the social distancing and social affiliation functions of intergroup schadenfreude in regulating social status. The next two lab-based experimental studies showed support for the effectiveness of the new paradigm I developed for eliciting intergroup schadenfreude and victorious joy in the laboratory. However, the results did not provide supportive evidence for the specific role of status in intergroup schadenfreude. Rather, they suggested that intergroup schadenfreude is just a kind of joy based on the appraisal of

motivational congruence. The last study on the communicative functions of intergroup schadenfreude highlighted the fact that sharing intergroup schadenfreude with ingroup members may not always facilitate social bonding as intended when compared to sharing victorious joy. The chapter then describes several contributions of this thesis to the existing literature on (intergroup) schadenfreude. It ends with a discussion of the limitations of this thesis and highlights areas for future research.

CHAPTER 1: GENERAL INTRODUCTION

This chapter provides an overview of previous literature pertaining to the research reported in this thesis. I first introduce the concept of schadenfreude and review research on intergroup schadenfreude. I then describe two theories – Intergroup Emotions Theory and Social Functions of Emotion – which provide guidelines for the conceptualisation of intergroup schadenfreude and for the development of a social-functional account of intergroup schadenfreude. This is followed by a discussion of the role of ingroup identification in intergroup schadenfreude. I conclude the chapter by outlining the research aims and the structure of this thesis, and summarising the six studies reported in subsequent chapters.

Introduction

When riots and lootings swept across several major cities in England less than a year before the London 2012 Olympic Games, international onlookers responded to the chaos with hints of amusement. The Russian newspaper *Pravda* titled their report: *London riots: Divine justice?* (Bancroft-Hinchey, 2011), while the Chinese state-owned magazine *Global Times* sarcastically headlined: *Is there a revolution taking place in London?* Their responses to England's chaos clearly demonstrate that, rather than feeling sympathetic, people at times feel delighted or pleased about someone else's misfortune. The German word *schadenfreude* is used to describe such pleasure derived from the misfortunes of others. Because it goes against the human virtue of being compassionate toward others who are suffering, schadenfreude is often described as a malicious kind of joy (Wills, 1981). Indeed, philosophers have long questioned the morality and legitimacy of this

feeling (Nietzsche 1887/1967; Schopenhauer 1841/1965; see also Portman, 2000). Other philosophical discussions have noted the negative social implications of schadenfreude. For example, schadenfreude might be a disguised form of aggression (Aristotle, 350BCE/1991) and could be harmful to social relations (Heider, 1958).

Despite its deeply rooted negative connotations, people readily experience schadenfreude in a variety of social settings (Kant, 1797/1966; Portman, 2000). In order to understand when people experience schadenfreude, research has focused on the antecedents of schadenfreude in both interpersonal and intergroup contexts (see, R. H. Smith, Powell, Combs, & Schurtz, 2009; van Dijk & Ouwerkerk, 2014; van Dijk, Ouwerkerk, Smith, & Cikara, 2015, for reviews). However, little research attention has been given to the social consequences and social functions of schadenfreude. Since emotions have different implications for interpersonal and intergroup relations (Fischer & Manstead, 2008; Mackie, Maitner, & Smith, 2009; Niedenthal & Brauer, 2011; Parkinson, Fischer, & Manstead, 2005), the experience and expression of schadenfreude should also lead to outcomes that are socially relevant and functional. This argument is consistent with the social-functional approach to emotion, which argues that emotions are adaptive solutions to problems in the social environment (Keltner & Haidt, 1999). To fill this gap in literature, this thesis builds on the social-functionalist tradition and investigates the potential social consequences of schadenfreude in intergroup settings (e.g., What do

people do after experiencing schadenfreude? How do people react to the sharing of schadenfreude? What are the psychological benefits of intergroup schadenfreude?). Further, inferences based on these consequences will be used to establish a functional account of intergroup schadenfreude.

In the next sections, I review existing literature on intergroup emotions and the antecedents of schadenfreude, the social-functional account of emotion, and social identification theory, followed by an outline of hypotheses and designs of the six studies that I conducted for this thesis. I end the thesis with discussion of findings, propose a functional account of intergroup schadenfreude (Keltner & Gross, 1999), and discuss the implications of schadenfreude to intergroup relations.

Defining Schadenfreude

Schadenfreude, as introduced above, is defined as the pleasure derived from the misfortune befalling another person or group. In emotion research, this definition is further refined by several specifics. First, schadenfreude is conceptualised a social emotion because the pleasure is directed toward another person or group (Hareli & Parkinson, 2008; Heider, 1958). Second, the misfortune is not directly caused by the person or the group experiencing schadenfreude (i.e., the *schadenfroh*), such as triumphing over or defeating the others. Rather, it is caused by a third party or by happenstance (Ben-Ze'ev, 2000; Heider, 1958; Nietzsche, 1887/1967; Ortony, Clore, &

Collins, 1998). Thus, the last feature of schadenfreude is that it is experienced through passive observation rather than active infliction of suffering (Leach, Spears, & Manstead, 2015). All of these characteristics help to differentiate schadenfreude from other closely related phenomenon.

Although emotion researchers have proposed clear defining features, it remains questionable whether schadenfreude is actually a unique emotion that can be easily distinguished from other forms of joy (cf. Hareli & Parkinson, 2008; Parkinson & Manstead, 2015). On the one hand, Leach and colleagues (2015) present results that are consistent with the claim that schadenfreude is distinct from positive emotions such as pride and gloating based on their respective phenomenological components. For example, these authors showed that schadenfreude is different from pride, which is related to personal achievement, and that it is distinguishable from the closely related emotion of "gloating" which results from the person triumphing over the other and thus is characterised by a more active, direct, and expressive experience than schadenfreude. Porter, Bhanwer, Woodworth, and Black (2014) also demonstrated that schadenfreude is different from sadism, because schadenfreude results from passively witnessing a misfortune, whereas sadism involves deliberate infliction of pain on others. Seip, Rotteveel, van Dillen, and van Dijk (2014) made a similar distinction between vengeance and schadenfreude by arguing that vengeance involves active hurting or harming of

another person whereas schadenfreude corresponds to passive observation of another person's misfortune.

On the other hand, it has been proposed that schadenfreude is not much different from other kinds of joy because of their common dependence on appraisals of motivational congruence. In other words, schadenfreude, like other kinds of joy, is evoked when an event satisfies one's concerns (van Dijk et al., 2015). In fact, all kinds of pleasant emotions, including gloating and pride, involve motivational congruence. (Ellsworth & Smith, 1988; Frijda, 1986; Lazarus, 1991). Thus, it is important to examine whether there are some intrinsic features of schadenfreude that make it a distinctive pleasant emotion. This means that researchers should investigate whether schadenfreude embodies a specific pattern of appraisal and involves a unique social relational goal (Roseman, Wiest, & Swartz, 1994).

There will be more discussion about whether or not schadenfreude is a unique emotion that is distinct from joy in Chapter 3. Nonetheless, the purpose of this section is to introduce the characteristics of schadenfreude being defined in the emotion literature and to highlight the similarities and differences between schadenfreude and other apparently related phenomena.

Schadenfreude as an Interpersonal Emotion

As mentioned in the introduction, schadenfreude research to date has mostly

focused on the antecedents of schadenfreude. More specifically, many of these studies have examined the factors leading to the experience of schadenfreude in interpersonal relations. Empirical evidence has so far isolated five antecedents leading to interpersonal schadenfreude. The first relates to the common claim that envy causes schadenfreude (Heider, 1958; Smith & Kim 2007; see also Powell, Smith, & Schurtz, 2008; R. H. Smith et al., 2009, for reviews). Envy is an unpleasant emotion, which is elicited when people lack and desire others' superior qualities, achievement, or possession (Parrott & Smith, 1993). When a misfortune befalls an envied target, the direction of social comparison changes from upward to downward, thus relieving the painful feeling of envy, and hence the experience is pleasing (Ortony et al., 1998; van Dijk, Ouwerkerk, Goslinga, & Nieweg, 2005). Although some studies have shown that schadenfreude is stronger when misfortunes befall envied individuals or outgroups (e.g., Brigham, Kelso, Jackson, & Smith 1997; Cikara & Fiske, 2012; R. H. Smith et al., 1996), other studies have challenged this envy-schadenfreude relationship (e.g., Feather & Sherman, 2002; Hareli & Weiner, 2002; Leach & Spears, 2008). The conflicting findings might be due to the failure to control for dissimilarity between the perceiver and the target of schadenfreude (van Dijk, Ouwerkerk, Goslinga, Nieweg, & Galluci, 2006) and to make an important distinction between benign envy and malicious envy. Benign envy involves the motivation to improve oneself in ways that increase similarity to the envied person,

whereas malicious envy involves the desire to pull down the envied target. It has been shown that malicious envy is a better predictor of schadenfreude than benign envy (R. H. Smith, Thielke, & Powell, 2014; van de Ven et al., 2015).

The feeling of envy is often accompanied by the belief that the envied person not deserving of his or her superiority (e.g., Heider, 1958; R. H. Smith et al., 1994). Therefore, perceived deservingness is another important antecedent of schadenfreude. Several authors have argued that schadenfreude is elicited when the misfortune befalling a person or an outgroup is seen as deserved (e.g., Ben-Ze'ev, 2014; Feather, 2006, 2014; Heider, 1958; Ortony et al., 1988; Portmann, 2000), because positive emotions are elicited when people get what they deserve (Feather, 1999; 2006). A series of empirical studies have demonstrated that the deservingness of a misfortune strongly predicts schadenfreude (Feather & Sherman, 2002; Feather, Wenzel, & Mckee, 2013, van Dijk et al., 2005; van Dijk, Ouwerkerk, & Goslinga, 2008). Moreover, as illustrated by the work of Feather and his colleagues (2002; 2008; 2013), others receiving undeserved positive outcomes prior to the misfortune can also evoke resentment and schadenfreude. However, it should be acknowledged that associations between deservingness and schadenfreude seem less strong and consistent in intergroup contexts (Leach & Spears, 2008; 2009).

A third determinant of schadenfreude concerns whether the person dislikes the target. Hareli and Weiner (2002) showed that pre-existing negative attitudes (e.g., dislike

or anger) toward an unfortunate target evoked schadenfreude, independent of envy. They found that the degree of these negative emotions was positively correlated with the intensity of schadenfreude. Feather and Sherman (2002) also observed a negative correlation between liking and schadenfreude. Furthermore, Feather and McKee (2013) found that the extent to which the target is liked or disliked moderated the effects of perceived deservingness on schadenfreude. People are more likely to experience schadenfreude when a disliked target receives a deserved punishment. It should be noted, however, that dislike has not been found to be a robust predictor of intergroup (as opposed to interpersonal) schadenfreude (Leach & Spears, 2008; 2009).

The fourth factor leading to schadenfreude is low or threatened self-esteem or self-evaluation. This leads to a greater need to maintain and restore feelings of self-worth because evaluating oneself positively represents a fundamental human concern (e.g., Sedikides & Strube, 1997; Sherman & Cohen, 2006; Taylor & Brown, 1998; Tesser, 1998). One of the ways to enhance self-esteem is to engage in downward social comparison (Sedikides, & Strube, 1997; Taylor & Brown, 1998; Wills, 1981).Thus, individuals with a low or threatened sense of self-worth readily feel schadenfreude because comparing themselves with unfortunate others enables them to feel better about themselves (see van Dijk, & Ouwerkerk, 2014; van Dijk et al., 2015, for discussions). Empirical work by van Dijk and colleagues (2011; 2011b; 2012) confirmed this idea; individuals felt more

schadenfreude when their self-esteem or self-evaluation was at stake. When they were given an opportunity to self-affirm, however, they felt less schadenfreude because they no longer had the need to self-enhance.

The fifth and final antecedent of schadenfreude to be noted is hypocrisy. Two recent studies by Powell and Smith (2013) showed that seeing people suffer as a consequence of their hypocritical behaviours induced schadenfreude, especially when the hypocrites were caught for actions about which they had previously moralised. Furthermore, the relationship between hypocrisy and schadenfreude was consistently mediated by the perception of hypocrisy. Deservingness of the misfortune, but not initial dislike of the hypocrite, also mediated the hypocrisy-schadenfreude relationship, but less consistently than the perception of hypocrisy.

Although this collection of work has identified the major determinants (e.g., envy, perceived deservingness, hostility, self-esteem, hypocrisy) of schadenfreude in interpersonal settings, it is worth noting that not all of these studies obtained supporting evidence for the links between some of these proposed antecedents and schadenfreude. Depending on how these antecedents are conceptualised or operationalised and what factors are included in the investigation, researchers may find that some factors may predict interpersonal schadenfreude better than the others. This highlights the fact that schadenfreude is a multifaceted emotion, that may be determined by a number of

intercorrelated antecedents. The complexity of schadenfreude is even more apparent in intergroup relations as I will discuss below, after introducing the concepts of intergroup emotions.

Intergroup Emotion Theory

Emotions can be experienced not only at the individual level, but also at the group level (Parkinson et al., 2005). The latter has been the central theme of Intergroup Emotion Theory (IET: Mackie, Silver, & Smith, 2004; E. R. Smith, 1993; E. R. Smith, Seger, & Mackie; 2007; see also, Mackie et al., 2009, for a review). The theory combines the social identity and self-categorization perspectives (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) with appraisal theories of emotion (Frijda, 1986; Roseman, 1984).

IET is grounded in the social identity approach to group behaviours. According to Social Identity Theory (SIT; Tajfel & Turner, 1979), our self-concept includes both personal and social identities. When a social identity becomes accessible, as argued by Self-categorization Theory (SCT; Turner et al., 1987), people are more likely to categorise themselves not as a unique individual but as an interchangeable member of the relevant group. For instance, an individual may categorise him or herself as a British citizen when watching the Olympics games because inter-national competition is a key element of this context. When such a depersonalisation process has taken place, people begin to think

themselves as a typical member of a group, sharing the characteristics of other group members and appraising events through the lens of their group membership. Hogg and Turner (1987), for example, showed that female participants were more likely to categorise themselves as women and consider themselves as having qualities associated with women when gendered categories became salient.

IET also adopts assumptions from appraisal theories of emotion and applies them to the explanation of intergroup emotions. According to appraisal theories (Frijda, 1986; Lazarus, 1991; Roseman, 1984), individually based emotions comprise of different components, including thoughts, feelings, and action tendencies, and are elicited by individuals' subjective evaluations (i.e., appraisals) of whether and how the events or situations at hand satisfy or threaten their personal goals or concerns. As a result of inter-individual variation in appraisals, different people may experience different emotions in response to the same event or situation, and are thereby motivated to behave in the different ways prescribed by these emotions. In line with this reasoning, according to IET, when people categorise themselves as group members, they no longer appraise and respond to event or situations based on their personal goals but instead based on their own group's goals. Because of this shift in appraisals (i.e., to intergroup appraisals), group members feel different intergroup emotions.

Simply put, IET assumes that when individuals categorise themselves as members

of a group, and identify with that group, they begin to appraise and respond to situations and events affecting the ingroup in terms of their group memberships. The group-based appraisals then incite different intergroup emotions, which in turn motivate corresponding collective behaviours. Since its formulation in 1993 by E. R. Smith, IET has received considerable attention and empirical support. For example, Gordijn, Yzerbyt, Wigboldus, and Dumon (2006) showed that participants felt anger and were more likely to act against a perpetuator's harmful behaviours when they categorised themselves as being in the same group as the victim rather than the same group as the perpetrator, and these effects were mediated by appraisals of unfairness. Hence, these investigators succeeded in confirming the postulated necessary condition for generating intergroup emotions. In addition, E. R. Smith and colleagues (2007) demonstrated that participants' emotional experiences differed when thinking of themselves as members of a group and when thinking of themselves as unique individuals, thus supporting the notion that self-categorisation shifts the pattern of appraisal from individual-based to group-based and, more importantly, highlighting the fact that individual emotions are distinct from intergroup emotions.

In sum, IET provides an important framework for understanding the processes underlie the generation of intergroup emotions. It also points to the necessity of distinguishing individual-level emotions from intergroup emotions. In this thesis, I will

use this theory as the foundation for the conceptualisation of intergroup schadenfreude.

Schadenfreude as an Intergroup Emotion

Following IET's propositions, intergroup schadenfreude can be conceptualised as the pleasure that ingroup members derive from the misfortune of an outgroup (Spears & Leach, 2004). Emerging research has shown that intergroup schadenfreude happens in competitive intergroup contexts such as sporting, academic, political, and consumption settings. In sports, Leach, Spears, Brancombe, and Doosje (2003) showed that Dutch football fans were happy about their long-time rival Germany losing in the quarterfinal at the World Cup. Leach and Spears (2009) later demonstrated that schadenfreude was not only directed towards a previous competitor who had outperformed the ingroup, but could also be displaced toward a third party who had not previously defeated the ingroup. Hoogland and colleagues (2015) obtained similar evidence that college basketball fans felt more schadenfreude when they read about their rival players suffering from injury. In academic settings, Leach and Spears (2008) found that undergraduate participants felt schadenfreude at the failure of a more superior university during a fictitious inter-university quiz. In the political arena, Combs, Powell, Schurtz, and Smith (2009) showed that one's political party affiliation predicted schadenfreude at the misfortune befalling another party. In the consumer realm, Ouwerkerk, van Dijk, Vonkeman, and Spears (2016) found that BlackBerry users who were highly identified with the brand and were

interested in smartphones felt more schadenfreude after reading negative news about their rival, Apple iPhone.

Not only can people experience schadenfreude in competitive situations, but also they can feel this emotion toward outgroup members who fit certain kinds of stereotype. According to the stereotype content model (SCM; Fiske, Cuddy, & Glick, 2007), groups who are perceived as competitive and high in status are more likely to be seen as threatening. As a result, Cikara and Fiske (2012) found that participants reported feeling least negative, and exhibited more smiling facial muscle movements when misfortunes befell competitive and high-status targets like bankers, compared to targets associated with different stereotypic profiles.

Taken together, these findings provide converging evidence that schadenfreude can be experienced at an intergroup level. The next question, then, is under what circumstances group members are most likely to experience intergroup schadenfreude. According to SIT (Tajfel, 1978; Tajfel & Turner, 1979), group members are motivated to maintain a positive evaluation of their ingroup, especially when they experience identity threats. One of the ways to affirm group identity in adversity is to direct malevolence toward the outgroup which poses threat to the ingroup. Consistent with this reasoning, Leach and colleagues (2014) argue that the feeling of inferiority caused by defeat is an important determinant of schadenfreude. Similarly, van Dijk and colleagues (2015) note

that group members are more likely to feel intergroup schadenfreude when they suffer from the pain of upward social comparison and have the need to enhance their collective-self. By feeling schadenfreude at the misfortune befalling an outgroup, group members can relieve the pain of invidious comparison, thereby affirming social identity and maintaining positive ingroup evaluation.

Previous empirical studies have provided consistent evidence for the notion that the ingroup's pain of inferiority is an important antecedent of intergroup schadenfreude. Leach and Spears (2008; 2009) found that the pain of inferiority, established by either by having the ingroup losing to a second party or being reminded of ingroup's poor performance, was the strongest predictor of schadenfreude compared to the other antecedents (e.g., envy, perceived deservingness, hostility) mentioned above. Schadenfreude toward the second party was also associated with positive evaluation of the ingroup (Leach & Spears, 2009), confirming that schadenfreude is experienced to compensate for the pain of inferiority. Interestingly, the pain of inferiority caused by losing to a second party also predicted subsequent schadenfreude toward the failure of a third party which played no role in the ingroup's inferior position (Leach, 2003; 2009).

In short, the studies I have reviewed so far have revealed when and why interpersonal and intergroup schadenfreude occurs. Some effort has also been made to integrate different antecedents within one single structural model (Feather et al., 2013;

Leach & Spears, 2008). Notably, the existing research has mostly neglected the social consequences and functions of experiencing and expressing intergroup schadenfreude. In an attempt to fill this gap in literature, my investigation for this thesis will build upon the theoretical framework of the social-functional approach to emotions (e.g., Fischer & Manstead, 2008; Keltner & Haidt, 1999; Parkinson et al., 2005).

Social-Functional Account of Emotions

The social-functional account has its roots in the evolutionary approach, which assumes that emotions are evolved adaptive systems designed to resolve survival and reproductive challenges (e.g., Ekman 1992; Frijda, 1986; Lazarus, 1991; Levenson, 1999; Oatley & Jenkins, 1992; Tooby & Cosmides, 1990). Likewise, the social-functional account of emotions focuses on how emotions help resolve problems present in the social environment (e.g., Fischer & Manstead, 2008; Keltner & Haidt, 1999; Parkinson, 1996). It treats emotions as coordinated syndromes of responses encompassing physiological changes (Levenson, Ekman & Friesen, 1990), action tendencies (Frijda, 1986), and expressive behaviours (Keltner, Ekman, Gonzaga, & Beer, 2003) that serve to solve relational problems and regulate on-going social interactions (Keltner & Haidt, 1999). To illustrate, anger is elicited when one's pursuit of goals is frustrated by the target's blameworthy behaviours (e.g., Ortony et al., 1988; Roseman, Antoniou, & Jose, 1996; Rozin, Lowery, Imada, & Haidt, 1999; Scherer, 1986; 1997). It involves different

componential responses, including heightened autonomic arousal (Levenson et al., 1990), brief expressive behaviours such as furrowed brows and clenched fists (Keltner et al., 2003) and the readiness to attack and threaten the blameworthy target (Lazarus, 1991), all of which serve to achieve the social function of anger, i.e., imposing changes and exerting control over the blameworthy target (Fischer & Roseman, 2007; Timmers, Fischer, & Manstead, 1998).

The social functions of emotions not only apply to interpersonal relationships as illustrated in the anger example; emotions in fact coordinate social interactions at four different levels: individual, dyadic, group, and cultural (c.f. Keltner & Haidt, 1999; Keltner, Haidt, & Shiota, 2006). At the individual level, emotions provide information to the individual about the social environment (Lerner & Keltner, 2001; van Kleef, 2009) and prepare the individual for actions that align with current interests (e.g., Frijda, Kuipers, & ter Schure, 1989; Levenson, 1999; Russell, 1995). At the dyadic level, emotions coordinate social interactions by facilitating the communication of feelings and intentions (Ekman, 1993; Fridlund 1994; Keltner et al., 2003; Parkinson, 2005) and eliciting complementary and reciprocal emotions and behaviours in the receiver (Dimberg & Öhman, 1996; Tiedens & Fragale, 2003; van Kleef, de Dreu & Manstead, 2004). At the group level of analysis (Keltner & Haidt, 1999; Keltner, Haidt, & Shiota, 2006), the focus is on how emotions help group members to attain common goals (e.g., Clark, 1990;

Collins, 1990; de Waal, 1996), which include defining group boundaries and identities (Fischer & Manstead, 2008), negotiating group-related roles and statutes (e.g., Clark, 1990; Collins, 1990) and motivating collective behaviours (Mackie et al., 2009). Lastly, at the cultural level, emotions help individuals acquire cultural values and identities (Haidt, 2001, Rozin, Haidt, & McCauley, 2008).

Of particular relevance to the current project is the group-level analysis of the social functions of emotion. Numerous studies have confirmed that intergroup emotions help to solve various group-related problems. For example, happiness towards the ingroup and anger towards the outgroup increase ingroup identification (Kessler & Hollbach, 2005), admiration for an outgroup regulates social hierarchy (Sweetman, Spears, Livingstone, & Manstead, 2013), and group-based guilt predicts support for collective apology (McGarty, Pedersen, Leach, & Mansell, 2005).

According to Fischer and Manstead (2008; see also Keltner & Haidt, 1999), any emotion's social functions should be defined by the social relational goals inferred from the characteristic appraisals associated with the emotion. The reason is that these appraisals manifest the common social relational problems underlying the many circumstances that elicit the emotion and, hence, highlight the goals of that emotion in resolving these problems. To illustrate, anger can be evoked by diverse incidents, from a fellow classmate free-riding in a group project, to a colleague unfairly receiving a

promotion, to the ingroup being treated with racism by an outgroup. What is common to these events is that they all involve the perception of justice, which is one of the appraisals associated with anger (C. A. Smith & Ellsworth, 1985). Anger functions to change the behaviour of the blameworthy targets (Fischer & Roseman, 2007) by making the angry person hostile and ready to attack (Kuppens, van Mechelen, Smits, & de Boeck, 2003).

Social-Functional Account of Intergroup Schadenfreude

What is the social relational goal that defines the social function of intergroup schadenfreude? Prior research into schadenfreude's antecedents may provide some clues about emotion's characteristic and inherited motivation. As discussed above, schadenfreude arises from envy (e.g., R. H. Smith & Kim 2007), low or threatened self-esteem (e.g., van Dijk et al., 2011), ingroup's pain of inferiority (e.g., Leach & Spears, 2008; 2009; Leach et al., 2003), and the perception of hypocrisy (e.g., Powell & Smith, 2013). These antecedents share a common characteristic; in each case, the person or group feeling schadenfreude was temporarily in an inferior position with respect to the other person or group prior to the onset of schadenfreude. Even research on the roles of deservingness and dislike in schadenfreude at times has used scenarios where the targets of schadenfreude held a superior position in certain domains (e.g., Feather, 2008; Feather & McKee, 2013, Hareli & Weiner, 2002). All these findings imply that schadenfreude may stem from concerns about the relative position of the self or the ingroup in the social

hierarchy and that its appraisal depends on whether or not the misfortune can improve ingroup's social standing. This view is concordant with other theorists' conceptualisation of schadenfreude as the pleasure derived from the gain earned through downward comparison (Brigham et al., 1997; R. H. Smith et al., 2009). In an intergroup setting, this gain would be related to the attainment of group status (Tajfel & Turner, 1986) – defined as the relative position of the ingroup with respect to other groups in important domains (Sachdev & Bourhis, 1987) – because reaching high social status is one of the most fundamental motivates for group members (e.g., Barkow, 1989). Hence, my central assumption for this thesis is that an important social function of intergroup schadenfreude is to regulate the ingroup's status in social hierarchies.

To show that the social function of intergroup schadenfreude is to regulate the ingroup's status, I will follow the research methods proposed by various social functionalists (Keltner & Haidt, 1999; Morris & Keltner, 2000). In particular, after identifying the common social problems and the social relational goals of an emotion, as I have done above, researchers should examine the consequences of that emotion. Inferences are then made about how these consequences help to resolve the hypothesised problems. As exemplified earlier, the hostile tendency after experiencing anger functions to prepare the person to act against the blameworthy person.

It should be noted that, the functional analysis not only examines the social

consequences of experiencing an emotion, but also the social effects of expressing it. This is because emotional expressions are sources of social information that guide social interactions (Fischer & Manstead, 2001; Parkinson, 1996; van Kleef, 2009), elicit emotional reactions in observers (Hess & Blairy, 2001; van der Schalk et al., 2011) and influence behaviours of social partner(s) (Parkinson et al., 2005). For example, anger displays signify a damaged relationship (Fischer & Roseman, 2007) and elicit fear in the recipient (Dimberg & Ohman, 1996), which may help to deter his or her misconduct.

In this thesis, I will adopt the research strategies explained above to develop a social-functional account of intergroup schadenfreude. Specifically, I will investigate the social consequences of experiencing intergroup schadenfreude (Chapter 2) and the communicative effects of sharing intergroup schadenfreude with other ingroup members (Chapter 4). Furthermore, I will attempt to provide experimental evidence concerning the specific role of status in the experience of intergroup schadenfreude (Chapter 3).

The Role of Ingroup Identification

Recall that at the heart of IET is the assumption that intergroup emotions are experienced only when people identify with a particular group and categorise themselves as an interchangeable members of the group. When social identity is salience, group members are more likely to appraise events based on their relevance to group's concern. For example, Kuppens and colleagues (2013) showed that participants whose student

identity was made salient felt more angry after reading an article describing students from another university being unfairly treated, and that the effect of social identity on group-based anger was mediated by the proportion of unfavourable thoughts about the events that mentioned their group membership. These findings indicate that the salience of social identity makes events more group-relevant and thus leads to more group-based appraisals and stronger intergroup emotions. Consistent with these findings, E. R. Smith et al. (2007) also showed stronger ingroup identification leads to more intense experiences of intergroup emotions.

Similar evidence has been obtained in studies of intergroup schadenfreude. For example, Combs and colleagues (2009) found that the level of ingroup identification predicted the level of schadenfreude toward an opposing political party. Hoogland and colleagues (2015) also found that basketball fans' identification with their own team positively correlated with intergroup schadenfreude. Nevertheless, not all studies support the role of identification on intergroup schadenfreude (e.g., Leach & Spears, 2008). One possible explanation is that the effects of ingroup identification on intergroup schadenfreude might be moderated by other situational factors such as domain interest (see Iyer & Leach, 2008; van Dijk et al., 2015, for discussions).

The influences of ingroup identification do not just pertain to the intensity of the intergroup emotions felt, but also to group members' attention to other group members'

emotional expression. This is because high identifiers, whose social identity is central to their self-concept, pay more attention to group-related information than low identifiers and thus are more motivated to responsive to emotional displays by fellow group members. E. R. Smith and colleagues (2007), for example, found that highly identified Republican and Democrat supporters' emotions converged to the average emotional profiles of the respective parties more than those who were less identified, suggesting that ingroup identification determines group members' motivation to attend to others' emotional expressions.

Taken together, these findings suggest that ingroup identification not only intensifies the experiences of intergroup schadenfreude, but also moderates group members' responses to others' displays of intergroup schadenfreude. In light of this, the present research will include measures of group identification to assess their direct and moderating effects on schadenfreude and related outcomes.

Research Aims and Summary of Chapters

The overarching goal of the research reported in this thesis is to go beyond previous studies focusing on antecedents by examining the social functions of intergroup schadenfreude in the regulation of social status. Guided by the social functionalist approach, the primary objectives are: firstly, to investigate the social consequences of experiencing intergroup schadenfreude; secondly, to experimentally test the specific role

of social status in intergroup schadenfreude; thirdly, to examine the communicative effects of sharing intergroup schadenfreude within groups; and lastly, to consider the influence of ingroup identification on experienced and expressed intergroup schadenfreude. Although not a central theme of this thesis, the current research also includes measures of a range of antecedents identified in previous literature, such as inferiority, envy, hostility, perceived deservingness, for replication purposes.

This thesis reports six studies conducted to achieve the different objectives outlined above. These studies used a variety of methods, including surveys (Study 3), laboratory-based experiments (Studies 4 and 5), and vignettes (Studies, 1, 2 and 6), and used samples of both student and non-student participants. Details of each of these studies are summarised below, with reference to my research aims.

Social Consequences of Experiencing Intergroup Schadenfreude

Chapter 2 presents three survey-based studies (Studies 1 to 3) that investigated the social consequences of experiencing of intergroup schadenfreude. This set of studies followed the procedures of previous research and used football tournaments as the context for intergroup competition (e.g., Leach et al., 2003; Leach & Spears, 2009). In all of these studies, the teams that participants supported (i.e., ingroup) were first defeated by a second-party rival, thus forming a temporary threat to ingroup's status. Later, this second-party rival was eliminated by a third-party outgroup, thus providing participants the

opportunity to improve the ingroup's status and experience intergroup schadenfreude.

This cluster of studies constituted the first attempt to investigate whether or not intergroup schadenfreude experienced in response to the second-party rival's defeat would be associated with the status-regulating functions (social distancing and social affiliation) proposed by Fischer and Manstead (2008). It also sought to verify whether intergroup schadenfreude would be correlated with a range of previously identified predictors, such as inferiority, envy, perceived deservedness, hostility, and ingroup identification.

Study 1 used a sample of students from the United Kingdom and was based on the results of the 2012 World Cup Championship. The study was exploratory in nature, intending to provide preliminary evidence for the links between intergroup schadenfreude and its corresponding social functions. Study 2 was an extension of Study 1 but was novel in its focus on events that were still unfolding at the time of the study rather than recollections of previous tournaments. The study was carried out during the FIFA World Cup 2014 using a sample of genuine football supporters of various national teams (England, Italy, and The Netherlands) and aimed to confirm whether the hypothesised social functions would be supported using non-retrospective methods. Study 3 aimed to replicate findings of Study 2 using the more familiar retrospective method. A sample of genuine supporters of the England team were asked to read news articles reporting the

same events that provided the context for intergroup schadenfreude in Study 2, thus permitting me to directly compare the findings obtained using different methodologies.

Status Concern as a Specific Appraisal of Intergroup Schadenfreude

Chapter 3 addresses a fundamental and yet unanswered question pertaining to the role of group status in the elicitation of intergroup schadenfreude. It presents two experimental studies which were designed to test whether intergroup schadenfreude depends exclusively on concerns for the ingroup's status or whether other concerns can also produce the same emotional outcome. Correspondingly, these two studies assessed whether different concerns produce distinct positive emotions: schadenfreude in the case of status concerns, and victorious joy (i.e., feeling happy about a third-party's victory) in the case of a more directly instrumental concern (winning an assigned bet on the outcome). In order to address methodological limitations of previous schadenfreude research relating to the use of vignettes (cf. Parkinson & Manstead, 1993) and the absence of fully matched control conditions (see Parkinson & Manstead, 2015), I developed a novel experimental paradigm involving manipulation of unfolding outcomes during a directly involving team competition for these two experiments.

In Study 4, my main goals were, first, to test the effectiveness of the new paradigm in directly eliciting intergroup schadenfreude and victorious joy in the laboratory, and second, to examine the specific effect of status concerns on intergroup schadenfreude.

The laboratory-based experimental paradigm was developed as an intercollegiate competition similar to that used in prior research by Leach and Spears (2008). Participants represented their own colleges and allegedly played against other participants who were representing different colleges. In the predetermined competition, participants were first eliminated by the second-party outgroup and subsequently witnessed the second-party rival losing to the third-party outgroup.

Participants' concern for ingroup's status (high vs. low status motives) was manipulated by altering the sequences of games and the feedback they received about their performance. Participants' motive to support the third-party college was manipulated on the basis of external rewards. In the high instrumental motive condition, participants were given a direct incentive for victory by the third-party outgroup in the final of the tournament, whereas in the low instrumental motive condition no incentive was provided. If status concern is the specific motive underlying all instances of intergroup schadenfreude, then there should only have been a main effect of the status manipulation (and not of the instrumental motive manipulation) on intergroup schadenfreude. Conversely, the instrumental motive manipulation (and not the status motive manipulation) should have had a main effect on victorious joy. In fact, the results revealed a more complicated picture.

Study 5 was conducted as an extension of Study 4, aiming to clarify its results and

to address some of its potential methodological limitations. There were several modifications to the experimental procedures and both manipulations (status and instrumental motives), intended to strengthen the salience of the status manipulation as well as to control the differences in the game involvement between the high and low instrumental motives.

Communicative Effects of Sharing Intergroup Schadenfreude

Chapter 4 introduces a new area of research, focusing on the communicative effects of sharing intergroup schadenfreude. Following the results of Studies 1 to 3, I investigated whether displaying intergroup schadenfreude to ingroup members would serve a social affiliation function and whether such expressions evoke similar emotional reactions in recipients. In addition, I examined whether these communicative effects were moderated by the level of ingroup identification.

This online vignette study was based on the emotionally worded tweets expressed during the 2014 FIFA World Cup tournament. I chose this as the research context because social media messages (especially those focused on the outcomes of sports contests) seemed to provide one of the few socially acceptable platforms for open displays of schadenfreude, making it more likely that participants would respond honestly.

Participants were genuine English football supporters, who were first given manipulated information indicating that they were involved with the England team at

either a high or low level (identification manipulation). Participants then read tweets expressing either intergroup schadenfreude or victorious joy about Uruguay's (who caused England's elimination at an earlier stage) defeat to Colombia. If expressions of intergroup schadenfreude serves a stronger affiliation function than displays of victorious joy, they should produce stronger convergent emotional responses in participants, more positive perceptions of the tweets and the tweeter, and stronger intentions to befriend the tweeter. Importantly, these effects should also be stronger for high identifiers than for low identifiers.

Chapter 5 is the concluding chapter, summarising and integrating the findings of the six studies with reference to the research themes outlined above. Chapter 5 also includes discussion of the limitations of the studies, the implications of my findings for developing our understanding of the social functionality of intergroup schadenfreude, and of potential avenues for future research.

Overall, this thesis aims to develop a social functional account of intergroup schadenfreude by focusing on the social consequences of experiencing intergroup schadenfreude in regulating social status, the specific role of status in the appraisal of intergroup schadenfreude, and the communicative effects of sharing intergroup schadenfreude within the ingroup. All the studies reported in this thesis were designed with these goals in mind and will be detailed at greater length in the following chapters.

CHAPTER 2: SOCIAL FUNCTIONS OF EXPERIENCING INTERGROUP SCHADENFREUDE

This chapter presents three studies investigating the status-regulating functions of intergroup schadenfreude. Study 1 investigated undergraduates' emotional and attitudinal responses to news articles reporting results of the 2012 European Championship. Study 2 assessed real-life experiences of intergroup schadenfreude among football fans during the 2014 FIFA World Cup. Study 3 used similar measures four months later when another sample of England fans read news reports of the same tournament. In Study 1, change in perceived relative status was not significantly related to schadenfreude, probably because of the sample's low interest in football and low identification with the national team. However, schadenfreude was positively associated with change in ingroup status in Study 2 and with change in performance evaluation in Study 3, thus highlighting the role of status in intergroup schadenfreude. Further, schadenfreude was consistently associated with distance between ingroup and the outgroup in Study 1 and with dislike of the outgroup in Studies 2 and 3, and with intentions to humiliate outgroup members across all three studies, supporting the view that intergroup schadenfreude serves a social distancing function. Schadenfreude was also associated with intentions to celebrate with other ingroup members, indicating that it serves a social affiliation function. Finally, schadenfreude mediated the effect of change in status (Study 2) or change in performance evaluation (Study 3) on each of these consequences. Similar patterns of findings were obtained using both concurrent and retrospective methods. Taken together, these findings provide novel evidence for the social functionality of experiencing intergroup schadenfreude.

Introduction

Emotions are important to our social life because they have specific social functions (see Keltner & Haidt, 1999) that involve regulation of interpersonal and intergroup relations (Fischer & Manstead, 2008; Mackie et al., 2009; Parkinson et al., 2005). As a social emotion (Hareli & Parkinson, 2008), schadenfreude should also serve relation-regulating functions. However, most research into schadenfreude has focused on

its antecedents rather than its functional consequences (see van Dijk & Ouwerkerk, 2014; van Dijk et al., 2015; for reviews). The studies reported in this chapter attempt to fill this gap in the literature by following the research strategies advocated by the social functional account of emotion (Fischer & Manstead, 2008; Keltner & Haidt, 1999) and investigating how intergroup schadenfreude helps to regulate status differentials.

Social Functions

As discussed in Chapter 1, the social-functional account of emotions focuses on how emotions help resolve problems in the social environment at four different levels: individual, dyadic, group, and cultural (Fischer & Manstead, 2008; Keltner & Haidt, 1999; Keltner et al., 2006). At the group level, emotions help group members to define group boundaries and identities (Fischer & Manstead, 2008), negotiate group-related roles and statutes (e.g., Clark, 1990; Collins, 1990) and motivate collective behaviours (Mackie et al., 2009). Numerous studies have shown that discrete emotions serve these functions. For example, happiness towards the ingroup and anger towards the outgroup increase ingroup identification (Kessler & Hollbach, 2005), admiration for an outgroup regulates social hierarchy (Sweetman et al., 2013), and group-based guilt predicts support for collective apology (McGarty et al., 2005).

What is the social function of intergroup schadenfreude? According to Fischer and Manstead (2008), an emotion's social functions should relate to the social relational goals

associated with its characteristic appraisals. These appraisals reflect one's or one's group's immediate, active social-relational concerns (Frijda, 1986; Mackie et al., 2004) and thus they can guide inferences about the goals that the emotion serves (Roseman et al., 1994). Along similar lines, prior research into schadenfreude's antecedents may provide hints about this emotion's social-relational goals. As noted in Chapter 1, the evidence suggests that schadenfreude arises from envy (R. H. Smith & Kim 2007), low or threatened self-esteem (van Dijk et al., 2011), ingroup's pain of inferiority (Leach & Spears, 2008; 2009; Leach et al., 2003), and the perception of hypocrisy (Powell & Smith, 2013). These antecedents highlight a common relational problem prior to the onset of schadenfreude: the person or group feeling schadenfreude is temporarily in an inferior position to the other person or group. Even research on the roles of perceived deservingness and hostility in schadenfreude has often used scenarios where the targets of schadenfreude held a superior position before the misfortune happened (e.g., Feather & Mckee, 2013; Hareli & Weiner, 2002). All these findings imply that schadenfreude may depend on concerns about the relative position of the self or the ingroup in the social hierarchy. Similarly, characteristic appraisals may relate to whether or not the misfortune can maintain or improve the self's or ingroup's social standing.

This view of schadenfreude is also consistent with the conceptualisation of schadenfreude as pleasure deriving from downward social comparison (Brigham et al.,

1997; Smith et al., 2009). In intergroup settings, the most relevant social comparisons relate to group status, defined as the relative position of the ingroup with respect to other groups in important domains (Sachdev & Bourhis, 1987). According to social identity theory (Tajfel, 1978; Tajfel & Turner, 1979), group members are motivated to maintain a positive evaluation of the ingroup. One of the ways to affirm group identity is to compare the ingroup with an inferior outgroup (Brown & Zagefka, 2006; Hogg & Terry, 2000; Wills, 1981). Indeed, Nietzsche (1887/1967) regarded this aspect of schadenfreude as a "vengefulness of the impotent" (p.37). Schadenfreude, hence, may function to restore threatened group status when more favourable intergroup comparisons become available (cf. Fischer & Manstead, 2008). Consistent with such an account, Leach and Spears (2009) found that schadenfreude toward a rival outgroup which had previously defeated the ingroup was associated with more positive ingroup evaluation. Hence, I propose that the social concern underlying intergroup schadenfreude relates to regulation of the ingroup's status in the social hierarchy.

Social Distancing Function

If intergroup schadenfreude depends on social status concerns, what are its specific functions in regulating and maintaining ingroup's social status? The social-functional account suggests that intergroup schadenfreude may be one of a range of emotions that serve social distancing functions and help to maintain boundaries between

the ingroup and outgroups, thus protecting or enhancing the ingroup's social standing (Fischer & Manstead, 2008; Keltner & Haidt 1999). Contempt serves a distancing function (Fischer & Roseman, 2007) because its expression emphasizes its target's lower status in the social hierarchy (Melwani & Barsade, 2011; Morris & Keltner, 2000). Similarly, intergroup schadenfreude may help to rebalance status difference, both by highlighting negative characteristics of a particular outgroup (Bruckmüller & Abele, 2010), and by motivating ingroup members to distance themselves from the outgroup. Distancing from the outgroup has been shown to be an effective way to protect group identity (Gonzalez & Brown, 2006), and to develop negational identity (who we are not), thus making outgroup derogation more justifiable (as discussed below; Zhong, Phillips, Leonardelli, & Galinksy, 2008). This process should result in a reduction in liking for the outgroup, as evident in previous research showing that schadenfreude is related to negative evaluations of the outgroup suffering a misfortune (Leach & Spears, 2009) and to negative feelings toward a brand after a product failure (Sundie, Ward, Beal, Chin, & Oneto, 2009).

If schadenfreude serves a social distancing function, it should also motivate expressive behaviors which emphasize the boundaries or dissimilarities between ingroup and outgroup. Although research on the expression of schadenfreude remains scarce, there is evidence that the facial expression of schadenfreude often takes the form of

smiling (Cikara & Fiske, 2012) or laughing (Buckley, 2014). These overt expressions may constitute a form of humiliation when directed at members of an outgroup (e.g., Mann, Feddes, Leiser, Doosje, & Fischer, 2015) because they highlight its failure or inferiority. Thus, the humiliating nature of expressed schadenfreude may lead to greater distance between ingroup and outgroup and a lowering of the outgroup's status. In these studies, I assessed how intergroup schadenfreude motivates the intention to humiliate the second-party outgroup.

Social Affiliation Function

According to the social-functional account, emotions can serve affiliative as well as distancing functions (Fischer & Manstead, 2008). Indeed, emotions which predominantly serve a distancing function can also serve an affiliative function when expressed to different targets. For example, shared hatred may not only distance ingroup members from an outgroup but also bond ingroup members together. Similarly, shared intergroup schadenfreude may serve an affiliation function when directed at other ingroup members. For example, Feyaerts and Oben (2014) observed that schadenfreude is readily expressed in spontaneous conversations among peers. Importantly, the expression of schadenfreude can be a communicative act indicating positive in-group bonds and strengthening social relationships. For example, members of a low-status group are more likely than members of a high-status group to share negative information about an

outgroup in order to show loyalty and enhance ingroup status (Hopman & van Leeuwen 2009). Similarly, gossiping negatively about an outgroup serves a status-enhancing function (McAndrew, Bell, & Garcia, 2007). More directly, schadenfreude has been shown to be correlated with spreading negative word-of-mouth information with others (Sundie et al., 2009). Based on this evidence, I propose that the social affiliation function of intergroup schadenfreude involves celebrating an outgroup's misfortune with other ingroup members, which can potentially enhance ingroup solidarity and status.

Identification

As discussed in Chapter 1, Intergroup Emotion Theory (IET; Mackie et al., 2004; E. R. Smith, 1993; E. R. Smith et al., 2007) argues that intergroup emotions depend on individuals categorising themselves as part of a group and identifying with that group. Further, identification determines the extent to which group members appraise events or situations as group-related, and these group-based appraisals in turn determine the intensity of ingroup emotion. For example, it has been shown that the salience of social identity positively predicts the extent of group-based appraisals, which in turn determines the intensity of intergroup emotions (Kuppens et al., 2013). In addition, different levels of ingroup identification may result in group members appraising the same emotion-eliciting situation differently. For example, high identifiers are less likely than low identifiers to focus on the negative aspect of their country's past in order to avoid feeling

collective guilt (Doosje, Branscome, Spears, & Manstead, 1998). Although there is growing evidence that ingroup identification positively predicts intergroup schadenfreude (e.g., Combs et al., 2009; Hoogland et al., 2015), not all studies have replicated this effect (Leach & Spears, 2008, see also Iyer & Leach, 2008, for a discussion). The present research attempts to substantiate these findings in different research contexts.

Other Predictors of Intergroup Schadenfreude

In addition to identification, previous research has identified a range of antecedents that precede the onset of schadenfreude. They include feelings of shame (relating to the pain of inferiority, Leach et al., 2003; Leach et al., 2008; 2009), envy (R. H. Smith & Kim, 2007), hostility toward the (second-party) target (e.g., Hareli & Weiner, 2002), and perceived deservedness of the target's success (Feather & Sherman, 2002; Feather et al., 2013). The present studies also examined how well these antecedents predict intergroup schadenfreude in the present context.

The Present Research

The present research tests the proposed social functions of intergroup schadenfreude in response to status differentials. I conducted three studies using football tournaments as the context for intergroup comparisons. Specifically, an ingroup team was first defeated by a rival second-party outgroup, making the ingroup relatively inferior to the outgroup in the social hierarchy, and constituting a temporary threat to group status

(as demonstrated in prior research, Leach & Spears, 2009). Subsequently, the ingroup was provided with an opportunity to improve its status and experience schadenfreude following the defeat of the second-party outgroup by a third-party outgroup. Following previous research on schadenfreude, I predicted that feelings of shame, envy, and hostility toward the second-party outgroup (Hareli & Weiner, 2002) would be positively related to schadenfreude, whereas perceived deservedness of ingroup's defeat to the outgroup[1] would be negatively associated with schadenfreude at the later stage. In line with IET, I also predicted that ingroup identification would be positively related to these antecedents, and to schadenfreude itself. Moreover, I hypothesised that change in ingroup's status would be positively correlated with schadenfreude toward the second-party outgroup and intentions to humiliate the second-party and to celebrate with other ingroup members, but negatively correlated with liking of the second-party outgroup. Finally, I predicted that schadenfreude would mediate the effect of change in ingroup's status on these consequences.

Study 1

To my knowledge, no previous studies have directly investigated the consequences of schadenfreude, so Study 1 has an exploratory element. I tested the

[1] Previous studies (e.g., Feather & Sherman, 2002; Feather et al., 2013) have shown that the perceived deservingness of another person's or outgroup's success negatively predicted resentment and in turn positively predicted schadenfreude. Conversely, my studies assessed the perceived deservedness of ingroup's defeat to the targeted outgroup. I predicted that deservedness would correlate negatively with schadenfreude.

hypotheses outlined above by having participants read and respond to vignettes describing the actual results of the 2012 European Football Championship. Specifically, participants first read that England lost to Italy at the group stage of the event putting England in an inferior position (T1). This circumstance established the antecedents of subsequent schadenfreude. Participants then read about Italy's loss to Spain in the final of the tournament (T2), thus providing an opportunity to experience schadenfreude because it is pleasing to observe the failure of an outgroup (Italy) which had previously outperformed the ingroup (England). Previous studies have shown that similar vignettes describing real-life international football competitions can successfully elicit schadenfreude (Leach et al., 2003; Leach & Spears, 2009)

Method

Participants. Fifty-one undergraduate students (12 men and 39 women; M_{age} = 18.50) from the University of Oxford participated in the study for course credit. Their domain interest (M = 2.78, SD = 1.99)[2] and their identification with the England team (M = 3.45, SD = 1.80) were both significantly below the midpoint (4) of the scale, $t(50) = 4.36$, $p < .001$ and $t(50) = 2.17$, $p = .034$.

Procedure and materials. Participants completed a web-based questionnaire,

[2] Participants' interest in football was measured by the question "How interested are you in football?" rated on a 7-point scale running from (1) *not at all interested* to (7) *very interested*.

which was headed “Emotional Reactions to Team Performance.” They were told that the purpose of the study was to investigate people’s emotions and attitudes concerning intergroup competition. Participants were then presented with a scenario based on the actual results of the 2012 European football championship accompanied by video clips highlighting the important moments of the events.

Participants were first asked to imagine that they were fans of the England team and then read that England performed fairly well at the group stage of the event, advancing to the quarter-finals, where they played against Italy. The game against Italy was (accurately) described as a close match, ending in a penalty shoot-out wherein Italy eventually won by 4-2. Participants were then asked to report their emotional responses to the event and their identification with the England team (T1). Participants then proceeded to read the further information that Italy advanced to the final of the tournament in which they played against Spain, who dominated the game to win 4-0 (T2). Finally, participants completed a series of questions measuring schadenfreude and other dependent variables. They were reminded to answer them from the perspective of a fan of the England team. See Appendix A for relevant materials.

T1 Measures.

Antecedents of schadenfreude. I assessed participants’ emotional responses after reading the reports delineating England’s defeat to Italy. Their feeling of inferiority (or

shame) was assessed by the item "ashamed". Envy was measured by two items: *envious* and *jealous*, $r(49) = .75$, $p < .001$. These items were rated on a 10-point scale (0 = "*not at all*;" 9 = *"very much*"). Hostility toward Italy was assessed by asking participants to indicate to what extent they agreed with three statements adapted from van Dijk et al. (2006): "I hate the Italy team;" "I have a feeling of contempt for the Italy team;" and "I dislike the Italy team" on a 7-point Likert scale (1 = "*strongly disagree;*" 7 = "*strongly agree*") ($\alpha = .90$). Perceived deservingness of ingroup's inferiority was measured by the item "To what extent do you think England's defeat to Italy was deserved?" (1 = "*not at all deserved*;" 7 = "*very deserved*")

Perceived status. A single question assessed how participants perceived England's status relative to Italy's: "To what extent does the England team have higher status than the Italy team?"(1 = "*much lower;*" 7 = "*much higher*").

Ingroup identification. Participants answered the question "How strongly do you identify with the England team?" on a 7-point Likert scale (1 = "*not at all identified;*" 7 = "*very identified*").

T2 Measures.

I measured participants' perceived ingroup status and ingroup identification again at T2 using the same measures as at T1. Additionally, I included the following measures to assess participants' experiences of schadenfreude and the consequences of

experiencing it.

Intergroup schadenfreude. Five items adapted from previous studies (Powell & Smith, 2012; van Dijk et al., 2006) were used to assess schadenfreude toward Italy on a 7-point Likert scale (1 = "*strongly disagree;*" 7 = "*strongly agree*"). They included: "I enjoyed what happened to the Italy team;" "I am satisfied with what happened to the Italy team;" "I am amused by what happened to the Italy team;" "I couldn't resist a little smile;" and "I actually had to laugh a bit" (α = .92).

Distance between ingroup and outgroups. I used the first item from the Overlap of Self Ingroup and Outgroup scale (OSIO; Schubert & Otten, 2002) to measure the distance between ingroup and the second-party outgroup. This one-item measure consisted of seven diagrams, showing two increasingly overlapping circles, one of which was labelled as England while the other was labelled as Italy. Participants were told that the more the two circles overlapped, the closer they thought England and Italy were. They were asked to indicate which diagram best represented the closeness of England and Italy, with 1 representing large social distance and 7 representing small social distance.

Intentions to express intergroup schadenfreude. Three items were devised specifically for this study to measure the intention to express schadenfreude to humiliate fans of Italy: "I want to humiliate the Italy fans"; "I want to embarrass fans of the Italy team", and "I want to cheer in front of the Italy fans" (α = .85). Two items were used to

assess the intention to celebrate with fans of England: "I want to share the news with other fans of the England team" and "I want to celebrate with other fans of the England team", $r(49) = .91$, $p < .001$. Both sets of items used 7-point Likert scales (1 = "*strongly disagree;*" 7 = "*strongly agree*"). See Appendix B for all (unreported) measures used in this study.

Results

Time effects. I first examined whether perceived status and ingroup identification differed between T1 and T2. Paired-samples t-tests revealed a significant decline in perceived relative status, such that participants regarded the England team's relative status in comparison to the Italy team as higher at T1 than T2, $t(50) = 2.37$, $p = .02$. However, there was no significant effect of time on ingroup identification. Tables 2.1 to 2.3 present means of these variables at both time-points, difference scores, and correlations with other variables.

Predictors of intergroup schadenfreude. Correlational analyses were conducted to test the hypothesised relationships between the proposed antecedents (shame, envy, hostility and perceived deservingness) and the experience of schadenfreude. Results revealed that only hostility toward Italy was positively correlated with T2 schadenfreude as predicted, $r(49) = .44$, $p = .001$. Envy was marginally negatively correlated with T2 schadenfreude, $r(49) = -.25$, $p = .076$. Neither shame nor perceived deservedness was significantly associated with schadenfreude, $ps > .10$. Even though ingroup identification

Table 2.1

Means, standard deviations and correlations of T1 variables of Study 1

		M (*SD*)	1	2	3	4	5	6	7
1	Shame	2.88 (2.07)	-	.15	-.12	-.08	-.11	.20	.25†
2	Envy	2.57 (1.86)		-	-.26†	.13	-.25†	.05	.33*
3	Hostility	3.65 (0.84)			-	-.16	.44**	-.13	-.08
4	Deservedness	4.12 (1.42)				-	-.17	.06	-.14
5	Schadenfreude	3.87 (1.39)					-	.16	.06
6	T1 perceived relative status	3.88 (1.05)						-	.15
7	T1 identification	3.45 (1.80)							-

†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Table 2.2

Means, standard deviations and correlations of T2 variables of Study 1

		M (*SD*)	1	2	3	4	5	6
1	T2 perceived status	3.61 (1.06)	-	.25†	.03	-.09	.06	.08
2	T2's Identification	3.43 (1.81)		-	.05	.03	-.06-	.05
3	Schadenfreude	3.87 (1.39)			-	.25†	.51***	.62***
4	Social distance	4.16 (1.47)				-	.17	-.06
5	Intention to humiliate	2.18 (1.40)					-	.48***
6	Intention to celebrate	3.79 (1.62)						-

†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Table 2.3

Means, standard deviations and correlations among difference scores, schadenfreude, and the hypothesised consequences in Study 1

		M (*SD*)	1	2	3	4	5	6
1	Difference in perceived status (T2-T1)	-.27 (0.83)	-	-.07	-.16	-.29*	-.22	.03
2	Difference in identification (T2-T1)	-.02 (1.52)		-	-.01	-.21	.04	-.07
3	Schadenfreude	3.87 (1.39)			-	.25†	.51***	.62***
4	Social distance	4.16 (1.47)				-	.17	-.06
5	Intention to humiliate	2.18 (1.40)					-	.48***
6	Intention to celebrate	3.79 (1.62)						-

†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

was (marginally) positively correlated with inferiority and envy, $r(49) = .25$, $p = .076$ and $r(49) = .33$, $p = .02$, it showed no significant relationships with hostility, perceived deservedness, or schadenfreude, ps > 10.

Change in perceived status and schadenfreude. Contrary to the hypothesis, change in perceived status was not significantly correlated with schadenfreude, $p > .10$.

Consequences of schadenfreude. Results revealed that schadenfreude was marginally positively correlated with the social distance between England and Italy, $r(49) = .25$, $p = .073$[3], and positively correlated with the intention to humiliate Italy, $r(49) = .51$, $p < .001$, and the intention to celebrate with fans of England, $r(49) = .62$, $p < .001$.

Discussion

Study 1 served as a first attempt to investigate whether intergroup schadenfreude leads to various socially functional consequences. The study was also intended to replicate previous findings on the relations between antecedents (shame, envy, hostility, and perceived deservingness) and intergroup schadenfreude. The data revealed that hostility toward the second-party was positively associated with schadenfreude toward misfortune befalling this same group, thus replicating previous studies demonstrating that dislike is an important predictor of schadenfreude (e.g., Hareli & Weiner, 2002). However, contrary to my hypothesis, envy was not positively correlated with schadenfreude; instead, it was negatively associated with schadenfreude. Because the role of envy in schadenfreude has been shown to be inconsistent across previous studies (see R. H. Smith et al., 2014), additional evidence is needed to verify the present finding.

Lastly, and surprisingly, neither shame nor perceived deservingness correlated

[3] Although the social distance between England and Italy was measured after participants read about Italy's defeat (T2), it is possible that the score partly reflected pre-existing hostility toward Italy measured at T1. However, T1 hostility was not significantly correlated with T2 social distance $r(49) = -.10$, $p = .477$.

with schadenfreude as expected. A possible reason could be that participants in this study were undergraduates who were low in interest in football and identification with the England team. As IET posits (Mackie et al., 2004; E. R. Smith et al., 2007), intergroup emotions are elicited only when individuals identify with the group and appraise events as group-relevant. Considering their low levels of interest in football and their low ingroup identification, participants might not have felt much shame or cared much about how deserving the team's outcome was in the present situation. In fact, their regard for England (relative to the Italy) declined after reading about Italy's loss to Spain, suggesting that participants were quite critical of their own team and thus did not experience schadenfreude at high levels.

Because participants did not identity strongly with the team and might not have had much motivation to maintain England's positive evaluation, there were no significant associations between change in status and schadenfreude or between identification and schadenfreude. Thus, the current findings are consistent with previous research showing that both ingroup identification (Combs et al., 2009; Schurtz et al., 2011) and domain interest (Leach et al., 2003) determine the intensity of schadenfreude. Correspondingly, van Dijk and colleagues (2015) proposed that identification and domain interest may interactively influence intergroup schadenfreude toward an outgroup suffering from a misfortune.

In spite of these null findings, I found that schadenfreude was (marginally) positively associated with perceived distance between ingroup (England) and the second-party outgroup (Italy). I also showed that schadenfreude was positively related to the intention to humiliate members of the targeted outgroup and the intention to share the news with other ingroup members. These findings provide initial evidence for the notion that intergroup schadenfreude serves both social distancing and social affiliation functions. In light of the issues of using undergraduates as a sample in a football-related context, I conducted Study 2 using genuine football fans to verify the findings obtained in this study. Specifically, I tracked their emotional responses during the 2014 FIFA World CUP while they were directly immersed in multiple unfolding events.

Study 2

Study 2 was conducted during the 2014 FIFA World Cup. It followed the progress of the competition as it unfolded and was divided into three stages. The first recruitment stage took place early in the group stage of the competition when teams played round-robin tournaments whose winners qualified for the knock-out stage. The second stage took place immediately after the participants' national team experienced a threat to their status (antecedent of schadenfreude). The third stage took place immediately after the team which caused ingroup's feeling of shame about its inferiority (second-party outgroup) encountered a misfortune (opportunity for improvement in status and

schadenfreude).

This study design therefore had three key features that made it different from Study 1 and previous schadenfreude research. First, it assessed the real-world experience of intergroup schadenfreude. Instead of asking for their reactions to historic news reports, I asked participants about their emotions and attitudes as soon as possible after the outcomes happened. This meant that fans' emotions and attitudes remained fresh in their minds at the time of participation, rather than being reconstructed retrospectively. In short, this study allowed me to assess more direct and realistic responses than has been possible in previous vignette-based studies. Second, the antecedents of, and opportunity for, schadenfreude were established as part of an event that was still unfolding. Participants' had no prior knowledge of how the tournament would progress or of what subsequent results would turn out to be. This helped to avoid potential issues arising in previous related vignette research (e.g., Leach et al., 2003; Leach & Spears, 2009) where many participants are already aware of the final results and aftermath of the tournament, which in turn may lead them to appraise their group's inferiority differently. Finally, this study focused on the reactions of genuine self-selected supporters of national teams who were following the progress of the World Cup closely, instead of responses from unselected participants such as undergraduate students, who may or may not support their national team and may not even be particularly interested in football in the first place. While this

may limit the generalisability of the findings, using a sample with high interest in football allows me to exclude potential (direct and interactive) effects of domain interest (see Leach et al., 2003).

Method

Participants. Five hundred and ninety-two participants (415 men and 177 women) responded to the study advertisement and completed a preliminary questionnaire to provide baseline measures of relevant variables. They were recruited through a combination of convenience sampling, email invitations at universities, and advertisements posted on various online football forums and Facebook. To encourage participation and completion of the study, participants who responded to the baseline questionnaire were entered into a lottery for cash prizes.

Only fans of those national teams that experienced a threat to their status and had the opportunity to experience schadenfreude were invited to participate in the second and third stages. The final dataset included participants who completed all questionnaires, supported teams meeting the criteria above, and produced samples large enough for further analysis (n > 20). Consequently, the analyses included supporters of: England (n = 76, 62 men, 14 women; M_{age} = 26.88, SD = 9.71), Italy (n = 29, 22 men, 7 women; M_{age} = 29.90, SD = 9.60), and the Netherlands (n = 24, 13 men, 11 women; M_{age} = 26.25, SD

= 8.09). Across all three of these samples, participants' domain interest[4] (M = 6.10; SD = 1.29) was significantly above the midpoint (4) of the scale, $t(128) = 20.99$, $p < .001$, indicating that they were, as expected, highly interested in football and the outcome of the World Cup.

Design and Procedure.

Initial stage. The initial stage (T0) of the study happened early in the group stage of the World Cup and involved collection of baseline data and demographic information. Participants were directed from the study advertisements to a web-based survey system (using *Qualtrics*, Provo, UT, 2015). The instructions specified that the purpose of the study was to investigate people's attitudes and emotional reactions to the results of football matches in the World Cup and that those who intended to follow the event in the media were eligible to take part in the study. Moreover, participants were informed that the study involved completing three questionnaires, two of which would be sent to them by email immediately after matches selected depending on the progress of the tournament[5]. Next, participants were asked to indicate their interest in football, which team they intended to support in the World Cup, and to provide other demographic

[4] Participants' interest in football was measured at the initial stage (T0) using two questions that were answered using a 7-point scale: (1) "How interested are you in football?" (1 = "*not at all interested*"; 7 = "*very interested*") and (2) "How closely are you intending to follow the World Cup, regardless of how your favourite team performs?" (1 = "*not at all closely*"; 7 = "*very closely*"). The correlation between these two items was $r(128) = .69$, $p < .001$, and I used a composite score in this analysis.

[5] Participants were not informed about how these matches would be selected to preclude problems with demand characteristics.

information. Finally, they were asked to record their email addresses for receiving the remaining questionnaires.

First stage (T1). I implemented the first stage when the team supported by our participants was defeated in a match that resulted in their probable or definite elimination from the tournament. I contacted participants from each of the three samples by email immediately after the relevant match, asking them to complete an online questionnaire assessing their involvement in the game and their emotional reactions. A series of reminders were also sent over the following 72 hours to any participants who did not respond immediately.

For England supporters, I implemented the first stage (T1) when England were defeated by Uruguay (1-2) in their second game at the group stage on 19th June, 2014, because the result of this game made it highly unlikely that England could proceed to the Knockout stage. The average time until completion of the second questionnaire was 32.89 hours (*SD* = 32.66) after the game between England and Uruguay.

For Italy supporters, I implemented the first stage when Italy were eliminated from the tournament by Uruguay (0-1) in their last game of the group stage on 24th June, 2014. The average time until completion of the second questionnaire was 20.40 hours (*SD* = 22.11) after the game between Italy and Uruguay.

For Netherlands supporters, I implemented the first stage when the Netherlands

lost to Argentina (2-4) in the penalty shoot-out of the semi-final on 9th July, 2014. The average time until completion of the second questionnaire was 23.14 hours (*SD* = 17.50) after the game between The Netherlands and Argentina.

Second stage (T2). I implemented the second stage when the team whose victory over the team our participants were supporting was itself defeated, thus providing an opportunity for schadenfreude. As at the first stage, emails were sent out to participants immediately after the relevant games asking them to complete the final questionnaire which assessed schadenfreude and its consequences. Again, reminders were sent to those who had not completed it over the following 72 hours.

Both England and Italy had the same target of schadenfreude. I implemented their second stage (T2) when Uruguay lost to Colombia (0-2) during the knockout stage on 28th June, 2014. The average time until completion of the final questionnaire after this game was 29.80 hours (*SD* = 36.63) for England fans and 21.42 hours (*SD* = 48.67) for Italy fans.

I implemented the Netherlands' second stage when Argentina lost to Germany (0-1) in the World Cup final on 13th July, 2014. The average time until completion of the final questionnaire was 34.85 hours (*SD* = 51.27) after the match.

T1 Measures.

Antecedents of schadenfreude. Due to the difficulties in getting the community

sample to complete a real-time study, it was essential to limit the length of the questionnaire. Therefore, single-item measures were used to assess antecedents of schadenfreude. Participants' feelings of shame and envy were assessed (on 10-point scales: 0 = "*not at all;*" 9 = "*very much*") by asking whether they felt "*ashamed*" and "*envious*" after experiencing the outcome of the match at T1. Hostility toward the second-party outgroup was assessed by asking participants to indicate to what extent they agree with the statement "I dislike the [Uruguay/Argentina] team" on a 7-point scale (1 = "*strongly disagree*;" 7 = "*strongly agree*"). Perceived deservedness was measured by asking participants to indicate "To what extent do you think [England's/Italy's/The Netherlands'] defeat to [Uruguay/Argentina] was deserved" on a 7-point scale (1 = "*not at all deserved*;" 7= "*very deserved*").

Perceived ingroup status. Because the relative measure of status used in Study 1 may have led some participants to focus on the second-party rival's status, instead of their own team's standing, I measured participants' perception of their team's status using a more direct item in Study 2: "Please rate how highly you regard the [England/Italy/Netherlands] team" (1 = "very low*";* 7 = "*very highly"*).

Performance evaluation. Because participants' sense of inferiority may be reflected in their evaluation of their team's performance, I measured their evaluation using the item "Please rate how good you think the [England/Italy/The Netherlands] team

are" on a 7-point scale (1 = "*not at all good*"; 7 = "*very good*").

Ingroup identification. I measured participants' identification with their team using the item "How strongly do you identity with the [England/Italy/The Netherlands] team?" (1 = "*not at all*"; 7 = "*very much*").

T2 Measures. I measured participants' perceived ingroup status, performance evaluation, and ingroup identification again at T2 using the same measures as at T1. Additionally, I included the following measures to assess participants' experiences of schadenfreude and the consequences of experiencing it.

Experiences of schadenfreude. Five items adapted from previous studies (Powell & Smith, 2012; van Dijk et al., 2006) assessed schadenfreude toward the second-party on a 7-point Likert scale (1 = "*strongly disagree*"; 7 = "*strongly agree*"). Examples included "I enjoyed what happened to the [Uruguay/Argentina] team" and "I couldn't resist a little smile". (α = .92).

Liking of second-party outgroup after the misfortune. Because the OSIO used in Study 1 requires comprehensive instructions, for the sake of simplicity, I replaced this measure with a more direct assessment of liking of the second-party outgroup, using a single item ("Please rate how much you like the [Uruguay/Argentina] team" rated on a 7-point scale (1 = "*not at all*"; 7 = "*very much*").

Intentions to express schadenfreude after the misfortune. I used two of the three

items devised for Study 1 to measure the intention to express schadenfreude in the form of humiliation. They were "I wanted to humiliate fans of [Uruguay/Argentina]" and "I would have liked to emphasise to [Uruguay/Argentina] fans how embarrassing their loss was", $r(127) = .85$, $p < .001$. I also used two items adapted from Study 1 to measure the intention to celebrate with other fans of their team. They were "I wanted to share the news with other fans of [England/Italy/The Netherlands]" and "I wanted to celebrate with other fans of [England/Italy/The Netherlands]", $r(127) = .86$, $p < .001$. All responses were rated on 7-point scales (1 = "*not at all*"; 7 = "*very much*")[6]. See Appendix C for all (unreported) measures used in this study.

Results

Time effects. I first assessed whether variables measured at both T1 and T2 (i.e., perceived ingroup status, performance evaluation and identification) differed across time and across countries. I conducted a series of two-way mixed model ANOVAs to examine whether time (T1 and T2) as the within-subjects factor interacted with team (England, Italy, Netherlands) as the between-subjects factor. There were significant main effects of team on perceived status, $F(2, 126) = 10.11$, $p < .001$, $\eta_p^2 = .14$, and performance

[6] A principal-components factor analysis with varimax rotation was conducted on the schadenfreude experience and schadenfreude expressions items and resulted in a two-factor solution explaining 79.13 % of the common variance. Items from the schadenfreude experience loaded on one factor at .83 or higher, with no cross-loading over .33 except for the item "I actually hard to laugh a little bit" cross-loaded at .55. Items measuring the intentions to humiliate outgroup members and to celebrate with other ingroup members loaded on the other factor at .82 or higher, with no cross-loading over .34 or higher. This indicated that the items separately measured the experience and the behavioral consequences of schadenfreude as intended.

evaluation, $F(2, 126) = 20.06$, $p < .001$, $\eta_p^2 = .24$, but not on ingroup identification, $p > .10$. Bonferroni post-hoc tests revealed that England's perceived status was marginally lower than Italy's, $p = .085$, and significantly lower than the Netherlands', $p < .001$, but there was no significant difference between Italy's and the Netherlands' perceived status, $p = .164$. Furthermore, the evaluations of England's and Italy's performance were significantly lower than the Netherlands', $ps < .001$, although the evaluations of England's and Italy's performance did not differ significantly, $p = .828$. Most interestingly, there was a significant interaction between time and team only for performance evaluation, $F(2, 126) = 11.94$, $p < .001$, $\eta_p^2 = .16$, and not for either perceived status or ingroup identification, $ps > .10$. Subsequent simple main effects analysis revealed a significant decrease over time in evaluations of England's performance ($M_{T1} = 4.14$, $SD_{T1} = 1.02$, $M_{T2} = 3.67$, $SD_{T2} = 1.17$, $F[1, 126] = 15.49$, $p < .001$, $\eta_p^2 = .11$) and (marginally) Italy's performance ($M_{T1} = 4.34$, $SD_{T1} = 1.52$, $M_{T2} = 3.97$, $SD_{T2} = 1.32$, $F[1, 126] = 3.79$, $p = .054$, $\eta_p^2 = .11$), but a significant increase over time in evaluations of Netherlands' performance ($M_{T1} = 5.08$, $SD_{T1} = 1.18$, $M_{T2} = 5.79$, $SD_{T2} = .78$, $F[1, 126] = 10.94$, $p = .001$). Descriptive statistics and correlations for T1 and T2 variables and T1/T2 difference scores are presented in Tables 2.4 to 2.6.

Predictors of schadenfreude. Across all three samples, schadenfreude was consistently positively correlated with T1 measures of shame and hostility toward the

Table 2.4

Means, standard deviations and correlations of T1 variables across samples in Study 2

		Sample	*M* (*SD*)	1	2	3	4	5	6	7	8
1	Shame	**Study 2**	**3.59 (2.61)**	-	**.34*** **	**.22***	**.10**	**.31*** **	**-.06**	**-.07**	**.21***
		England	3.84 (2.61)	-	.39**	.18	.04	.23*	.07	.02	.22†
		Italy	3.83 (2.92)	-	.05	.23	.23	.42*	-.21	-.17	.27
		Netherlands	2.50 (1.96)	-	.59**	.31	-.09	.47*	.19	.23	.25
2	Envy	**Study 2**	**3.33 (2.44)**		-	**.15**†	**.06**	**.17**†	**.002**	**.01**	**.11**
		England	3.71 (2.61)		-	.08	.19	.22†	-.03	.03	.25*
		Italy	2.79 (2.08)		-	.06	-.35†	-.08	.35†	.14	-.21
		Netherlands	2.79 (2.15)		-	.35†	-.04	.12	.01	.04	.25
3	Hostility	**Study 2**	**4.04 (1.90)**			-	**-.31*** **	**.62*** **	**-.01**	**.13**	**.14**
		England	4.32 (1.82)			-	-.23†	.55***	-.007	.17	.12
		Italy	3.55 (1.98)			-	-.34†	.77***	.15	.10	.23
		Netherlands	3.75 (1.96)			-	-.61**	.57**	.03	.29	.35†
4	Deservedness	**Study 2**	**3.80 (1.58)**				-	**-.26** **	**-.46*** **	**-.46*** **	**-.16**†
		England	3.92 (1.53)				-	-.25*	-.37**	-.40***	-.07
		Italy	3.90 (1.61)				-	-.20	-.75***	-.70***	-.18
		Netherlands	3.29 (1.65)				-	-.45*	-.18	-.17	-.40†
5	Schadenfreude	**Study 2**	**4.48 (1.65)**					-	**-.13**	**.05**	**.11**
		England	4.79 (1.52)					-	-.11	.06	.04
		Italy	3.83 (1.71)					-	-.07	.16	.35†
		Netherlands	4.29 (1.78)					-	.02	.05	.24
6	T1 perceived status	**Study 2**	**4.84 (1.53)**						-	**.66*** **	**.43*** **
		England	4.43 (1.42)						-	.64***	.45***
		Italy	5.14 (1.78)						-	.74***	.20
		Netherlands	5.75 (1.07)						-	.36†	.79***
7	T1 performance evaluation	**Study 2**	**4.36 (1.22)**							-	**.38*** **
		England	4.14 (1.02)							-	.42***
		Italy	4.34 (1.52)							-	.25
		Netherlands	5.08 (1.18)							-	.45*
8	T1 identification	**Study 2**	**4.95 (1.67)**								-
		England	4.71 (1.70)								-
		Italy	5.28(1.83)								-
		Netherlands	5.29 (1.27)								-

$N_{England}$ = 76, N_{Italy} = 29, $N_{Netherlands}$ = 24, $N_{Study\ 2}$ = 129, $^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $**p < .001$

Table 2.5

Means, standard deviations and correlations of T2 variables across samples in Study 2

		Sample	*M* (*SD*)	1	2	3	4	5	6	7
1	T2 perceived status	**Study 2**	**4.77 (1.57)**	**-**	**.78*** **	**.61*** **	**.04**	**.30***	**.09**	**.26****
		England	4.43 (1.42)	-	.80***	.67***	.06	.16	.05	.24*
		Italy	4.97 (1.66)	-	.68***	.44*	.15	.37†	.28	.27
		Netherlands	5.79 (0.83)	-	.80***	.63**	.27	-.05	.33	.49*
2	T2 performance evaluation	**Study 2**	**4.13 (1.39)**		**-**	**.48*** **	**-.02**	**.31*** **	**-.02**	**.19***
		England	3.67 (1.17)		-	.58***	-.06	.25*	-.03	.10
		Italy	3.97 (1.32)		-	.28	.10	.10	.10	.26
		Netherlands	5.79 (0.78)		-	.57**	.34	-.09	.36†	.55**
3	T2 Identification	**Study 2**	**5.07 (1.58)**			**-**	**.10**	**.09**	**.12**	**.21***
		England	4.88 (1.71)			-	.07	.17	.09	.16
		Italy	5.28 (1.49)			-	.30	-.08	.15	.21
		Netherlands	5.42 (1.18)			-	.20	-.17	.37†	.49*
4	Schadenfreude	**Study 2**	4.48 (1.65)				**-**	**-.46*** **	**.53*** **	**.62*** **
		England	3.84 (2.61)				-	-.51***	.52***	.57***
		Italy	3.83 (2.92)				-	-.35†	.59**	.64***
		Netherlands	2.50 (1.96)				-	-.41*	.63**	.80***
5	Liking of second-party outgroup	**Study 2**	**2.63 (1.35)**					**-**	**-.21***	**-.16**†
		England	2.21 (1.00)					-	-.37**	-.23*
		Italy	3.00 (1.58)					-	.06	-.09
		Netherlands	3.50 (1.50)					-	-.16	-.17
6	Intention to humiliate	**Study 2**	**2.23 (1.67)**						**-**	**.72*** **
		England	2.31 (1.81)						-	.71***
		Italy	2.26 (1.64)						-	.84***
		Netherlands	1.94 (1.20)						-	.73***
7	Intention to celebrate	**Study 2**	**2.79 (1.86)**							**-**
		England	2.83 (1.90)							-
		Italy	2.50 (1.70)							-
		Netherlands	3.04 (1.94)							-

$N_{England}$ = 76, N_{Italy} = 29, $N_{Netherlands}$ = 24, $N_{Study\ 2}$ = 129, $^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $**p < .001$

Table 2.6

Means, standard deviations and correlations among difference scores, schadenfreude, and the hypothesised consequences across samples

		Sample	*M* (*SD*)	1	2	3	4	5	6	7
1	Difference in perceived status (T2-T1)	**Study 2**	**-.07 (1.17)**	**-**	**.40*** **	**-.05**	**.23***	**.05**	**.09**	**.20***
		England	-.07 (1.21)	-	.48***	.02	.20†	-.01	.11	.24*
		Italy	-.17 (1.31)	-	.38*	-.21	.29	.19	.10	.21
		Netherlands	.04 (0.86)	-	.30	-.23	.24	-.05	-.06	.04
2	Difference in performance evaluation (T2-T1)	**Study 2**	**-.23 (1.14)**		**-**	**.09**	**-.08**	**.19***	**-.09**	**.01**
		England	-.47 (1.03)		-	.09	-.13	.28*	-.06	-.07
		Italy	-.38 (0.94)		-	.08	-.11	-.02	-.11	.02
		Netherlands	.71 (1.23)		-	.20	.16	-.22	.002	.11
3	Difference in identification (T2-T1)	**Study 2**	**.12 (.97)**			**-**	**-.01**	**-.01**	**-.02**	**-.07**
		England	.17 (1.06)			-	.05	-.09	.06	-.01
		Italy	.00 (0.93)			-	-.21	.20	-.22	-.31
		Netherlands	.13 (0.68)			-	-.10	.02	-.20	-.12
4	Schadenfreude	**Study 2**	**4.48 (1.65**)				**-**	**-.46*** **	**.53*** **	**.62*** **
		England	3.84 (2.61)				-	-.51***	.52***	.57***
		Italy	3.83 (2.92)				-	-.35†	.59**	.64***
		Netherlands	2.50 (1.96)				-	-.41*	.63**	.80***
5	Liking of second-party outgroup	**Study 2**	**2.63 (1.35)**					**-**	**-.21***	**-.16**†
		England	2.21 (1.00)					-	-.37**	-.23*
		Italy	3.00 (1.58)					-	.06	-.09
		Netherlands	3.50 (1.50)					-	-.16	-.17
6	Intention to humiliate	**Study 2**	**2.23 (1.67)**						**-**	**.72*** **
		England	2.31 (1.81)						-	.71***
		Italy	2.26 (1.64)						-	.84***
		Netherlands	1.94 (1.20)						-	.73***
7	Intention to celebrate	**Study 2**	**2.79 (1.86)**							**-**
		England	2.83 (1.90)							-
		Italy	2.50 (1.70)							-
		Netherlands	3.04 (1.94)							-

$N_{England}$ = 76, N_{Italy} = 29, $N_{Netherlands}$ = 24, $N_{Study\ 2}$ = 129, $^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $**p < .001$

second-party outgroup. Perceived deservedness was also significantly negatively correlated with schadenfreude in the England and Netherlands samples, and non-significantly negatively correlated with schadenfreude in the Italy sample. Envy was marginally positively correlated with schadenfreude in the England sample and the sample as a whole.

Contrary to the predictions of IET, T1 ingroup identification did not show consistent associations with any of these antecedents or with T2 schadenfreude across samples. T1 ingroup identification was only significantly positively correlated with envy in the England sample, and significantly positively correlated with shame when the three samples were combined.

Change in perceived status. To test the prediction that a change in ingroup's perceived status after a misfortune would positively correlate with schadenfreude, a difference score was computed for each sample by subtracting the T2 status score from the T1 status score. Correlations between this status-change score and schadenfreude were consistently positive across countries but only approached statistical significance in the England sample ($p = .080$). When the country samples were combined, this positive correlation was significant, $r(127) = .23$, $p = .010$. Change in performance evaluation (computed by subtracting T2 evaluation from T1 evaluation) did not significantly predict schadenfreude in any of the samples or when the samples were combined, ps > .10.

Social consequences. Across all three samples, schadenfreude was consistently positively correlated with the intention to humiliate fans of the second-party outgroup (*r*s = .52 - .63, *p*s < .01) and the intention to celebrate with fans of participants' own team (*r*s = .57 - .80, *p*s < .001). Furthermore, schadenfreude was significantly negatively correlated with liking of the second-party outgroup in the England and Netherlands samples and for the combined sample, and marginally negatively correlated with liking of the second-party outgroup in the Italy sample[7].

Mediation. I assessed whether the significant effects of change in perceived status on social consequences were mediated by schadenfreude across the whole sample using Hayes' (2013) PROCESS macro (Model 4) with 5000 bootstrap samples to obtain 95% bias-corrected confidence intervals[8]. Results revealed that the total effect (β = .05, *SE* = .10, *t* = .54, *p* = .591) of change in perceived status on liking of the second-party

[7] As in Study 1, I checked whether this result partly reflected prior hostility. Correlational analysis using the whole sample showed that hostility toward second-party outgroup at T1 was significantly negatively correlated with liking of the second-party outgroup at T2, $r(127) = -.53$, < .001. Subsequent regression analysis revealed that schadenfreude remained a significantly negative predictor of liking of the second-party outgroup at T2 after controlling for hostility toward second-party outgroup at T1, $\beta = -.17$, *SE* = .08, $t = 2.25$, $p = .026$.

[8] Results using only the English sample revealed the same but marginal (90% CI) indirect effects of change in perceived status via schadenfreude on the hypothesised consequences. For liking of the second-party outgroup, the total effect (β = -,01, *SE* = .10, *t* = -.09, *p* = .929) and the direct effect (β = ,08, *SE* = .08, *t* = .93, *p* = .353) of change in perceived status were both non-significant. However, the indirect effect was marginally significant (indirect effect = -.09, *SE* = .06, 90% CI = [-.193 — -.009]). For the intention to humiliate the second-party outgroup, the total effect (β =.16, *SE* = .17, *t* = .95, *p* = .347) and the direct effect (β = ,01, *SE* = .15, *t* = .05, *p* = .958) of change in perceived status were again non-significant whereas the indirect effect via schadenfreude was marginally significant (indirect effect = .16, *SE* = .09, 90% CI = [.019 — .330]). For the intention to celebrate with other ingroup members, the total effect of change in perceived status (β = ,37, *SE* = .18, *t* = 2.08, *p* = .041) became non-significant after controlling for the indirect effect (β = .20, *SE* = .15, *t* = 1.29, *p* = .203). Importantly, the indirect effect via schadenfreude was marginally significant (indirect effect = .17, *SE* = .10, 90% CI = [.020 — .354]).

outgroup was non-significant. However, its direct effect (β = .18, *SE* = .09, *t* = 1.98, *p* = .050) and indirect effect via schadenfreude were significant (indirect effect = -.13, *SE* = .05, 95% CI = [-.250 — -.040]), indicating that schadenfreude mediated the effect of change in perceived status on liking of the second-party outgroup[9].

The total effect (β = .12, *SE* = .13, *t* = .97, *p* = .333) and the direct effect (β = -.05, *SE* = .11, *t* = -.44, *p* = .658) of change in perceived status on the intention to humiliate fans of the second-party outgroup were both non-significant. However, the indirect effect via schadenfreude was significant (indirect effect = .17, *SE* = .06, 95% CI = [.058 — .322]), suggesting that schadenfreude mediated the effect of change in perceived status on the intention to humiliate the second-party outgroup.

Lastly, the total effect of change in perceived status on the intention to celebrate with fans of their own team (β = .32, *SE* = .14, *t* = 2.33, *p* = .021) became non-significant after controlling for the indirect effect (β = .11, *SE* = .11, *t* = .94, *p* = .352). Most importantly, the indirect effect through schadenfreude was significant (indirect effect = .22, *SE* = .08, 95% CI = [.070 — .405]), indicating that schadenfreude mediated the effect of change in perceived status on the intention to celebrate with fans of their own team[10].

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[9] The indirect effect remained significant after controlling for hostility toward the second-party outgroup at T1, indirect effect = -.04, *SE* = .03, 95% CI = [-.127 — -.002]

[10]Two alternative mediation models could also explain the present findings. First, it could be that the experience of schadenfreude might have changed participants' perception of their group's status, in turn leading to the proposed social consequences. However, reverse mediation analyses showed that only the

Discussion

Study 2 investigated intergroup schadenfreude in an ongoing intergroup competition using samples with high levels of domain interest. Results replicated previous research on the roles of shame, hostility, and deservingness in schadenfreude. Specifically, shame and hostility toward a second-party outgroup (i.e., Uruguay or Argentina) were positively associated with schadenfreude following this rival team's defeat across all three of our samples. Perceived deservedness of ingroup's defeat was also negatively correlated with schadenfreude in both the England and Netherlands samples. Unlike in Study 1, envy was marginally positively (rather than negatively) correlated with schadenfreude in the England sample and the sample as a whole.

Contrary to the predictions of IET, T1 identification did not reliably correlate with the intensity of intergroup emotions (e.g., shame, envy, hostility, and schadenfreude) across samples. In the England sample, identification at T1 was only positively associated with envy but not with shame, hostility or schadenfreude toward Uruguay. I did not obtain similar findings in the Italy and Netherlands samples, although the associations were

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indirect effect of schadenfreude on liking of second-party outgroup via change in perceived status was significant (total effect: β = -.38, *SE* = .06, *t* = -5.79, *p* < .001; direct effect: β = -.40, *SE* = .07, *t* = -6.16, *p* < .001; indirect effect = .03, *SE* = .02, 95% CI = [.005 — .080]). Second, it could be that a change in ingroup's perceived status might have influenced participants' attitudes (e.g., liking of the second-party outgroup) and behavioral tendencies (e.g., intention to humiliate the second-party outgroup and to celebrate with other fans of their own team), in turn leading to the experience of schadenfreude. However, reverse mediation analyses showed that only the indirect effect of a change in perceived status on schadenfreude via the intention to celebrate with fans of their own team was significant (total effect: β = .32, *SE* = .12, *t* = 2.60, *p* = .010; direct effect: β = .15, *SE* = .10, *t* = 1.46, *p* = .146; indirect effect = .17, *SE* = .07, 95% CI = [.050 — .317]).

mostly in the expected positive direction (except for envy in the Italy sample). One possible explanation for these inconsistencies is that the Italy and the Dutch samples were too small to have adequate power to replicate findings from the England sample. Another plausible reason is that relationships between identification and intergroup emotion were moderated by other factors (Iyer & Leach, 2008). For example, it has been shown that low identifiers, compared with high identifiers, are more likely to adopt CORFing strategies (i.e., cutting off reflected failure), which involve dissociating oneself from an unsuccessful team (Wann, Hamlet, Wilson, & Hodges, 1995). Using this strategy when faced with an identity threat might dampen participants' emotional responses to the ingroup's defeat and in turn weaken the link between T2 identification and emotions.

Unlike in Study 1, the hypothesis that change in ingroup's perceived status should positively predict intergroup schadenfreude was supported in the England sample and in the combined sample. Interestingly, I did not find any significant correlation between change in performance evaluation and schadenfreude. Despite the apparent similarity between these two variables, it seems that they measure different kinds of assessment of the England team in the present context. Whereas perceived status appears to refer to subjective feelings about the team in general, the evaluation of England's performance might refer to more objective judgments of how well these particular England players were performing in this competition. If schadenfreude represents the psychological gain

derived from a misfortune which rectifies feelings of inferiority, its experience should be more closely related to the more subjective measure of status than to the objective evaluation of performance.

Turning to relations between schadenfreude and its proposed consequences, I found consistent support for the hypothesis that greater schadenfreude was associated with less liking of the second-party outgroup and increased intention to humiliate fans of this group across three samples. Moreover, intergroup schadenfreude was significantly associated with increased intention to celebrate with other ingroup members in all samples. More importantly, schadenfreude mediated the effects of status-change on these consequences, providing strong evidence that intergroup schadenfreude can serve both social-distancing and social-affiliation functions, depending on the addressees to whom the emotional communication is directed.

Study 3

Study 2 provided strong evidence that intergroup schadenfreude may serve both social distancing and social affiliation functions. Unlike Study 1 which (like many other studies, e.g., Feather & Sherman, 2002; Hoogland et al., 2015, van Dijk et al., 2011) used a written description of the misfortune to elicit feelings of schadenfreude, Study 2 assessed participants' more immediate reactions to a misfortune which had happened only a matter of hours ago. Arguably, their emotions remained fresh as the tournament was still

ongoing. Thus, Study 2 was situated in a more dynamic and emotionally arousing social setting which potentially departed from those constructed by stories or news articles. As Parkinson and Manstead (1993) noted, emotional responses to vignettes (i.e., simulated experiences) may not be directly analogous to emotional responses in more directly involving situations. Indeed, participants' responses to stories may simply reflect beliefs or knowledge about how they should respond in the described situations. Moreover, situational descriptions may not fully capture all the factors, including details about social relations, which help build the complex and interactive nature of unfolding social reality. Although some previous research suggests that reactions to real versus imagined emotional stimuli are largely convergent (Robinson & Clore, 2001), there is no direct evidence for such convergence in everyday unmanipulated emotional experience, let alone in the complex social situations in which schadenfreude occurs. Whether intergroup schadenfreude experienced during an unfolding tournament is psychologically comparable to that elicited by recollection of the same event is worthy of further investigation.

Study 3 therefore had two main aims: first, to test whether schadenfreude experienced while reading vignettes is comparable to schadenfreude experienced in a more emotionally engaging situation while events were still unfolding, and, second, to replicate findings obtained in Study 2 using a different and more familiar method

(vignettes). With these aims in mind, I asked self-proclaimed England football fans to read news articles describing exactly the same events that were investigated in Study 2. Specifically, they read about England losing against Uruguay and Uruguay's subsequent defeat by Colombia and indicated their emotional responses to these reports using measures similar to those used in the previous study. This study design allowed for a direct comparison of the schadenfreude experiences induced by two different methodologies and a thorough test of the replicability of the hypotheses outlined earlier. It should be noted that the present research focused only on a sample of England supporters. I did not include Italy or Dutch fans because I did not have access to a sufficiently sizeable sample supporting those teams.

For comparison and replication purpose, the background of the scenario and measurements used in this study were kept as similar as possible to those in Study 2. Care was taken to enhance participants' involvement and help them relive the events that happened during the World Cup. Specifically, I selected news articles and pictures that had been published a day after the targeted matches on various on-line platforms. Previous studies have shown that vignettes describing real-life international football competitions provide an effective means of inducing schadenfreude (Leach et al., 2003; Leach & Spears, 2009). Assuming that intergroup schadenfreude serves important social functions and that the use of vignette is adequate for such investigation, I expected to

replicate the findings obtained in Study 2.

Method

Participants. One hundred and three self-declared supporters of the England team (81 men and 22 women; M_{age} = 24.04, *SD* = 12.30) were recruited by undergraduates at the University of Oxford as part of their course requirements. Fourteen of the participants (13.59%) indicated in the questionnaire that they had supported teams other than England during the World Cup. Subsequent analysis demonstrated that these participants liked the England team significantly less (*M* = 3.57, *SD* = 1.40) than those who supported England during the tournament (*M* = 4.63, *SD* = 1.45), $t(101) = 2.55$, $p = .012$. Therefore, it was very unlikely that these participants were genuinely supporters of the England team and thus I excluded them from further analysis. The remaining sample consisted of 89 participants. Their domain interest (*M* = 5.59, *SD* = 1.37)[11] was significantly above the scale midpoint (4), $t(88) = 10.97$ $p < .001$, indicating that the current sample was highly interested in football.

Materials and procedures. This study followed the procedures described in Study 2. The first part (T0) used emailed advertisements to direct participants to an on-line questionnaire (programmed using *Qualtrics*, Provo, UT, 2015). After providing

[11] Participants' interest in football was measured by the average of three questions on a 7-point scale: (1) "How interested are you in football?"; (2) "How closely did you follow the World Cup?"; and (3) "How much do you know about the World Cup 2014?" (α = .91).

informed consent, participants were asked to complete a questionnaire concerning their interest in football, which team they supported in the World Cup, how much they liked the England team, and their demographic details.

In the second part of the study (T1), participants were presented with three edited excerpts taken from online news sites describing the same events to which participants in Study 2 had responded alongside result tables illustrating where England and other teams from the same group stood in the contest at the time when the news articles were written. The first article reported England's defeat to Italy (1-2) but ended with a hopeful remark about England's fate in the World Cup ("World Cup highlights", 2014). The second story described England's near-fatal loss to Uruguay and deemed that England's progress to the knockout stage of the tournament would require a "miracle" (Fraser, 2014). The third announced England's elimination from the World Cup on 20th June 2014 and referred back to England's loss to Uruguay as a turning point ("England knocked out", 2014). Afterwards, participants indicated their involvement in the task, emotions and their perception of England's status.

In the last part of the study (T2), participants read another news report describing Uruguay's 0-2 loss to Colombia, following which Colombia qualified for the quarter-finals (Irving, 2014). Participants then completed another questionnaire assessing their involvement in the task, feelings of schadenfreude toward Uruguay, liking of Uruguay

and Colombia, and their intentions to humiliate Uruguay fans and to celebrate with other England supporters. See Appendix D for the news articles used in this study.

Measures. Most of the measures were identical to those employed in Study 2 except for the following scales:

Antecedents of schadenfreude. Because the Study 3 questionnaire could be completed at participants' convenience, the constraints on its length were less tight than in Study 2. I therefore used more items to assess some of the antecedents of schadenfreude in order to achieve more reliable measures. Envy was measured by two items: "*envious*" and "*jealous*" (0 = "*not at all*;" 9 = "*very much*"), $r(87) = .76$, $p < .001$. Hostility toward Uruguay was examined by asking participants to indicate to what extent they agreed with the three statements adapted from Study 1: "I hate the Uruguay team;" "I have a feeling of contempt for the Uruguay team;" and "I dislike the Uruguay team" ($\alpha = .92$).

Intention to humiliate fans of Uruguay. Two items assessed the intention to humiliate fans of Uruguay: "I would have liked to emphasise to Uruguay fans how embarrassing their loss was" and "I would have liked to cheer in front of Uruguay fans" $r(87) = .61$, $p < .001$[12]. See Appendix E for all (unreported) measures used in this study.

[12] Similar to Study 2, I conducted a principal-components factor analysis with varimax rotation on the schadenfreude experience and schadenfreude expressions items to examine their item structures. Results showed a two-factor solution explaining 74.88 % of the common variance. Items from the schadenfreude experience loaded on one factor at .73, with no cross-loading over .30. Items measuring the intentions to humiliate outgroup members and to celebrate with other ingroup members loaded on the other factor at .79 or higher, with no cross-loading over .30 or higher.

Results

Time effects. Similar to Study 2, I first examined whether perceived status, performance evaluation and ingroup identification differed between T1 and T2. Paired-samples t-tests revealed no significant effects of time on any of these measures. Tables 2.7 to 2.9 present means of these variables at both time-points, difference scores and correlations with other variables.

Predictors of schadenfreude. Consistent with Study 2, both shame and hostility toward Uruguay significantly positively correlated with subsequent schadenfreude about Uruguay's defeat. However, envy and perceived deservedness of Uruguay's defeat did not significantly correlate with schadenfreude[13].

In accordance with IET, I found that ingroup identification significantly positively correlated with shame and envy. Unlike in Study 2, I also found that identification was correlated with hostility toward Uruguay and schadenfreude. However, the relation between identification and perceived deservedness was not significant.

Change in perceived status, change in performance evaluation and schadenfreude. Unlike in Study 2, change in perceived status was not significantly associated with schadenfreude. However, change in performance evaluation was

[13] Using the single-item measure of envy in Study 2 did not change this result; envy was still not significantly related to schadenfreude, $r(87) = .15$, $p = .175$

significantly positively associated with schadenfreude.

Table 2.7

Means, standard deviations and correlations of T1 variables of Study 3

		M (*SD*)	1	2	3	4	5	6	7
1	Shame	4.03 (2.33)	-	.21†	.33***	-.16	.30**	.07	-.05
2	Envy	2.88 (2.23)		-	.32**	-.07	.14	.08	.27*
3	Hostility	2.98 (1.84)			-	-.22*	.57***	.20†	.12
4	Deservedness	4.38 (1.45)				-	-.14	-.14	-.18†
5	Schadenfreude	4.09 (1.56)					-	.08	-.08
6	T1 perceived relative status	3.57 (1.25)						-	.41***
7	T1 identification	3.47 (1.11)							-

†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Table 2.8

Means, standard deviations and correlations of T2 variables of Study 3

		M (*SD*)	1	2	3	4	5	6	7
1	T2 perceived status	3.64 (1.38)	-	.78***	.63***	-.01	.18†	.25*	.18†
2	T2 performance evaluation	3.49 (1.16)		-	.53***	.08	.20†	.22*	.27*
3	T2's Identification	4.52 (1.67)			-	.22*	.16	.25*	.21*
4	Schadenfreude	4.09 (1.56)				-	-.31**	.39***	.53***
5	Liking of second-party outgroup	2.73 (1.10)					-	-.26*	-.16
6	Intention to humiliate	2.23 (1.39)						-	.58***
7	Intention to celebrate	3.04 (1.43)							-

†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Table 2.9

Means, standard deviations and correlations among difference scores, schadenfreude, and the hypothesised consequences in Study 3

		M (*SD*)	1	2	3	4	5	6	7
1	Difference in perceived status (T2-T1)	.07 (0.89)	-	.30**	.27*	-.12	.18†	.18	-.03
2	Difference in performance evaluation (T2-T1)	.02 (0.80)		-	.11	.22*	.07	.26*	.29**
3	Difference in identification (T2-T1)	.15 (0.97)			-	-.22*	.33**	-.17	-.23*
4	Schadenfreude	4.09 (1.56)				-	-.31**	.39***	.53***
5	Liking of second-party outgroup	2.73 (1.10)					-	-.26*	-.16
6	Intention to humiliate	2.23 (1.39)						-	.58**
7	Intention to celebrate	3.04 (1.43)							-

†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$

Schadenfreude and its consequences. Consistent with Study 2, schadenfreude was negatively correlated with liking of Uruguay[14] and positively correlated with the

[14] Similar to Study 2, prior hostility toward Uruguay (T1) was negatively associated with liking of Uruguay (T2), $r(87) = -.40$, $p < .001$. However, unlike Study 2, regression analysis revealed that the effect of

intention to humiliate Uruguay fans and the intention to celebrate with other England fans.

Mediation analyses. Because change in performance evaluation (rather than change in perceived status as in Study 2) was associated with schadenfreude in Study 3, I conducted a series of mediation analyses to test whether schadenfreude mediated the effects of change in performance evaluation on the measured social consequences. The total effect (β = .10, *SE* = .15, *t* = .67, *p* = .502) and the direct effect (β = .20, *SE* = .15, *t* = 1.39, *p* = .17) of change in performance evaluation on liking of Uruguay were both non-significant. However, the indirect effect was significant (indirect effect = -.10, *SE* = .05, 95% CI = [-.230 — -.016]), indicating that schadenfreude mediated the effect of change in performance evaluation on liking of Uruguay.

The total effect of change in performance evaluation on the intention to humiliate Uruguay (β = .45, *SE* = .18, *t* = 2.47, *p* = .015) became non-significant after controlling for the indirect effect (β = .32, *SE* = .17, *t* = 1.81, *p* = .073). Importantly, the indirect effect was again significant (indirect effect = .13, *SE* = .06, 95% CI = [.017 — .269], suggesting that schadenfreude mediated the effect of change in performance evaluation on the intention to humiliate Uruguay.

Lastly, the total effect of the intention to celebrate with England fans (β = .53, *SE*

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schadenfreude on liking of Uruguay became non-significant after controlling for T1's hostility, β = .08, *SE* = .08, *t* = .93, *p* = .357.

= .19, t = 2.84, p = .005) became less significant after controlling for the indirect effect (β = .34, SE = .16, t = 2.06, p = .043). Most importantly, the indirect effect through schadenfreude was significant (indirect effect = .19, SE = .09, 95% CI = [.021 — .360]), indicating that schadenfreude mediated the effect of change in performance evaluation on the intention to celebrate with England fans[15].

Comparisons between Study 2 and Study 3. I ran a series of t-tests to test whether the retrospective methodology used in Study 3 led to different scores in the predictors of schadenfreude, status, and the consequences of schadenfreude from the concurrent methodology used in Study 2. For comparison purpose, I used measures that were identical across studies[16] (except for the intention to humiliate fans of Uruguay) for these analyses. Results revealed that England fans in Study 3 were significantly less interested in football than those in Study 2, $t(157.41) = 3.63$, $p < .001$, $d = .58$. Moreover, at T1, England fans in Study 3 felt marginally less envious, $t(163) = 1.74$, $p = .083$, $d = .27$, disliked Uruguay less. $t(163) = 2.24$, $p = .026$, $d = .35$, and perceived the deservedness of England's defeat to Uruguay to be significantly higher than those in Study 2, $t(163)$ =

[15] Similar to Study 2, I conducted a series of reverse mediation analysis to test two alternative mediation models: first, whether change in performance evaluation mediated the relations between schadenfreude and its social consequences and, second, whether the hypothesised social consequences mediated the relation between change in performance evaluation and schadenfreude. Results showed that the indirect effects of schadenfreude on its social consequences via change in performance evaluation were all non-significant; however, consistent with Study 2, the indirect effect of change in performance evaluation on schadenfreude via the intention to celebrate with England fans was significant (total effect: β = .42, SE = .21, t = 2.06, p = .042; direct effect: β = .13, SE = .19, t = .70, p = .483; indirect effect = .29, SE = .12, 95% CI = [.068 — .080]).

[16] The comparisons for domain interest, envy, and hostility toward Uruguay were based on the single-item measures used in study 2.

1.98, $p = .049$, $d = .31$. They also perceived England team's status to be lower, $t(163) = 4.15$, $p < .001$, $d = .65$ and evaluated the team's performance as worse, $t(163) = 4.04$, $p < .001$, $d = .63$. At T2, they again perceived England's team's status to be lower, $t(150.28) = 3.14$, $p = .002$, $d = .51$, felt less schadenfreude $t(163) = 2.91$, $p = .004$, $d = .46$, and liked Uruguay more, $t(163) = 3.17$, $p = .002$ $d = .50$. Finally, they had a larger positive change in the evaluation of England performance, $t(140.47) = 3.42$, $p = .001$, $d = .58$ than those in Study 2.

Discussion

I conducted Study 3 in order to substantiate the evidence obtained in Studies 1 and 2 and to examine whether a retrospective method produced different results to those obtained using concurrent questionnaires about the same events in Study 2. Most of the findings were consistent across these studies. Hostility toward the rival team was consistently correlated with subsequent schadenfreude. Also similar to Study 2, prior shame was significantly associated with schadenfreude but prior envy was not. Importantly, as in Studies 1 and 2, schadenfreude was again positively associated with intentions to humiliate fans of Uruguay and to celebrate with other England fans. Schadenfreude was also negatively associated with liking Uruguay, although the relationship became non-significant after controlling for hostility at T1 (see below for further discussion). Nevertheless, schadenfreude mediated the effects of change in

performance evaluation on all these consequences. These results support the argument that schadenfreude can serve both social distancing and social affiliation functions by protecting and maintaining the ingroup's position in the social hierarchy following a misfortune suffered by a potential competitor.

Study 3's results differed from those of Study 2 in three respects. First, change in performance evaluation rather than perceived status (as in Study 2) was positively related to schadenfreude in Study 3 despite the similar measures of both constructs across studies. This apparent inconsistency may reflect differences in participants' perception of threats to their national team when events are recalled rather than experienced when the tournament was still ongoing. In Study 3, the news excerpts explicitly focused participants' attention on their team's performance during the matches and the outcome of those matches. Further, any threats to the team's status experienced during the contest had probably been resolved prior to completion of the retrospective questionnaire. Both of these considerations may help to explain why performance rather than status was relatively more influential in Study 3 as well as why the positive change in performance evaluation was stronger in Study 3 than in Study 2.

The second difference was that Study 3 found significant positive correlations between ingroup identification and feelings of envy, hostility toward Uruguay and schadenfreude, as well as shame, which was the only emotion significantly predicted by

identification in Study 1 (marginally) and Study 2. Thus, these findings support the predictions of IET more consistently than those of the two previous studies. Iyer and Leach (2008) reviewed similarly inconsistent effects of identification and noted the importance of domain interest in predicting intergroup emotions. For example, it has been shown that domain interest is a more important predictor of intergroup schadenfreude than ingroup identification (Leach et al., 2003). Thus, although study 1 used a retrospective vignette methodology similar to that of Study 3, ingroup identification was not significantly correlated with schadenfreude, probably because the sample had a low domain interest in football.

Iyer and Leach (2008) also argued that social context play important roles in the effects of identification on intergroup emotions. For example, in ambiguous situations high identifiers may defensively reappraise group-threatening information in order to avoid experiencing the negative emotions that would otherwise ensue (e.g., Doosje et al., 1998; Johns, Schmader, & Lickel, 2005). Such identity-protecting strategies may be more likely while still attempting to cope with an immediately relevant group outcome with different possible implications (as in the present Study 2) than when the passage of time has led to a consensual appraisal of events (as in Study 3). In particular, some of Study 2's participants may have dissociated themselves temporarily from the ingroup and started supporting a superior outgroup (i.e., Uruguay). Indeed, identification has been

shown to change as a function of the group's prospective status (Doosje, Spears, & Ellemers, 2002). Further, when coping with ingroup inferiority, low identifiers are more likely to pursue individual mobility (i.e., distance themselves from the ingroup) whereas high identifiers are more likely to commit to the group (Ellemers et al., 1997). The different effects of identification shown here may therefore reflect Study 2 participants' relatively greater deployment of defensive strategies because of the imminence of the threat and the range of possible interpretations available. By contrast, participants' measured identification with the England team in Study 3 could be seen as more stable because they were exposed to news reports describing England's past performance, of which participants might be quite aware as a supporter of the team. Hence, participants' ingroup identification might be less susceptible to other social factors and better predict those variables. Generally speaking, the methodological differences between Study 2 and Study 3 create two contexts that differ in their richness of social nuances, which may consequently explain inconsistent relationships between identification and emotions across studies.

The last difference was that participants seemed to perceive England's defeat to Uruguay differently in Study 3 and consequently felt less schadenfreude than in Study 2. Specifically, they felt marginally less envious, disliked Uruguay less, and perceived England's defeat as more deserving at T1, and liked Uruguay more at T2. These

differences probably reflected the fact that participants were already aware of the final results of the World Cup when rating these items. Hence, their attitude toward Uruguay might have consolidated during the recent tournament, making it less susceptible to change in response to mere reminders of the outcomes of the events that had happened only four months ago. This also in part explains why schadenfreude did not predict liking of Uruguay (T2) after controlling for hostility at (T1) as it had done in Study 2. Further, participants might well have reappraised England's elimination from the competition or the relative competence of Uruguay as a team before reading the events described in the presented newspaper article. Either of these factors may have changed participants' emotional responses to the events described and either might also explain why perceived deservedness of England's defeat to Uruguay was not significantly correlated with subsequent schadenfreude in Study 3.

General Discussion

This chapter presented three studies using either retrospective vignettes (Study 1 and 3) or concurrent events (Study 2) to examine social functions and consequences of intergroup schadenfreude. Inspired by earlier research (e.g., Leach et al., 2003; Leach & Spears, 2009), the present studies focused on intergroup competitions wherein the ingroup was defeated by a second-party outgroup to create the necessary antecedents for subsequent schadenfreude toward this outgroup following its defeat by a third-party

outgroup.

My studies were novel in two respects. First, to the best of my knowledge, they represent the first research to show that intergroup schadenfreude serves two important social functions, both of which might help group members to regulate their group's status in the social hierarchy. Second, this was the first time that intergroup schadenfreude experienced during an unfolding real-life tournament has been assessed and compared to schadenfreude experienced in response to reading retrospective reports of the same event.

Antecedents

My first set of hypotheses concerned the antecedents of intergroup schadenfreude (including shame, envy, and dislike of the target). Across all three studies, hostility towards the outgroup following the initial defeat was a consistent determinant of subsequent schadenfreude following that outgroup's defeat. Shame was also shown to be reliably correlated with intergroup schadenfreude in Studies 2 and 3 (although the association was not significant in Study 1, probably because of the sample's low levels of domain interest and ingroup identification). Together, these results corroborate previous findings showing that the pain of inferiority (Leach et al., 2003; Leach & Spears, 2009) and dislike (Hoogland et al., 2015) are important predictors of intergroup schadenfreude.

Envy, however, did not reliably predict schadenfreude in any of the studies. The

association was marginally negative in Study 1, non-significantly positive in Study 2, and was significantly positive in Study 3. This might be in part because my measures did not distinguish between benign and malicious envy. As discussed in Chapter 1, the former kind of envy is conceptualised as free of hostility and pain of inferiority (van de Ven, Zeelenberg, & Pieters, 2009) whereas the latter kind of envy encompasses the feeling of hostility toward the coveted target (R. H. Smith & Kim, 2007). Accumulating evidence has shown that malicious envy, but not benign envy, is positively associated with schadenfreude (Feather et al., 2013; van de Ven et al., 2014). This highlights the importance of using more precise measures to differentiate the benign and malicious types of envy when trying to establish links between this emotion and schadenfreude (for a discussion, see van Dijk et al., 2015). Further, perceived deservingness of ingroup's defeat was not reliably related to intergroup schadenfreude as expected because the link was significant only in Study 2. As discussed earlier, participants' low levels of identification (Study 1) and prior knowledge of the event (Study 3) may have altered the perception of ingroup's inferiority and its corresponding effects on intergroup schadenfreude. Indeed, previous research has shown similarly inconsistent findings, with some studies showing a significant effect of deservingness on schadenfreude (e.g., Feather, 2008) and others not showing any such effect (e.g., Leach et al., 2008). Future research should clarify these results.

Social Functions

The central aim of the current research was to investigate the functions of intergroup schadenfreude in regulating social hierarchies. Although I did not find a significant relation between perceived relative status and schadenfreude in Study 1, schadenfreude was correlated with changes in ingroup's perceived status (Study 2) and in the evaluation of the ingroup's performance in the competition (Study 3), suggesting that schadenfreude toward an outgroup's misfortune may be a coping response activated by status differences between ingroup and the outgroup. Further, intergroup schadenfreude was consistently related to dislike of the second-party outgroup, and to the intention to humiliate this outgroup across all studies. Importantly, intergroup schadenfreude mediated the effects of changes in either perceived status (Study 2) or performance evaluation (Study 3) on these outcomes. Thus schadenfreude apparently sharpened group boundaries and emphasised status differentials, consistent with a social-distancing function. A negative attitude toward an outgroup helps to maintain the ingroup's position in the social hierarchy because dissociating from lower status outgroups is an efficient way to protect the group's identity (Gonzalez & Brown, 2006). It also makes derogatory behaviours and humiliation more justifiable because it reduces participants' tendency to empathise with this outgroup's misfortune and may exacerbate intergroup bias (see Cikara, Bruneau, Bavel, & Saxe, 2014). Indeed, self-categorization

that focuses on groups' negational identity has been shown to promote more outgroup derogation than affirmative identity (Zhong et al., 2008). Thus, the present results suggest that intergroup schadenfreude's distancing function may be particularly helpful in the attainment of negational identities and the maintenance of the ingroup's new social standing.

The current studies provide evidence for affiliative as well as distancing functions of schadenfreude. In particular, schadenfreude was a positive predictor of the intention to celebrate with the ingroup (Studies 1 to 3), and schadenfreude mediated the effects of changes in status (Study 2) or performance evaluation (Study 3) on this outcome. In what ways does schadenfreude contribute to affiliation? First, it may facilitate social bonding amongst group members by communicating shared positive feelings about the outgroup's misfortune, thus signaling to other members that the group is a coherent entity and promoting solidarity (cf. Livingstone, Spears, Manstead, & Bruder, 2011). Second, sharing negative information about an outgroup serves a status-enhancing function (McAndrew, Bell, & Garcia, 2007) which may indirectly help to maintain ingroup's current social status and protect it from future identity threat. Our findings relating to social affiliation complement the growing work on the expression of schadenfreude in spontaneous conversations (Feyaerts & Oben, 2014) and demonstrate that group members readily share their happiness and celebrate with other ingroup members following an

outgroup's misfortune.

Real-life versus Simulated Experiences

An important and novel aspect of the present research is its comparison of schadenfreude experienced in real-world settings (Study 2) with schadenfreude reported in response to retrospective vignettes (Study 3). Most previous research has used vignettes to elicit schadenfreude, and no previous published studies (to my knowledge) have investigated the experience of intergroup schadenfreude in settings where participants respond to the misfortune just hours after it has happened. Such temporal proximity to the actual event as it unfolded during an ongoing tournament shed important light on how intergroup schadenfreude is experienced in the real world. Thus, the comparisons made in this research help to allay some of the potential concerns about ecological validity of vignette-based research by showing that real-life and simulated intergroup schadenfreude have similar associations with other theoretically relevant variables; both are experienced when the feeling of shame and hostility are involved and both are related to hypothesised social consequences such as dislike of the second-party outgroup and intentions to humiliate. Importantly, Study 1 showed similar results pertaining to the associations between schadenfreude and the proposed social consequences, suggesting that the convergence of the findings in Study 2 and 3 is not due to assessing reactions to the same events. Together, these findings extend previous

conclusions about similarities between real and simulated emotional experiences (Robinson & Clore, 2001) to more complex social situations such as those surrounding intergroup schadenfreude.

However, there were also important differences in the findings of Study 2 and Study 3. As discussed above, many of these differences likely reflected the fact that the emerging status threats experienced during the intergroup competition had already been resolved in consensual ways prior to the retrospective study. Further, knowledge of the ultimate outcome of the competition probably reduced ambiguity and restricted the range of available coping strategies. In addition, the specific formulation of events in the news articles that I used as textual prompts in Study 3 may have constrained the available range of interpretations and emotional reactions. This is because appraisal processes are shaped not only by an emotion-eliciting event, but also by other social and contextual factors (Parkinson, 2001). The extent to which researchers can capture these social-relational factors, is contingent on the methodologies used. Vignettes, for example, often simplify and decontextualise a real-life situation, making them less natural and emotional arousing than typical social interactions (cf. Parkinson & Manstead, 1993). All of these factors may have led to significantly less intense emotional responses to retrospective news reports than to the real-life event.

Limitations and Future Directions

It is worth acknowledging the limitations of the present research. First, I employed a correlational design because I needed to obtain preliminary evidence for novel hypotheses (Study 1) and I could not experimentally manipulate intergroup schadenfreude in a real-life setting (Study 2), or in news articles describing the same familiar events (Study 3). For this reason, I am not in a position to draw strong conclusions about direction of causality. It is possible that alternative mediation models may also explain some of the current findings (see footnotes 10 and 16). However, the facts that these alternative models were less consistent across studies compared to those presented in this thesis and that measures of supposed antecedents (e.g., hostility for all studies and shame for Studies 2 and 3) taken at T1 were consistent predictors of subsequent outcomes at T2 helps to allay at least some of these ambiguities, especially in Study 2 where the T2 event was in principle unknowable at T1. Future research should use experimental manipulations to corroborate the current findings.

A second limitation pertains to generalizability. I used only international football tournaments to investigate associations between schadenfreude and its consequences. However, there are at least two reasons why my results are likely to generalize to other intergroup contexts. First, there was convergent evidence for the associations between schadenfreude and its consequences for different events (Study 1 vs. Study 2) using

different types of participant (Study 1 vs. Studies 2 and 3) supporting different national teams (Study 2). Each of the teams involved encountered different rivals and faced different outcomes in the tournament. Second, results generated using similar football-based scenarios (e.g., Leach et al., 2003) have been replicated in other contexts (e.g., Leach & Spears, 2008).

Relatedly, Studies 2 and 3 used genuine football fans who were highly interested in the sport. This raises concerns about range restriction and makes it difficult to test any direct or interactive effects of domain interest and identification on schadenfreude (cf. van Dijk et al., 2015). However, as stated above, the fact that I obtained the same evidence in Study 1 for the relations between schadenfreude and its consequences using student samples who were low in domain interest increases confidence in the current conclusion. For these reasons, I believe that the current findings have broader relevance, but future research should clearly use a wider sample and select a wider range of contexts for intergroup schadenfreude to substantiate my conclusions.

A third potential limitation arises from the use of single-item measures for assessing status, identification, and antecedents of schadenfreude. I chose these measures because Study 2 used community samples and short questionnaires were required to ensure a good response rate (Galesic & Bosnjak, 2009). I also believed that they were more straightforward and clearer for these participants. In fact, previous studies have also

used single-item measures to assess perceived status (e.g., Morrison, Fast, & Ybarra, 2010), identification (e.g., Perreault & Bourhis 1998), and discrete emotions (e.g., Gross & Levenson, 1993). Further, it has been suggested that using single-item measures to measure social identification (Postmes, Haslam, & Jans, 2013) and mood and emotions (Luria, 1975) is reliable and valid. Nevertheless, single-item measures may have reduced the reliability of the difference scores used in Studies 2 and 3 (Overall & Woodward, 1975). These issues with single-item measures may help to explain why status and identification were not consistently associated with schadenfreude across studies. Future research should use multiple-item measures to verify the present findings.

The last potential limitation arises from the exclusive use of self-report measures which has been criticised for its susceptibility to social desirability response bias. However, this bias should reduce, rather than enhance, the chance of finding significant correlations between schadenfreude and its consequences. This is because schadenfreude is a socially undesirable emotion and its responses are readily suppressed and regulated (Leach et al., 2015). The fact that I did obtain consistent evidence for their associations across studies and samples supports my hypotheses and highlights the robustness of the results. Nonetheless, I am aware of the below-mean ratings obtained for the hypothesised consequences in both studies. This raises the question of whether the intention reports would translate into schadenfreude-related consequences. Clearly, my conclusions would

be more secure if there had been independent validation of participants' reports of attitudes, emotions, intentions, and actual behaviours, and future research should seek to address this limitation.

Conclusion

The findings of the three studies reported in this chapter support the idea that intergroup schadenfreude serves important social functions in regulating social hierarchies, specifically by distancing the ingroup from competing outgroups and aligning ingroup members against these outgroups. Broadly convergent results were obtained across five different samples and using two different methodologies, supporting their generalizability. Although the use of retrospective vignettes in Study 3 apparently affected participants' perspective and coping strategies, the results are generally encouraging to researchers continuing to employ vignette methods. More generally, these studies suggest that a full understanding of schadenfreude requires investigation of its consequences and functions in addition to its antecedents.

CHAPTER 3: DOES INTERGROUP SCHADENFREUDE DEPEND SPECIFICALLY ON STATUS CONCERNS?

This chapter reports two studies examining whether social status is the specific and exclusive concern that underlies intergroup schadenfreude, and whether intergroup schadenfreude depends on social relational goals that are distinct from those underling another positive emotion – victorious joy (i.e., feeling happy about a third-party's victory). To address these questions, a new experimental paradigm was developed to manipulate motives for experiencing intergroup schadenfreude and victorious joy in the laboratory. Specifically, the concern for status was manipulated (status motive: high vs. low) with the aim of eliciting intergroup schadenfreude whereas the motive for getting rewards through a third-party's victory (instrumental motive: high vs. low) was manipulated with the aim of eliciting victorious joy. If status is the specific social relational goal underlying intergroup schadenfreude, then only the status motive manipulation should affect this emotion. Conversely, only the instrumental motive manipulation should affect victorious joy. Study 4 provided the first attempt to test the effectiveness of the paradigm for testing these hypotheses. Although the manipulations were successful, both status and instrumental motive manipulations affected both intergroup schadenfreude and victorious joy, and there was a significant multivariate interaction between these motives. Study 5 made an important modification to Study 4's low instrumental motive condition by introducing external rewards associated with the victory of the second-party rival (instrumental motive: positive vs. negative) to ensure participants' involvement in the game. Despite the success of both manipulations, the results showed only a main effect of instrumental motive condition on both intergroup schadenfreude and victorious joy, suggesting that status may be only one of many motives that may underlie intergroup schadenfreude. However, there remain questions about whether the failure to distinguish effects specific to intergroup schadenfreude and victorious joy reflects issues with the self-report measures used in these studies or a genuine lack of specificity in the underlying emotions.

Introduction

Schadenfreude has often been conceptualised as the pleasure elicited by the social comparison benefits arising from another person's or another group's misfortune (Smith et al., 2009; van Dijk & Ouwerkerk, 2014). This idea is based on social comparison theory

(Wills, 1981), which posits that comparing oneself with a less fortunate other can improve one's self-evaluation. The theory further posits that individuals are more likely to engage in downward social comparison to self-enhance when their self-evaluation (Tesser, 1988) or social identity (Tajfel & Turner, 1979) is under threat. Consistent with this prediction, research has shown that schadenfreude is elicited or intensified when one's or one's group's worthiness is compromised. Specifically, as mentioned in Chapter 1, schadenfreude often arises when individuals feel envious toward a superior target (Smith et al., 2009) and have low esteem (van Dijk et al., 2011) or when their group suffers from prior pain of inferiority (Leach & Spears, 2008; 2009). This evidence suggests that psychological benefits for the self or for the ingroup often result from witnessing other people's misfortunes; they help to relieve the negative feelings of envy, being threatened, and being inferior. It has therefore been argued that schadenfreude is a response to psychological rather than material gains (cf. Leach et al., 2014; Leach et al., 2015). There is also evidence showing that the association between identification and schadenfreude towards a rival is mediated by the perceived gain for the in-group (Hoogland et al., 2015). More directly, Study 1 to Study 3 showed that intergroup schadenfreude mediated the association between status improvement and social consequences that serve to regulate the social hierarchy. Based on the existing evidence, it seems that intergroup schadenfreude involves the social comparison between the ingroup and the outgroup and

serves a specific social-relational goal intended to regulate social status.

A question that remains unanswered is whether intergroup schadenfreude depends specifically and exclusively on group-status concerns or whether these concerns represent only one of the possible motives for enjoying the suffering of a second-party outgroup following a misfortune. There are two rival theoretical stances. On the one hand, some theorists argue that pure examples of schadenfreude are unaffected by direct competition and its associated material gains, suggesting a specific dependence on particular kinds of concern, such as status (e.g., Leach & Spears, 2014). On the other hand, van Dijk and Ouwerkerk (2014) have recently proposed that people may experience schadenfreude for a variety of possible reasons, that these motives are not mutually exclusive, and that they may be intertwined in the emotional experience (van Dijk & Ouwerkerk, 2014). Thus, to the extent that someone's or some group's misfortune satisfies any of these concerns, people will experience schadenfreude. This account of schadenfreude accords with the idea that a sufficient condition for schadenfreude is that someone else's suffering is appraised as motivationally congruent, regardless of the motivation that might currently be in play (van Dijk et al., 2015).

Previous studies have not directly addressed the issue of whether schadenfreude is specifically a response to status concerns. They have mainly used intergroup competition as the research context (for exceptions, see, Cikara & Fiske, 2012) but (to

the best of my knowledge) have not included an appropriate comparison group to test whether non-status motives may also evoke intergroup schadenfreude. An example of such a motive is the desire for another group (i.e., third-party outgroup) to win as manipulated in the present studies.

As an illustration of this methodological issue, Leach and colleagues (2003; 2008) demonstrated the link between ingroup inferiority and schadenfreude by manipulating the order of information presented to the participants. In the experimental condition, information about the ingroup's inferiority was presented to the participants prior to the opportunity for, and assessment of, schadenfreude. In the control condition, on the other hand, the ingroup's inferiority was established after the opportunity for, and measurement of, schadenfreude. They found that participants in the experimental condition who were informed about their ingroup's inferiority subsequently felt more schadenfreude than those in the control group. Although this design allowed the researchers to test the causal effect of inferiority on schadenfreude, it is restricted to comparing only whether or not the presence of threat to ingroup's status elicits intergroup schadenfreude. It neither directly tests whether other motivations may also lead to intergroup schadenfreude nor precludes the possibility that the ingroup's inferiority may induce the desire for the third-party to win rather than the desire for the second-party to lose.

Considering these methodological limitations in the literature, a more rigorous

design is needed to test whether intergroup schadenfreude depends specifically and exclusively on group status concerns or whether other motives are similarly potent elicitors of intergroup schadenfreude. This investigation is important to the development of schadenfreude research in two respects. First, it could provide useful insights into whether or not intergroup schadenfreude serves other social functions that are not related to the regulation of social status. Second, it could shed light on whether or not intergroup schadenfreude is distinguishable from other forms of pleasure (e.g., joy, gloating, etc.) on the basis that discrete emotions may have unique patterns of appraisal and involve specific relational goals (Roseman et al., 1994).

Is Intergroup Schadenfreude a Distinct Emotion?

Is schadenfreude a distinct emotion with specific characteristics that is distinguishable from other kinds of pleasure? This question has been raised by several emotion researchers (Hareli & Parkinson, 2008; Parkinson & Manstead, 2015) but empirical research has yet to provide any clear answers. On the one hand, there is evidence suggesting that schadenfreude is not distinguishable from joy or happiness. For example, Boecker and colleagues (2014) found that participants did not differ in their facial muscle activities when they watched clips depicting a rival football team lose a penalty shoot-out (schadenfreude condition) and when they watched their own team win a penalty shoot-out (joy condition). Another study by Cikara, Botvinick and Fiske (2011)

showed that feeling happy about a favoured team winning and feeling schadenfreude about a rival team losing both activated the ventral striatum, which is associated with reward.

On the other hand, there is also evidence suggesting that schadenfreude is different from other pleasure-related emotions in terms of its experiential characteristics, expression and behavioural consequence. For example, schadenfreude differs from gloating (i.e., pleasure in actively causing someone's misfortune) in being less direct, involving, and pleasurable. Moreover, the expression of gloating is more public and open than the expression of schadenfreude, which is more furtive and more frequently suppressed (Leach et al., 2015). Additionally, schadenfreude-induced laughter can be distinguished from other types of laughter (joy, tickling, and taunting) at an above-chance accuracy and can be described as a blend of joy and taunt (Szameitat et al., 2009). Lastly, the experience of schadenfreude is more likely than happiness to result in preference for a conventional option in decision making because schadenfreude makes people perceive negative outcomes as more probable (Kramer, Yucel-Aybat, Lau-Gesk, 2011).

While some of these studies seem to suggest that certain instances of schadenfreude are distinct from other positive emotions, it should not be taken as conclusive evidence that the differences reflect defining features of schadenfreude. After all, some instances of schadenfreude may be different from the others on a number of

attributes. For example, German football fans' joyous expressions when viewing The Netherlands's failing at a shoot-out (cf. Boecker et al., 2014) may be different from the laughter secretly directed at someone slipping in a dog dirt (cf. Szameitat et al., 2009) in terms of directness, involvement and pleasurability. Thus, it is not clear whether the reported differences between schadenfreude and other forms of pleasure are intrinsic to the emotion itself or simply extrinsic consequences of the particular instance.

I believe that a more systematic approach is needed to determine whether an emotion is distinct from others. In evaluating the existing evidence, it is reasonable to propose that schadenfreude is better characterised by its underlying (social) concerns (i.e., social comparison or status) and by its corresponding componential elements (i.e., appraisals, action tendencies, behavioural consequences), than by its physiological and neural correlates (cf. Boecker et al., 2014; van Dijk et al., 2015). After all, a range of factors other than emotion contribute to differences in expression and physiological response in any particular situation (e.g., Kreibig, 2010). This finer and more nuanced approach to emotion is based on appraisal theory (see Chapter 1 for a brief discussion), has been advocated by various emotion researchers (e.g., Frijda, 1986; Lazarus, 1991; Ortony et al., 1988), and is believed to be able to distinguish between subtypes of emotions (Hareli & Parkinson, 2008; Leach et al., 2015). One example is the distinction between regret and disappointment. Both emotions are elicited when a decision leads to

an unfavourable outcome (see Zeelenberg, van Dijk, Manstead, & van der Pligt, 2000) and both emotions involve activation of the same brain regions (e.g., the anterior insula and dorsomedial prefrontal cortex, Chua, Gonzalez, Taylor, Welsh, & Liberzon, 2009). However, regret and disappointment can be distinguished by reference to their cognitive appraisals and action tendencies (Zeelenberg, van Dijk, Manstead, & van der Pligt, 1998). For example, regret is experienced when an outcome would have been better had a different decision been made, whereas disappointment is experienced when an outcome is worse than what expected. In addition, regret motivates the person to correct mistakes but disappointment motivates the person to do nothing. Consequently, regret has been shown to increase prosocial behaviour in bargaining games whereas disappointment decreases it (Martinez, Zeelenberg, & Rijsman, 2011).

The example of regret and disappointment shows that conceptually similar emotions are better distinguished by reference to their specific concerns and corresponding cognitive appraisals. Similarly, intergroup schadenfreude may be distinguishable from other kinds of pleasure on the basis of its specific concern for status as evident in Chapter 2. The experiments reported in this chapter are intended to further substantiate the proposal that an important social relational goal motivating intergroup schadenfreude is social status.

A New Experimental Paradigm for Intergroup Schadenfreude

To assess whether intergroup schadenfreude is characterised by a specific concern for status but not other kinds of motivation, it is important to choose a comparable emotion as control (cf. Parkinson & Manstead, 2015). In an intergroup competition, observers can either feel happy about a team (i.e., second-party outgroup) losing (i.e., schadenfreude) or feel pleased about another team (i.e., third-party outgroup) winning (i.e., victorious joy). Such a competition thus allows me to manipulate the kinds of concern that motivate participants to support either the second-party or the third-party outgroup and in turn manipulate possibilities for feeling distinct positive emotions of intergroup schadenfreude and victorious joy, respectively. Consequently, I can test whether intergroup schadenfreude exclusively depends on the concern for status and not on other motives, such as the desire for the third-party outgroup to win by checking whether the manipulations specifically influence these separate emotions.

It should be noted, however, that the experimental procedures used in previous research into intergroup schadenfreude may not be suitable for establishing the conditions described above. As mentioned at the beginning of this chapter, some of these studies (e.g., Leach et al., 2003; Leach & Spears, 2008) manipulated the sequence of events in which information about misfortune was presented to participants in order to induce ingroup's inferiority, which may have limited value when the goal is to tease apart

different kinds of concern that may underlie distinct emotions of schadenfreude and/or victorious joy.

Further, most studies have employed vignettes rather than directly involving situations to elicit schadenfreude. As elaborated in Chapter 2, schadenfreude often arises in a complicated social environment that may be difficult to recreate imaginatively in all its details. In particular, intergroup competitions involving a third-party social agent may not be fully captured by vignettes that focus on selective information about what is unfolding. Thus, intergroup schadenfreude research may benefit from manipulations that are more dynamic and emotionally involving.

To address these methodological issues, I developed a new experimental procedure to manipulate participants' motives that was emotionally engaging enough for participants to actually experience intergroup schadenfreude and victorious joy in the laboratory. The experiment adapted methods developed in the work of Leach and Spears (2008). I asked participants to represent their colleges in an intercollegiate competition, in which they supposedly played against seven other participants from different colleges. Participants received false feedback about their performance and got eliminated at the round-robin stage of the contest (i.e., group stage). Later, they witnessed a target college (i.e., second-party outgroup) being defeated by another college (i.e., third-party outgroup) and thus failing to triumph in the final. The concern for status was manipulated by

changing the identity of the college which eliminated the participant's college at the group stage. In the low status motive condition, participants were eliminated by another college, which then did not succeed in advancing to the final challenge. In the high status motive condition, participants were eliminated by the second-party college, which then advanced to the final challenge but was ultimately defeated by the third-party college. I expected that the advancement of the second-party college should be seen as a more acute and salient threat to the social status of participants' own college in the high status motive condition than in the low status condition. This is because the second-party college was directly responsible for the in-group's elimination in the high status condition but not in the low status motive condition.

Participants' motive for supporting the third-party outgroup was manipulated by introducing sweepstakes to the competition. Participants were told that they would receive direct rewards (i.e., an instrumental motive) if the finalist they had been assigned in the sweepstake won the competition. This manipulation should provide an extra incentive, independent of the concern for ingroup's status, to hope for the third-party college's success in the final, and to primarily feel victorious joy when that outcome occurs.

Overview

In the following sections of this chapter, I present evidence from two experimental

studies (Study 4 and Study 5) which had two overarching objectives: first, to test whether the novel and dynamic paradigm I outlined above is capable of inducing intergroup schadenfreude in the laboratory; and second, to empirically test whether intergroup schadenfreude can be differentiated from victorious joy on the basis of specific (social) motives (psychological gain vs. instrumental gain). Based on the rationale developed above, both experiments employed a 2 (Status Motive: High vs. Low) x 2 (Instrumental Motive: High vs. Low) design. If intergroup schadenfreude depends specifically on status concerns, then it should be directly influenced by the status motive manipulation (main effect), but not by the instrumental motive manipulation. Conversely, the instrumental motive manipulation should have a corresponding main effect on victorious joy but the status motive manipulation should not. Although not central to the present study, I also included measures accessing the antecedents and consequences of schadenfreude to examine whether findings from Study 1 to 3 could be replicated in the laboratory using the current experimental paradigm.

Study 4

Method

Participants and design. One hundred and eight students at the University of Oxford (45 men and 63 women, M_{age} = 20.75, *SD* = 2.78) participated for a payment of £8 (approximately $12.50). They were randomly assigned to one of the four conditions

generated by a 2 (Status Motive: high vs. low) x 2 (Instrumental Motive: high vs. low) between-subjects factorial design. Eighteen participants expressed suspicion about their performance feedback and/or the nature of the staged interaction during funneled debriefing (cf. Bargh & Chartrand, 2000). Their data were therefore excluded, leaving data from 90 participants for analysis. There were 22 to 24 participants in each condition. A priori power analysis using the program G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) suggested that this sample size is capable of detecting a medium effect size (f = .30; Cohen, 1988) for an 80% of power.

Procedure. A recruitment advertisement was circulated around Colleges and Departments at the University of Oxford, inviting potential participants to take part in a study investigating emotions while competing with others in an inter-college competition. Participants who expressed interest then received an email with details of the experiment. To make participants believe that they would be interacting with other participants, they were told that the experiment would be carried out in two separate parts of the same building and were reminded not to go to the wrong rendezvous location.

On the day of the experiment, participants met the male experimenter at the assigned waiting area in groups of 2 to 4. They were brought to the laboratory and seated in a communal area. The experimenter asked them to complete informed consent forms while he left the room, ostensibly in order to check whether enough participants had

arrived. On return, the experimenter informed the participants that there were a total of 8 participants in the current experimental session and that they would be competing with each other via the network. Participants were then briefed about the procedures of the experiment.

Each participant was then led to a separate cubicle containing a computer, which was used to present the instructions for the task. They read that, due to the limited number of participants either laboratory could accommodate, the experiment had to be conducted in two separate locations. Nevertheless, there would be a chance to interact with others in an online chatroom before the competition started. Next, participants read the instructions for the competition and were asked to provide a password in order to enter the competition. At this point, the experimenter pretended to make a phone call in the communal area where each participant could hear him speaking to a supposed research assistant at the other location to confirm that other participants in that room were ready for the competition. These procedures were to ensure that participants believed that there were indeed other people in the other laboratory and that the competition was happening in real time. Participants then entered a fabricated on-line chatroom, took part in the competition, and completed the necessary questionnaires. Upon completion of the experiment, participants were probed for suspicion, debriefed, thanked and paid.

Intercollege competition. The experiment was computer-based and programmed

with z-Tree (Fischbacher, 2007). The competition was in the format of a multiple-choice quiz game. Most of the quiz items were selected from various intelligence tests in order to maximise the likelihood that participants, who were all university students, would be interested in getting high scores. The remaining items, however, were not directly related to intelligence, but instead required specialist knowledge to select the correct answer. The inclusion of these latter items was intended to make it more difficult for participants to accurately assess their own performance, thus making the subsequent bogus performance feedback more convincing. The competition was divided into two stages: a group stage and a final challenge.

Chatroom. Before the group stage, participants entered a virtual chatroom where they could supposedly interact with other participants. Participants were always identified as Participant 6 whereas the others were labelled as Participant 1-5, 7, and 8. They were instructed to greet everyone, introduce themselves without disclosing their identities, and discuss whether they had previously participated in experiments of a similar kind. Participants were reminded that they could only send one message in the chatroom. In actuality, other participants' responses were pre-programmed with individualised messages and styles (e.g., no punctuation, use of abbreviations, etc.). These procedures were intended to make participants believe that they were indeed interacting with other people. After the display of all messages (including the participant's own message), the

group stage began.

Group stage. Immediately after the chatroom session, the eight supposed participating colleges were given anonymised labels (College A to College H) and were randomly divided into two groups (Group I or Group II) of four teams for the "group stage" of the competition. Participants were labelled as College C and were assigned to Group I, in which they played against Colleges D, F, and H. The instructions explained that teams from each group would play against each other in round-robin tournaments, where the winner would qualify for a final contest against the winner of the other group. Thus, participants took part in 3 games against Colleges D, F, and H.

Each game lasted for 3 minutes and included 15 fixed-sequence questions varying in difficulty level. Participants were told that their performance in each game would determine how many points of two kinds they would earn. The first kind of points were called Game Points (GP), and were determined by the number of correctly answered questions, the difficulty of those questions, and the time spent answering them. The second kind of points were called Match Points (MP), and were determined by whether participants won, drew, or lost a game (i.e., their own GP score compared to the other team's GP score). Match points were scored according to the same rules as in football contests. In other words, participants earned 3 points for a "win" (own GP > other team's GP), 1 point for a draw (own GP = other team's GP), and 0 points for a "loss" (own GP

< other team's GP). The ranking of the participant's college within the group was determined by how many MPs they earned in the group stage. The colleges earning the most MPs in their respective groups thus qualified to enter the "final challenge."

To encourage participants to perform and respond on behalf of their colleges, they were told that the MPs they earned would be used to update the ranking of their college in the database, which was calculated as the number of MPs their college earned divided by the number of participants from their college across sessions. Participants were shown that their college was currently ranked 7 out of the 18 participating colleges on the basis of previous scores, and were encouraged to perform to the best of their abilities on behalf of their college. They were also informed that participants representing the top-ranked college at the end of the research project were entitled to enter into a lottery for two raffles of £20 (around $32).

Final challenge. The winning colleges from Group I and Group II competed for the championship while representatives of the remaining colleges acted as audience and witnessed the competition. Participants were told that the final challenge included 15 questions and that a maximum of 3 minutes were permitted for their completion. The questions varied in difficulty level and were presented simultaneously to both finalists. Finalists were required to respond to the questions as quickly as possible. Correct answers were again awarded GPs, depending on the difficulty of the question and the time taken

to answer them. Incorrect answers led to a penalty of 10 GPs. The college which accumulated the most GPs during this stage would be the winner of the challenge and would earn an additional 5 MP for their college, potentially improving its ranking in the overall league table. In reality, participants all witnessed a fabricated competition between College D from Group I and College G from Group II. The result of the competition was designed such that College D lost by a wide margin to College G, making it possible for participants to feel schadenfreude toward College D. See Appendix F for screenshots of the final challenge.

Status motive manipulation. Participants' concern for their college's status was manipulated by changing the sequence of games during the group stage and adjusting the bogus feedback they received after each of these games. In the high status motive condition, participants first drew in their game with College H (64 vs 64 GPs) and earned 1 MP, leaving their college in second position within the group. They then defeated College F (71 vs 56 GPs) and earned 3 MPs. Thus, they accumulated 135 GPs and 4 MPs, leaving them close behind College D, who led the group with 137 GPs and 4 MPs. Finally, they played against College D and lost by a wide margin (59 vs 70), leading to their college's elimination from the competition. Hence, participants' recent loss to College D was intended to represent an acute threat to the college's status, leading to low perceived status relative to College D and more schadenfreude toward College D when that college

was defeated by College G in the final challenge.

In the low status motive condition, participants earned exactly the same number of GPs and MPs in each game as in the high status motive condition. College D was again the finalist from the group. However, participants competed against other colleges in a different sequence. They first drew in their game with College D, then won their game against College H, and finally lost to College F. Hence, it was College F, rather than College D, who were most directly responsible for participants' elimination from the tournament. Because participants encountered and tied with College D in the first game of the group stage, participants were less likely to focus on their college's lower status relative to College D. They should therefore feel less schadenfreude toward College D in the final challenge. See Appendix F for screenshots of the performance feedback.

Instrumental motive manipulation. A sweepstake was introduced to the competition to manipulate participants' instrumental motives for wanting College G to defeat College D in the final. In the high instrumental motive condition, participants read a cover story suggesting that even though they had not qualified for the final challenge, I still wanted them to be involved in the final challenge as an audience. They further read the following instruction: "Oftentimes, people bet on the outcome of competitive events. An example of this is a sweepstake where people are randomly assigned one of the teams taking part in a tournament, and win a prize if their assigned team wins. We will now have

a similar sweepstake for the final challenge! We will assign you with one of the two competitors, and if your assigned competitor wins the challenge, you will win a chocolate bar in front of you (of your own choice)". Participants then pressed a button which revealed that they had been assigned College G, and that they would earn a chocolate bar if College G won the challenge. This was to heighten participants' motivation to support College G and to feel happiness (rather than schadenfreude) about their victory. In the low instrumental motive condition, they read the same cover story, but there was no mention of a sweepstake.

Measures. Participants completed several questionnaires at different stages of the experiment. These questionnaires consisted of filler items as well as items designed to assess the dependent variables. To make it easier for participants to identify the college to which the questions referred, the names of the relevant college were replaced by other labels in the questionnaires. Specifically, participants' college was referred to as "Your College". The college which qualified for the final challenge from their own group (i.e., College D) was described as the "Top College". The colleges which lost (i.e., College D) and won (i.e., College G) in the final challenge were referred to as "The Runner-up" and "The Winner", respectively.

Ingroup identification. I measured participant's identification with their college before the group stage using the 4-item scale adapted from Doosje, Ellemers, and Spears

(1995). Items included, “I see myself as a member of my college;” “I am pleased to be in my college;” “I identify with other members of my college;” and “I feel strong ties with my college” (α = .90).

Antecedents of schadenfreude. Participants’ feelings of inferiority, envy, hostility toward College D, and the perceived deservedness of their defeat to the rival College D were measured immediately after the group stage using scales similar to those used in Study 2 and Study 3. Feelings of inferiority were assessed by the items: “*ashamed*”, “*embarrassed*”, and “*threatened*” (α = .73) while envy was measured by two items: “*envious*” and “*jealous”, r*(88) = .84, $p < .001$. Participants responded to items in both measures on a 10-point scale (0 = “*not at all*”; 9 = “*very much*”). Hostility toward College D was measured using two items (“I dislike the top college” and “I have a feeling of contempt for the top college”) on a 7-point Likert scale (1 = “*strongly disagree;*” 7 = “*strongly agree*”), *r*(88) = .58, $p < .001$. Perceived deservedness was measured by asking participants to respond to the question “To what extent did your college deserve the outcome it received at the group stage?” on a 7-point scale (1 = “not at all deserved;” 7= “very deserved”).

Perceived relative status. Participants’ perception of their own college’s status relative to College D was measured first after the group stage and then again after the final challenge. Participants responded to the question “To what extent does your college

have higher status than the [top college/ the runner-up]?" on a 7-point scale (1 = *"much lower"*; 4 = *"more or less the same"* ; 7 = *"much higher"*). The response obtained after the group stage was used as a check of the status motive manipulation.

Support for College G. A single item measuring the extent to which participants wanted College G to win the championship was used before the final challenge as a check of the instrumental motive manipulation. Participants responded to the question "How much do you want the finalist from Group II to win the championship?" on a 7-point scale (1= *"not at all"*; 7 = *"very much"*).

Schadenfreude. Similar to Study 1, five items adapted from previous schadenfreude research (Powell & Smith, 2012; van Dijk et al., 2006) were used to assess schadenfreude toward College D on a 7-point Likert scale (1 = "*strongly disagree*"; 7 = "*strongly agree*"). Examples included "I enjoyed seeing the runner-up losing in the final challenge" and "I couldn't resist a little smile when the runner-up lost in the final challenge". The scale was presented to the participants after the final challenge. Reliability was high (α = .93).

Victorious joy. Five items (α = .95) were presented after the final challenge to gauge responses to College G's victory against College D on a 7-point Likert scale (1 = "*strongly disagree;*" 7 = "*strongly agree*"). Three of these items were modified from the schadenfreude scale (e.g., "I enjoyed seeing the winner defeating the runner-up", "I felt

satisfied about the winner's victory", and "I was happy about the winner's victory") while the remaining were developed specifically for this study ("I felt excited when the winner earned points"; "I felt hopeful when the winner earned points"). A principal-components factor analysis with varimax rotation was conducted on the schadenfreude and happiness items and revealed the expected two-factor solution explaining 82.09 % of the common variance. Items from the schadenfreude scale loaded on one factor at .77 or higher, with no cross-loading over .33 except for the item "I was secretly pleased about the runner-up's loss" cross-loaded at .46. Items from the happiness scale loaded on another factor at .74 or higher, with no cross-loading over .30 except for the item "I enjoyed seeing the winner defeating the runner-up" which cross-loaded at .54. This supported the assumption that schadenfreude is separable from other kinds of pleasure in response to outcomes of the same competition.

Consequences of schadenfreude. Similar to Studies 1 to 3, participants' liking of the second- party outgroup (College D) was measured after the final challenge using a single-item ("I like the runner-up"). Participants' intention to humiliate members of College D was measured using a scale containing three items: "I want to humiliate students from the college of the runner-up about their defeat"; "I want to embarrass students from the college of the runner-up about their defeat"; and "I want to emphasise to students from the college of the runner-up how embarrassing their defeat was" ($\alpha = .86$).

Participants' intention to celebrate with members of their own college was measured by two items: "I want to share the results of the final challenge with students from my college" and "I want to celebrate with students from my college), $r(88) = .59$, $p < .001$. All items were rated on 7-point scales (1 = "*strongly disagree;*" 7 = "*strongly agree*"). See Appendix G for all (unreported) measures used in this study.

Results

All reported analyses of variance (ANOVAs) and multivariate analyses of variance (MANOVA) employed a 2 X 2 between-subjects design with Status Motive (high vs. low) and Instrumental Motive (high vs. low) as factors.

Manipulation checks. An ANOVA was performed on the measure of perceived relative status measured after the group stage to evaluate the success of the status motive manipulation. Results revealed a significant main effect of the status motive manipulation, $F(1, 86) = 6.20$, $p = .015$, $\eta^2 = .07$. As expected, participants in the high status motive condition rated their college's status as higher than College D's to a greater extent ($M = 3.80$, $SD = 0.89$) than participants in the low status motive condition ($M = 4.30$, $SD = 0.98$). There were no other significant effects. An ANOVA was performed on the measure of support for College G to assess the success of the instrumental motive manipulation. Results revealed a significant main effect of instrumental motive manipulation, $F(1, 86) = 44.78$, $p < .001$, $\eta^2 = .34$. As expected, participants in the high instrumental motive

condition wanted College G to win the final challenge to a greater extent (M = 5.37, SD = 1.55) than their counterparts in the low instrumental motive condition (M = 4.30, SD = 1.36). There were no other significant effects. These results suggest that the manipulations of both motives were successful and independent of one another.

Change in perceived relative status. An ANOVA including the additional independent variable of time (T1: after group stage vs. T2: after final challenge) was performed on perceived relative status scores. As expected, there was a significant interaction between the status motive manipulation and time, $F(1, 86) = 4.02$, $p = .048$, $\eta^2 = .045$. Simple effect analysis showed that participants in the high status motive condition rated their college's relative status (in comparison with College D) as significantly higher at T2 (M = 4.11, SD = 0.74) than at T1 (M = 3.80, SD = 0.89). There was no significant difference between ratings of relative status at T1 (M = 4.30, SD = 0.98) and T2 (M = 4.23, SD = 0.99) in the low status motive condition. There were no other significant effects.

Schadenfreude and victorious joy. I conducted a MANOVA with schadenfreude and victorious joy as dependent variables. Results revealed no significant main effect of status motive. However, there was a significant multivariate main effect of instrumental motive, $F(2, 85) = 14.25$, $p < .001$, $\eta^2 = .25$, and corresponding univariate effects for both schadenfreude, $F(1, 86) = 19.12$, $p < .001$, $\eta^2 = .18$, and victorious joy, $F(1, 86) = 25.94$,

$p < .001$, $\eta^2 = .23$. Participants in the high instrumental motive condition experienced more schadenfreude ($M = 3.61$, $SD = 1.73$) and victorious joy ($M = 5.11$, $SD = 1.41$) than those in the low instrumental motive condition (schadenfreude: $M = 2.18$, $SD = 1.34$; victorious joy: $M = 3.54$, $SD = 1.53$). There was also a significant multivariate interaction effect of status and instrumental motives, $F(2, 85) = 3.52$, $p = .034$, $\eta^2 = .08$. However, the corresponding univariate effects on schadenfreude and victorious joy were not significant, $p > .10$. I next conducted ANCOVAs of schadenfreude scores after controlling for victorious joy, and of victorious joy scores after controlling for schadenfreude in order to assess construct-specific effects and to clarify the multivariate interaction reported above. In addition to the significant main effect of victorious joy as covariate, $F(1, 85) = 44.93$, $p < .001$, $\eta^2 = .35$, the schadenfreude ANCOVA revealed a significant interaction between status and instrumental motive manipulations corresponding to the multivariate effect reported above, $F(1, 85) = 6.10$, $p = .015$, $\eta^2 = .07$. Simple effects analyses revealed that in the high instrumental motive condition, high status motive participants felt more schadenfreude than low status motive participants, $F(1, 85) = 6.09$, $p = .016$, $\eta^2 = .07$. However, in the low instrumental motive condition, there was no significant difference in adjusted schadenfreude scores between high and low status participants, $p > .10$. See *Figure 3.1* for relevant means.

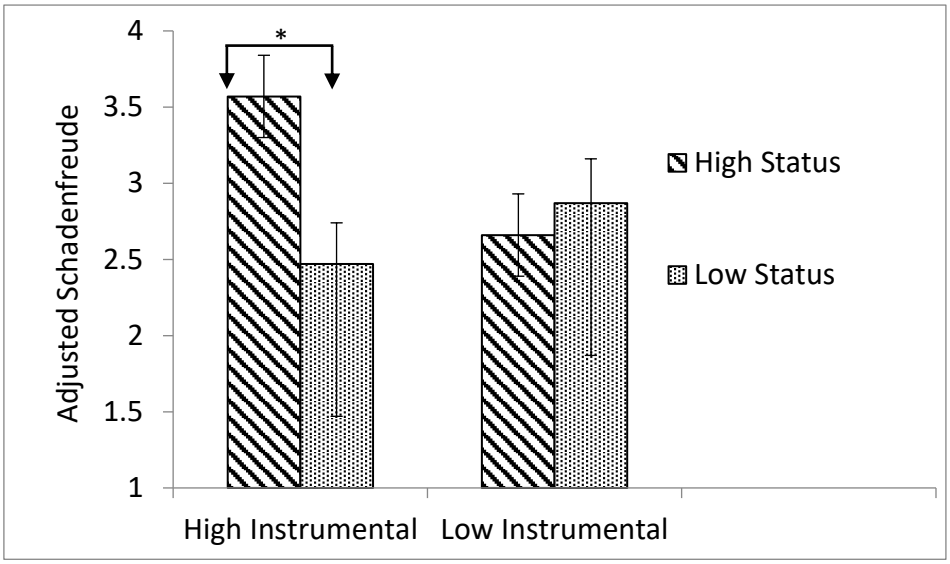


Figure 3.1. Interactive effect of status and instrumental motives (controlling for victorious joy) on adjusted schadenfreude. Error bars indicate the standard error.*p < .05

In addition to the significant main effects of schadenfreude as covariate, $F(1, 85) = 44.93$, $p < .001$, $\eta^2 = .35$, and the instrumental manipulation, $F(1, 85) = 7.87$, $p = .006$, $\eta^2 = .09$, the victorious joy ANCOVA also revealed a significant interaction between the status and instrumental motives, $F(1, 85) = 4.78$, $p = .032$, $\eta^2 = .05$. Simple effects analyses, however, did not yield a significant difference between high and low status motive participants in either high ($p > .10$) or low instrumental ($p = .064$) conditions. Conversely, there was no significant difference between high (adjusted $M = 4.51$, $SE = .26$) and low instrumental conditions (adjusted $M = 4.95$, $SE = .26$) when the status motive was high. However, participants in the high instrumental condition felt significantly more victorious joy (adjusted $M = 4.29$, $SE = .26$) than those in the low instrumental condition (adjusted $M = 3.61$, $SE = .26$) when the status motive was low, $F(1, 85) = 13.18$, $p < .001$,

η^2 = .13. See *Figure 3.2* for relevant means.

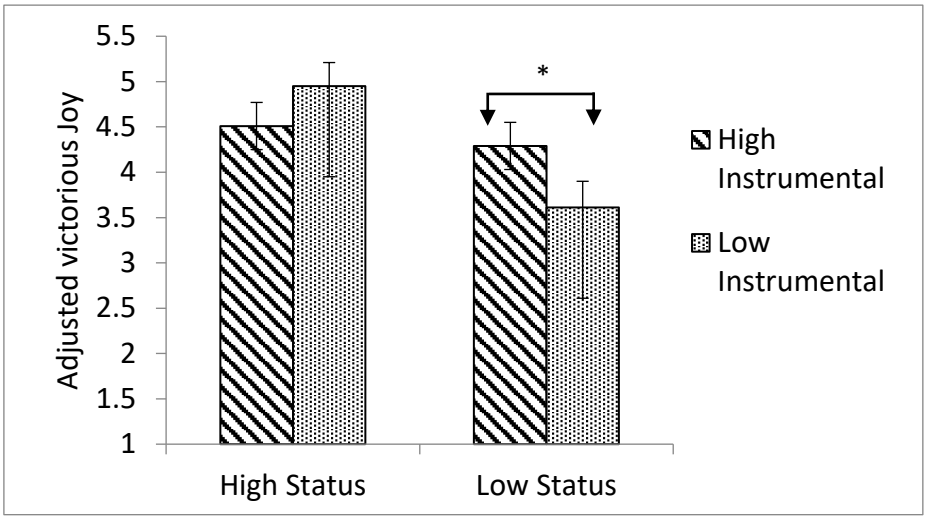


Figure 3.2. Interactive effect of status and instrumental motives (controlling for schadenfreude) on adjusted victorious joy. Error bars indicate the standard error.*p < .05

Predictors and consequences of schadenfreude. A MANOVA was performed on the four measures of antecedents (inferiority, envy, hostility, and perceived deservedness) as dependent variables. None of the multivariate or univariate effects were significant, ps > .10. A MANOVA performed on the four proposed consequences (liking of College D, intention to humiliate College D, and intention to celebrate with members of their own college) as dependent variables also yielded no significant multivariate or univariate effects.

I also performed correlational analyses to check whether the current data replicated the findings of Studies 1 – 3 relating to the associations between antecedents and schadenfreude, identification and schadenfreude, and schadenfreude and its

consequences. The results showed that all antecedents were (marginally) significantly associated with schadenfreude in the expected directions. Schadenfreude was also negatively related to liking of College D. However, it was not significantly related to ingroup identification, the intention to humiliate members of College D, or the intention to celebrate with ingroup members. See Table 3.1 for their means and correlations.

Discussion

Study 4 developed a novel and emotionally engaging experimental paradigm to manipulate two types of motives – status-related and instrumental – to directly elicit intergroup schadenfreude and victorious joy in the laboratory. The results showed that the manipulations were successful. Participants in the high status motive condition were less likely to rate their colleges to be having a higher status relative to the targeted second-party outgroup than participants in the low status motive condition. Moreover, participants in the high instrumental motive condition supported the third- party outgroup more than participants in the low instrumental motive condition. However, I did not obtain the predicted main effect of status motive on schadenfreude, despite the fact that participants in the high status motive condition had a significant improvement in perceived relative status after witnessing the second-party team losing. Instead, there were significant main effects of the instrumental motive manipulation on both intergroup schadenfreude and victorious joy such that participants in the high instrumental motive

Table 3.1

Means, standard deviations and correlations among variables in Study 4

		M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Identification	5.19 (1.45)	.06	-.04	.07	-.05	.21*	-.09	-.001	-.02	.14	.04	.24*	.09	.06
2	T1 perceived status	4.04 (0.96)		-	-.06	-.01	-.04	.01	-.15	-.01	-.09	.51***	.02	.11	.15
3	Support for College G	4.36 (1.79)			-	.14	.16	.09	-.19†	.62***	.58***	-.04	-.17	-.004	-.02
4	Inferiority	2.05 (1.89)				-	.52***	.34**	.02	.19†	.15	.11	-.07	.08	-.10
5	Envy	2.83 (2.39)					-	.30**	.09	.41***	.32***	.15	-.11	.07	.06
6	Hostility	2.59 (1.44)						-	-.16	.28**	-.03	.22*	-.16	.31**	-.04
7	Deservedness	4.83 (1.12)							-	-.24*	-.11	-.18	.13	-.02	.005
8	Schadenfreude	2.91 (1.70)								-	.66**	.16	-.32**	.11	.14
9	Victorious Joy	4.34 (1.66)									-	-.07	-.02	.01	.19†
10	T2 perceived status	4.17(0.86)										-	-.04	.16	.003
11	Liking of College D	4.10 (1.37)											-	-.09	-.04
12	Intention to humiliate	1.43 (0.77)												-	.21
13	Intention to celebrate	2.84 (1.41)													-

$N = 90$, $^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

condition reported greater schadenfreude and victorious joy than their counterparts in the low instrumental motive condition. While the effect of instrumental motives on victorious joy was in line with my hypothesis, its effect on schadenfreude was unexpected. A possible explanation is that getting the external reward might have been psychologically closer and relatively more appealing to the participants than improving their own college' status and thus participants' emotional responses, including both schadenfreude and victorious joy, were strongly driven by their desire for the external rewards.

There was also a significant multivariate interaction between status and instrumental motives on schadenfreude and victorious joy, but the corresponding univariate effects were not significant. In order to better understand these results and isolate status related effects on schadenfreude, I conducted an extra analysis to account for this issue. Interestingly, after controlling for victorious joy, participants in the high instrumental motive condition felt more schadenfreude when the concern for the status was high than when the concern was low. However, there was no difference in the low instrumental motive condition. This seems to suggest that status had an effect on schadenfreude but only when the prospect of an external reward was available. When there was no information about external rewards, participants might have been less interested in the outcome of the final challenge and thus less likely to feel schadenfreude, regardless of their concern of status. If so, the findings parallel previous demonstrations

that domain interest is an important predictor of intergroup schadenfreude (Leach et al., 2003). Having little interest in outcomes may reduce the effects of status on schadenfreude. Further, after controlling for intergroup schadenfreude, there was no significant effect of status on victorious joy in either high or low instrumental motive condition. This seems to indicate that status did not have any effect on victorious joy after controlling for intergroup schadenfreude. Conversely, participants who received external rewards felt more victorious joy than those who did not only when status threat was low. This seems to suggest that external rewards did have an expected effect on (adjusted) victorious joy when there is no status concern to complicate the issue. Regardless, a caveat is necessary for these interpretations of the status and external reward effects on schadenfreude and victorious joy because measures of the two emotions were highly correlated in this study. While controlling for either intergroup schadenfreude or victorious joy may help to understand the isolated effect of the other emotion, it may not be a complete reflection of how participants actually feel and respond in the situation.

The last set of results showed that both status and instrumental motive manipulation had no significant effects on the purported antecedents (e.g., inferiority, envy, hostility, and deservedness) and consequences of schadenfreude (e.g., humiliation, celebration). These null findings may partly reflect the fact that these variables were assessed immediately after the status concern manipulation but prior to the instrumental

motive manipulation. As mentioned above, the instrumental motive seemed to have become the central motive leading to schadenfreude in the present context. In addition, participants in this study, just like those in Study 2 (See Chapter 1), may have resorted to supporting the second-party outgroup as a strategy to deflect the status threat to their own college, thus reducing the strength of the status manipulation on the hypothesised antecedents of schadenfreude. Finally, as discussed above, participants might have felt psychologically distant from other participating colleges since they could only be identified by alphabetised labels. Therefore, participants might not have been able to fully keep track of each college's progress or clearly remember their feelings and evaluation toward each of them while the multiple events of the experiment unfolded. As a result, participants might not feel and react strongly to the specific aspects of the concerned colleges (i.e., second-party and third-party outgroups), thus making it hard to obtain significant effects on the hypothesised antecedents and consequences of schadenfreude.

Despite of these null findings, inferiority, shame, hostility toward the second-party, and perceived deservingness of ingroup's inferiority were all significant predictors of schadenfreude, thus replicating the results of Studies 1 –3 (Chapter 1) and previous research (see van Dijk et al., 2015). I also replicated the finding that schadenfreude led to less liking of the second-party outgroup. However, schadenfreude was not related to initial ingroup identification, thus supporting the speculation that some participants might

have turned to support the second-party outgroup. Schadenfreude also did not predict the intention to humiliate the second-party rival and the intention to celebrate with other members. A possible explanation is that participants did not know the identities of other colleges and thus they might not feel the need to engage in these expressive behaviours.

In sum, the results of this study showed that manipulations of both status and instrumental motives were successful. However, the status motive manipulation did not have significant effects on the measured antecedents or consequences of schadenfreude, and had less direct effects on schadenfreude itself than anticipated. Only the interaction between instrumental and status motive manipulations was significant when assessing multivariate effects on schadenfreude and victorious joy, and when assessing univariate effects on schadenfreude after controlling for victorious joy. These results suggest that schadenfreude may be conceptually distinct from other related positive emotions but that establishing its distinctiveness empirically may not be straightforward.

In contrast to the status motive manipulation, the instrumental motive manipulation had significant main effects on both intergroup schadenfreude and victorious joy. Participants reported greater victorious joy and greater schadenfreude when the sweepstake encouraged them to support the team who beat the second-party outgroup in the final challenge. This finding seems to provide clear evidence that schadenfreude is not only sensitive to status-related motives but also can be affected by

other motivations. However, the significant main effect of instrumental motive on schadenfreude was no longer significant when victorious joy was included as a covariate in the analysis, making it possible that the non-specific effect reflects contamination of the schadenfreude measure with related positive emotions rather than the non-specificity of the underlying theoretical construct.

Interpretation of these findings is potentially complicated by two general methodological issues. Firstly, Study 4's instrumental motive manipulation included a sweepstake only in the high instrumental motive condition and not in the low instrumental motive condition. Thus, some of the effects of this manipulation may reflect the fact that it increased levels of involvement in the final challenge irrespective of which team participants were supporting. Study 5 therefore compared conditions where a sweepstake involved supporting either of the two teams in the final challenge. The second methodological issue arises from the fact that the different colleges were not given salient or memorable labels, potentially making it difficult for participants to track their performance and thus reducing the impact of the intended status motive manipulation. Study 5 therefore attempted to make college identity more salient.

Study 5

Study 5 was an extension of Study 4 but with several modifications to address the two broad methodological issues outlined above. Firstly, participants were involved in a

sweepstake in both instrumental motive conditions, but only the high instrumental motive condition involved a prize for the third-party outgroup's victory. By contrast, the low (i.e., negative) instrumental motive condition involved a prize if the second-party outgroup won. This was to ensure that participants in both positive and negative conditions would have similar levels of involvement when witnessing the final challenge. Secondly, there were several modifications (described in the method section below) to procedure intended to assist participants in tracking the performance of the different colleges and more generally to enhance the strength of the status manipulation. The purpose of introducing these changes was to permit clearer evidence concerning the differential effects of the status and instrumental motives on intergroup schadenfreude and victorious joy, respectively.

Method

Participants and design. One hundred and forty-four students at the University of Oxford (46 men and 98 women, $M_{age} = 22.15$, $SD = 4.18$) participated for course credits or a payment of £8 (approximately $12.50). They were assigned to one of the four conditions generated by a 2 (Status Motive: high vs. low) x 2 (Instrumental Motive: positive vs. negative) between-subjects factorial design. Twenty-two of the participants expressed suspicion about their performance feedback and/or the nature of the staged interaction during funnelled debriefing. Their data were therefore excluded, leaving data

from 122 participants for analysis. There were 30 to 31 participants in each condition. Using G*Power (Faul et al., 2007), a priori power analysis suggested that the current sample size is sufficient (N_{min} = 76) to obtain the effect size of the MANOVA result of Study 4 with an adequate amount of statistical power (.80).

Procedure. The procedures and materials were similar to those of Study 4. Participants undertook the experiment in groups of 2 to 4. They first provided informed consent and waited for the experimenter to return from checking the number of participants in another laboratory at a fabricated location. They were then introduced to the purpose of the experiment and informed that the experiment involved an intercollegiate competition in which they played as a representative of their college against 7 other participants from other colleges via the network. Next, they read the instructions of the competition and also overheard the experimenter making a call to an alleged research assistant. Afterwards, they entered a fabricated on-line chatroom, took part in the group stage of the intercollegiate competition, witnessed the final challenge as an audience, and completed all the questionnaires. Lastly, they were debriefed and paid.

There were also several changes to the chatroom and the intercollegiate competition to improve participants' involvement and the believability of the experiment. Firstly, the instructions and the messages in the chatroom were modified such that participants were no longer asked to discuss their prior experiences in experiments of a

similar kind; instead they were asked to discuss the strength of their college and make a prediction about how well their colleges would do in the competition (without disclosing the name of their colleges). This change was to make the chatroom seem more relevant to the purpose of the experiment and thus reduce participants' suspicion about the intention of having a chatroom.

Secondly, instead of using alphabetical letters to name the colleges (College A, College B, College C, etc.), I labelled the 8 participating college with colours (Red College, Orange College, Yellow College, etc.) and highlighted their names with corresponding colours throughout the experiment. This measure was to enable participants to more easily remember and identity their opponents and the corresponding finalists and in turn enhance their involvement in the study.

Thirdly, the quiz items at the group stage and in the final challenge were made easier to better reflect the standard of a typical university student's level of intelligence. This change was intended to make the bogus performance feedback for both the participants and the finalists more believable.

Lastly, the layout and the format of the final challenge were modified to enhance participants' involvement in the competition when the college that was the target of schadenfreude lost to another finalist. In particular, participants were told about the procedure involved in the final challenge, which proceeded as follows. Finalists answered

10 questions in the final challenge. After a question appeared at the top of the screen, they saw the countdown clock at the centre ticking down from 20 to 0 seconds. Finalists were required to provide an answer before the clock ran out. A correct answer earned an award of 1 point and an incorrect answer led to a deduction of 1 point. Participants then saw the finalists' answers on each side of the clock, followed by the correct answers and points awarded or deducted showing at the bottom of the screen.

The college which received more points was the winner of the challenge and was again awarded an extra 5 MP for their college, which contributed to the overall league table. Similar to Study 1, the final challenge in fact involved a fabricated competition between Red College from Group I (target of intergroup schadenfreude) and Green College from Group II (target of victorious joy). The result of the competition was designed such that Red College lost to Green College by a wide margin (2 vs 6), making it possible for participants to feel schadenfreude toward Red College. See Appendix H for screenshots of the final challenge.

Status motive manipulation. As in Study 4, participants' concern for their college's status was manipulated by changing the sequence of games during the group stage and adjusting the bogus feedback they received after each of these games. However, there were two modifications aimed to enhance the salience of the status and identity threat in the high status motive manipulation. The first change was that the participant's

college was now ranked first closely followed by Red College after the second match (by 4 GPs), instead of the other way round. This was intended to make participants believe that they were the best and would have a high chance of being at the top of the group after the second game. Consequently, their subsequent defeat to Red College in the last game should be perceived a stronger threat to their group's status and identity and thus result in more schadenfreude toward Red College following its loss in the final challenge.

The second change was that participants now lost to Red (high status motive condition) or Grey College (low status motive condition) by a smaller margin in the last game than in Study 4. As Tesser's (1988) self-evaluation maintenance theory proposes, how people react to comparison with a superior target partly depends on how similar they feel they are to this target. If the compared target is similar, and the comparison involves an important domain relevant to one's self-concept, people are more likely to feel worse as a result of upward social comparison. By having participants lose to a college who was performing at a comparable instead of highly superior level, I hoped to make participants feel more threatened by their defeat, especially when that defeat was inflicted by Red College, who were at second place after second game. Additionally, this change reduced the possibility that participants would resort to aggrandisement of the outperforming college's abilities in order to justify their own college's loss.

Following these modifications, participants in the high status motive condition

first drew in their game with Brown College (64 vs 64 GPs) and earned 1 MP, leaving their college in second position within the group. They then defeated Grey College (71 vs 56 GPs) and earned 3 MPs. They thus accumulated 135 GPs and 4 MPs, leaving them ahead of Red College, who were in second place with 133 GPs and 4 MPs. Finally, they played against Red College and lost by a small margin (58 vs 62), leading to their college's elimination from the competition. Hence, participants' recent loss to Red College was intended to represent an acute threat to the college's status, leading to low perceived status relative to Red College and more schadenfreude toward Red College when that college was defeated by Green College in the final challenge.

In the low status motive condition, participants earned exactly the same number of GPs and MPs in each game as in the high status motive condition and Red College was again the finalist from the group. However, participants first drew with Red College, then won their game against Brown College, and finally lost to Grey College. Hence, Red College was not directly responsible for participants' elimination from the tournament and thus participants were not expected to feel as focused on their lower status compared to Red College as participants in the high status motive condition. See Appendix H for screenshots of the performance feedback.

Instrumental motive manipulation. As in Study 4, a sweepstake was introduced prior to the final challenge to manipulate participants' incentive to support the third-party

college and to feel victorious joy accordingly. Participants read the same cover story and instructions as in Study 4 and pressed a button to reveal which college they had been assigned (supposedly randomly) for the sweepstake. In the high (positive) instrumental motive condition, participants were assigned Green College and told that they would earn a chocolate bar if Green College won the challenge. In the low (negative) instrumental motive condition, participants were assigned Red College and told that they would earn a chocolate bar if Red College won the challenge.

Measures. Participants completed several questionnaires at different stages of the experiment including both filler items and measures assessing the dependent variables. Unlike Study 1, I used the names of the colleges (i.e., Red College and Green College) in all questions and highlighted them with their corresponding colours. All questions were the same as in Study 1 except for the following:

Evaluation of relative competence. In light of the potential differences between perceived status and performance evaluation I observed in Study 2 and Study 3 (football studies), I used a single-item "How competent is your college compared to Red College?" on a 7-point scale (1 = *"much less competent"*; 4 = *"more or less the same"*; 7 = *"much more competent"*) to assess participants' evaluation of their college's performance compared with that of Red College[17]. Participants' evaluation was measured twice; first

[17] The results of Studies 2 and 3 had not yet been fully processed when Study 4 was underway.

after the group stage and again after the final challenge.

Support for Red and Green College. A single item measured the extent to which participants wanted Red College or Green College to win the championship before the final challenge, providing a manipulation check of the instrumental motive manipulation ("How much do you want [Red/Green] College to win the championship?" measured on a 7-point scale running from 1= "*not at all*" to 7 = "*very much*").

Victorious joy. Some modifications were made to the items used in the previous study to better differentiate victorious joy about Green College's victory from schadenfreude about Red College's defeat, and thereby minimise the correlation between measures of these two constructs. The new victorious joy items were: "I enjoyed seeing Green College succeed in claiming the championship"; "I felt satisfied about Green College's victory because I was supporting them"; "I was happy for Green College"; "I felt like celebrating Green College's victory"; and "I was excited when Green College scored points." These items were again measured on a 7-point Likert scale (1 = "*strongly disagree*;" 7 = "*strongly agree*"), and the resulting scale had good reliability (α = .93).

A principal-components factor analysis with varimax rotation was again conducted on the schadenfreude and victorious joy items and revealed the expected two-factor solution explaining 80.44% of the common variance. Items from the schadenfreude scale loaded on one factor at .84 or higher, with no cross-loading over .30. Items from the

happiness scale loaded on another factor at .82 or higher, with no cross-loading over .30 except for except for the items "I couldn't resist a little smile when Red College lost in the final challenge" and "I felt satisfied that Red College lost for the final challenge", which cross-loaded at .33 and .34, respectively. See Appendix I for all (unreported) measures used in this study.

Results

Manipulation checks. Unlike study 1, ANOVA[18] performed on the perceived relative status measure did not find any significant effects of the status motive manipulation, $p > .10$. However, there was a significant main effect of the status motive manipulation on the measure of perceived relative competence, $F(1,118) = 515$, $p = .025$, $\eta^2 = .04$, such that participants in the high status motive condition rated their college's competence as higher than Red College's to a greater extent ($M = 3.98$, $SD = 0.99$) than participants in the low status motive condition ($M = 4.39$, $SD = 1.02$). There were no other significant effects in either analysis.

To assess the success of the instrumental motive manipulation, ANOVAs were performed on the measures of support for Red College and Green College. Results revealed a significant main effect of instrumental motive on support for Red College, $F(1,$

[18] At the beginning of this study, I also asked participants how important it was to them to defeat other participants competing in the tournament. Surprisingly, preliminary analyses revealed a significant interaction between status and instrumental motive conditions on this variable, reflecting an apparent failure of randomisation. Subsequent ANCOVA analyses of all dependent variables after controlling for this effect did not change the patterns of ANOVA results I reported here.

118) = 128.20, $p < .001$, $\eta^2 = .52$, such that participants in the negative instrumental motive condition wanted Red College to win the final challenge ($M = 6.18$, $SD = 1.20$) more than those in the positive instrumental motive condition ($M = 3.07$, $SD = 1.78$). Further, there was a significant main effect of instrumental motive on the measure of support for Green College, $F(1, 118) = 211.84$, $p < .001$, $\eta^2 = .64$, such that participants in the positive instrumental motive condition wanted Green College to win the final challenge ($M = 5.80$, $SD = 1.25$) more than those in the negative instrumental motive condition ($M = 2.18$, $SD = 1.48$). There were no other significant effects.

Change in perceived relative status and perceived relative competence. Repeated measures 2 (T1: after group stage vs. T2: after final challenge) x2 (Status: high vs. low) x 2 (Instrumental: positive vs. negative) ANOVAs were conducted to test whether there was a change in perceived relative status and perceived relative competence across time. Unlike Study 4, I did not find any significant effect of time, status, or instrumental motives on either perceived relative status or perceived relative competence.

Schadenfreude and victorious joy. As in study 4, a MANOVA was performed using schadenfreude and victorious joy as dependent variables. Results revealed no significant main effect of status motive; however, there was again a significant multivariate main effect of instrumental motive, $F(2, 117) = 62.83$, $p < .001$, $\eta^2 = .52$, and corresponding univariate effects on both schadenfreude, $F(1, 118) = 18.65$, $p < .001$, η^2

= .14, and victorious joy, $F(1, 118) = 126.73$, $p < .001$, $\eta^2 = .52$. Participants in the positive instrumental motive condition experienced more schadenfreude ($M = 3.37$, $SD = 1.59$) and victorious joy ($M = 5.16$, $SD = 1.47$) than those in the negative instrumental motive condition (schadenfreude: $M = 2.17$, $SD = 1.47$; victorious joy: $M = 2.57$, $SD = 1.04$). There were no other significant effects.

Following Study 4's findings, ANCOVAs were also conducted to assess construct-specific effects of the manipulations. For schadenfreude, results revealed only a significant main effect of victorious joy, $F(1, 117) = 20.77$, $p < .001$, $\eta^2 = .15$. For victorious joy, in addition to the main effect of schadenfreude, there was also a main effect of instrumental motive, $F(1, 117) = 92.54$, $p < .001$, $\eta^2 = .44$. As expected, participants in the positive instrumental motive condition (adjusted $M = 4.96$, $SE = .16$) experienced significantly more victorious joy than those in the negative instrumental condition (adjusted $M = 2.78$, $SE = .16$).

Antecedents and consequences of schadenfreude. Similar to Study 4, MANOVA performed on the four antecedents (inferiority, envy, hostility, and deservedness) as dependent variables did not reveal any significant multivariate effects of either motive, ps > .10. MANOVA performed on the proposed consequences (liking of Red College, intention to humiliate Red College, and intention to celebrate with members of their own college) also did not reveal any significant multivariate effects of either

motive, *p*s > .10.

Correlational analyses, however, revealed that all antecedents were (marginally) significantly associated with schadenfreude in the expected directions. Schadenfreude was also negatively related to liking of Red College and positively related to the intention to humiliate members of it. However, schadenfreude was not correlated with the intention to celebrate with ingroup members. See Table 3.2 for their means and correlations.

Discussion

This study was conducted to address some of the methodological limitations of Study 4 and to substantiate those findings using a more rigorous design. The results indicated that the instrumental motive manipulation was successful. Although, in contrast to Study 4, there was no significant difference in the ratings of perceived relative status between the high and low status motive groups, participants in the high status motive condition considered their colleges to be less competent relative to the second-party outgroup than those in the low status motive condition. This inconsistency has been noted in previous studies (Studies 2 and 3, Chapter 2) and may be due to similar reasons. Firstly, the status manipulation of this study was more salient to participants than that of Study 4, making it easier for participants to focus on the performance and the competence of the participating colleges rather than the more abstract feeling of regard toward them, and secondly, using single-item measures might not be as stable and reliable as using multiple-

Table 3.2

Means, standard deviations and correlations among variables in Study 5

		M (*SD*)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Identification	5,35 (1.22)	-	.15	.19*	-.04	.07	-.17	.01	.13	.06	.09	.06	.18	.26**	.12	-.09	.08
2	T1 perceived status	4.11 (1.18)		-	.48**	.01	-.06	.16	.03	.12	.01	.14	-.03	.72***	.39***	-.13	.13	.06
3	T1 perceived competence	4.19 (1.02)			-	-.001	.01	-.06	.06	.17†	-.09	.14	.03	.45***	.48***	-.09	-.03	-.05
4	Support for Red College	4.62 (2.18)				-	-.85***	.05	-.06	-.08	.02	-.54***	-.67***	-.01	-.05	.10	-.16†	.09
5	Support for Green College	3.99 (2.27)					-	-.01	.14	.06	.04	.45***	.77***	.00	.02	.05	.13	-.13
6	Inferiority	2.91 (2.49)						-	.57***	.30**	.01	.20*	.09	.17†	.01	.02	.21*	.01
7	Envy	2.91 (2.48)							-	.39***	-.11	.30**	.22*	.07	.05	.06	.22*	.01
8	Hostility	2.86 (1.43)								-	-.25**	.37***	.03	.19*	.08	-.18†	.23**	.02
9	Deservedness	4.71 (1.37)									-	-.19*	.11	-.01	-.19*	.17†	-.19*	.02
10	Schadenfreude	2.77 (1.64)										-	.52***	.22*	.22*	-.33***	.42***	.11
11	Victorious Joy	3.87 (1.81)											-	.08	.11	.18†	.10	.08
12	T2 perceived status	4.09 (1.12)												-	.55***	-.18†	.20*	.14
13	T2 perceived competence	4.30 (1.05)													-	-.04	.02	.16†
14	Liking of Red College	3.93 (1.34)														-	-.19*	.21*
15	Intention to humiliate	1.61 (0.89)															-	.22*
16	Intention to celebrate	3.24 (1.47)																-

N = 122, †*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

item scales for assessing constructs like status. Despite that, replicating Study 4, participants in the positive instrumental motive condition supported the third-party outgroup more and the second-party outgroup less than those in the low instrumental motive condition.

The present study did not replicate the effect of status motive on the change in either perceived relative status or perceived relative competence. It also failed to show the expected effect of status or to replicate the interaction between status and instrumental motives on schadenfreude. A possible explanation for these inconsistencies between studies is that the introduction of the negative instrumental motive manipulation, while helping to make the level of involvement comparable between high and low conditions, may also have enhanced the salience and power of the instrumental motive manipulation, and consequently reduced the relative impact of the status motive manipulation. Consequently, participants' support for either the second-party rival or third-party outgroup might have been solely driven by their desire for the external rewards, rather than their prior status or identity threat at the group stage. This speculation is further supported by the evidence that individuals under self-threat felt less schadenfreude when given the opportunity to self-affirm (van Dijk et al., 2011) and by the fact that, similar to Study 4, participants felt more intergroup schadenfreude and victorious joy (even after controlling for intergroup schadenfreude) when the instrumental reward was associated

with the third-party college's victory. Nevertheless, after controlling for victorious joy, there was no significant effect of instrumental motive manipulation on intergroup schadenfreude. This seems to suggest that participants' experience of schadenfreude in this study might have been driven primarily by the possibility of obtaining external rewards.

However, two alternative explanations for these results should also be noted. Firstly, participants' support of the third-party may also be seen as a way of coping with their status threat. Thus, their experience of victorious joy may not be due to the external rewards but to their concern for status. Secondly, as in Study 4, the current schadenfreude measure may have been contaminated by victorious joy. Hence, it remains difficult to conclude whether the significant effect of the instrumental motive manipulation on schadenfreude refutes the status-specific account of schadenfreude or whether it simply reflects the fact that the schadenfreude measure also responded to other, instrumentally dependent positive emotions such as victorious joy. The fact that the effect of instrumental motives on schadenfreude was no longer significant after controlling for victorious joy may be seen as supporting the latter account.

Lastly, consistent with Study 4, the present study did not find any significant effects of either motive manipulation on the antecedents or consequences of schadenfreude. Nevertheless, similar to Study 4, schadenfreude was associated with

inferiority, envy, hostility toward the second-party rival, and perceived deservingness of ingroup's inferiority, but it was not correlated with ingroup identification. Further, schadenfreude was associated with less liking of the second-party outgroup and intention to humiliate its group members. However, schadenfreude was again not correlated with intention to celebrate with other ingroup members.

General Discussion

The primary purposes of the two studies reported in this chapter were to investigate whether intergroup schadenfreude specifically depends on the concern for ingroup's status and whether intergroup schadenfreude can be distinguished from victorious joy on the basis of their underlying motives (group status vs. external rewards). I developed a novel experimental paradigm intended to directly elicit schadenfreude in the laboratory and to test both of these ideas.

Novel Paradigm

The first set of results confirmed that the new experimental paradigm was successful in manipulating participants' concern for their ingroup's status as well as their desires for supporting the third-party outgroup through getting external rewards. Further, participants reported feeling both intergroup schadenfreude and victorious joy as intended. Therefore, this novel experimental paradigm has the potential to advance current methodologies for conducting schadenfreude research in two ways.

First, it allows participants to witness misfortunes befalling the targeted second-party outgroup and thus directly experience schadenfreude and victorious joy in the laboratory. This helps to mitigate the potential limitations of using vignettes to elicit schadenfreude in previous studies, which have been criticised for lacking the ability to capture the full complexity of the social environment (Parkinson & Manstead, 1993). Hence, this paradigm provides schadenfreude researchers with an emotionally engaging tool to directly elicit schadenfreude in the laboratory.

Second, the current design allows researchers to manipulate different aspects of an intergroup context and provides more flexibility over other previous experimental designs (which have mostly relied on changing the sequence of information presented to participants) in selecting an appropriate control group for a particular experiment. Not only can the paradigm be used to compare whether a particular antecedent (e.g., inferiority) or motive (e.g., status) may lead to intergroup schadenfreude, it can also be used to compare the functions and consequences of experiencing intergroup schadenfreude with those of closely related emotions (e.g., victorious joy). These features will be of particular importance to future research into the social functions of intergroup schadenfreude.

Social Status as an Exclusive Motive for Intergroup Schadenfreude

Another objective of the present research was to test whether intergroup

schadenfreude is specifically and exclusively characterised by the concern for group status. The results, however, did not provide strong support the status-specific account of intergroup schadenfreude. Neither study supported the predicted effect of status concern on intergroup schadenfreude. Instead, manipulation of the motive for supporting the third-party outgroup, as prompted by the presence of external rewards, produced clear and consistent effects on both intergroup schadenfreude and victorious joy. Hence, these findings lend support for the recent proposal by Leach and colleagues (2015) that the appraisal underlying schadenfreude is motivational congruence. To the extent that a misfortune befalling someone or some group satisfies one's concern, schadenfreude will be experienced. In the present case, the most salient concerns apparently related to support for the third-party outgroup and getting external rewards, and these concerns best predicted the experience of intergroup schadenfreude.

Notably, however, I also consistently failed to find any significant effect of status on identification, hypothesised antecedents, experience, and consequences of intergroup schadenfreude. A plausible explanation is that participants focused primarily on external rewards rather than status concerns in the present setting. The anonymous representation of competing colleges using letters or colours may have reduced participants' concern for the reputation and status of their own anonymously represented colleges.

Notwithstanding some of these null results, it is worth noting study 4's significant

status by instrumental motive interaction effect on intergroup schadenfreude after controlling for victorious joy, showing that participants in the high status condition experienced stronger (residualised) schadenfreude than those in the low status motive condition when the instrumental reward was present. Hence, it remains possible that group status still plays a role in predicting intergroup schadenfreude, but only when the level of involvement in the competition is high. In other words, group status may still be an important relational goal associated with intergroup schadenfreude. Nevertheless, I failed to replicate these pattern of findings in Study 5, possibly because the instrumental motive manipulations was made stronger and potentially overpowered any effect of the status motive manipulation. Further research is therefore needed to clarify the implications of the current findings about the role of social status in intergroup schadenfreude.

Intergroup Schadenfreude vs. Victorious Joy

A related goal of testing the status-specific account of intergroup schadenfreude was to determine whether it is possible to distinguish intergroup schadenfreude from other kinds of pleasure such as victorious joy on the basis of its specific association with status concerns, thus confirm its distinctiveness as a unique emotion (Roseman et al., 1994). However, the results did not support the prediction that intergroup schadenfreude has a specific and exclusive association with status concerns. Rather, as explained earlier,

intergroup schadenfreude like other kinds of happiness seems to be driven by general appraisals of motivational congruence. In other words, intergroup schadenfreude may simply be joy that is experienced in relation to a negative event befalling the second-party outgroup.

However, this should not be taken to imply that feeling pleased about second-party's loss (intergroup schadenfreude) is necessarily the same thing as feeling happy about the third-party's victory (victorious joy) in an intergroup competition. In Study 4, as elaborated above, after controlling for victorious joy, there was an effect of status on intergroup schadenfreude when external rewards were available. Further, in Study 5, after controlling for victorious joy, the effects of instrumental motives on intergroup schadenfreude became non-significant. Conversely, however, in Study 4, after controlling for intergroup schadenfreude, there was no significant effect of status on victorious joy irrespective of instrumental rewards. All these findings raise the possibility that the motives for feeling intergroup schadenfreude can be distinguished in principle from those for victorious joy, even if the scales used to measure these two constructs in the present studies had some degree of conceptual overlap. Further support for this reasoning comes from fMRI research showing that different neural networks are activated when people gain from someone's loss as opposed to when they directly gain from winning, even though they shared the same activation in the regions responsible for rewards (Votinov,

Pripfl, Windischberger, Moser, Sailer & Lamm, 2015). Nevertheless, it should be noted that the current research is the first attempt to tease apart these two emotions and the findings remain provisional. Additional research is needed to clarify what features might best differentiate these two emotions.

Predictors of Schadenfreude

Although it was not a central theme of this study, I also assessed participants' ingroup identification and measured the proposed antecedents of schadenfreude to see if I could replicate results of Studies 1 – 3 using this experimental paradigm. Both studies showed that schadenfreude was consistently positively correlated with inferiority, envy, hostility toward second-party outgroup, and negatively correlated with perceived deservingness of ingroup's inferiority, thus providing support for the results obtained in Studies 1 – 3 (Chapter 1). Schadenfreude was also negatively correlated with liking of the second-party outgroup (Studies 4 and 5) and positively correlated with the intention to humiliate its members (Study 5), consistent with its social distancing function (Chapter 1). However, schadenfreude was not related to either identification or intention to celebrate with other ingroup members. As explained above, participants' feelings of schadenfreude in these two studies may have been chiefly motivated by external rewards rather than by other group-related concerns. Thus, schadenfreude would be less likely to be related to one's identification or one's willingness to share the outcomes of the

tournament with fellow college members.

Limitation and Future Directions

Further research is needed to verify the effectiveness of the new paradigm developed in these two studies and to substantiate their results. With this in mind, it is important to highlight some potential limitations of the present research that future research should address. Firstly, the status manipulation was not strong enough compared to the effectiveness of the instrumental motive manipulation. The status manipulation was rather subtle, relying on participants paying attention to the outcomes of anonymised colleges and remembering the sequence of the vents being unfolded. Thus, participants' decision to support the second-party or third-party team and their corresponding emotional responses to the outcomes of the tournament could have predominantly derived from the instrumental incentives because participants themselves can personally relate to the rewards and directly benefit from them. In contrast, compared with personal rewards, the ingroup's status or ranking has less personal stake and is less likely to directly benefit participants in a laboratory setting. Consequently, participants may not respond as much to the status manipulation as intended. Hence, future research should aim to strengthen the status manipulation by, for example, using pre-existing rivalries in the sample and using more direct manipulation of status.

A related, second limitation of this study is that participants' emotional responses

might have been driven by their personal interests in the instrumental rewards and, hence, they might not have appraised the outcomes of the tournament in terms of their group relevance. As group-based appraisal is a crucial mechanism in the generation of intergroup emotions (Mackie et al., 2004; E. R. Smith, 1993; E. R. Smith et al., 2007), participants' experiences of schadenfreude and victorious joy in this study might have been at the individual rather than group level. This may in part explain why I could not find any effect of either manipulation on the antecedents and consequences of intergroup schadenfreude and also failed to find any association between ingroup identification and schadenfreude and between schadenfreude and the intention to celebrate with other ingroup members, as the IET would have expected. Future research should aim to improve the instrumental motive condition by having external rewards in the instrumental motive condition given not to the participants themselves, but to other ingroup members, thus making the gain becomes group rather than personal-based.

A third limitation (as also discussed above) concerns the use of single-item measures to assess complex psychological constructs such as group status. These measures were chosen in an attempt to replicate findings from my previous studies (Chapter 2). While previous research has used single items to measure perceived status (e.g., Morrison et al., 2010), single-item measures usually come at a cost in terms of reliability. This may help to explain some of the inconsistent results I obtained in Studies

4 and Studies 5 for perceived relative status and perceived relative competence. In light of this problem, future research would benefit from using multiple items to measure group status and related psychological variables.

A fourth issue relates to the measurements of intergroup schadenfreude and victorious joy. While the intergroup schadenfreude scale used in these two studies was shown to be highly reliable (see also Chapter 2) and has been used extensively in previous schadenfreude research (e.g., van Dijk et al., 2006), it may still not be sufficiently sensitive to capture all of the nuanced differences between intergroup schadenfreude and victorious joy. For example, the item "I enjoyed seeing the runner-up losing in the final challenge" could easily be interpreted as a reverse-scored version of the item "I enjoyed seeing the winner defeating the runner-up". Indeed, having the motive for a party to win (or lose) in a competition may simultaneously induce the desire for the other party to lose (or win). Also, the evidence that the effects of instrumental reward on intergroup schadenfreude and victorious joy became non-significant after controlling for victorious joy (Study 4) and intergroup schadenfreude (Study 5), respectively, indicates that both emotion measures might have assessed the common, non-specific variance in the overall positivity of the situation, rather than construct-specific variance in particular kinds of pleasure. More generally, traditional self-report emotion scales may not be sufficient to tease apart closely related emotions such as those I tried to distinguish in the present

studies. Future research should therefore complement results from self-report measures with other kinds of assessments that do not require participants' explicit knowledge or awareness of their own emotional experiences, including facial movements (e.g., Boecker et al., 2015). For example, participants may suppress their facial expressions to a greater extent when they experience intergroup schadenfreude than when they experience victorious joy because it is typically more socially undesirable to express intergroup schadenfreude than victorious joy (Leach et al., 2004).

A fifth concern, as briefly mentioned above, pertains to the anonymous nature of the present studies. In order to minimise any existing stereotypes influencing participants' reactions to the outcomes of the competition, I assigned labels to hide the identities of the colleges for which the participants represented. In essence, this made the experimental design similar to a minimal group paradigm (Tajfel, 1970; Tajfel, Billig, Bundy, & Flament, 1971). To the best of my knowledge, most previous studies of intergroup schadenfreude have used natural groups as research targets (see Cikara et al., 2014). It remains an open question whether there are any systematic differences between artificial groups and natural groups in their experiences of intergroup schadenfreude. This would be an interesting avenue for future research.

Finally, the studies reported in this chapter focused mainly on how group status might influence participants' experience of intergroup schadenfreude in response to a

rival's misfortune. I did not attempt to account for any individual differences in coping with identity threats. As Goldenberg and colleagues (2015) have proposed, group members may use different strategies to regulate the experience of group-based emotions. Some may secretly enjoy the second party rival's defeat while others may shift their support to the second-party team playing against the third-party outgroup because its victory would imply that they are just slightly behind a really strong team. Future studies could investigate the conditions under which participants might deploy each of these strategies and their respective implications for the experience of intergroup schadenfreude.

Conclusion

The primary purposes of the studies reported in this chapter were, first, to test the effectiveness of a new experimental paradigm developed to directly elicit intergroup schadenfreude in the laboratory and, second, to investigate whether intergroup schadenfreude was specifically and exclusively depended on the concern for status and whether it could be differentiated from victorious joy on the basis of the two emotions' respective relational goals. The new experimental design was successful in directly evoking both intergroup schadenfreude and victorious joy. However, there was no clear support for the claim that intergroup schadenfreude was specifically linked to the concern for ingroup's status. Rather, both intergroup schadenfreude and victorious joy were found to be influenced by the availability of external rewards and by support for the third-party's

victory. Broadly speaking, then, it seems that intergroup schadenfreude may be considered as a kind of joy that is driven by motivational congruence.

CHAPTER 4: COMMUNICATIVE FUNCTIONS OF INTERGROUP SCHADENFREUDE

This chapter presents an online vignette experiment investigating the social affiliation function of expressing intergroup schadenfreude by focusing on recipients' reactions to another ingroup member's expressed intergroup schadenfreude. Eighty-four self-proclaimed England football fans read tweets edited from genuine messages posted on Twitter during the 2014 World Cup, expressing either schadenfreude after Uruguay's defeat against Colombia or victorious joy about Colombia's victory. I also manipulated identification to test whether it moderated the effects of expression on socially functional consequences. The results showed that participants were able to differentiate the verbal expressions of intergroup schadenfreude from those of victorious joy, indicating that the emotion manipulation was successful. Moreover, participants in the high-identification condition felt more schadenfreude than those in the low-identification condition when schadenfreude rather than victorious joy was expressed, suggesting emotional convergence. However, contrary to the central prediction, recipients of intergroup schadenfreude messages were more likely than recipients of victorious joy messages to form a negative impression of the expresser, and to distance themselves from the expresser. These findings imply that expressing intergroup schadenfreude may be functional only in certain contexts. Identification also did not moderate these effects as expected, perhaps because the manipulation was too weak. These results provide preliminary clarification of the communicative value of schadenfreude.

Introduction

According to the social-functional account of emotion (Keltner & Haidt, 1999; Fischer & Manstead, 2008), not only does the private experience of emotion encapsulate coordinated mechanisms that solve problems essential to social relationships, but also the expression of emotion plays an important role in regulating and coordinating ongoing social interaction. Emotion expression can evoke convergent or divergent emotional reactions in observers (Hatfield, Cacioppo, & Rapson, 1994; Hess & Blairy, 2001; van

der Schalk et al., 2011). It can also communicate information about the expresser (Fischer & Manstead, 2001; Parkinson, 1996; Parkinson et al., 2005; van Kleef, 2009) such as feelings (Ekman, 1993), personal characteristics (Knutson, 1996; Hareli & Hess, 2010), appraisals (Karasawa, 2001; de Melo, Carnevale, Read, & Gratch, 2014; Scherer & Grandjean, 2008), evaluation of the social situation (Hareli & Hess, 2012; van Doorn, Heerdink, & van Kleef, 2012), motives (Fridlund, 1994; Roseman et al., 1994), and behavioural intentions (de Melo et al., 2014; van Kleef et al., 2004). This communicated information in turn may influence observers' feelings, attitude, and behaviours towards the other person or group displaying the emotion (see Parkinson et al., 2005; van Kleef, van Doorn, Heerdink, & Koning, 2011).

For example, empirical evidence has shown: that anxious expressions may elicit anxiety in observers and lead to reduction in risk-taking behaviour (Parkinson, Phiri, & Simons, 2012); that interpersonal affect transfer is partially mediated by risk and importance appraisals (Parkinson & Simon, 2009); that the expression of disappointment directed at an ingroup member can result in receiving a higher offer from them in negotiation because disappointment signals weakness and elicits ingroup guilt (Lelieveld, van Dijk, van Beest, & van Kleef, 2013); and that a majority's expression of anger directed at a deviant member in the group leads them to conform more to the group than does a majority's happy or neutral expression, and that this effect is mediated by

inferences about being rejected (Heerdink, van Kleef, Homan, & Fischer, 2013) because angry expressions signal rejection whereas happy expressions signal acceptance (Heerdink, van Kleef, Homan, & Fischer, 2015). These examples illustrate that the functionality of an emotion often lies in its communicative effects. Hence, in developing the social-functional account of intergroup schadenfreude, it is crucial to examine the consequences of socially sharing this emotion. This chapter will focus in particular on reactions to an ingroup member's expressed intergroup schadenfreude.

The Social Affiliation Function of Sharing Intergroup Schadenfreude

As mentioned in Chapter 1, Keltner and Haidt (1999) proposed that emotions serve three functions at the group level of analysis: first, emotions may help group members identify each other and define group boundaries; second, emotions may help group members negotiate and define their roles and statuses, and third, emotions may motivate behaviours that serve to solve group-related problems. For instance, happiness directed towards the ingroup and anger directed towards an outgroup both increase ingroup identification (Kessler & Hollbach, 2005), outgroup members' shame displays reduce the recipient's feeling of insult and rebalance status differentials (Giner-Sorolla, Castano, Espinosa, & Brown, 2008), and expressions of anger can mobilise collective actions that address issues of shared concern to group members (Thomas, McGarty, & Mavor, 2009). Building on this group-level analysis, I argue that that the expression of

intergroup schadenfreude should provide similar benefits for group processes.

Generally speaking, expressions of positive emotions (e.g., happiness, love) serve social affiliation functions and strengthen social relationships (Fischer & Manstead, 2008; Fridlund, 1994; Spoor & Kelly, 2004). It has been demonstrated that happy facial expressions or smiles are associated with the desire to affiliate or cooperate (Hess, Blairy, Kleck, 2000; Horstmann, 2003), signify acceptance (Heerdink et al., 2015), increase social connectedness (Mauss et al., 2011), and help build social relationships (Fredrickson, 1998; 2001). Furthermore, sharing positive emotions with ingroup members elicits feelings of acceptance in recipients (Heerdink et al., 2013), activates approach tendencies (Paulus & Wentura, 2014), increases ingroup identification (Kessler & Hollbach, 2005), promotes intragroup relations (e.g., Walter & Bruch, 2008), and enhances group integration (Knight & Eisenkraft, 2015).

In line with this, some psychologists have suggested that the sharing of schadenfreude may help strengthen social bonds among ingroup members (Fischer, 2014; van Dijk et al., 2015). In support of this view, Study 1 – Study 3 showed that the experience of schadenfreude is associated with the intention to celebrate with other in-group members. Further, Feyaerts and Oben (2014) investigated spontaneous conversations among peers and showed that the expression of schadenfreude is often staged to communicate coherence and facilitate bonding among interaction partners. In

everyday life, schadenfreude is often expressed in gossiping that involves the sharing of negative information about a third-party (Foster, 2004). Further, gossiping has been shown to serve a social bonding function (Dunbar, 2004; McDonald et al., 2007). Based on the aforementioned theories and evidence, it seems plausible the sharing of intergroup schadenfreude serves a social affiliation function by strengthening ingroup bonds.

Communicative Effects of Intergroup Schadenfreude

In what ways, then, does the sharing of intergroup schadenfreude promote social affiliation? The Emotion as Social Information Model (EASI) developed by van Kleef (2009, see also van Kleef et al., 2011) posits that emotion displays can influence other people's responses via two different routes. The first route is through affective reactions; emotion expressions can evoke emotions in perceivers either through emotion contagion (Hatfield et al., 1994) or by influencing their impressions or liking of the senders (Hareli & Hess, 2010). The second route is through inferential processing; individuals can use the information provided by others' emotion expressions to guide their behaviours.

Applying the EASI model to the present research, it is possible that the sharing of intergroup schadenfreude may activate both kinds of process which, in turn, strengthen social relationships among ingroup members. On the one hand, the affective route implies that group members may directly "catch" the expresser's emotion and feel schadenfreude. Moreover, they will like, and be motivated to affiliate with, the expresser more because

expressing happiness signals acceptance (Heerdink et al., 2015). On the other hand, the inferential route implies that group members may infer from the expression of schadenfreude that the expresser intends to humiliate the unfortunate outgroup, signifying that the ingroup's collective interests are not aligned with those of the victim. As a result, group members may experience schadenfreude and feel closer to the expresser. Moreover, they may infer that the expresser intends to affiliate and celebrate the other group's misfortune with them (see Study 1-3). This in turn may lead them to like, and be motivated to affiliate with, the expresser to a greater extent.

The Moderating Role of Ingroup Identification

As outlined in the previous section, both affective and inferential routes predict that the sharing of intergroup schadenfreude will evoke schadenfreude in recipients and increase liking of the expresser. As delineated in the EASI model (van Kleef, 2009; van Kleef et al., 2011), the influences of affective and inferential processes also depend on two factors: first, the observers' motivation and the ability to engage in inferential processing and, second, social-contextual variables such as the nature of the relationships (e.g., intragroup or intergroup) that determine whether the emotional expressions are appropriate and relevant. Ingroup identification may similarly moderate the degree to which sharing intergroup schadenfreude can strengthen ingroup bonds by determining how motivated group members are to engage in processing others' emotional displays and

how appropriate they perceive these displays to be.

As mentioned in Chapter 1, ingroup identification also affects appraisals of the group-relevance of events and the intensity of intergroup emotions. The more strongly people identify with a group, the more concerned they are about group-relevant events. As a result, high identifiers are more likely than low identifiers to appraise events on the basis of their group membership, resulting in stronger intergroup emotions (Moons, Leonard, Mackie, & Smith, 2009; E. R. Smith et al., 2007). In other words, high identifiers may be more motivated to process information that is relevant to the group. In the present setting, this means they will attend more to, and be more easily influenced by, emotional expressions of other ingroup members than low identifiers, leading to stronger attitudinal and emotional responses.

Empirical evidence has also demonstrated the motivating effect of ingroup identification in emotion recognition. For example, Thibault, Bourgeois, and Hess (2006) found that participants were more motivated to decode, and had more accurate perceptions of, emotional expressions from ingroup members than emotional expressions from outgroup members. Additionally, Tanghe, Wisse, and van der Flier (2010) showed that identification predicted more affective convergence in team, implying that ingroup identification may foster group members' motivation to process others' emotional displays. Extending this evidence, the present research predicted that participants who

identify more strongly with the ingroup would be more motivated to make inferences about, and respond more strongly to, another ingroup member's intergroup schadenfreude.

Ingroup identification not only predicts the motivation to process information, but also affects how group members perceive the appropriateness of others' emotion displays. When people identify with a group, they tend to internalise the group's norms and consider them as appropriate standards for their own behaviours (Turner et al., 1987). For instance, Terry and Hogg (1996) showed that high identifiers were more likely to adhere to perceived group norms than low identifiers. Further, Hornsey, Jetten, McAuliffe, and Hogg (2006) found that high identifiers were more tolerant than low identifiers of group members' dissenting attitudes when the group norm endorsed individualism over collectivism.

Ingroup identification also biases how group members appraise and feel about norm-violating behaviours. Gordjin and colleagues (2006) found that compared with high identifiers, low identifiers who took on the perpetrator's perspective viewed the harmful behaviours as more unfair, felt more angry and guilty, and supported the perpetrator less. These studies imply that identification may determine the extent to which group members internalise the display rules of their group and influence how group members evaluate the appropriateness of others' emotional expressions. Specifically, high identifiers may consider another ingroup member's expression of intergroup schadenfreude as more

appropriate, even though schadenfreude is often seen as socially undesirable and its expression is generally suppressed (Leach & Spears, 2004; Leach et al., 2015). As a result, they may be more receptive and responsive to the display of intergroup schadenfreude than low identifiers.

Hypotheses

Study 6 investigated the social affiliation function of communicating intergroup schadenfreude. Similar to Study 4 and Study 5, I used the expression of victorious joy as a control. Victorious joy, despite being a positive emotion, is directed at the third-party outgroup, which is not in direct competition with the ingroup. As Intergroup Emotions Theory (Mackie et al., 2004; E. R. Smith et al., 2007) argues, events that are appraised as relevant to the group's concern evoke stronger emotional responses among group members. Group members may therefore be relatively less concerned about victorious joy than intergroup schadenfreude shared by another member. Thus, communicating victorious joy should not serve as strong a social affiliation function as intergroup schadenfreude.

Since schadenfreude is considered to be a socially unacceptable emotion, the present research was contextualised in ways that made the sharing of intergroup schadenfreude normative. First, I returned to the sporting context wherein emotional reactions to wins and losses are generally open and acceptable. Second, the sharing of

intergroup schadenfreude took place on Twitter, a platform on which it may be perceived as more acceptable to express socially undesirable emotions. Specifically, the study asked England football fans to read edited versions of genuine tweets made during the 2014 FIFA World Cup, expressing either intergroup schadenfreude toward Uruguay's (i.e., second-party outgroup) defeat or victorious joy about Colombia's (i.e., third-party outgroup) victory[19]. In the study, these tweets were presented as having been posted by another England fan.

I formulated several hypotheses based on the literature review. First, I predicted that participants would feel more schadenfreude after reading tweets expressing intergroup schadenfreude than after reading tweets expressing victorious joy. Second, I hypothesised that participants who had read the schadenfreude tweets would be more likely than those who had read the tweets expressing victorious joy to perceive the tweets as motivated by intentions to affiliate with other England fans and to humiliate Uruguay fans. Third, I predicted that participants would rate the target who expressed intergroup schadenfreude as friendlier than the target who expressed victorious joy. Fourth, I predicted that participants would be motivated to affiliate more with, and distance themselves less from, the target expressing intergroup schadenfreude than the target expressing victorious joy. Lastly, I predicted that the effects of emotional expression on

[19] See Chapter 2 for details of the outcomes of the tournament.

these social outcomes would be moderated by participants' level of ingroup identification.

Study 6

Method

Participants. One hundred and twenty-three self-declared supporters of the England team were recruited by undergraduates at the University of Oxford as part of their course requirement for a larger two-part schadenfreude study. These were the same participants as in Study 3. Twenty-seven participants did not complete this part of the study and were excluded from further analysis. Of the remaining sample, 12 participants indicated in the questionnaire that they had supported other teams during the World Cup. Subsequent analysis showed that these participants liked the England team significantly less (M = 3.50, SD = 1.45) than those who supported England during the tournament (M = 4.67, SD = 1.43), $t(94) = 2.65$, $p = .010$. Therefore, it was unlikely that these participants were genuine fans of the England team and thus they were excluded from further analysis. The remaining sample consisted of 84 participants (68 men and 16 women, M_{age} = 24.40, SD = 13.24). Their domain interest[20] (M = 5.65, SD= 1.30) was significantly above the scale midpoint (4), $t(83) = 11.66$ $p < .001$, suggesting that they were highly interested in football and had been closely following the tournament.

[20] Participants' interest in football was measured by the average of three questions on a 7-point scale: (1) "How interested are you in football?"; (2) "How closely did you follow the World Cup?"; and (3) "How much do you know about the World Cup 2014?" (α = .91).

Design. The experiment employed a 2 (Emotion Expression: Schadenfreude vs. Victorious Joy) × 2 (Identification: High vs. Low) between-subjects design. Participants were randomly allocated to one of the four possible conditions. The number of participants providing data for each condition ranged from 19 to 23.

Procedures. Participants who expressed interest in the study were directed to an on-line questionnaire (programmed using *Qualtrics*, Provo, UT, 2015). After providing informed consent, participants were asked to provide demographics information, to report the team they supported in the World Cup and to rate their interest in football and the extent to which they liked the England team. Afterwards, they took part in the first part of a larger study, which investigated the social functions of intergroup schadenfreude (see Study 3 in Chapter 2, for details). They read three news excerpts describing England's defeat to Italy, and Italy's subsequent loss to Colombia in the World Cup. These articles provided participants with important background information for the current study and reminded them of what had happened to the England team during the World Cup. After completing the first part of the study, participants were told that the second part of the research would investigate football fans' reactions to the sharing of news about the World Cup on Twitter.

Identification manipulation. Participants were then introduced to the identification manipulation using an adapted version of Doosje et al.'s (1995) bogus

pipeline procedure to manipulate the strength of identification in laboratory settings. Participants were first asked to indicate the extent to which they agreed with a series of statements on concerning their orientation (e.g., "I do not really mind what others think of me"), attitudes (e.g., "I value the contribution of a good coach more than a good player") and behaviours (e.g., "I usually know England's win/loss record") on a 7-point scale (1 = *not at all*, 7 = *very much*) that was alleged to measure extent of involvement with a team. They then received their supposed involvement score and were led to believe that it had been calibrated against other England football fans' scores in the computer's database. In the *high-identification* condition, participants were told that their group involvement index (59) was higher than the average score in the database (46). In the *low-identification* condition, participants were told that their group involvement index (33) was lower than the same average score. These scores thus informed participants that their involvement in and ties with the England team were either stronger or weaker than average (cf. Ellemers et al., 1997). Immediately after the manipulation, participants answered several questions assessing the success of the identity manipulation. See Appendix J for the full instructions of the identification manipulation.

Emotion manipulation. After the identification manipulation, participants were asked to imagine themselves as a follower on Twitter of an England fan, who was deliberately given a gender-neutral name, Jess, and a self-explanatory username,

Engfootballfanz. They were told that Jess had been tweeting frequently during the 2014 World Cup; his/her tweets were very popular among football fans and had been retweeted regularly. Participants were asked to read several tweets by Jess that either expressed schadenfreude or victorious joy. These tweets were edited from genuine tweets posted on Twitter within 3 days of Uruguay losing to Colombia and were presented as a screenshot of a real twitter account (see Appendix K). In the schadenfreude condition, Jess's tweets expressed happiness about Uruguay's loss: "Words cannot explain how happy I am that Uruguay have been knocked out;" "Glad to see #Uruguay go home, they offer nothing positive at all to the #worldcup;" "Revenge is sweet. Bye Uruguay!;" "Yes! Well now Uruguay is out too lol – Yeah I'm happy about that;" and "Final Whistle. Uruguay didn't make it to the next stage. HELL YEAH!." In the victorious joy condition, Jess's tweets expressed happiness about Colombia's victory and were worded as similarly as possible to the schadenfreude tweets: "Words cannot explain how happy I am that Colombia have advanced;" "Glad to see #Colombia advance, they offer something positive to the #worldcup;" "Victory is sweet. Salute to Colombia! ;" "Yes! Well now Colombia is in lol – Yeah I'm happy about that;" and "Final Whistle. Colombia made it! HELL YEAH!." Following the emotion manipulation, participants answered a number of items measuring their own emotions, their perception of Jess's emotions, and their attitude toward Jess before receiving a full debriefing. See Appendix K for screenshots of the tweets.

Measures.

Ingroup identification. A single item ("According to the information given, to what extent are you involved with the England team?") on a 7-point scale (1= "*clearly below average*"; 4 = "*same as average*"; 7 = "*clearly above average*") adapted from Jetten, Spears, and Manstead's (2001) study, wherein this measure was used to check the effectiveness of the bogus pipeline identification manipulation. In addition, a 4-item scale adapted from Doosje et al. (1995) was used to measure participant's actual identification with the England team following the identification manipulation. Items included, "I see myself as a fan of the England team;" "I am pleased to be a fan of the England team;" "I identity with other fans of the England team;" and "I feel strong ties with other fans of the England team." (α = .89).

Perceived emotions. To check the success of the emotion manipulation, I specifically developed two scales to measure the extent to which participants thought that Jess was experiencing schadenfreude and victorious joy when s/he tweeted the messages. All items were modified from the schadenfreude scale (van Dijk et al., 2006) and from the victorious joy scales used in Study 4 and Study 5. Perceived schadenfreude was measured by five items emphasising Jess's feelings about Uruguay's loss: "S/he felt satisfied that Uruguay failed to get through to the next stage;" "S/he was amused by Uruguay's loss;" "S/he couldn't resist a little smile about Uruguay's loss;" and "S/he

actually had to laugh a little bit about Uruguay's defeat." (α = .96). Perceived victorious joy was measured by a similarly worded 4-item scale focusing on Jess's reactions to Colombia's victory: "S/he was pleased that Colombia were the winners of the match;" "S/he felt satisfied that Colombia succeeded in progressing to the next stage"; "S/he was happy for Colombia;" and "S/he smiled happily about Colombia's victory". (α = .88). All responses were recorded on 7-point Likert scales (1 = "*strongly disagree*;" 7 = "*strongly agree*").

A principal-components factor analysis with varimax rotation was conducted on the schadenfreude and victorious joy items revealing the expected two-factor solution explaining 81.95% of the common variance. Items from the schadenfreude scale loaded on one factor at .90 or higher whereas items from the victorious joy scale loaded on a separate factor at .71 or higher. No items cross-loaded highly on the other factor at above .30. This suggested that the scales successfully distinguished perceived schadenfreude from perceived victorious joy.

Felt emotions. Participants' own experience of schadenfreude and victorious joy in response to Jess's tweets used the same items as the perceived schadenfreude and perceived victorious joy scales, except that the statements focused on participants' own emotional experiences. Examples included "I was pleased that Uruguay were the losers in the match" and "I was happy for Colombia". Both schadenfreude and victorious joy

scales were highly reliable (α = .82 and α = .91, respectively), and items were rated on 7-point scales (1 = "*strongly disagree*;" 7 = "*strongly agree*").

Perceptions of Jess's intentions. To assess perceptions of Jess's intention to affiliate with other England fans, participants rated the extent to which they thought Jess wrote the tweets because s/he would like "...to befriend other England fans" and "…to unite England fans", $r(82) = .64$, $p < .001$. To assess the perception of Jess's intention to humiliate fans of Uruguay, participants indicated the extent to which they thought Jess wanted "…to take revenge against Uruguay for England's earlier loss against Uruguay", "…to emphasise to the Uruguay fans how embarrassing their team's defeat was", and "…to humiliate supporters of the Uruguay team", α = .86. All responses were recorded on 7-point scales (1 = "*strongly disagree*;" 7 = "*strongly agree*").

Attitude toward Jess. Participants' attitude toward Jess after reading the tweets was measured using four questions that were answered on a 7-point scale: (1) "How much do you like Jess?" (1 = "*not at all*;" 7 = "*very much*"); (2) "How friendly do you think Jess is?" (1 = "*not at all friendly*;" 7 = "*very friendly*"); (3) "How similar do you think you and Jess are?" (1 = "*not at all similar*;" 7 = "*very similar*"); and (4) "How close to Jess do you feel emotionally?" (1 = "*not at all close*;" 7 = "*very close*"). The scale based on these four items was highly reliable (α = .79).

Social motivations. Two items were used to measure participants' motivation to

affiliate after reading the tweets. They were "I would like to interact frequently with Jess on twitter" and "I would like to follow Jess' tweets more closely", $r(82) = .64$, $p < .001$. Two items were used to assess participants' motivation to avoid Jess after reading the tweets. They were "I would like to remove Jess from my list" and "I would like to keep a distance from Jess", $r(82) = .71$, $p < .001$. All responses were recorded on 7-point scales (1 = "*strongly disagree*;" 7 = "*strongly agree*"). See Appendix L for all (unreported) items used in this study.

Results

Manipulation checks. A 2 (identification) x 2 (emotion expression) between-subjects ANOVA was performed on participants' ratings of involvement based on the information provided. Results revealed the expected main effect of identification with participants with the high-identification condition reporting being more involved in the England team ($M = 5.10$, $SD = 1.32$) than those in the low-identification condition ($M = 3.40$, $SD = 1.27$), $F(1, 80) = 35.85$, $p < .001$, $\eta^2 = .31$. There were no other significant effects ($ps > .10$). However, a similar 2 X 2 ANOVA did not find any significant main effect or interaction between identification and emotion on the identification measure, $ps > .10$, suggesting that the identification manipulation did not have the intended effect on participants' actual identification. Table 4.1 shows the means, standard deviations and correlations among all variables in this study.

Table 4.1

Means, standard deviations and correlations among variables in Study 6

		M (*SD*)	1	2	3	4	5	6	7	8	9	10	11
1	Reported identification	4.25(1.54)	-	.49***	.01	.05	.18	.23*	-.09	-.12	.16	.04	-.17
2	Actual identification	4.74(1.32)		-	.03	.03	.09	.14	.22*	.04	.21	.03	-.10
3	Perceived schadenfreude	5.85(1.37)			-	.40***	.21†	.29**	.31**	.65***	-.20†	-.21†	.17
4	Perceived victorious joy	5.40(1.35)				-	.08	.40***	.12	.05	.01	-.21†	-.03
5	Felt schadenfreude	3.55 (1.57)					-	.57***	.13	.05	.28*	.24*	-.01
6	Felt victorious joy	4.97(1.49)						-	.04	.13	.16	.05	.02
7	Intention to affiliate	4.08(1.46)							-	.30**	.08	.06	-.004
8	Intention to humiliate	4.66 (1.74)								-	-.32**	-.17	.34**
9	Attitude toward Jess	2.80 (1.03)									-	.50***	-.56***
10	Motivation to affiliate	1.93 (1.29)										-	-.22*
11	Motivation to distance	3.93 (1.88)											-

$N = 84$, $^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

ANOVAs were also performed on participants' ratings of perceived schadenfreude and perceived victorious joy. Results showed the predicted main effects of emotion expression such that participants in the schadenfreude condition (M = 6.31, SD = 1.15) perceived Jess to be feeling more schadenfreude than participants in the victorious joy condition (M = 5.40, SD = 1.42), $F(1, 80) = 10.21$, $p = .002$, $\eta^2 = .11$, whereas participants in the victorious joy condition perceived Jess to be feeling more victorious joy (M = 5.76, SD = 1.34) than participants in the schadenfreude conditions (M = 5.01, SD = 1.27), $F(1, 80) = 6.56$, $p = .012$, $\eta^2 = .08$. There were no other significant effects, ps > .10.

Felt emotions. An ANOVA performed on participants' reported schadenfreude showed a non-significant main effect of emotion expression ($p > .10$) but a marginal main effect of identification, $F(1, 80) = 3.05$, $p = .084$, $\eta^2 = .04$. Participants in the high-identification condition reported feeling more schadenfreude (M = 3.84, SD = 1.60) than their counterparts in the low-identification condition (M = 3.26, SD = 1.50).

There was also a marginally significant interaction between identification and emotion, $F(1, 80) = 3.85$, $p = .053$, $\eta^2 = .05$. Simple effects analyses revealed that, in the schadenfreude condition, high-identification participants (M = 4.19, SD = 1.55) felt more schadenfreude than low-identification participants (M = 2.95, SD = 1.66). In the victorious joy condition, there was no significant difference in high- and low-identification participants' reported schadenfreude (M_{high} = 3.45, SD_{high} = 1.60 vs. M_{low} =

3.52, SD_{low} = 1.33). *Figure 4.1* depicts the interaction.

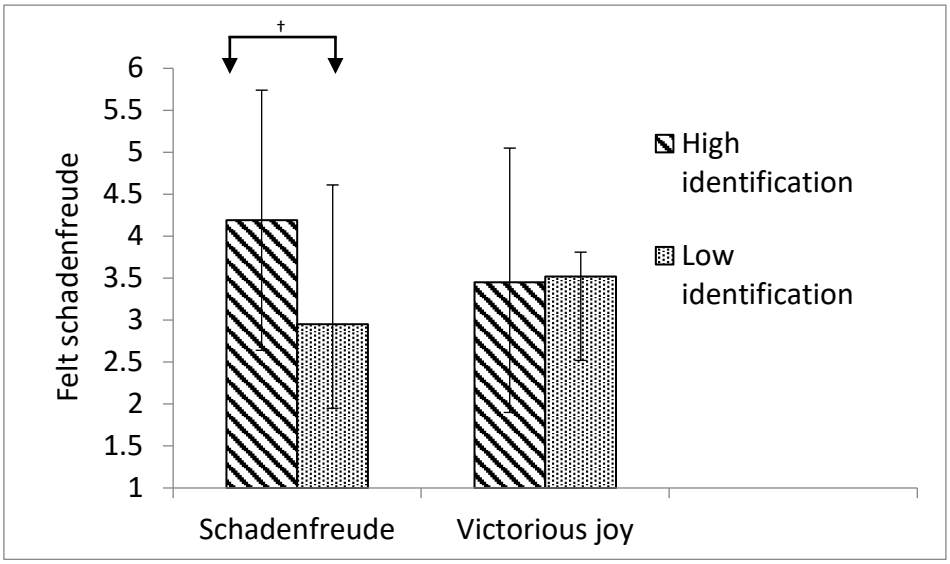


Figure 4.1. Interactive effect of emotion and identification on felt schadenfreude. Error bars indicate the standard error. †$p < .10$.

An ANOVA of participants' feeling of victorious joy only yielded a marginal main effect of identification, $F(1, 80) = 2.99$, $p = .088$, $\eta^2 = .04$, such that participants in the high-identification condition ($M = 5.24$, $SD = 1.46$) felt more victorious joy than participants in the low-identification condition ($M = 4.70$, $SD = 1.49$). There were no other significant effects, ps > .10.

Perceptions of Jess's intentions. Contrary to my hypothesis, an ANOVA performed on the perceived intention of Jess to affiliate with other England fans did not yield any significant effect of emotion expression or identification, $p > .10$. However, the main effect of emotion expression on the perceived intention to humiliate Uruguay was significant as predicted. Participants in the schadenfreude condition ($M = 5.46$, $SD = 1.37$)

perceived the intention to humiliate Uruguay fans to be stronger than did participants in the victorious joy condition (M = 3.90, SD = 1.73), $F(1, 80) = 21.87$, $p < .001$, $\eta^2 = .22$. There were no other significant effects, ps > .10.

Attitude toward Jess. An ANOVA conducted on the attitude toward Jess revealed a significant main effect of emotion expression, $F(1, 80) = 11.11$, $p = .001$, $\eta^2 = .12$, such that participants in the schadenfreude condition (M = 2.45, SD = 0.87) had a less positive attitude toward Jess than participants in the victorious joy condition (M = 2.81, SD = 1.03). There were no other significant effects, ps > .10.

Social motivations. An ANOVA performed on the motivation to affiliate with Jess found no significant effects, ps > .10. However, there was a main effect of emotion expression on the motivation to distance from Jess, $F(1, 80) = 4.21$, $p = .043$, $\eta^2 = .05$, showing that participants in the schadenfreude condition (M = 4.34, SD = 1.73) wanted to distance themselves from Jess more than did participants in the victorious joy condition (M = 3.53, SD = 1.95). There were no other significant effects, ps > .10.

Reported identification as moderator. In light of the apparent failure of the identification manipulation to influence reported identification as intended, I conducted a series of moderated regression analyses to test whether reported identification moderated the effect of the emotion manipulation on all dependent variables (felt/perceived schadenfreude, felt/perceived victorious joy, perceived intention to

affiliate, perceived intention to humiliate, attitude toward Jess, motivation to affiliate, and motivation to distance). Following the recommendations of Jaccard, Turrisi, and Wan (1990), the continuous variable of actual identification was centred and the emotion manipulation was dummy-coded (0 = schadenfreude; 1 = victorious joy). As in the ANOVA, participants in the schadenfreude condition perceived Jess to be experiencing more schadenfreude but less victorious joy, considered Jess intending to humiliate Uruguay fans, had a less positive attitude toward Jess, and were more motivated to distance from Jess than participants in the victorious joy condition. Identification was also a significant positive predictor of perceived intention to affiliate with other England fans (β = .24, t = 2.03, p = .045) and attitude towards Jess (β = .17, t = 2.10, p = .039). Unlike manipulated identification, reported identification did not moderate the effect of emotion expression on participant's felt schadenfreude. Interestingly, there was an interaction between reported identification and emotion expression (β = .53, t = 2.09, p = .040). As revealed by simple slope analysis, low identifiers in the schadenfreude condition were more likely to perceive Jess as intending to humiliate Uruguay fans than their counterparts in the victorious joy condition (β = 2.27, t = 4.76, p < .001). However, high identifiers in the schadenfreude condition did not significantly differ from high identifiers in the victorious joy condition in their perception of Jess's intention to humiliate Uruguay fans (β = 1.32, t = 1.80, p = .076). *Figure 4.2* shows the simple slope.

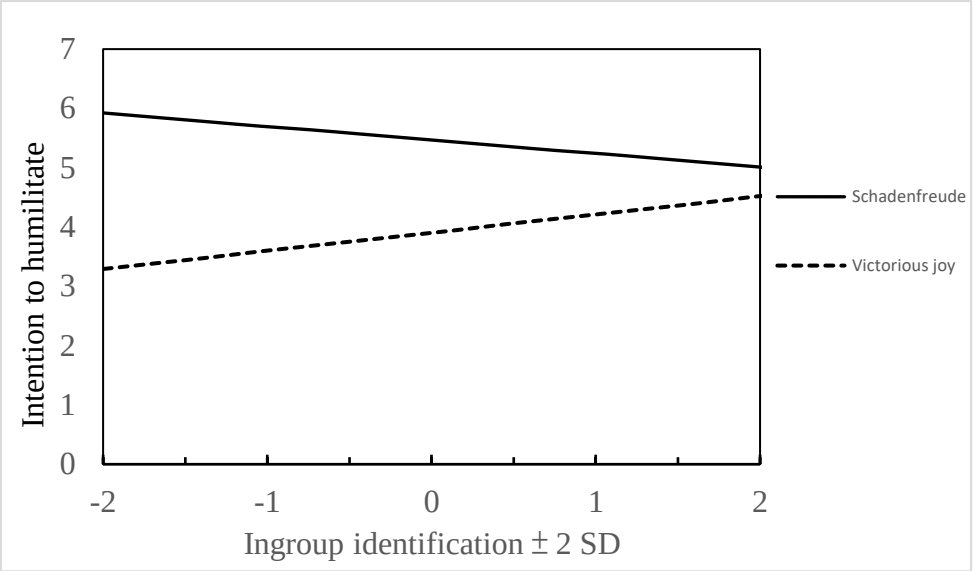


Figure 4.2. Simple slope analysis of ingroup identification (2 SD above and below means) on perceived intention to humiliate Uruguay moderated by emotion, *$p < .05$

General Discussion

This study aimed to test the social affiliation function of sharing intergroup schadenfreude by examining the communicative effects of an ingroup member's expression of schadenfreude (vs. victorious joy) and potential moderation of these effects by ingroup identification. Similar to Studies 1 to 3, I used the 2014 FIFA World Cup as the research background and asked self-identified England fans to read a series of tweets supposedly written by another England fan expressing either schadenfreude or victorious joy. Results showed that the emotion manipulation was successful. Participants perceived the tweeter as feeling more schadenfreude when he/she expressed satisfaction about Uruguay's (i.e., second-party outgroup) defeat in the World Cup, whereas participants perceived the tweeter as feeling more victorious joy when he/she expressed satisfaction

about Colombia (i.e., third-party team) outperforming the second-party rival. However, evidence of the success of the identification manipulation was mixed. While participants accurately reported being more (or less) involved with the England team in accordance with the information provided by the identification manipulation, their reported general level of identification did not differ between high- and low-identification conditions. This may be the reason why most effects relating to the identification manipulation were non-significant.

Communicative Effects of Intergroup Schadenfreude

The only near-significant effect of manipulated identification was the simple main effect on schadenfreude in the schadenfreude condition. Participants in the high-identification condition felt more schadenfreude than those in the low-identification condition. However, participants in the high- and low-identification conditions did not differ in their level of felt schadenfreude in the victorious joy condition. Hence, in line with my hypothesis, high identifiers' schadenfreude was more influenced by another ingroup member's expression of intergroup schadenfreude than was the schadenfreude of low identifiers.

Interestingly, emotional expression did not have any significant effect on participants' reported experience of victorious joy. This may be due to the fact that the third-party outgroup had had no direct contact with the ingroup and participants may

therefore not have thought that this outgroup's victory was relevant to their ingroup. Hence, participants were indifferent to victorious joy expressed by the fellow ingroup member. This result is therefore consistent with IET's prediction that discrete intergroup emotions are felt only when the situation is group-relevant a*nd* elicits a specific appraisal pattern (E.R. Smith et al., 2007; Mackie et al., 2008)

Second, I obtained the expected result that participants perceived expressed schadenfreude as indicating the intention to humiliate members of the second-party outgroup more than expressed victorious joy. This finding complements existing evidence that the overt expression of schadenfreude may be seen as dominant (Szameitat et al., 2009) and as intended to humiliate the target of schadenfreude (Mann et al., 2015). However, I did not find any difference in participants' perceptions of the affiliative intentions of the two kinds of emotional expression. This may be because the expression of schadenfreude is generally conceived as socially undesirable. Even when it is shared among ingroup members, its display may generate negative affective reactions in observers. As EASI explains, affective reactions to others' emotional displays such as dislike may at times have relatively stronger effects than inferential processes. Thus, strong negative responses to the tweeter's expressed emotion may have prevented the present participants from inferring its potential positive consequence for strengthening ingroup bonds.

Perhaps because participants failed to see affiliative intentions in expressed intergroup schadenfreude, my last set of findings demonstrated that participants had a less positive attitude toward, and were more motivated to avoid, the expresser of schadenfreude than the expresser of victorious joy. These results were therefore opposite to my original hypothesis that the public sharing of schadenfreude among ingroup members would serve a social affiliation function and strengthen ingroup bonds. As mentioned earlier, participants may have focused on the schadenfreude expresser's intention of humiliating fans of Uruguay, which, despite being a positive gesture to the ingroup, may still be considered as socially inappropriate. The public sharing of schadenfreude is generally counter-normative and becomes acceptable only when social constraints are minimised (Spears & Leach, 2004). For example, In Leach et al.'s (2003) Study 2, participants reported greater schadenfreude in response to ingroup inferiority when the norm of honesty was emphasised. In most cases, however, people try to suppress their schadenfreude (Leach et al., 2015) and may also expect others to do so. Although twitter is a platform which is typically less socially restricted, and although the tweets expressing schadenfreude could be read as being humorous, the research focus on the functions and consequences of expressing schadenfreude may still have led participants to respond in a more socially desirable way than they would have if they had been actually following and responding to the expresser on twitter. When the sharing of emotion is not

supported or mutual, it usually results in emotional distance (Gable & Reis, 2010), and results in negative reactions toward the expresser.

Moderating Effects of Reported Identification

As mentioned above, the identification manipulation failed to change participants' reported identification. Therefore, I tested whether participants' reported rather than manipulated identification moderated the effects of emotional expression on the hypothesised social consequences. There were three major disparities in findings obtained when using reported compared to manipulated identification as moderator. First, reported identification was positively associated with the perceived intention of the expresser to affiliate and attitude toward the expresser as expected. These results are therefore in line with existing evidence that ingroup identification positively predicts evaluations of the ingroup and affective ties with it (Ellemers, Kortekaas, & Ouwerkerk, 1999; Leach et al., 2008; see, Ashmore, Deaux, & McLaughlin-Volpe, 2004, for a review). Second, a significant interaction between reported identification and emotional expression affected the perceived intention of the expresser to humiliate the second-party outgroup. Specifically, high identifiers did not perceive differences between expressed schadenfreude and victorious joy in intentions to humiliate the second-party outgroup whereas low identifiers regarded expressed schadenfreude as carrying a stronger intent to humiliate the second-party outgroup than expressed victorious joy. This is possibly

because high identifiers are more motivated to maintain a positive view of their own team (Tajfel & Turner, 1979) and thus they react defensively by rejecting any negative connotation of another ingroup member's emotional display.

Lastly, unlike manipulated identification, reported identification had no significant main or interactive effect on felt schadenfreude. This finding is rather surprising because previous research has consistently found positive associations between ingroup identification and similarity of group members' emotions (i.e., emotional convergence, see E. R. Smith et al., 2007; Tanghe et al., 2010). Nevertheless, emotional convergence also depends on how similarly the expresser and observer appraise the situation (see, Bruder, Fischer, & Manstead, 2014, for a discussion). As reported above, participants in this study generally did not evaluate the intention of the expression or the expresser positively. Their negative reactions directed at the expresser's socially inappropriate behaviour may have overridden the influences of either the emotional expression or reported identification on how participants felt about the second-party's misfortune, making it difficult to obtain the expected interaction between emotional expression and identification.

However, this raises the question of why manipulated identification moderated the effect of emotional expressions on felt schadenfreude as predicted when reported identification did not? A plausible reason is that the information provided to participants

by the identification manipulation triggered a process called emotional self-stereotyping (cf. Moons et al., 2009) leading group members to conform to what they perceive other ingroup members are feeling. Such conformity pressure thus encourages participants to upregulate (or downregulate) their experience of intergroup schadenfreude. When participants were informed that they were more involved than an average English football fan, they may have been motivated to meet the expectations associated with being a highly involved England fan. Hence, they may have become more likely to conform to the perceived emotion norm, defined as the expectation that governs people to feel a particular way in a particular situation (cf. Eid & Diener, 2001), in this case by reporting higher intergroup schadenfreude. Conversely, those who were told that they were less involved than an average English football fan might have felt less need to feel the same as other group members. Instead, they might have been more inclined to report how they actually felt about the situation thus reducing the extent of reported schadenfreude. If so, the current findings corroborate previous research on the effects of perceived collective emotions on emotional conformity and emotional nonconformity (Goldenberg, Saguy, & Halperin, 2014).

Theoretical Contributions

Informational value of schadenfreude expressions. To the best of my knowledge, this is the first study to examine the social functions and consequences of

sharing intergroup schadenfreude at a group level. Although the data did not support my general prediction that communicating intergroup schadenfreude to other ingroup member would strengthen ingroup bonds, it was the first experimental evidence for the long-standing belief that the expression of schadenfreude may result in socially undesirable outcomes. As discussed, the public display of intergroup schadenfreude may lead to more negative social consequences for the expresser than the display of victorious joy, including perceivers' negative impressions and their tendency to maintain social distance. These findings extend the current literature on the informational value of emotional expressions and show that intergroup schadenfreude, like other emotional displays, communicates rich information about the expresser's mental state and motivation in a particular social situation. Specifically, participants inferred appropriately distinct emotional states from expressed schadenfreude and victorious joy and perceived schadenfreude as indicating a stronger intent to humiliate the second-party outgroup. Based on this emotional information, participants made (negative) inferences about the expresser of schadenfreude, then reacted and behaved accordingly. Hence, this study goes beyond the current focus of schadenfreude research and highlights the importance of studying the informational value of expressed schadenfreude and its implications for intra- and inter-group processes and functioning.

Social functionality and dysfunctionality of expressing intergroup schadenfreude. The present results also illuminate the social functionality of expressing intergroup schadenfreude. The results failed to confirm my original hypothesis and other researchers' notion that the sharing of schadenfreude strengthens ingroup bonds. Indeed, they seem to suggest that expressing intergroup schadenfreude may be socially dysfunctional, at least in certain contexts. Previous research similarly suggests that emotions are not always socially functional, despite the fact that they are related to important functional goals. For example, contempt serves the ingroup-protecting functions of excluding another person and lowering his or her status (Fischer & Roseman, 2007) but its distancing function may also bring dysfunctional effects by enhancing interpersonal aggressiveness (Fischer & Giner-Sorolla, 2016; Melwani & Barsade, 2011). More generally, the social functionality of an emotion is not automatically guaranteed by its social relational goal; whether or not an emotion may result in socially functional or dysfunctional outcomes is also contingent on one's appraisal of the appropriateness of experiencing and expressing this emotion in a particular social context (Evers, Fischer, Rodriguez, Mosquera, & Manstead, 2005; Fischer & Manstead, 2008). In the case of schadenfreude, its experience and expression have been viewed as immoral in many cultures and throughout history because they violate the human virtue of being compassionate toward others' suffering. Children in many societies are taught at a very

young age not to express schadenfreude. Adults are also widely expected to condemn people who express schadenfreude. Hence, displaying schadenfreude in public is likely to be considered inappropriate and as potentially leading to detrimental social consequences in many social situations. From this perspective, it is undeniable that expressing schadenfreude can be socially dysfunctional. Indeed, it seems legitimate to question whether expressing schadenfreude can ever be socially functional.

However, the notion that the functionality of an emotion depends on how individuals appraise the social context also implies that, under some particular circumstances, expressing schadenfreude is appropriate and can be socially beneficial. In real life, schadenfreude is often shared in the form of humour and satire (Buckley, 2014; Feyaerts & Oben, 2014; Kuipers, 2014), on television and reality shows (Smith, 2013; van Dijk et al., 2012), and through gossiping (Foster, 2004), because people usually have a similar understanding of, and shared expectations about, what constitutes acceptable and pleasurable conduct in these contexts. For example, gossiping usually takes place among close friends rather than strangers (Blumberg, 1972) and the content of gossip is understood better by insiders than outsiders (Dunbar, 2004). The reason for this is that senders and receivers are able to negotiate and agree on what it is appropriate to gossip about and to learn about each other's social interests through frequent social interactions. By contrast, participants in the present study were engaged in a simulated interaction with

limited information about the context, the expresser, and the social norms, making them more likely to appraise the schadenfreude expression as inappropriate and evaluate the expresser and his/her intent negatively. Considering this factor, it remains possible that sharing intergroup schadenfreude among ingroup members can strengthen ingroup bonds; however, it is socially functional only when there is mutual understanding between the sender and the recipient about the appropriateness of such expression and when both parties' interests in an outgroup's misfortune are aligned.

Emotion regulation of intergroup schadenfreude. The present study also sheds some light on the regulation of intergroup schadenfreude at a group level. As the results indicate, even though participants' reported identification did not differ across identification conditions, in the schadenfreude condition, those informed of their high involvement in the team reported feeling marginally more intergroup schadenfreude than those informed of their lower involvement. This suggests that group members may upregulate or downregulate their own experiences of intergroup schadenfreude to emotionally conform to, or deviate from, what they perceive their fellow group members are feeling. Thus, this research complements recent work on emotional self-stereotyping (Leonard, Moons, Mackie, & Smith, 2011; Moons et al., 2009) and emotional (non)conformity (Goldenberg et al., 2014) and indicates that group members' emotions can be shaped by existing emotional norms (cf. Delvaux, Vanbeselaere, & Mesquita,

2015). Barsade and Gibson (1998; 2012) refer to this way of generating or regulating group emotions as the "top-down" process, which focuses on how group or emotion norms can shape group members' emotional experiences and expressions (see also, Bruder et al., 2014, for a similar explanation).

Relatedly, this study contributes to the emerging literature on how people regulate their emotions at the group rather than individual level (see, Goldenberg et al., 2015, for a discussion). The potential interplay between emotion norms and emotion regulation also implies that intergroup schadenfreude may be elicited or intensified by intragroup influences in the absence of the specific determinants of intergroup schadenfreude (such as envy and inferiority) identified in previous literature. This will be an interesting avenue for future schadenfreude research.

Limitations and Future Directions

This study had a number of methodological limitations. First, as discussed above, my identification manipulation was unsuccessful in influencing participants' reported identification. A possible reason is that the manipulation was too weak to change the levels of identification of a natural group composed of highly identified team supporters. The specific manipulation that I used was adapted from previous studies using ad hoc groups within a minimal group paradigm (e.g., Doosje et al., 1995; Ellemers et al., 1997, for an exception, see, Pettit & Lount, 2010). Ingroup identification with a natural group

is different from that associated with an ad hoc group in that identification with a natural group has been developed over time and across situations, making it more challenging to manipulate its strength experimentally (e.g., Jetten, Spears, & Manstead, 1996). Although using reported rather than manipulated identification as a predictor is a possible alternative strategy, it may be limited in establishing causality between identification and expressions of group-based or intergroup emotions. Alternatively, future research may use other paradigms such as asking participants to think or write about the things that qualify or disqualify them as a member of a group. This method has been shown to successfully increase or decrease identification with an existing natural group (e.g., Glasford, Dovidio, & Pratto, 2009; Pickett, Silver, & Brewer, 2002).

The second methodological concern was that the current study only compared expressed schadenfreude with expressed victorious joy. Although victorious joy has the advantage of having the same valence and social basis as intergroup schadenfreude, expressing victorious joy is generally perceived as more socially acceptable than displaying intergroup schadenfreude in most social and cultural contexts. Therefore, the fact that the results were in the opposite direction to my predictions concerning the social affiliation function of expressing intergroup schadenfreude may in part reflect the fact that expressed victorious joy is highly socially acceptable rather than a specifically negative evaluation of intergroup schadenfreude. As discussed, the perceived

appropriateness of communicating an emotion may play a determining role in its social functionality or dysfunctionality. Future research could address this issue by measuring and statistically controlling for the perceived appropriateness of expressing schadenfreude or victorious joy and by manipulating the social norms associated with displaying these emotions (cf. Leach et al., 2003). Moreover, future research should include a neutral control condition in order to determine whether schadenfreude indeed leads to various socially disadvantageous outcomes or whether the current results instead reflect the social acceptability of expressing victorious joy.

The third methodological limitation was that communication of intergroup schadenfreude only occurred between two ingroup members. As a new area in schadenfreude research, this design was necessary for testing novel hypotheses in a simplest setting, thereby reducing the complexity and diversity of emotions that people typically experience within a group. In essence, however, the communication between two ingroup members may be seen as a dyadic interaction, and one may question whether findings from this study genuinely reflect more generally applicable intragroup effects of intergroup schadenfreude, which typically involve more than two ingroup members. Nonetheless, there is evidence indicating that the effects of emotional expressions observed in a dyad within a group are similar to those obtained in a larger group (Homan, van Kleef, Sanchez-Burks, 2016; Magee & Tiedens, 2006). Moreover, emotions

experienced in a group are formed by its underlying processes; they are generated by numerous "bottom-up" processes, through which the dyadic effects of emotional expressions are spread and combined to form a collective emotional experience (Barsade & Gibson, 2012; Bruder et al., 2014). Taking this view, the work presented here, to some extent, represents the intragroup effects of intergroup schadenfreude. However, future work should empirically test and verify the generalisability of these findings.

The fourth limitation is that this study focused only on verbal expressions of emotions and provided no evidence directly relating to other types of expressions frequently deployed in social interactions. There were two reasons for this choice. First, twitter is a social platform which predominantly uses words for expression, thus it was more natural to use verbal statements of schadenfreude and victorious joy as stimuli. Second, there was no clear evidence to date that the facial expression of schadenfreude is distinguishable from that of pure joy (cf. Boecker et al., 2015). This makes the use of facial displays to communicate schadenfreude or victorious joy less reliable and effective for the purpose of this research. In spite of these considerations, it should be acknowledged that people tend to suppress the public expression of schadenfreude (Leach et al., 2015). Therefore, the verbal statements I used in this study may not be the most natural and prototypical example of a schadenfreude expression. Participants might be more familiar with, and respond more positively to, a subtler expressions of

schadenfreude than a strongly verbalised display of schadenfreude. While there may not be a signature facial expression for schadenfreude, a specific combination of head position, gaze direction, facial movements, and gestures may indicate emotional suppression (Ekman, Hager, & Friesen, 1981). This may allow observers to differentiate schadenfreude from other less socially controversial and more openly expressed emotions such as joy or gloating. Future studies might investigate the information value and social consequences of more dynamic expressions of schadenfreude, and compare the results with the present research.

A final concern is that the study focused only on participants' tendencies to affiliate with, or distance from, the expresser of intergroup schadenfreude, and did not explore their implications for group functioning and on the larger network of intergroup relations. If, for example, expressing intergroup schadenfreude strengthens ingroup bonds, the group may become more cohesive and cooperative. However, this may also mean that group members feel more distant from other outgroups, resulting in more tension between the ingroup and the outgroup. Future studies may want to fill this gap in the literature.

Conclusion

The primary goal of the study reported in this chapter was to test the idea that expressing intergroup schadenfreude strengthens social bonds between ingroup members. This was achieved by examining the social consequences of perceiving another ingroup

member's expressed intergroup schadenfreude. Contrary to prediction, recipients of expressed intergroup schadenfreude evaluated the expresser more negatively and reacted more negatively towards them, indicating that they perceived the emotional expression as inappropriate in this context. In addition, (manipulated) ingroup identification did not moderate these effects as hypothesised, probably because the manipulation was too weak to have a strong impact on a group of highly identified England football fans. Notwithstanding these unexpected findings, this study provided some novel evidence concerning the regulation of intergroup schadenfreude by people who perceive the need to conform to existing emotional norms. In summary, this study highlights several new directions for schadenfreude research, including the informational values of schadenfreude expressions, the impact of display rules on the social functionality of expressing intergroup schadenfreude, and the interplay between emotional regulation and emotion norms and its impact on the generation of intergroup schadenfreude.

CHAPTER 5: CONCLUSIONS AND IMPLICATIONS

This final chapter summarises and discusses the main findings of the research reported in this thesis. I first provide an overview of the findings in accordance with the research aims of this thesis. I then discuss the theoretical and methodological contributions of the studies to the understanding of schadenfreude. I conclude my thesis with a review of general limitations of this research and propose future directions for research in the field of schadenfreude.

Introduction

The aim of this thesis was to investigate the social functions of intergroup schadenfreude. While research on schadenfreude has mostly focused on the conditions under which schadenfreude may arise, relatively few studies have focused on the social and communicative functions of schadenfreude, especially at the group level. My thesis therefore aimed to go beyond the previous focus and investigate the social consequences of experiencing schadenfreude and of being the recipient of someone's expression of schadenfreude at the group level.

The thesis was built on two theoretical approaches to intergroup emotion. The first was Intergroup Emotions Theory (IET, E. R. Smith, 1993), which posits that when individuals categorise themselves as a member of a group and identity with that group, they start to appraise events in relation to the group's interests and goals, and emotionally respond to those events on behalf of their group. IET served as a foundation for my conceptualisation of intergroup schadenfreude, which refers to the pleasure group

members feel in response to an outgroup's misfortune. It also highlights ingroup identification as an important predictor of intergroup schadenfreude, making it a central variable in this thesis.

The second theoretical approach was the social functional account of emotions, which argues that emotions are co-ordinated packages of components that serve important functions in solving different social problems at four different levels (Keltner & Haidt, 1999). At the group level of analysis, emotions help group members to define group boundaries, negotiate social status, and motivate collective behaviours to solve group-related problems. Thus, intergroup schadenfreude should serve some of these social functions. In testing this general assumption, this research followed the empirical strategies advocated by other emotion researchers by investigating the social consequences relating to the social-relational goal underlying intergroup schadenfreude (Fischer & Manstead, 2008; Keltner & Haidt, 1999).

I argued that the regulation and maintenance of social-status could be an important social-functional goal associated with intergroup schadenfreude for two reasons. First, previous research has demonstrated that schadenfreude is frequently preceded by feelings of envy, inferiority, and low self-esteem, suggesting that schadenfreude may be elicited when a misfortune satisfies group members' concern about the relative position of the self or the ingroup in the social hierarchy (R. H. Smith et al., 2009; van Dijk et al., 2015).

Second, schadenfreude has often been conceptualised in terms of downward social comparison involving the pleasure experienced when comparing the self or the ingroup with another person or group suffering from a misfortune (R. H. Smith et al., 2009; van Dijk et al., 2015). In intergroup relations, the most prototypical kind of comparison is based on group status (Sachdev & Bourhis, 1987). Hence, to the extent that a misfortune befalling an outgroup improves ingroup members' perceptions of their own group's social status relative to the status of other groups, intergroup schadenfreude will be experienced and communicated, thereby resulting in consequences that function to maintain and regulate the social hierarchy.

This thesis focused on the social functions of intergroup schadenfreude in responding to, and regulating, status differentials between groups. It comprised six studies on three different aspects of the social functionality of intergroup schadenfreude. Chapter 2 documented three studies which investigated the social distancing and social affiliation functions of intergroup schadenfreude. Chapter 3 reported two experimental studies using a novel paradigm to test whether intergroup schadenfreude is specifically related to the concern for social status such that it can be distinguished from other forms of pleasure. Chapter 4 presents a vignette-based experiment to test the social consequences of communicating intergroup schadenfreude to ingroup members.

The following section summarises the findings of each chapter. I then discuss the

implications of these findings for the understanding of schadenfreude and its social functionality and the methodological contributions of this line of work to schadenfreude research. Finally, I will present some concluding remarks on the limitations of the thesis and suggestions for future research.

Summary of Main Findings

The Social Functions of Experiencing Intergroup Schadenfreude

The first aim of this thesis was to examine the social consequences and functions of experiencing intergroup schadenfreude. I argued that intergroup schadenfreude would serve both social distancing and social affiliation functions, intended to regulate and maintain the ingroup's social hierarchy. This prediction was grounded in the social-functional account of emotion (Fischer & Manstead, 2008; Keltner & Haidt 1999), which implies that schadenfreude may serve a distancing function, emphasising the boundaries between groups and in turn protecting or enhancing the ingroup's social standing. Further, emotions which predominately serve a distancing function may also perform an affiliative function, depending on the person or group at which they are directed.

To test whether intergroup schadenfreude is related to changes in status, and whether it serves both social distancing and social affiliation functions to regulate and maintain status in the social hierarchy, I conducted three studies (Study 1 – Study 3, Chapter 2) assessing people's emotional responses to the outcomes of international

football tournaments. I predicted that the intensity of intergroup schadenfreude would be positively associated with improvement in participants' perception of their own team's status. Moreover, I hypothesised that experienced schadenfreude would be positively associated with perceived distance between the ingroup and the second-party outgroup (or negatively associated with liking of the second-party outgroup) and the intention to humiliate its members, thus serving a social distancing function. Further, I predicted that experienced schadenfreude would be positively associated with the intention to celebrate with other ingroup members, thus serving a social affiliation function.

Across three studies, I obtained mixed results concerning the associations between schadenfreude and improvement in perceived status. In Study 1, undergraduate students were asked to read vignettes about the England team losing in the 2012 European Champion and to rate the status of the England team relative to the Italy team, who eliminated England from the tournament. Participants then rated their feeling of schadenfreude toward Italy when Italy subsequently lost to Spain. However, the results showed no significant correlation between perceived status and schadenfreude. My explanation of this null finding was that participants in this study were not genuine football fans and had a low interest in the England team and football in general. Since domain interest plays an important role in the relationship between inferiority and schadenfreude (Leach et al., 2003), I attempted to address this issue by using samples of

genuine football fans in the subsequent two studies.

In Study 2, I recruited football fans supporting the England, Italy, and the Netherland teams during the 2014 FIFA World Cup in order to assess their emotional responses at the time when their national teams were eliminated by the second-party team and at the time when this rival subsequently lost to the third-party team. Unlike in Study 1, improvement in perceived status was significantly positively correlated with intergroup schadenfreude. In Study 3, I aimed to replicate this finding by assessing England football fans' retrospective emotional responses to news articles reporting the same events involving England and Uruguay (the second-party rival) that had been witnessed more directly by England supporters in Study 2. However, Study 3 found no significant association between perceived status and intergroup schadenfreude. Instead, there was a significant positive correlation between evaluation of performance and intergroup schadenfreude. This discrepancy in the findings of Studies 2 and 3 may have resulted from the difference in the contexts in which the research was carried out, leading participants to focus on the overall ranking of the team during the tournament in Study 2, but on the performance of the specific team described in the news excerpts in Study 3. (The next section will continue the discussion of the role that social status plays in intergroup schadenfreude.)

Moving to the social functions of experiencing intergroup schadenfreude, I

obtained evidence that intergroup schadenfreude was positively related to distance between the ingroup and the second-party outgroup (Study 1) and the intention to humiliate members of this team, and negatively related to liking of the second-party outgroup (Study 2 and Study 3). Further, intergroup schadenfreude mediated the effect of perceived status (Study 2) or performance evaluation (Study 3) on these hypothesised consequences, supporting the view that intergroup schadenfreude serves a social distancing function. By holding a negative attitude toward an outgroup, the ingroup can maintain its position in the social hierarchy because distancing from other outgroups helps ingroup members to develop negational identity (Zhong et al., 2008), and because dissociating from lower status outgroups is an efficient way to protect the group's identity (Gonzalez & Brown, 2006).

I also found that intergroup schadenfreude was consistently positively correlated with the intention to celebrate with other ingroup members (Study 1 to Study 3), and that schadenfreude mediated the effects of perceived status (Study 2) and performance evaluation (Study 3) on this intention, indicating that ingroup schadenfreude may serve a social affiliation function. This finding is consistent with research suggesting that celebration of an outgroup's misfortune can promote social bonding among ingroup members (Feyaerts & Oben, 2014). Further, it serves a status-enhancing function (McAndrew et al., 2007), helping group members to maintain the ingroup's status and

protect the group from future threat.

Taken together, the findings of Study 2 and Study 3 showed that intergroup schadenfreude is related to improvement in ingroup's status (or evaluation). These results are also consistent with previous research showing that intergroup schadenfreude is experienced when an outgroup's misfortune can mitigate prior pain of inferiority (Leach et al., 2003; Leach & Spears, 2008; 2009). Moreover, the results of Studies 1 to 3 provide novel evidence for the hypothesis that intergroup schadenfreude serves both social distancing and affiliation functions, which help the ingroup to maintain its standing in the social hierarchy.

Social Status as the Specific Cause of Intergroup Schadenfreude

The second aim of this thesis was to investigate whether social status constitutes the specific social-relational goal motivating intergroup schadenfreude and whether schadenfreude can be differentiated from other forms of pleasure in terms of its dependence on status goals. The results of Study 2 and Study 3 provided some evidence that intergroup schadenfreude relates to status concerns. However, further experimental work was needed to obtain direct evidence for the specificity of status concerns to intergroup schadenfreude and to establish causality rather than simply association.

Previous experimental studies of intergroup schadenfreude have not included a suitable control condition that allows comparison of the effects of status motives with the

effects of other motives for wanting another group to suffer a misfortune. In an intergroup competition, for example, people may want a third-party outgroup to win, thus simultaneously activating the wish for the targeted outgroup to lose. Thus, I developed an emotionally engaging paradigm to elicit intergroup schadenfreude in the laboratory and to manipulate status and non-status motives to test whether they selectively activated schadenfreude and victorious joy (i.e., feeling happy about the third party's victory), respectively.

The experiment adapted procedures from studies by Leach and Spears (2008) and involved an intercollegiate competition. Participants received bogus feedback about their performance and got eliminated at the initial stage. Later, they witnessed the targeted college (i.e., second-party outgroup) advancing to the final game, but then being defeated by another college (i.e., third-party outgroup). The concern for status was manipulated by having either the second-party college (high status motive) or another college (low status motive) eliminate the participants' college at the initial stage of the experiment. Thus, the second-party college's advancement should have been viewed as a more salient threat to ingroup's social status in the high status motive condition than in the low status motive condition because the second-party rival was more directly responsible for participant's elimination in the high status motive condition. To manipulate the motive for supporting the third-party outgroup, participants in the high instrumental motive condition (Studies

4 and 5) were told that they would be rewarded if the third-party college won in the final challenge, whereas those in the low instrumental motive condition received no such information (Study 4), or were told that they would be rewarded if the second-party rival won (Study 5). Thus, participants in the high instrumental motive condition should have felt more victorious joy about the third-party's victory than participants in the low instrumental motive condition. If intergroup schadenfreude depends specifically on the concern for status, then it should have been affected only by the status motive manipulation. Conversely, victorious joy should have been affected only by the instrumental motive manipulation.

In both studies, the status and instrumental motive manipulations were successful, suggesting that the novel paradigm could be used to manipulate different motives, including the concern for status, in a directly involving intergroup competition. However, the findings of both studies did not support the prediction that the concern for status would specifically influence intergroup schadenfreude whereas the motive for supporting the third-party college's victory would specifically influence victorious joy. Rather, the instrumental motive manipulation influenced both intergroup schadenfreude and victorious joy. I reasoned that the absence of any effect of status could have been due to participants focusing more on attaining the rewards than on improving the ingroup's status because the rewards were more salient in these studies. Indeed, there was an

interaction (Study 4) between status and instrumental motives in the multivariate analysis of variance using both intergroup schadenfreude and victorious joy as dependent variables. To disentangle this interaction, I conducted extra analyses and showed that after controlling for victorious joy, participants in the high status motive condition reported more schadenfreude than those in the low status motive condition, thus partially supporting the notion that status plays an important role in schadenfreude. Further, in Study 5, after controlling for the feeling of victorious joy, the main effect of instrumental motive on schadenfreude became non-significant, thus lending support for the argument that participants' emotional responses were predominantly derived from gaining the external rewards. However, these findings could also reflect contamination of the schadenfreude measure, which may in fact have assessed victorious joy instead of, or in combination with, the status-driven form of schadenfreude. Therefore, controlling for victorious joy also diminished the effects of instrumental motive on schadenfreude. Because of this alternative interpretation, my conclusion about the non-specificity of status in schadenfreude remains provisional.

The fact that gaining rewards was more salient to participants than improving ingroup's status may also help to explain why there were no effects of either manipulation on the antecedents of schadenfreude (e.g., inferiority, envy, perceived deservedness, and hostility) identified in Studies 1 to 3, or on the consequences of schadenfreude (e.g.,

dislike of the second-party outgroup and the intention to humiliate its member, and intention to celebrate with other ingroup members). These measures were designed to assess responses to the status-related outcomes of the competition rather than the possibility of getting rewards by luck, and this probably accounts for the lack of influence of the relatively stronger instrumental manipulation.

Overall, the current findings suggest that the concern for status may not be the only concern that is linked with schadenfreude. To the extent that a misfortune satisfies any of people's concerns, schadenfreude may be elicited. Such a conclusion would be consistent with the recent view that the appraisal of motivational congruence is the primary reason why people feel schadenfreude (van Dijk et al., 2015). In these two studies, gaining rewards was the most immediate concern for the participants and thus there were not any effects of status motive. Still, considering the evidence presented in Studies 2 and 3, social status may remain one of the social-relational goals that predict schadenfreude in other circumstances; to gain external rewards and to see the third-party win may also be motives that lead to schadenfreude in an intergroup competition. While this interpretation also implies that schadenfreude may not be distinguishable from victorious joy on the basis of underlying specific concerns, this does not negate the possibility they are two different kinds of emotions with specific characteristics. For example, they may be differentiable in terms of behavioural tendencies. Perhaps schadenfreude is linked to

the intention to humiliate the second-party outgroup (as demonstrated in Studies 1 to 3) whereas victorious joy may not result in a comparable tendency to humiliate (as shown in Study 6).

These two experimental studies constituted the first attempt to directly elicit intergroup schadenfreude in the laboratory using a novel paradigm. They tested whether social status was specifically linked with intergroup schadenfreude and whether it was differentiable from a closely related emotion, victorious joy. The results, however, failed to support my hypothesis, and showed that other non-status motives apparently induced both intergroup schadenfreude and victorious joy, supporting the notion that the appraisal of motivational congruence is the sole necessary condition for inducing intergroup schadenfreude, and that status concerns represent only one of the possible motives underlying this emotion.

Communicative Effects of Expressing Intergroup Schadenfreude

The final aim of this thesis was to examine the communicative functions of intergroup schadenfreude. As the social-functional account posits, emotional expressions serve important communicative functions in regulating and coordinating ongoing social interaction (Keltner & Haidt, 1999). Thus, the expression of intergroup schadenfreude should serve important communicative and social functions. Supporting this notion, Studies 1 to 3 (Chapter 2) all showed that intergroup schadenfreude was associated with

the intention to celebrate with other ingroup members. Further, the sharing of schadenfreude, often in the form of gossip, has been shown to serve a social bonding function in previous research (Feyaerts & Oben, 2014; McAndrew et al., 2007). Thus, I proposed that communicating intergroup schadenfreude within a group may serve a social affiliation function.

Study 6 (Chapter 4) aimed to assess the communicative effects of intergroup schadenfreude in facilitating social bonding and to investigate how ingroup identification might moderate these effects as predicted by IET. I asked England football fans to read tweets made by another supporter of the England team expressing either schadenfreude or victorious joy, and manipulated participants' level of identification by informing them that they were either highly or less highly involved with the team.

Guided by the Emotion as Social Information (EASI) theory (van Kleef, 2009), which posits that emotional expressions influence observers' emotional responses to, and inferences about, the displays, I had several predictions. First, I predicted that participants would feel more schadenfreude after reading tweets expressing schadenfreude than after reading tweets expressing victorious joy. Second, I predicted that participants' reactions to the schadenfreude tweets would differ from participants' reactions to the victorious joy tweets in the following ways: (1) schadenfreude tweets would be perceived as more motivated by intentions to affiliate with other England fans and to humiliate Uruguay fans;

(2) participants would evaluate the target as friendlier following the schadenfreude tweet; and (3) participants would affiliate more with, and distance themselves less from, the target following the schadenfreude tweet. Last but not least, I predicted that participants' ingroup identification would moderate these effects.

Only two of the findings directly supported my hypotheses. First, participants in the high-identification condition reported more schadenfreude than those in the low-identification condition following the schadenfreude tweet, suggesting that the sharing of intergroup schadenfreude led to emotional convergence among high identifiers. Second, the expression of schadenfreude was more likely to be perceived as intending to humiliate the second-party outgroup than the expression of victorious joy.

None of the findings supported the idea that the sharing of intergroup schadenfreude serves a social affiliation function. Instead, the recipients of expressed intergroup schadenfreude perceived the tweets as more malicious, and as intended to humiliate the second-party outgroup to a greater extent than did recipients of victorious joy expressions. Further, they evaluated the tweeter expressing intergroup schadenfreude to be relatively less friendly, and intended to distance themselves from him/her. These hypothesis-inconsistent findings can be explained in two possible ways. First, the expression of schadenfreude is generally socially undesirable and thus may lead to negative social consequences in the present context. Second, expressing victorious joy

may serve positive social functions to a greater extent than expressing schadenfreude.

Ingroup identification also did not moderate these effects as hypothesised, probably because the manipulation failed to affect reported identification as intended. Interestingly, there was no significant interaction between reported identification and emotion expressions, but there was a (near) significant interaction between manipulated identification and emotion expressions. This finding suggests that high identifiers may be more likely to engage in emotional self-stereotyping (cf. Leonard et al., 2011; Moons et al., 2009), conforming to what other ingroup members are feeling and regulating their own experiences of intergroup schadenfreude to match the existing emotional norms.

In sum, Study 6 opened up a new area for schadenfreude research, which involves investigating the communicative functions of intergroup schadenfreude. The results found no evidence for the proposition that sharing intergroup schadenfreude with other ingroup members strengthens social bonds. In contrast, the communication of intergroup schadenfreude resulted in consistently negative social consequences. The findings also demonstrated that the expression of intergroup schadenfreude provides recipients with potentially valuable information about the expresser's mental state and social intentions as well as about the existing emotional norm within the group, which, in turn, may influence recipients' regulation and experience of intergroup schadenfreude.

Predictors of Intergroup Schadenfreude

When investigating the social consequences of experiencing schadenfreude (Studies 1 to 3), and when using the experimental paradigm to directly elicit intergroup schadenfreude in the laboratory (Studies 4 and 5), I also assessed how well some of the antecedents identified in the literature (inferiority, envy, hostility toward the second-party outgroup, perceived deservedness of ingroup's inferiority) predicted intergroup schadenfreude in a variety of settings. I obtained consistent findings across Studies 1-5 that hostility toward the second-party outgroup was positively associated with schadenfreude. Inferiority or shame was (marginally) positively correlated with schadenfreude (Studies 2 to 5). The exception was Study 1, in which participants had low ingroup identification and low domain interest, making them less likely to feel inferior, and less likely to rely on the opportunity presented by the second-party's misfortune to relieve this pain.

Further, the perceived deservedness of ingroup's elimination from the tournament was negatively correlated with schadenfreude in most studies except for Studies 1 and 3. These inconsistencies, as discussed in Chapter 2, could be due to participants' low domain interest (Study 1) and their reappraisal of events prior to retrospection (Study 3), which might have led them to perceive ingroup's outcome in the tournament differently. Lastly, envy was not reliably positively associated with schadenfreude as expected. The

association was positive in Studies 2, 4 and 5, negative in Study1, and non-significant in Study 3. Similarly mixed effects of envy on schadenfreude have often been reported in previous literature (see, R. H. Smith et al., 2014, for a discussion). More precise measures that are capable of distinguishing malicious from benign envy may help to resolve these apparent consistencies, because these two factors have been shown to have opposite influences on schadenfreude (van de Ven et al., 2015).

In addition to the above antecedents, ingroup identification is also an important predictor of intergroup schadenfreude. This relationship is consistent with IET's prediction that identification determines the intensity of the emotions one experiences on behalf of the group (Mackie et al., 2004; E. R. Smith et al., 2007). However, my results did not consistently support this prediction. Ingroup identification was positively correlated with intergroup schadenfreude only in Study 3. Similar inconsistencies have been noted in prior schadenfreude research (see Combs et al., 2009; Leach et al., 2003). I argued that the absence of association in some of my studies may have been due to factors such as domain interest (van Dijk et al., 2015) and social context (Iyer & Leach 2008) moderating effects of identification on schadenfreude. As the studies conducted for this thesis employed different samples (students vs. football fans) and differed in the salience of the social context (e.g., real life vs. vignettes), the results might be less consistent than would otherwise be expected. Further, I used single-item measures to

assess general ingroup identification (Studies 1 – 3), and their potentially low reliability may have undermined their capacity to detect a significant association between ingroup identification and schadenfreude (see below for a further discussion). Relatedly, it has been suggested that the affective component of identification, referred to as solidarity (Leach et al., 2008) or affective commitment (Ellemers et al., 1999), is a more effective predictor of intergroup emotions (Iyer & Leach, 2008). Table 5.1 summarises the correlations among the variables described above across studies.

In sum, the findings regarding the antecedents of schadenfreude were generally consistent with existing evidence reported in the literature. The mixed results concerning the associations between ingroup identification and schadenfreude might be due to the limitations of using single-item measures and/or the moderating effects of domain interest and social context on their relationship. The next section highlights the contributions of this thesis.

Contributions

The Social Functionality of Intergroup Schadenfreude

The primary goal of this thesis was to investigate the social functions of intergroup schadenfreude experienced in response to status differentials. The approach to this work was guided by the social-functional account of emotion (Fischer & Manstead, 2008; Keltner & Haidt, 1999), which posits that emotions at the group level can help to solve

Table 5.1

Means, standard deviations and correlations among antecedents, schadenfreude and identification across Studies 1 – 6

		Study	*M* (*SD*)	1	2	3	4	5	6
1	Shame	Study 1	2.88 (2.07)	-	.15	-.12	-.08	-.11	.25†
		Study 2	3.59 (2.61)	-	.34***	.22*	.10	.31***	.21*
		Study 3	4.03 (2.33)	-	.21†	.33***	-.16	.30**	.30**
		Study 4	2.05 (1.89)	-	.52***	.34**	.02	.19†	-.05
		Study 5	2.91 (2.49)	-	.57***	.30**	.01	.20*	-.17
2	Envy	Study 1	2.57 (1.86)		-	-.26†	.13	-.25†	.33*
		Study 2	3.33 (2.44)		-	.15†	.06	.17†	.11
		Study 3	2.88 (2.23)		-	.32**	-.07	.14	.24*
		Study 4	2.83 (2.39)		-	.30**	.09	.41***	.21*
		Study 5	2.91 (2.48)		-	.39***	-.11	.30**	.01
3	Hostility	Study 1	3.65 (0.84)			-	-.16	.44**	-.08
		Study 2	4.04 (1.90)			-	-.31***	.62***	.14
		Study 3	2.98 (1.84)			-	-.22*	.57***	.33**
		Study 4	2.59 (1.44)			-	-.16	.28**	-.09
		Study 5	2.86 (1.43)			-	-.25**	.37***	.13
4	Deservedness	Study 1	4.12 (1.42)				-	-.17	-.14
		Study 2	3.80 (1.58)				-	-.26**	-.16†
		Study 3	4.38 (1.45)				-	-.14	-.09
		Study 4	4.83 (1.12)				-	-.24*	-.001
		Study 5	4.71 (1.37)				-	-.19*	.06
5	Schadenfreude	Study 1	3.87 (1.39)					-	.06
		Study 2	4.48 (1.65)					-	.11
		Study 3	4.09 (1.56)					-	.35**
		Study 4	2.91 (1.70)					-	-.02
		Study 5	2.77 (1.64)					-	.09
		Study 6	3.55 (1.57)					-	.09
6	T1/Initial identification	Study 1	3.45 (1.80)						-
		Study 2	4.95 (1.67)						-
		Study 3	4.37 (1.63)						-
		Study 4	5.19 (1.45)						-
		Study 5	5,35 (1.22)						-
		Study 6	4.74 (1.32)						-

N_{Study1} = 51, N_{Study2} = 129, N_{Study3} = 89, N_{Study4} = 90, N_{Study5} = 122, N_{Study5} = 84 $^{\dagger}p < .10$, $*p < .05$, $**p < .01$, $***p < .001$

various problems, including negotiating social status. My research (Studies 1 – 3) reported in this thesis, to my knowledge, presents the first evidence in the literature that

intergroup schadenfreude serves both social distancing and social affiliation functions in the regulation and maintenance of the social hierarchy. This also offers another perspective on debates about the morality of this emotion. Despite its common negative connotation and questions surrounding its importance, intergroup schadenfreude, just like other well-researched emotions such as anger, serves important functions in our social life.

Surprisingly, I found that recipients responded to another ingroup member's communication of intergroup schadenfreude with several socially undesirable outcomes (Study 6), thus opposing the affiliative function advocated by previous emotion researchers (Fischer, 2014), and supported by my own previous findings. However, it should be acknowledged that the social functionality of an emotion may not operate equivalently across all kinds of social situation. Instead, it is constrained by existing display rules governing the appropriateness of experiencing or expressing the emotion in question in a particular social-relational context (Evers et al., 2004; Fischer & Manstead, 2008). For example, contempt serves to exclude another person and reduce his or her status (Fischer & Roseman, 2007), but its distancing function also enhances interpersonal aggressiveness, although less so when the recipient is of lower status, possibly because he or she may view the contemptuous display as normative (Melwani & Barsade, 2011). Thus, distancing emotions such as contempt or schadenfreude can either be socially

functional or socially dysfunctional, depending on their appropriateness in a given social situation. In particular, schadenfreude is often expressed as humour (Buckley, 2014; Kuipers, 2014) and through gossiping (Foster, 2004) because people usually have similar beliefs about what constitutes an appropriate response in these contexts. Furthermore, the recipient should share the sender's interest in the target of schadenfreude, otherwise the pleasure of the misfortune will neither be understood nor lead to convergent emotions.

However, the double-edged nature of intergroup schadenfreude may also be socially advantageous. As Keltner and Haidt (1999) proposed, an important function of emotions at the group level is to define group boundaries and identify group members. The paradox inherited in intergroup schadenfreude may actually help to achieve this function; it helps group members to efficiently distinguish other ingroup members from other individuals. If, for example, the recipient responds favourably to a sender's (or multiple senders') displays of intergroup schadenfreude, he or she is more likely to share similar group affiliations. This is because, as explained earlier, positive responses to expressed intergroup schadenfreude require both the sender and the recipient to have the same expectations for normative behaviours, and to align their interests in intergroup relations. Both of these conditions are important indicators of whether people are identified with a group (Turner et al., 1987). Thus, group members can easily determine whether to include or exclude a person on the basis of how he or she responds to their

expressions of intergroup schadenfreude. I believe this is an interesting avenue for future research on the social functionality of intergroup schadenfreude.

Schadenfreude as a Specific Kind of Joy.

This thesis also sheds lights on the nature of intergroup schadenfreude. Firstly, it presents the first experimental evidence that intergroup schadenfreude is not necessarily evoked by the concern for status. To the extent that an outgroup's misfortune satisfies group members' concern, be it psychologically or materially, intergroup schadenfreude is evoked. This lends support to recent proposals that schadenfreude is not very different from other kinds of joy because all are induced by the appraisal of motivational congruence (van Dijk et al., 2015), and seems to disconfirm the narrower view that intergroup schadenfreude is not related to any material gain (Leach et al., 2015).

However, this should not be taken to imply that intergroup schadenfreude is necessarily the same as victorious joy. For example, people infer the intent of the expressions of intergroup schadenfreude and victorious joy differently (Study 6), indicating that there may be some nuanced differences between these emotions relating to the associated behavioural tendencies. Nevertheless, the idea that (intergroup) schadenfreude is based on the appraisal of motivational congruence implies that it may be difficult to differentiate intergroup schadenfreude from victorious joy purely on the basis of appraisals, as in the case of the present study. The reason is that the desire for a

party to win in a competition may simultaneously activates the desire for the other party to lose. Hence, group members are most likely to feel both intergroup schadenfreude and victorious joy when the outcome of an intergroup competition is congruent with their motivation. Indeed, it was evident that that both intergroup schadenfreude and victorious joy were moderately positively correlated with each other across studies (Study 4 – 6). Moreover, even though participants succeeded in distinguishing expressions of intergroup schadenfreude from expressions of victorious joy, their perception of victorious joy and their own experience of this emotion in response to the schadenfreude display (or vice versa) remained high. A possible way to tease apart intergroup schadenfreude and other forms of pleasure is to look into the consequences of these emotions. Indeed, using behavioural tendencies and social functions of emotions may help to classify phenomenologically similar emotions (Jacob-Dazarola, Nicolás, & Bayona, 2016), just as in the case of regret and disappointment (Zeelenberg et al., 2000).

The notion that discrete emotions may be characterised by their social consequences and functionalities also points to the fact that schadenfreude may be similar to contempt in two respects: first, they both share a negative attitude toward the inferior or worthless target (Fiske, Cuddy, & Glick, 2006), and second, they both serve a similar social distancing function (Fischer & Manstead, 2008). Indeed, schadenfreude has been considered as a blend of pleasure arising from downward comparison and contemptuous

feelings for the deserved inferior target (Smith, 2010). Its corresponding facial expression has also been viewed as a blend of contempt and joy (Kernberg, 1975). Together, schadenfreude's distancing function and its negative attitude toward the inferior target may suggest that, in additional to motivational congruence, schadenfreude may be characterised by a specific appraisal associated with a kind of contemptuous joy. Future studies should aim to test this perspective on schadenfreude and to directly compare the experience of schadenfreude with the experience of pure joy.

Methodological Contributions to Schadenfreude Research

The current thesis used a variety of methodologies to investigate the experience of intergroup schadenfreude in intergroup competitions. There are two important lessons for future schadenfreude research. First, I provided the first evidence that schadenfreude experienced in directly involving settings is phenomenologically comparable to that experienced in response to vignettes describing the same event. Both methods converge in showing that schadenfreude is predicted by the same set of antecedents and is associated with the same cluster of social consequences. Hence, my work helps to mitigate the concern about vignettes lacking social realism (cf. Parkinson & Manstead, 1993), and adds confidence to the continuing use of vignettes in evoking schadenfreude in research. However, I also found that the effects of ingroup identification on schadenfreude were not consistent across real-life and vignette-based studies. This

highlights the possibility that the methodologies used to elicit emotion may determine the richness of the social context and, in turn, moderate the effects of some predictors on intergroup schadenfreude.

The second lesson for future schadenfreude research arises from my development of an emotionally engaging paradigm capable of directly eliciting intergroup schadenfreude in the laboratory. Previous research has mainly relied on changing the order of information provided to the participants to compare experimental and control conditions (Leach et al., 2003; Leach & Spears, 2008). The downside of this type of manipulation is that it does not allow for direct comparison of different effects of the predictor under investigation on the intensity of the emotion. My paradigm therefore allows future schadenfreude researcher to systematically manipulate different aspects of an intergroup competition and see how they predict intergroup schadenfreude. Further, this paradigm is the first that allows participants to directly witness another outgroup suffering from a misfortune. This has the advantage of increasing the social realism of the experiment, hence resulting in more intense experience of intergroup schadenfreude in the laboratory.

Limitations

Several general limitations of this thesis are worth mentioning. First, I chose single items for measuring some of the constructs such as social status, group

identification, and antecedents of intergroup schadenfreude across studies because Study 2 was conducted in the field and required a short questionnaire to retain response rates. For consistency and comparison purposes, other studies also used the same items measuring the corresponding variables. While previous research has used single items to measure perceived status (e.g., Morrison, Fast, & Ybarra, 2010), identification (e.g., Perreault & Bourhis 1998), and discrete emotions (e.g., Gross & Levenson, 1993), and has suggested that single-item measures such as social identification (Postmes et al., 2013) are reliable and valid, they may still lack the sensitivity and stability to access the complexity of these variables. This drawback of single-item measures may in part explain why some of the measures such as status and identification did not consistently predict schadenfreude across studies. Indeed, the affective component of identification, referred to as solidarity (Leach et al., 2008) or affective commitment (Ellemers et al., 1999), has been shown to be a more reliable predictor of intergroup emotions (Iyer & Leach, 2008). Future research should use multiple items as well as specific subscales to assess the aforementioned constructs to verify the results presented in this thesis.

Second, I operationalised perceived social status as how highly people regard their own group in the social hierarchy (Studies 1 to 5) and complemented it with the measure of how group members evaluate the performance or competence of their own group in an intergroup competition (Studies 2 to 5). While they are closely related concepts (Fiske,

Cuddy, & Glick, 2007), I found that status and competence did not converge in their associations with schadenfreude (see Chapter 2) or in the extent to which they decreased following a threat to ingroup's identity (see Chapter 3). This may be due to the fact that these measures were chosen to reflect two possible definitions of status; one being that status is the prestige, respect, or social influence accorded by others (Ridgeway & Walker, 1995) and the other that status is the comparison between groups in valued domains (Tajfel & Turner, 1986). It is not clear under what conditions a particular conceptualisation of status may be more likely to predict the experience of schadenfreude. Future research is needed to clarify this issue.

The final general limitation pertains to the reliance on self-report to measure intergroup schadenfreude. Although the 5-item schadenfreude measure I used for this thesis was adapted from previous research (van Dijk et al., 2006) and was shown to be highly reliable across studies (Studies 1 to 6), the socially undesirable nature of schadenfreude might have led participants to respond to items in a more desirable way (cf. Smith et al., 2009). Furthermore, the use of self-report may be limited in distinguishing schadenfreude from apparently similar emotions such as victorious joy (as discussed in Chapter 4). For these reasons, future studies should complement results obtained from self-report measures with other implicit assessments over which people may have less control, such as facial movements (e.g., Boecker et al., 2015) and reaction

time (e.g., Pietraszkiewicz, 2013).

Future Directions

My discussion of the contribution of this thesis highlights the fact that intergroup schadenfreude serves important social functions in regulating the social hierarchy. Future research should build on this work and examine other social functions of intergroup schadenfreude and their implications for other aspects of intergroup relations. For instances, the social distancing function of intergroup schadenfreude may encourage group members to attain unique negational identities (Zhong et al., 2008), emphasising that their group's position is different from that of the other group suffering from a misfortune. Another interesting avenue, as discussed earlier in this chapter, is to investigate how intergroup schadenfreude may help group members to identify each other on the basis of sharing the same pleasure in seeing an outgroup's misfortune, and also to exclude individuals who do not feel the same.

In the course of this thesis, I have developed a novel experimental paradigm in which participants can witness an outgroup losing in a competition and directly experience intergroup schadenfreude about the event in the laboratory. Being a novel paradigm, additional evidence is needed to substantiate its effectiveness in manipulating status threat and thus evoking intergroup schadenfreude. In addition to status, the paradigm also allows researchers to manipulate various aspects of an intergroup

competition. For instance, it can be used to manipulate the deservedness of the ingroup's and the targeted outgroup's success and failure to illuminate the role of deservingness in intergroup schadenfreude. This is an area which has not yet received sufficient attention, despite a large body of research focusing on the role of deservingness in interpersonal schadenfreude.

Another important area for future research concerns the social and communicative functions of expressing intergroup schadenfreude. This covers two possible research areas. The first one pertains to the communicative functions of intergroup schadenfreude, consistent with recent suggestions by van Dijk and colleagues (2015). More research is needed to demonstrate the intragroup and intergroup effects of sharing schadenfreude with ingroup as well as the targeted outgroup members. For example, people may feel ashamed and may respond with aggression when schadenfreude is directed at the group to which they belong. The other research avenue involves identifying the prototypical expressions of schadenfreude. For example, it has been shown that schadenfreude-related laughter is distinguishable from other kinds of laugher (Szameit et al., 2009). Admittedly, this line of research would be challenging to conduct, considering that the expression of schadenfreude is typically suppressed in most social contexts (Leach et al., 2015) and that there may not be a facial expression specific to schadenfreude (Boecker et al., 2015). For these reasons, future research should extend to examine other potential expressions of

schadenfreude, including body gestures and verbal expressions, and their multimodal combinations. Also, researchers may test the possibility that a typical schadenfreude expression may not be characterised by its overt manifestation, but by the extent to which it is suppressed in accordance with existing display rules. I believe this line of work will provide valuable insights into whether intergroup schadenfreude can be distinguished from other conceptually similar emotions, such as joy and gloating, on the basis of emotional expression and suppression.

The last potential area of future research relates to the regulation of intergroup schadenfreude. As my findings suggest, people may upregulate or downregulate their feeling of intergroup schadenfreude when they perceive the need to emotionally conform to what other ingroup members are feeling (see Chapter 4). Building on this, further studies should aim to clarify when and why people regulate the experience of intergroup schadenfreude. Relatedly, I argued in Chapter 2 and 3 that people may differ in their ways of coping with social identity threat, thereby varying in their tendencies to experience intergroup schadenfreude. Further studies should explore these individual differences and their corresponding influences on intergroup schadenfreude.

Summary and Conclusion

This research program focused on the social functions of intergroup schadenfreude. I found that intergroup schadenfreude serves both social distancing and

social affiliation functions in the regulation of social hierarchy. Moreover, I used a novel experimental paradigm to directly elicit intergroup schadenfreude in the laboratory and to test the specific role of social status in generating intergroup schadenfreude. Finally, I have presented evidence that, while expressing intergroup schadenfreude may result in negative social consequences, the display of intergroup schadenfreude conveys rich social information and serves important communicative function. This thesis thus advances the schadenfreude literature both theoretically and methodologically, and generates novel insights for future research

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APPENDICES

Appendix A: Vignettes Used in Study 1

England's Elimination

Please read the below scenario and answer the questions related to the incident described.

Imagine that you support the England football team (whether or not you really do). Throughout the past few weeks, you have been watching England competing in the European Championship 2012. England did fairly well at the group stage of the event; they defeated Sweden and Ukraine and drew in their match against France. England came top of their group and proceeded to the quarterfinals. Below is a summary of results for Group D:

[The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at (http://www.uefa.com/uefaeuro/season=2012/standings/) *and was modified specifically for the current study.]*

England was drawn to play against Italy in the quarterfinal. The game was tightly fought; both teams evenly matched for much of the game. The score was 0-0 after extra time. Because the teams were still drawing after extra time, there was a penalty shoot-out, which Italy eventually won by 4-2. As a consequence, Italy proceeded to the semi finals, whereas England were eliminated from the tournament. Please click on the link below to watch highlights of the shootout.

*[The image originally presented here cannot be made freely available via ORA because of copyright. The image was a screen capture of 3news' report of the event (*www.newshub.co.nz*)]*

Schadenfreude Scenario

Please read this additional report about the European Champion 2012 and answer questions related to the incident described.

Italy advanced to the final of EURO 2012, where they played against Spain. Spain dominated the game in the final and ultimately beat Italy 4-0 to become the European Champion in the tournament. Please click on the link below to watch highlights of the game

[The image originally presented here cannot be made freely available via ORA because of copyright. The image was a screen capture of 3news' report of the event (www.newshub.co.nz)]

Appendix B: Items Used in Study 1

Demographics

1. What is your gender?
2. What is your age?
3. Are you a native English speaker?
4. If you are not a native English speaker, how long have you lived in an English speaking country (years)?
5. What is your country of origin?
6. What is your race/ethnicity?

Domain Interest

7. How interested are you in football? (1= not at all interested; 7= very interested)
8. How much do you know about the England football team? (1= not at all; 7= very much)
9. How much do you know about the European Champion 2012? (1= not at all; 7= very much)

T1 Pre-schadenfreude Measures

10. ***Emotions***

Please indicate the extent to which you feel the following emotions after reading the scenario. (0=not at all, 9=very much)

i. Amused
ii. Angry
iii. Annoyed
iv. Ashamed
v. Disappointed
vi. Embarrassed
vii. Envious
viii. Frustrated
ix. Happy
x. Jealous
xi. Pleased
xii. Proud
xiii. Regret
xiv. Relieved
xv. Sad
xvi. Satisfied

xvii. Sorry
xviii. Sympathetic
xix. Threatened

11. ***Deservingness***
    i. To what extent do you think England's defeat to Italy was deserved? (1= not at all deserved; 7= very deserved)
    ii. To what extent do you think England's defeat to Italy was unfair? (1= not at all unfair; 7=very unfair)
12. ***Identification***
    i. How strongly do you identify with the England team? (1= not at all identified; 7= very strongly)
13. ***Perceived relative status/ Perceived competence***
    i. How competent is the England team compared to the Italy/Spain team? (1= much less competent; 4=more or less the same; 7=much more competent)
    ii. To what extent does the England team have higher status than the Italy team? (1= much lower; 4=more or less the same; 7= much higher)
14. ***Other items***
    i. How similar is the England team to the Italy team? (1= not at all similar; 7= very similar)
    ii. Would you prefer to be a fan of Italy than England? (1= not at all; 7= very much)

We would like you to consider your immediate responses as a fan of England after reading the scenario about England's defeat to Italy. There are no right or wrong answers; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale: (1=strongly disagree; 7=strongly agree)

15. ***Collective Self-esteem Scale (adapted from Luhtanen & Crocker, 1992)***
    i. I regret that I am an England fan.
    ii. The England team will now be considered good by others.
    iii. I'm glad to be an England fan.
    iv. Most people will now consider England to be less capable than other teams.
    v. I feel that England is not a worthy team.
    vi. Others will now respect the England team.
    vii. I feel good being an England fan.
    viii. Others will now think that the England team is unworthy.
    ix. I think the England team has little to be proud of.
    x. I feel good about the England team.
    xi. I have little respect for the England team.
    xii. I would rather not tell other people that I am an England fan.

xiii. I would like to continue supporting the England team.

xiv. I dislike being an England fan.

xv. I would rather be a fan of other teams.

16. ***Envy (adapted from van Dijk et al., 2006)***

i. I would like the England team be in Italy's position.

ii. I feel less good when I compare England's performance with that of Italy.

17. ***Hostility toward Italy (adapted from van Dijk et al., 2006)***

i. I hate the Italy team.

ii. I have a feeling of contempt for the Italy team.

iii. I dislike the Italy team.

18. ***State Self-esteem Scale (Heatherton & Polivy, 1991)***

We would like you to consider your immediate reactions after reading the scenario about England's defeat to Italy and respond to the following statements using the following scale: (1=strongly disagree; 7=strongly agree)

i. I feel like a failure.

ii. I feel good about myself.

iii. I have nothing to be proud of.

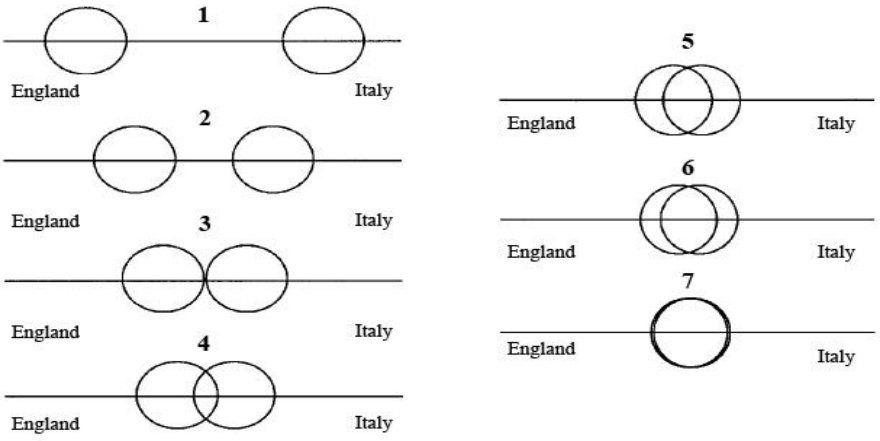
iv. I am worried about what other people think of me.

v. I feel inferior to others at this moment.

vi. I am satisfied about myself.

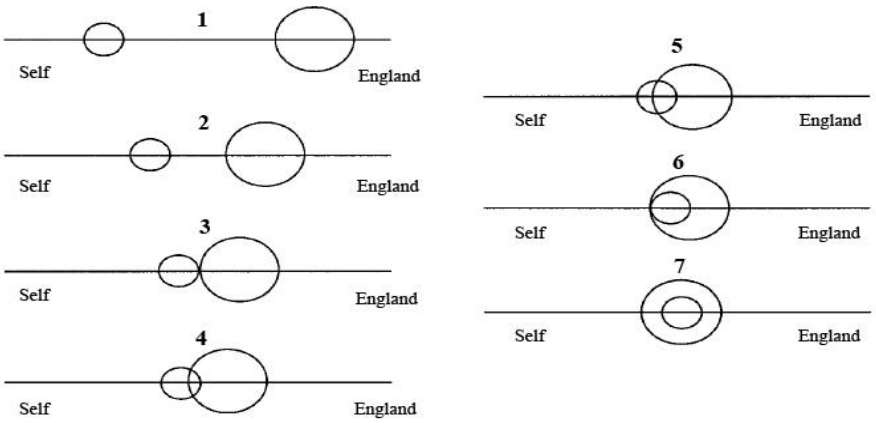
19. ***Overlap of Self, Ingroup, and Outgroup Scale (Schubert & Otten, 2002)***

i. Below are pictures which show how close the relationship is between the England team and the Italy team. The closer the circles, the closer you feel the two groups are.



Which of the above picture best describes how close you feel the England team is to the Italy team? Select the number below.

ii. Below are pictures which describe how close you feel to the [England/Italy] team. The closer the circles, the closer you feel you and the [England/Italy] team are.



Which of the above picture best describes how close you yourself are to the [England/Italy] team? Select the number below

T2 Post-schadenfreude Measures

20. ***Emotions***

Please indicate the extent to which you feel the following emotions after reading the scenario. (0=not at all; 9=very much)

i. See Q10

21. ***Deservingness***

i. To what extent do you think Italy's defeat to Spain was deserved? (1= not at all deserved; 7= very deserved)

ii. To what extent do you think Italy's defeat to Spain was unfair? (1= not at all unfair; 7=very unfair)

22. ***Identification***

i. How strongly do you identify with the England team? (1=not at all; 7=very strongly)

ii. How much do you like the Spain team? (1=not at all; 7=very much)

23. ***Perceived relative status/ Perceived competence***

i. How competent is the England team compared to the [Italy/Spain] team? (1= much less competent; 4=more or less the same; 7=much more competent)

ii. To what extent does the England team have higher status than the [Italy/Spain] team? (1= much lower; 4=more or less the same; 7= much higher)

24. ***Other items***

i. Would you prefer to be a fan of [Italy/Spain] than England? (1= not at all; 7= very much)
ii. How similar is the England team to the [Italy/Spain] team? (1= not at all similar; 7= very similar)

We would like you to consider your immediate responses as a fan of England after reading the report about Italy's defeat to Spain. There are no right or wrong answers; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale: (1=strongly disagree, 7=strongly agree)

i. See Q15-18

We would like you to consider your immediate reactions as an England fan after reading the report about Italy's defeat to Spain. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please indicate the extent to which you agree or disagree with the following statements. (1=strongly disagree; 7=strongly agree)

25. ***Schadenfreude (adapted from van Dijk et al., 2006)***
    i. I enjoyed what happened to the Italy team.
    ii. I am satisfied with what happened to the Italy team.
    iii. I am amused by what happened to the Italy team.
    iv. I couldn't resist a little smile.
    v. I actually had to laugh a little bit.
26. ***Sympathy (adapted from van Dijk et al., 2006)***
    i. I feel sorry for what happened to the Italy team.
    ii. I sympathize with the Italy team.
    iii. Intention to celebrate with
27. ***Intention to celebrate with ingroup members***
    i. I want to share the news with other fans of the England team.
    ii. I want to celebrate with other fans of the England team.
28. ***Intention to humiliate members of the second-party***
    i. I want to humiliate the Italy fans.
    ii. I want to embarrass the Italy fans.
    iii. I want to cheer in front of the Italy fans.
29. ***Intention to express sympathy***
    i. I want to offer encouragement to the Italy fans.
    ii. I want to comfort the Italy fans.
    iii. I want to hide my true feelings from the Italy fans.

30. ***Other items***

i. I hope similar things happened to the Italy team in the future.

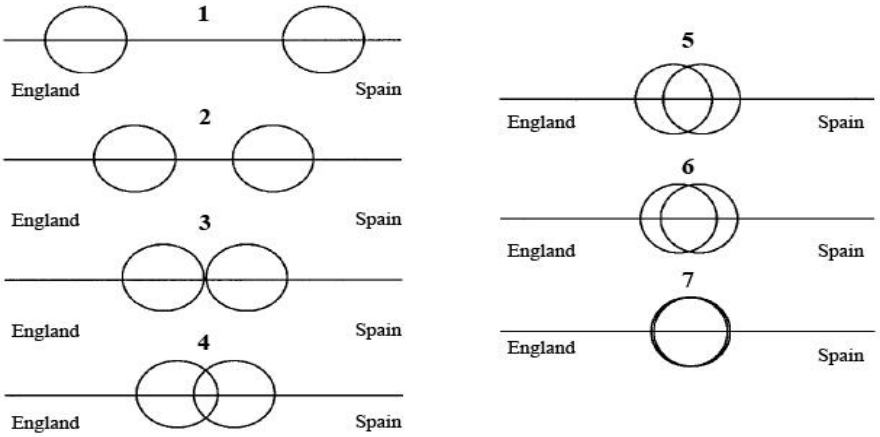
ii. I am hoping that the Italy team will lose again in future.

iii. This is a good revenge for the Italy team.

iv. This is a good punishment for the Italy team.

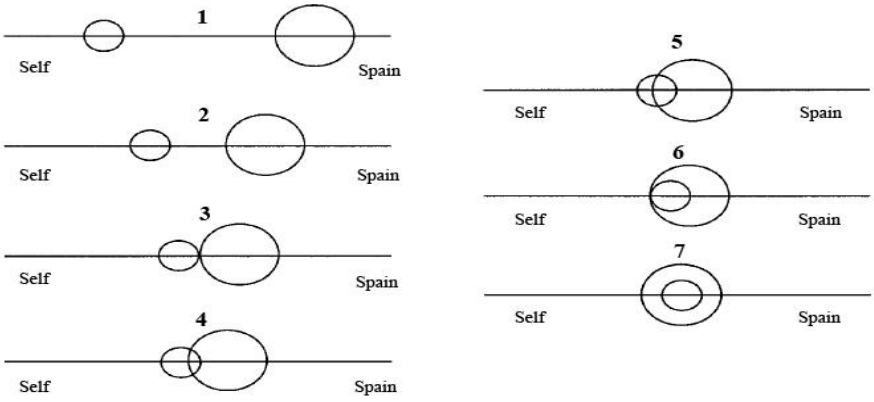
31. ***Overlap of Self, Ingroup, and Outgroup Scale (Schubert & Otten, 2002)***

i. Below are pictures which show how close the relationship is between the England team and the [Italy/Spain] team after Spain winning the tournament. The closer the circles, the closer you feel the two groups are.



Which of the above picture best describes how close you feel the England team is to the [Italy/Spain] team? Select the number below (1-7)

ii. Below are pictures which describe how close you feel to the [Italy/Spain] team after Spain winning the tournament. The closer the circles, the closer you feel you and the [Italy/Spain] team are.



Which of the above picture best describes how close you yourself feel to the [Italy/Spain] team? Select the number below (1-7)

Appendix C: Items Used in Study 2

Demographics

1. What is your gender?
2. What is your age?
3. What is your country of origin?

Domain Interest

4. How interested are you in football? (1=not at all interested; 7=very interested) Which team do you support in the World Cup?
5. How much do you know about the [England/ Italy/ The Netherlands] team? (1=nothing; 7=a very great deal)
6. How important is it to you that the [England/ Italy/ The Netherlands] team win in this year's World Cup? (1=not at all important; 7=very important)
7. How closely are you intending to follow the World Cup, regardless of how your favourite team performs? (1=not at all closely; 7=very closely)

Baseline Liking

8. How much do you like the [England/ Italy/ The Netherlands] team? (1=not at all; 7=very much)
9. How much do you like the following teams? (1=not at all; 7=very much)
    i. Argentina
    ii. Belgium
    iii. Brazil
    iv. Colombia
    v. England
    vi. France
    vii. Germany
    viii. Italy
    ix. Portugal
    x. Spain
    xi. The Netherlands
    xii. Uruguay

Baseline Identification (adapted from Doosje et al., 1995)

10. Please indicate the extent to which you agree with the following statements. (1 = strongly disagree; 7=strongly agree)

i. I see myself as a fan of the [England/ Italy/ The Netherlands] team.
ii. I am pleased to be a fan of the [England/ Italy/ The Netherlands] team.
iii. I identity with other fans of [England/ Italy/ The Netherlands] team.
iv. I feel strong ties with the [England/ Italy/ The Netherlands] team.

T1 Pre-Schadenfreude Measures

11. Did you watch the match between [England/ Italy/ The Netherlands] and [Uruguay/ Argentina]?
12. Are you aware of the outcome of the match between [England/ Italy/ The Netherlands] and [Uruguay/ Argentina]?
13. How involved did you feel in the game between [England/ Italy/ The Netherlands] and [Uruguay/ Argentina]? (1=not at all involved; 7=very involved)
14. ***Emotions***

    Below are some common emotions football fans experienced after learning the outcomes of a game. Please indicate the extent to which you feel these emotions after knowing the outcome of the match between [England/ Italy/ The Netherlands] and [Uruguay/ Argentina]. (0=not at all; 9=very much)

    i. Angry
    ii. Ashamed
    iii. Disappointed
    iv. Embarrassed
    v. Envious
    vi. Happy
    vii. Relieved
    viii. Satisfied
    ix. Sorry
15. ***Deservingness***
    i. To what extent do you think [England/ Italy/ The Netherlands]'s defeat to [Uruguay/ Argentina] was deserved? (1=not at all deserved; 7=very deserved)
16. ***Identification***
    i. How strongly do you identify with the [England/ Italy/ The Netherlands] team? (1=not at all strong; 7= very strongly)
17. ***Perceived status/ Performance evaluation***
    i. Please rate how good you think the following teams are: (1=not at all good; 7=very good)
        a. [England/ Italy/ The Netherlands]
        b. [Uruguay/ Argentina]

ii. Please rate how highly you regard the following teams: (1=very low; 7=very high)
    a. [England/ Italy/ The Netherlands]
    b. [Uruguay/ Argentina]

18. ***Liking/Closeness***
    i. Please rate how much you like the following teams: (1=not at all; 7=very much)
        a. [England/ Italy/ The Netherlands]
        b. [Uruguay/ Argentina]
    ii. Please rate how close you feel fans of [England/ Italy/ The Netherlands] are to the fans of the following team: (1=not at all close; 7=very close) :
        a. [Uruguay/ Argentina]

Please indicate the extent to which you agree with the following statements: (1=strongly disagree; 7=strongly agree)

19. ***Envy (adapted from van Dijk et al., 2006)***
    i. I am envious of the [Uruguay/ Argentina] team's advancement.
20. ***Hostility toward second-party outgroup (adapted from van Dijk et al., 2006)***
    i. I dislike the [Uruguay/ Argentina] team.
21. ***Collective self-esteem (adapted from Luhtanen & Crocker, 1992)***
    i. I regret that I am a [England/ Italy/ The Netherlands] fan.
    ii. I'm glad to be a [England/ Italy/ The Netherlands] fan.
    iii. Others will now respect the [England/ Italy/ The Netherlands] team.
    iv. Others will now think that the [England/ Italy/ The Netherlands] team is unworthy.

T2 Post-schadenfreude Measures

22. Did you watch the match between [Uruguay/ Argentina] and [Colombia/ Germany]?
23. Are you aware of the outcome of the match between [Uruguay/ Argentina] and [Colombia/ Germany]?
24. How involved did you feel in the game between [Uruguay/ Argentina] and [Colombia/ Germany]? (1=not at all involved; 7=very involved)
25. ***Emotions***

    Below are some common emotions football fans experienced after learning the outcome of a game. Please indicate the extent to which you feel these emotions after learning the outcome of the match between [Uruguay/ Argentina] and [Colombia/ Germany]. (0=not at all; 9=very much)

    i. See Q14

26. ***Deservingness***
    i. To what extent do you think [Uruguay/ Argentina]'s defeat to [Colombia/ Germany] was deserved? (1=not at all deserved; 7=very deserved)
27. ***Identification***
    i. How strongly do you identify with the [England/ Italy/ The Netherlands team? (1=not at all strong; 7= very strongly)
28. ***Perceived relative status/ Performance evaluation***
    i. Please rate how good you think the following teams are: (1=not at all good; 7=very good)
        a. [England/ Italy/ The Netherlands]
        b. [Uruguay/ Argentina]
        c. [Colombia/ Germany]
    ii. Please rate how highly you regard the following teams: (1=very low; 7=very high)
        a. [England/ Italy/ The Netherlands]
        b. [Uruguay/ Argentina]
        c. [Colombia/ Germany]
29. ***Liking/ Closeness***
    i. Please rate how much you like the following teams: (1=not at all; 7=very much)
        a. [England/ Italy/ The Netherlands]
        b. [Uruguay/ Argentina]
        c. [Colombia/ Germany]
    ii. Please rate how close you feel fans of [England/ Italy/ The Netherlands is to the fans of the following team: (1=not at all close; 7=very close)
        a. [Uruguay/ Argentina]
        b. [Colombia/ Germany]

Please indicate the extent to which the following statements. (1=strongly disagree; 7=strongly agree)

30. ***Envy (adapted from van Dijk et al., 2006)***
    i. I am envious of the [Uruguay/ Argentina] team.
    ii. I am envious of the [Colombia/ Germany] team.
31. ***Collective self-esteem***
    i. See Q21

32. ***Schadenfreude (adapted from van Dijk et al., 2006)***
    i. I enjoyed seeing [Uruguay/ Argentina] losing to [Colombia/ Germany].
    ii. I was amused by [Uruguay/ Argentina]'s loss.

iii. I felt satisfied that [Uruguay/ Argentina] lost to [Colombia/ Germany].

iv. I couldn't resist a little smile when [Uruguay/ Argentina] lost to [Colombia/ Germany].

v. I actually had to laugh a little about [Uruguay/ Argentina]'s defeat.

33. ***Sympathy***

I felt sorry for what happened to the [Uruguay/ Argentina] team.

34. ***Intention to celebrate with ingroup fans***

i. I wanted to share the news with other fans of [England/ Italy/ The Netherlands.

ii. I wanted to celebrate with other fans of [England/ Italy/ The Netherlands].

35. ***Intention to humiliate fans of the second-party team***

i. I wanted to humiliate fans of [Uruguay/ Argentina]. (1=strongly disagree; 7= strongly agree)

ii. I would have liked to emphasise to [Uruguay/ Argentina]'s fans how embarrassing their loss was.

36. ***Intention to congratulate fans of the third-party team***

i. I wanted to congratulate fans of [Colombia/ Germany] about their team's victory.

Appendix D: News Articles Used in Study 3

England's Elimination

Below are excerpts from several news stories reporting England's matches at the 2014 World Cup. Please read the articles carefully and answer the questions about your emotional responses and attitudes toward the event when requested.

Article 1

Date: 15 June, 2014

[The text and images originally presented here cannot be made freely available via ORA because of copyright. The text and images were sourced at (http://www.itv.com/worldcup/highlights/world-cup-highlights-and-match-report-england-italy) and were modified specifically for the current study]

As It Stood Table (after England vs. Italy)

Position		Team	Played	Won	Drew	Lost	Goals For	Goals Against	Goals Difference	Points
1	–	Costa Rica	1	1	0	0	3	1	2	3
2	▲	Italy	1	1	0	0	2	1	1	3
3	–	Uruguay	1	0	0	1	1	2	-1	0
4	▼	England	1	0	0	1	1	3	-2	0

Article 2

Date: 19 June, 2014

[The text and images originally presented here cannot be made freely available via ORA because of copyright. The text and images were sourced at (http://www.dailymail.co.uk/sport/worldcup2014/article-2661385/Uruguay-vs-England-World-Cup-2014-LIVE-Follow-Three-Lions-second-Group-D-match-Sao-Paulo.html) and were modified specifically for the current study].

As It Stood Table (after England vs. Uruguay)

Position		Team	Played	Won	Drew	Lost	Goals For	Goals Against	Goals Difference	Points
1	–	Costa Rica	1	1	0	0	3	1	2	3
2	–	Italy	1	1	0	0	2	1	1	3
3	▲	Uruguay	2	1	0	1	3	4	-1	3
4	▼	England	2	0	0	2	2	4	-2	0

Article 3

Date: 20 June, 2014

[The text and images originally presented here cannot be made freely available via ORA because of copyright. The text and images were sourced at (http://www.bbc.co.uk/sport/0/football/27935803) and were modified specifically for the current study.]

As It Stood Table (after Costa Rica vs. Italy)

Position		Team	Played	Won	Drew	Lost	Goals For	Goals Against	Goals Difference	Points
1	–	Costa Rica	2	2	0	0	4	1	3	3
2	–	Italy	2	1	0	1	2	2	0	3
3	▲	Uruguay	2	1	0	1	3	4	-1	3
4	▼	England	2	0	0	2	2	4	-2	0

Schadenfreude Scenario

Please read this additional report about the World Cup 2014 and answer the questions related to the incident described.

[The text and images originally presented here cannot be made freely available via ORA because of copyright. The text and images were sourced at (https://www.nytimes.com/interactive/2014/06/28/sports/worldcup/world-cup-colombia-vs-uruguay.html) and were modified specifically for the current study.]

Appendix E: Items Used in Study 3

Demographics

1. What is your gender?
2. What is your age?
3. What is your country of origin?
4. What is your country of residence?

Domain Interest

5. How interested are you in football? (1=not at all interested; 7=very interested)
6. Which team did you support in the World Cup 2014?
7. How much do you know about the England team? (1=nothing; 7=a very great deal)
8. How closely did you follow the World Cup? (1=not at all closely; 7=very closely)
9. How much do you know about the World Cup 2014? (1=nothing; 7= a very great deal)

Baseline Measures

10. ***Liking***
    i. How much do you like the England team? (1=not at all; 7=very much)
11. ***Identification***
    i. See Appendix C, Q10

T1 Pre-schadenfreude Measures

12. How carefully did you read the news articles? (1=not at all carefully; 7= very carefully)
13. ***Emotions***
    Please indicate the extent to which you feel the following emotions after reading the news about [England's defeat to Uruguay] (0=not at all, 9=very much)
    i. See Appendix B, Q10
14. ***Identification***
    i. How strongly do you identify with the England team? (1=not at all strongly; 7=very strongly)
15. ***Liking***
    i. How much do you like the [England/Uruguay] team? (1=not at all; 7=very much)
16. ***Deservingness***

i. To what extent did England deserve to lose against Uruguay? (1=not at all deserved; 7=very deserved)

17. ***Perceived status/ performance evaluation***
    i. How good a team do you think [England/ Uruguay] are? (1=not at all good; 7=very good)
    ii. How highly do you regard the [England/ Uruguay] team? (1=very low; 7=very highly)
18. ***Closeness/ Similarity***
    i. Please rate how emotionally close you feel fans of the England team is to fans of the Uruguay team. (1=not at all close; 7=very close)
    ii. Please rate how similar you feel fans of the England team is to fans of the Uruguay team. (1=not at all similar; 7=very similar)
19. ***Collective self-esteem***

    Please indicate the extent to which the following statements describe your reactions after reading the news about England's defeat to Uruguay. There are no right or wrong answers; we are interested in your honest reactions and opinions. (1=strongly disagree; 7=strongly agree)

    i. See Appendix B, Q15

Please indicate the extent to you agree with the following statements. They describe your reactions to England's defeat to Uruguay. There are no right or wrong answers; we are interested in your honest reactions and opinions. (1=not at all; 7=very much)

20. ***Group self-esteem***
    i. See Appendix B, Q16
21. ***Envy (adapted from van Dijk et al., 2006)***
    i. I would like the England team be in Uruguay's position.
    ii. I feel less good when I compare England's performance with that of Uruguay.
22. ***Hostility toward Uruguay (adapted from van Dijk et al., 2006)***
    i. I hate the Uruguay team.
    ii. I have a feeling of contempt for the Uruguay team.
    iii. I dislike the Uruguay team.

T2 Pre-schadenfreude Measures

23. How carefully did you read the news articles? (1=not at all carefully; 7= very carefully)
24. ***Emotions***

    Please indicate the extent to which you feel the following emotions after reading the news about Italy's defeat to Colombia. (0=not at all; 9=very much)

i. See Appendix B, Q10

25. ***Identification***
    i. How strongly do you identify with the England team? (1=not at all strongly; 7=very strongly)
26. ***Liking***
    ii. How much do you like the [England/Uruguay/Colombia] team? (1=not at all; 7=very much)
27. ***Deservingness***
    i. To what extent did Uruguay deserve to lose against Colombia? (1=not at all deserved; 7=very deserved)
28. ***Perceived status/ performance evaluation***
    i. How good a team do you think [England/Uruguay/Colombia] are? (1=not at all good; 7=very good)
    ii. How highly do you regard the [England/Uruguay/Colombia] team? (1=very low; 7=very highly)
29. ***Closeness/ Similarity***
    i. Please rate how emotionally close you feel fans of the England team is to fans of the [Uruguay/ Colombia] team. (1=not at all close; 7=very close)
    ii. Please rate how similar you feel fans of the England team is to fans of the [Uruguay/ Colombia] team. (1=not at all similar; 7=very similar)
30. ***Collective self-esteem***

    Please indicate the extent to which the following statements describe your reactions after reading the news about Italy's defeat to Colombia. There are no right or wrong answers; we are interested in your honest reactions and opinions. (1=strongly disagree; 7=strongly agree)

    i. See Appendix B, Q15

Please indicate the extent to you agree with the following statements. They describe your reactions to England's defeat to Uruguay. There are no right or wrong answers; we are interested in your honest reactions and opinions. (1=not at all; 7=very much)

31. ***Group self-esteem***
    i. See Appendix B, Q16
32. ***Envy***
    i. See Q21
33. ***Hostility toward [Uruguay/Colombia]***
    i. See Q22

Please indicate the extent to which the following statements describe your reactions after reading the report about Uruguay's defeat to Colombia. There are no right or wrong answers; we are interested in your honest reactions and opinions. Remember that your responses are confidential and anonymous. (1=strongly disagree; 7=strongly agree)

34. **Schadenfreude**
    i. See Appendix C, Q32
35. **Sympathy**
    i. I sympathised with the Uruguay team.

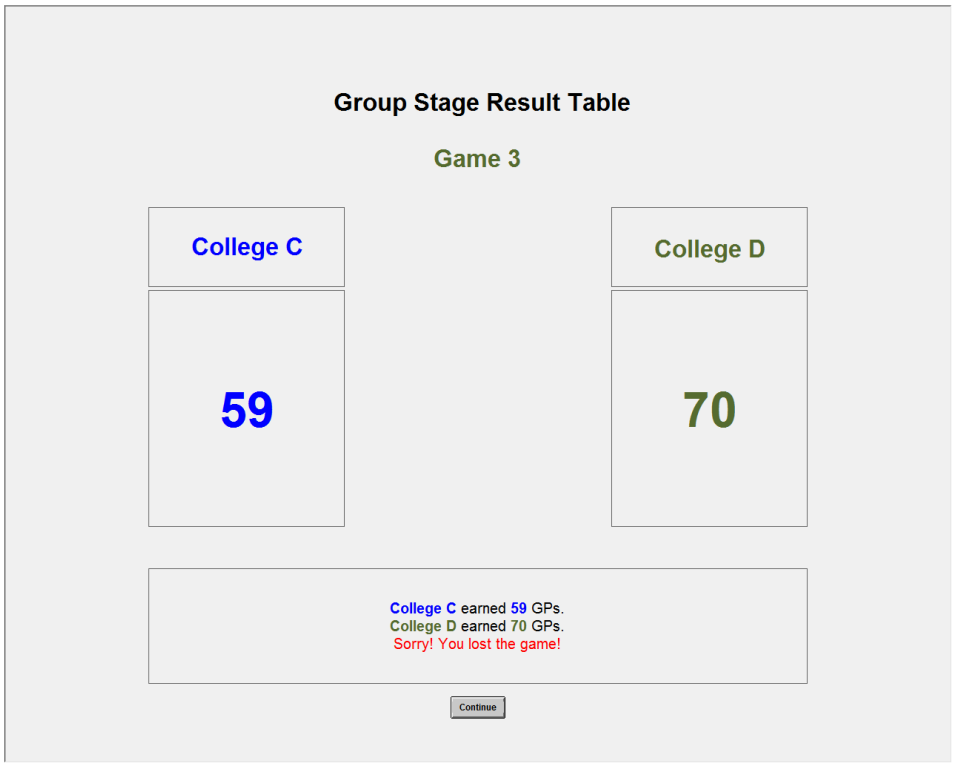
Here are some things you may have felt like doing in response to the result of the Uruguay-Colombia match. Please rate the extent to which you experienced each of these possible reactions. (1=strongly disagree; 7=strongly agree)

36. ***Intention to celebrate with England fans***
    i. See Appendix C, Q34
37. ***Intention to humiliate Uruguay fans***
    i. I would have liked to cheer in front of Uruguay fans.
    ii. I would have liked to emphasise to the Uruguay fans how embarrassing their loss was.
38. ***Intention to congratulate Colombia fans***
    i. I would have like to cheer with Colombia fans.
    ii. I wanted to congratulate Colombia fans for their victory.
    iii. I wanted to share my positive impressions of Colombia's performance in this match.
39. ***Intention to express sympathy***
    i. I would have liked to comfort Uruguay fans.
    ii. I would have liked to offer encouragement to Uruguay fans.

Appendix F: Intercollegiate Competition in Study 4

Bogus Performance Feedback of Game 3 at the Group Stage.

Example: High status motive condition.



Bogus Performance Feedback after Game 3 at the Group Stage

Example: High status motive condition.

Group Result Table:

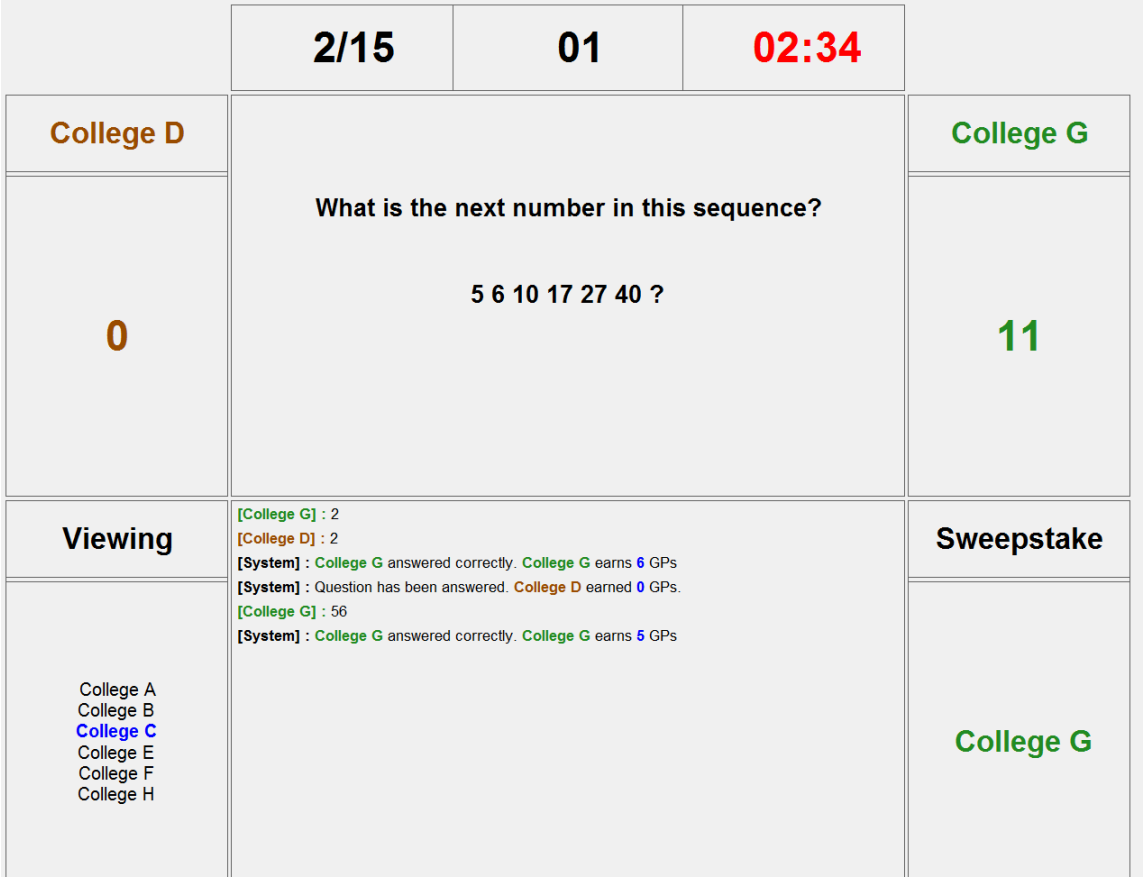
After Game3

Group I

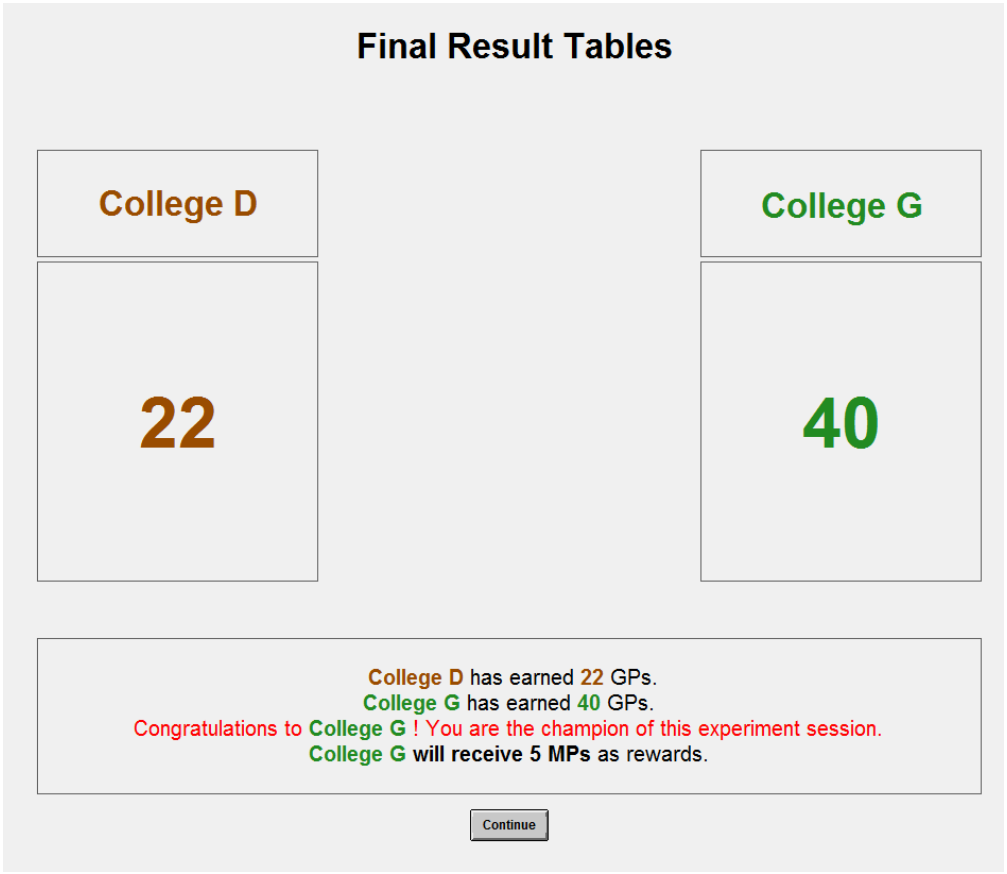
Rank	College	Win	Draw	Loss	Game Points	Match Points
1	College D	2	1	0	207	7
2	College C	1	1	1	194	4
3	College F	1	0	2	186	3
4	College H	0	2	1	179	2

Final Challenge

Example: High instrumental motive condition.



Results of the Final Challenge



Appendix G: Items used in Study 4

Demographics

1. What is your gender?
2. What is your age
3. What is your race/ethnicity?

Domain Interest

4. How important is intelligence to you? (1 =not at all important; 7 =very important)

Baseline Identification

5. How strongly do you identify with your college? (1 =not at all; 7 =very strongly)
6. ***Identification scale (adapted from Doosje et al., 1995)***

   Please read each of the following statements carefully, and respond by using the following scale: (1=strongly disagree; 7=strongly agree)

   i. I see myself as a member of my college.
   ii. I am pleased to be in my college.
   iii. I identify with other members of my college.
   iv. I feel strong ties with my college.

Group-stage Game Measures

Based on the game you have just played, please answer the following questions:

7. How satisfied are you about your performance in the previous game? (1=not at all satisfied; 7=very satisfied)
8. In your opinion, how likely is it that each of the following colleges in your group will qualify for the final challenge?

   i. College C
   ii. College D
   iii. College F
   iv. College H
9. How important is the next match to your chances of qualifying for the final challenge? (1=not at all unimportant; 7=very important)

T1 Pre-schadenfreude Measures

10. Which college from your group qualifies for the final stage?
11. How satisfied are you about the final outcome for your college? (1=not at all satisfied; 7=very satisfied)
12. ***Emotions***

    To what extent do you feel the following emotions about the outcome of the group-

stage? (0=not at all; 9=very much)

i. See Appendix B, Q10

In the following questions, we will refer the college from your group which qualifies for the final challenge "The Top College". Now, please think about the results at the group stage and answer the following questions:

13. Did you win/draw/lose in the competition against Top College?
14. ***Deservingness***
    i. To what extent did your college deserve the outcome it received at the group stage? (1 =not at all deserved; 7 =very deserved)
    ii. To what extent was the outcome for your college fair? (1 =not at all fair; 7 =very fair)
    iii. To what extent did the Top College deserve to qualify for the final stage? (1 =not at all deserved; 7 =very deserved)
    iv. To what extent was the outcome for the Top College fair? (1 =not at all fair; 7 =very fair)
15. ***Identification***
    i. How strongly do you identify with your college? (1 =not at all; 7 =very strongly)
16. ***Perceived relative status/ Perceived relative competence***
    i. How competent is your college compared to the Top College? (1= much less competent; 4=more or less the same; 7=much more competent)
    ii. In general, how competent is your college compared to other colleges? (1= much less competent; 4=more or less the same; 7=much more competent)
    iii. To what extent does your college have higher status than the Top College? (1=much lower; 4=more or less the same; 7=much higher)
    iv. To what extent, in general, does your college have higher status than other colleges? (1=much lower; 4=more or less the same; 7=much higher)
17. ***Other items***
    i. Would you prefer to represent the Top College than your college? (1 =not at all; 7 =very much)
    ii. How similar is your college to the Top College? (1=not at all similar; 7=very similar)
18. ***State Self-esteem Scale (Heatherton & Polivy, 1991)*** (1=strongly disagree; 7=strongly agree)
    i. See Appendix B, Q20

We would like you to consider your immediate reactions as a member of your college

toward the Top College after the group stage. There are no right or wrong answers; we are interested in your honest reactions and opinions. Please read each statement carefully and respond by using the following scale: (1=strongly disagree; 7=strongly agree).

19. ***Envy (adapted from van Dijk et al., 2006)***
    i. I would like my college be in the Top College's position.
    ii. I feel less good when I compare my college's performance with that of the Top College.
    iii. I am jealous of the Top College's advancement.
    iv. I am envious of the Top College's advancement.
20. ***Liking (adapted from van Dijk et al., 2006)***
    i. I like the Top College.
    ii. I have high regard for the Top College.
21. ***Hostility toward Top College (adapted from van Dijk et al., 2006)***
    i. I dislike the Top College
    ii. I have a feeling of contempt for the Top College.

22. Which two colleges are the finalists in your session? Check their boxes.
23. Which college is in your sweepstake?
24. How likely do you think the college from [Group I/ Group II] will win the championship? (1=very unlikely; 7=very likely)
25. How much do you want the college from [Group I/ Group II] to win the championship? (1=not at all; 7=very much)

T2 Post-schadenfreude Measures

26. Which college won the final challenge?
27. How satisfied are you about the outcome of the final challenge? (1=not at all satisfied; 7=very satisfied)
28. Did you win the sweepstake?
29. ***Emotions***
    To what extent do you feel the following emotions about the results of the final challenge? (0=not at all; 9=very much)
    i. See Appendix B, Q10

In the following questions, we will refer the college which won the final challenge as "The Winner" and the college which lost the final challenge as "The Runner-up".

We would like you to consider your experience during the final challenge. Please answer the following questions or indicate the extent to which you agree or disagree with the

following statements.

30. ***Involvement***
    i. How involved were you during the final challenge? (1=not at all involved; 7=very involved)
    ii. I enjoyed watching the final challenge. (1=strongly disagree; 7=strongly agree)

Please think about the results of the final challenge and answer the following questions:

31. ***Deservingness***
    i. To what extent did The Runner-up deserve losing to The Winner? (1 =not at all deserved; 7 =very deserved)
    ii. To what extent was The Runner-up's loss fair? (1 =not at all fair; 7 =very fair)
    iii. To what extent did The Winner deserve the victory? (1 =not at all deserved; 7 =very deserved)
    iv. To what extent was The Winner's victory fair? (1 =not at all fair; 7 =very fair)
32. ***Identification***
    i. How strongly do you identify with your college? (1=not at all strongly; 7=very strongly)
33. ***Perceived relative status/ Perceived competence***
    i. How competent is your college compared to [The Runner-up/ The Winner]? (1=much less competent; 4=more or less the same; 7=much more competent)
    ii. In general, how competent is your college compared to other colleges? (1=much less competent; 4=more or less the same; 7=much more competent)
    iii. To what extent does your college have higher status than [The Runner-up/ The Winner]? (1=much lower; 4=more or less the same; 7=much higher)
    iv. To what extent, in general does your college have higher status than other colleges? (1=much lower; 4=more or less the same; 7=much higher)
34. ***Similarity***
    i. How similar is your college to the college of [The Runner-up/ The Winner? (1=not at all similar;7=very similar)

We would like you to consider your immediate reactions as a member of your college after the final challenge. There are no right or wrong answers; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale: (1=strongly disagree; 7=strongly agree)

35. ***Group Self-esteem Scale (adapted from Ellemers et al., 1999)***
    i. I think my college has little to be proud of.
    ii. I feel good about my college.

iii. I have little respect for my college.
iv. I would rather not tell other people that I belong to my college.

36. ***Collective Self-esteem Scale (adapted from Luhtanen & Crocker, 1992)***
    i. I regret that I belong to my college.
    ii. My college will now be considered competent by others.
    iii. I am a worthy member of my college.
    iv. I'm glad to be a member of my college
    v. I feel I don't have much to offer to my college.
    vi. I feel that my college is not a worthy college
    vii. Others will now respect my college.
    viii. I am a cooperative member in the college.
    ix. I feel good about my college.
    x. Others will now think that my college is unworthy.
    xi. I feel I'm a useless member of my college.
37. ***Liking (adapted from van Dijk et al., 2006)***
    i. I like [The Winner/The Runner-up].
    ii. I have high regard for [The Winner/The Runner-up].
38. ***Hostility* toward [The Winner/The Runner-up]**
    i. See Q21
39. ***State Self-esteem***
    i. See Appendix B, Q20

We would like you to consider your immediate reactions during and after the final challenge. There is no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please indicate the extent to which you agree or disagree with the following statements: (1=strongly disagree; 7=strongly agree)

40. ***Schadenfreude during final challenge (adapted from van Dijk et al., 2006)***
    i. I couldn’t resist a little smile when The Runner-up lost points.
    ii. I was amused when The Runner-up lost points.
41. ***Schadenfreude (adapted from van Dijk et al., 2006)***
    i. I enjoyed seeing The Runner-up losing in the final challenge.
    ii. I felt satisfied that The Runner-up lost the final challenge.
    iii. I was amused by The Runner-up’s defeat.
    iv. I couldn’t resist a little smile when The Runner-up lost in the final challenge.
    v. I was secretly pleased about the Runner Up’s loss.
42. ***Victorious joy***
    i. I enjoyed seeing The Winner defeating The Runner-up.
    ii. I felt satisfied about The Winner’s victory.

iii. I was happy about The Winner's victory.
iv. I was excited when The Winner earned points.
v. I was hopeful when The Winner earned points.

43. ***Sympathy (adapted from van Dijk et al., 2006)***
    i. I felt sorry for The Runner-up's defeat.
    ii. I sympathised with The Runner-up.
    iii. I commiserated with The Runner-up about their defeat.
44. ***Filler items***
    i. I felt excited when The Runner-up earned points.
    ii. I felt hopeful when The Runner-up earned points.
    iii. I was not amused by The Winne's victory
    iv. I was not pleased with The Winner's victory.

Imagine that other students from the participating colleges witnessed the final challenge just like you and now you are given the chance to interact with them. I'd like you to consider what you would like to do after seeing the final challenge. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please indicate the extent to which you agree or disagree with the following statements: (1=strongly disagree; 7=strongly agree)

45. ***Intentions to celebrate with members of their own college***
    i. I want to share the results of the final challenge with students from my college.
    ii. I want to celebrate with students from my college.
46. ***Intention to humiliate members of College D***
    i. I want to humiliate students from the college of The Runner-up about their defeat.
    ii. I want to embarrass students from the college of The Runner-up about their defeat.
    iii. I want to cheer in front of students from the college of The Runner-up.
    iv. I want to emphasise to students from the college of The Runner-up how embarrassing their defeat was.

47. ***Intention to congratulate members of College G***
    i. I want to congratulate students from the college of The Winner about their victory.
    ii. I want to celebrate with students from the college of The Winner.
48. ***Intention to express sympathy***
    i. I want to offer encouragement to students from the college of The Runner-

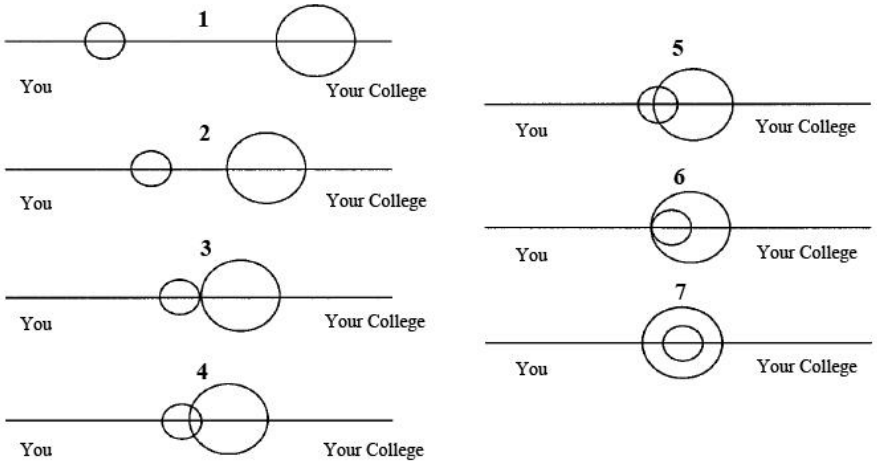
up.

ii. I want to comfort students from the college of The Runner-up.

iii. I want to hide my true feelings about their defeat from students from the college of The Runner-up.

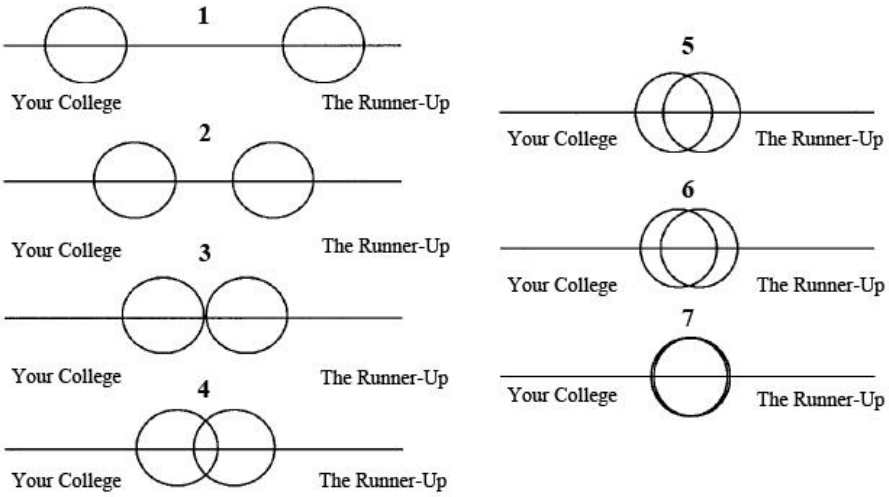
49. ***Overlap of Self, Ingroup, and Outgroup Scale (Schubert & Otten, 2002)***

i. Below are pictures which show how close the relationship is between you and [your college/ The Runner-up/ The Winner]. The closer the circles, the closer you feel you and your college are.



Which of the above picture best describes how close you feel you yourself is to the college of [The Runner-up/The Winner]. Select the number below (1-7).

ii. Below are pictures which show how close the relationship is between your college and [The Runner-up/ The Winner]. The closer the circles, the closer you feel your college and [The Runner-up/ The Winner] are.



Which of the above picture best describes how close you feel your college is to the college of [The Runner-up/The Winner]. Select the number below (1-7).

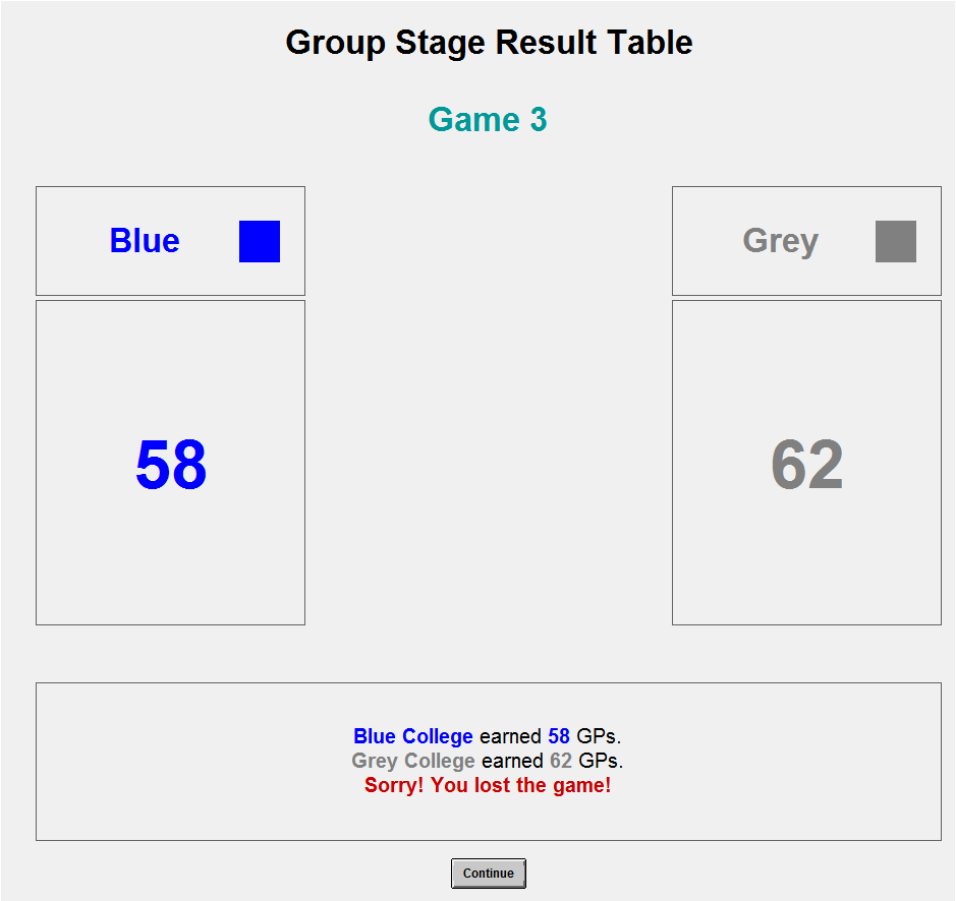
Recall your experiences in the experiment and answer the following questions: (1=not at all; 7=very much)

50. To what extent did the outcome for your college after the group stage affect your emotional responses toward the results of the final challenge?
51. To what extent did the opportunity to gain rewards from the final challenge affect your emotional responses toward its outcome?
52. To what extent did your concern for your college's status after the group stage affect your emotional responses toward the defeat of The Runner-up in the final challenge?
53. To what extent did other reasons affect your emotional responses toward the defeat of The Runner-up in the final challenge?

Appendix H: Intercollegiate Competition in Study 5

Bogus Performance Feedback of Game 3 at the Group Stage.

Example: Low status motive condition.



Bogus Performance Feedback after Game 3 at the Group Stage

Example: Low status motive condition.

Group Result Table:

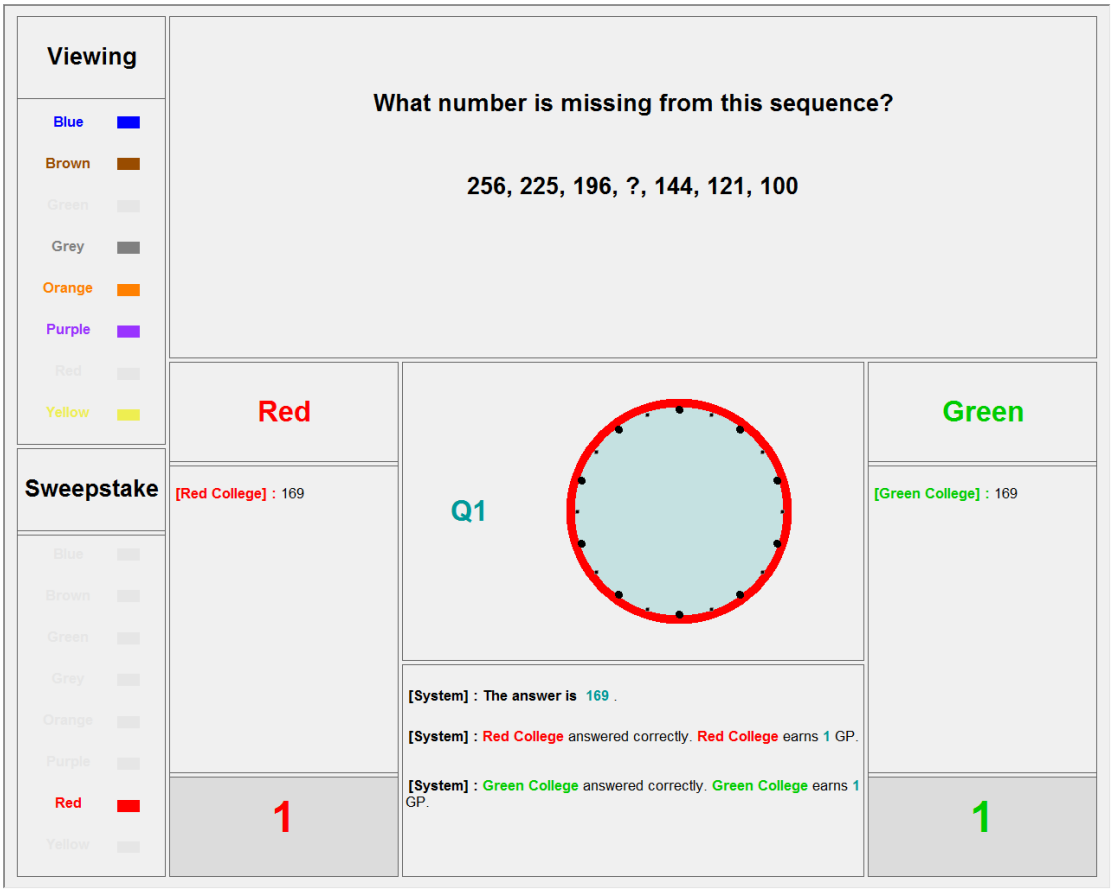
After Game3

Group I

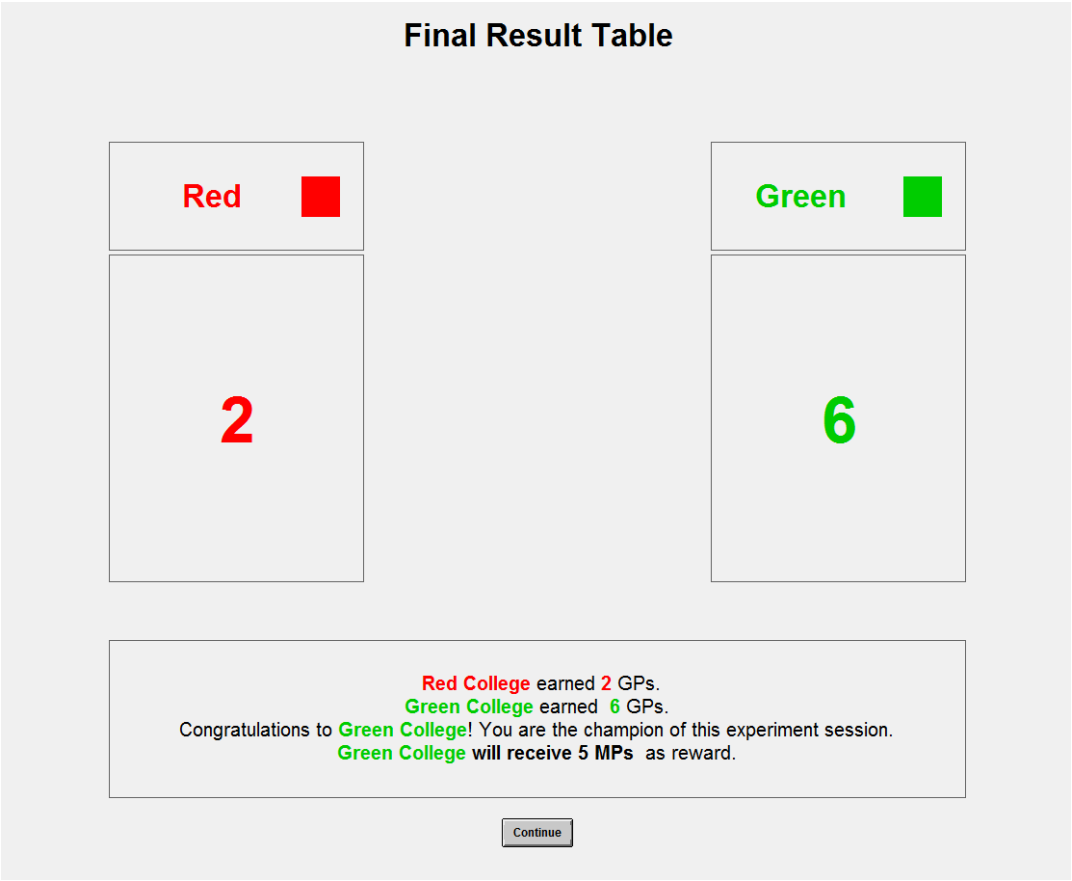
Rank	College	Colour	Win	Draw	Loss	Game Points	Match Points
1	Red		2	1	0	195	7
2	Blue		1	1	1	193	4
3	Grey		1	0	2	179	3
4	Brown		1	0	2	174	3

Final Challenge

Example: Low instrumental motive condition.



Results of the Final Challenge



Appendix I: Items used in Study 5

Demographics

1. What is your gender?
2. What is your age?
3. What is your race/ethnicity?

Domain interest

4. How important is it to you to get a high score in IQ tests?
5. How concerned are you about your college's reputation in this competition?
6. How important is it to you that your college does well in this competition?
7. How important is to you to defeat other colleges in this competition?

Baseline Identification

8. See Appendix G, Q5-6

Group-stage Game Measures

9. How satisfied are you about your performance in Game [1/2/3] ? (1=not at all satisfied; 7=very satisfied)
10. In your opinion, how likely is it that each of the following colleges in your group will qualify for the final challenge? (1=very unlikely; 7=very likely)
    i. Brown
    ii. Blue
    iii. Red
    iv. Grey
11. How important is the next match to your chances of qualifying for the final challenge? (1= not at all important ; 7 = very important)

T1 Pre-schadenfreude Measures

12. Which college from your group qualified for the final stage?
13. How satisfied are you about the final outcome for your college? (1=not at all satisfied; 7=very satisfied)
14. Did you win/draw/lose in the competition against Red College?
15. ***Emotions***

    To what extent do you feel the following emotions about the outcome of the group-stage? (0=not at all; 9=very much)

    i. See Appendix B, Q10

16. ***Deservingness***
    i. See Appendix G, Q14
17. ***Identification***
    i. How strongly do you identify with your college? (1=not at all strongly; 7=very strongly)
18. ***Envy***
    i. See Appendix G, Q19
19. ***Liking (adapted from van Dijk et al., 2006)***
    i. I like the Red College.
    ii. I admire Red College.
20. ***Hostility toward Red College***
    i. See Appendix G, Q21
21. ***Perceived relative status/ Perceived relative competence***
    i. See Appendix G, Q16
22. ***Perceived status/ Perceived intelligence***
    i. How highly do you regard [your college/Red College]? (1=very low; 7=very highly)
    ii. How would you evaluate the intelligence of the students from [your college/Red College]? (1=not at all intelligent; 7=very intelligent)
23. ***Similarity***
    i. How similar is your college to Red College? (1=not at all similar; 7=very similar)
24. ***State Self-esteem***
    i. See Appendix B, Q20
25. Which two colleges are the finalists in your session? Check their boxes.
26. Which college has been assigned to you for the sweepstake? (Red College, Blue College etc., and undetermined)
27. How much do you want to win the sweepstake? (1= not at all, 7 = very much)
28. How likely do you think [Red College/ Green College] will win the champion? (1=very unlikely; 7=very likely)
29. How much do you want [Red College/ Green College] to win the champion? (1=not at all; 7=very much)
30. Please indicate whether you will be supporting Red College or Green College more in the final challenge. (1=Red College; 7=Green College)

T2 Post-schadenfreude Measures

31. Which college won the final challenge?
32. How satisfied are you about the outcome of the final challenge? (1=not at all satisfied;

7=very satisfied)

33. Did you win the sweepstake?
34. ***Emotions***

    To what extent do you feel the following emotions about the results of the final challenge? (0=not at all; 9=very much)

    i. See Appendix B, Q10
35. ***Involvement***

    i. How involved with the competition were you feeling during the final challenge? (1=not at all involved; 7=very involved)

    ii. I enjoyed watching the final challenge. (1=strongly disagree; 7=strongly agree)
36. ***Deservingness***

    i. To what extent did Red College deserve to lose to Green College? (1 =not at all deserved; 7 =very deserved)

    ii. To what extent was Red College's defeat a fair outcome? (1 =not at all fair; 7 =very fair)

    iii. To what extent did Green College deserve the victory? (1 =not at all deserved; 7 =very deserved)

    iv. To what extent was Green College's victory a fair outcome? (1 =not at all fair; 7 =very fair)
37. ***Identification***

    i. How strongly do you identify with your college? (1=not at all strongly; 7=very strongly)

We would like you to consider your immediate reactions to the following items as a member of your college. There are no right or wrong answers; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale: (1=strongly disagree; 7=strongly agree)

38. ***Liking (adapted from van Dijk et al., 2006)***

    i. I like the [Red/ Green] College.

    ii. I admire [Red/ Green] College.
39. ***Hostility toward [Red/ Green] College***

    i. See Appendix G, Q21

We would like you to consider your immediate reactions during and after the final challenge. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please indicate the extent to which you agree or disagree with the following statements: (1=strongly disagree; 7=strongly agree)

40. ***Schadenfreude during final challenge***
    i. See Appendix G, Q40.
41. ***Schadenfreude***
    i. See Appendix G, Q41
42. ***Victorious joy***
    i. I enjoyed seeing Green College succeed in claiming the championship.
    ii. I felt satisfied about Green College's victory because I was supporting them.
    iii. I was happy for Green College.
    iv. I felt like celebrating Green College's victory.
    v. I was excited when Green College scored points.
43. ***Sympathy***
    i. See Appendix G, Q43.
44. ***Filler items***
    i. See Appendix G, Q44.
45. To what extent did the following factors make you feel happier about the results of the final challenge? (1=not at all; 7=very much)
    i. Red College's defeat
    ii. Green College's victory
    iii. The outcome of the sweepstake

We would like you to consider your immediate reactions as a member of your college after the final challenge. There are no right or wrong answers; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the relevant scales.

46. ***Perceived relative status/ Perceived relative competence***
    i. See Appendix G, Q16
47. ***Perceived status/ Perceived intelligence***
    i. See Q22
48. ***Similarity***
    i. How similar is your college to [Red/Green] College?
49. ***Collective Self-esteem Scale***
    i. See Appendix G, Q36
50. ***State Self-esteem***
    Please read each statement carefully, and respond by using the following scale: (1=strongly disagree, 7=strongly agree)
    i. See Appendix B, Q20

Imagine that other students from the participating colleges (including your college)

witnessed the final challenge just like you and now you are given the chance to interact with them. Please consider what you would like to do after seeing the final challenge. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please indicate the extent to which you agree or disagree with the following statements. (1=strongly disagree; 7=strongly agree).

51. ***Intentions to celebrate with members of their own college***
    i. See Appendix G, Q45
52. ***Intentions to humiliate members of Red College***
    i. See Appendix G, Q46
    ii. I want to talk negatively about Red College.
53. ***Intention to congratulate members of Green College***
    i. See Appendix G, Q47
54. ***Intention to express sympathy***
    i. See Appendix G, Q48

55. ***Dispositional Envy Scale (Smith, 1999)***
    Please read each statement carefully, and respond by using the following scale: (1=strongly disagree; 5=strongly agree)
    i. I feel envy every day
    ii. The bitter truth is that I generally feel inferior to others.
    iii. Feelings of envy constantly torment me
    iv. It is so frustrating to see some people succeed so easily.
    v. No matter what I do, envy always plagues me.
    vi. I am troubled by feelings of inadequacy.
    vii. It somehow doesn't seem fair that some people seem to have all the talent.
    viii. Frankly, the success of my neighbors makes me resent them.

Recall your experiences in the experiment and answer the following questions: (1=not at all; 7=very much)

56. To what extent did the outcome for your college after the group stage affect your emotional responses to the results of the final challenge?
57. To what extent did the opportunity to win the sweepstake from the final challenge affect your emotional responses to its outcome?
58. To what extent did your concern for your college's status after the group stage affect your emotional responses to the defeat of Red College in the final challenge?
59. To what extent did the sweepstake affect your emotional responses to the defeat of Red College in the final challenge?

Appendix J: Identification Manipulation of Study 6

In this part of study, we are interested in how football fans respond and react to the sharing of news about the World Cup on Twitter.

Before you read the tweets, we would like to gather extra information about England football fans.

Please complete the following evaluation task, which involves rating a series of statements concerning your orientation, attitudes and behaviours. While these questions are not directly asking your group involvement *per se*, this task has been developed and validated in previous studies and has successfully shown that certain response pattern predicts one's involvement with a team.

Upon completion of the task, the computer will calculate your involvement scores and calibrate it against the scores we obtained from other England football fans who participated in our previous research.

Please indicate the ex**t**ent to which the following statements apply to you. There are no right or wrong answers; we are interested in your honest reactions and opinions. (1=strongly disagree, 7=strongly agree)

1. I do not really mind what others think of me
2. Relationships with other people are very important to me
3. I spend a good deal of time alone
4. I am more involved in a "close" game than a "one-sided" game
5. I value the contribution of a good coach more than a good player
6. I do not mind having players with a bad reputation on the England football team, as long as they can help the team win games
7. I closely follow the England football team often through the media.
8. I often participated in discussions about the England football team
9. I usually know England's win/loss record
10. I usually evaluate England's performance objectively

High-Identification Condition

According to the records in our database, your score on the group involvement index is 59. The average in our database is 46.

Your score suggests that you identify with the team more strongly than an average England fan. In other words, you are similar to England fans who are more involved with

the team than average.

Low-Identification Condition

According to the records in our database, your score on the group involvement index is 33. The average in our database is 46.

Your score suggests that you identify with the team less strongly than an average England fan. In other words, you are similar to England fans who are less involved with the team than average.

Appendix K: Emotion Manipulation of Study 6

After the match, news about the Uruguay-Colombia match went viral on the internet.

You are a follower of an England fan named Jess on twitter. Jess is a big fan of the England football team and had been tweeting frequently during 2014 World Cup. Jess' tweets are very popular among

England football fans and have been retweeted regularly. Jess tweeted the following messages (which are edited versions of genuine tweets made during the tournament). Please read the tweets carefully and answer the corresponding questions.

Schadenfreude Tweets

[The image originally presented here cannot be made freely available via ORA because of copyright. The image was a screen capture of tweets posted on Twitter (https://twitter.com) by the author of this thesis]

Victorious Joy Tweets

[The image originally presented here cannot be made freely available via ORA because of copyright. The image was a screen capture of tweets posted on Twitter (https://twitter.com) by the author of this thesis]

Appendix L: Items used in Study 6

Post-identification Manipulation Measures

1. In your opinion, how accurate was the estimate of your identification with the England team? (1=not at all accurate; 7=very accurate)
2. According to the information given, to what extent are you involved with the England team? (1=clearly below average; 4=same as average; 7=clearly above average)
3. ***Doosje et al.'s (1995) 4-item Identification Scale***
    i. See Appendix C, Q10

Post-emotion Manipulation Measures

4. Overall, how much do you like the above tweets? (1=not at all; 7=very much)
5. ***Felt emotions***

    Please indicate the extent to which the tweets made you feel the following emotions. (0=not at all; 9=very much)

    i. Amused
    ii. Angry
    iii. Annoyed
    iv. Ashamed
    v. Embarrassed
    vi. Envious
    vii. Happy
    viii. Jealous
    ix. Pleased
    x. Satisfied

Please indicate the extent to which you agree with the following statements. They describe your experiences while reading the tweets. There are no right or wrong answers; we are interested in your honest reactions and opinions. Remember that your responses are confidential and anonymous. (1=strongly disagree; 7=strongly agree)

6. ***Felt schadenfreude (adapted from van Dijk et al., 2006)***
    i. I was pleased that Uruguay were the losers in the match.
    ii. I felt satisfied that Uruguay failed to get through to the next stage
    iii. I was amused by Uruguay's loss.
    iv. I couldn't resist a little smile about Uruguay's loss.
    v. I actually had to laugh a little bit about Uruguay's defeat.
7. ***Felt victorious joy***
    i. I was pleased that Colombia were the winners of the match.

ii. I felt satisfied that Colombia succeeded in progressing to the next stage.
iii. I was happy for Colombia.
iv. I smiled happily about Colombia's victory

8. ***Felt sympathy (adapted from van Dijk et al., 2006)***
   i. I felt sorry for the Uruguay team.
   ii. I sympathised with the Uruguay team.

Here are some things you may have felt like doing after reading the tweets. Please rate the extent to which you experienced each of these possible reactions. (1=strongly disagree; 7=strongly agree)

9. ***Intention to retweet***
   i. I would like to retweet the messages to [other England/ Uruguay/Colombia] fans.
10. ***Intention to celebrate with other England fans***
   i. I would like to celebrate with other England fans.
11. ***Intention to humiliate Uruguay fans***
   i. I would like to humiliate Uruguay fans.
   ii. I would like to embarrass Uruguay fans.
12. ***Intention to congratulate Colombia fans***
   i. I would like to congratulate Colombia fans for their victory.
13. ***Intention to express sympathy***
   i. I would like to offer encouragement to Uruguay fans.
14. ***Social Motivations***
   i. I would like to interact frequently with Jess on twitter.
   ii. I would like to follow Jess' tweets more closely.
   iii. I would like to remove Jess from my list.
   iv. I would like to keep a distance from Jess.
15. ***Attitude toward Jess***
   i. How much do you like Jess? (1=not at all; 7= very much)
   ii. How friendly do you think Jess is? (1=not at all friendly; 7=very friendly)
   iii. How similar do you think you and Jess are? (1=not at all similar; 7=very similar)
   iv. How close to Jess do you feel emotionally? (1=not at all close; 7=very close)
16. ***Identification***
   i. How strongly do you identify with the England team? (1=not at all strongly; 7=very strongly)

17. ***Liking***
    i. How much do you like the [England/Uruguay/Colombia] team? (1=not at all; 7=very much)
18. ***Hostility***
    i. How much do you dislike the [England/Uruguay/Colombia] team? (1=not at all; 7=very much)
19. ***Perceived Status/ Performance Evaluation***
    i. How good a team do you think [England/Uruguay/Colombia] are? (1=not at all good; 7=very good)
    ii. How highly do you regard the [England/Uruguay/Colombia]team? (1=very low; 7=very highly)
20. ***Closeness***
    i. Please rate how emotionally close you feel fans of the England team is to fans of the [Uruguay/Colombia] team (1=not at all close; 7=very close)
    ii. Please rate how emotionally close you feel you are to [other England/Uruguay/Colombia] fans (1=not at all close; 7=very close)
21. ***Similarity***
    i. Please rate how similar you think fans of the England team is to fans of the [Uruguay/Colombia] team (1=not at all similar; 7=very similar)
    ii. Please rate how similar you think you are to [other England/Uruguay/Colombia]fans (1=not at all similar; 7=very similar)

22. **Perceived emotions**

    To what extent do you believe Jess was experiencing the following emotions when writing the tweets? (0=not at all; 9=very much)

    i. See Q5

Please indicate the extent to which the following statements describe how Jess felt when s/he wrote the tweets. There are no right or wrong answers; we are interested in your honest reactions and opinions. (1=strongly disagree; 7=strongly agree)

23. ***Perceived schadenfreude***
    i. S/he was pleased that Uruguay were the losers in the match.
    ii. S/he felt satisfied that Uruguay failed to get through to the next stage.
    iii. S/he was amused by Uruguay's loss.
    iv. S/he couldn't resist a little smile about Uruguay's loss.
    v. S/he actually had to laugh a little bit about Uruguay's defeat.
24. ***Perceived victorious joy***
    i. S/he felt satisfied that Colombia succeeded in progressing to the next stage.

ii. S/he was pleased that Colombia were the winners of the match.
iii. S/he was happy for Colombia.
iv. S/he smiled happily about Colombia's victory.
v. S/he felt sorry for the Uruguay team.

25. ***Perceived sympathy***
    i. S/he sympathised with the Uruguay team.

Please indicate the extent to which you think the following statements are explanations for Jess wanting to share the tweets with other England Fans like you. (1= strongly disagree; 7=strongly agree). S/he wrote the tweets because s/he would like to...

26. ***Perception of Jess' intention to affiliate***
    i. …befriend with other England fans
    ii. …unite England fans
27. ***Perception of Jess' intention to humiliate Uruguay fans***
    i. **…**take revenge against Uruguay for England's earlier loss against Uruguay
    ii. …emphasise to the Uruguay fans how embarrassing their team's defeat was.
    iii. …humiliate supporters of the Uruguay team
28. ***Perception of Jess' intention to affiliate with Uruguay fans***
    i. …befriend with Uruguay fans
29. ***Perception of Jess' intention to affiliate with Colombia fans***
    i. …befriend with Colombia fans
    ii. …celebrate Colombia's victory.
30. ***Perception of Jess' intention to improve England's image***
    i. …improve England team's image

Please indicate which outcome, either Uruguay's defeat or Colombia's victory, the tweets made you focus on. (1=You focused mostly on Uruguay's losing; 4=You focused equally on Uruguay's losing and Colombia winning; 7=You focused mostly on Colombia winning)

31. After reading the tweets, my thoughts were focused on...(1= Uruguay's losing; 7= Colombia's winning)
32. After reading the tweets, my emotional responses were focused on...(1= Uruguay's losing; 7= Colombia's winning)

Please indicate which outcome, either Uruguay's defeat or Colombia's victory, you believe Jess was focusing on when writing the tweets. (1=S/he focused mostly on Uruguay's losing; 4=S/he focused equally on Uruguay's losing and Colombia winning; 7=S/he focused mostly on Colombia winning)

33. When Jess wrote the tweets, I believe her/his thoughts were focused on...(1= Uruguay's losing; 7= Colombia's winning)
34. When Jess wrote the tweets, I believe her/his emotional responses were focused on...(1= Uruguay's losing; 7= Colombia's winning)