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Imagined contact works in high-prejudice contexts: Investigating imagined contact’s effects on anti-gay prejudice in Cyprus and Jamaica

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# Abstract

A growing body of evidence demonstrates that imagined contact can reduce prejudice in a variety of ways, against numerous groups, and in varied social contexts. Imagined contact has thus been suggested as an option for prejudice reduction where direct contact strategies may not be easy or practical. However, no research to date has tested imagined contact in high-prejudice contexts where direct contact is not a feasible option. In two experiments (N = 42, N = 100) we investigated whether imagined contact could be successfully applied as an intervention to reduce prejudice against gay men in two societies where direct contact would be particularly difficult or rare – Cyprus and Jamaica. Despite the relatively high prejudice against gay men reported in both societies, we found that imagined contact successfully improved attitudes, behavioural intentions and social acceptance. We discuss the implications for imagined contact’s use as a real-world intervention when direct contact strategies might not be plausible.

Keywords: SEXUAL PREJUDICE, INTERGROUP CONTACT, IMAGINED CONTACT, CYPRUS, JAMAICA

Intergroup contact theory is arguably the most influential social psychological approach to improving intergroup relations, and intergroup contact is possibly the most effective and most widely researched means of reducing intergroup bias and improving intergroup relations (Allport, 1954; Brown & Hewstone, 2005). It is now well established that contact between different groups generally has a positive impact on intergroup attitudes. A recent meta-analysis of over 500 studies by Pettigrew and Tropp (2006), confirmed that intergroup contact reduces prejudice against a variety of groups including people of a different sexual orientation. For example, Herek and Glunt (1993) found that interpersonal contact with gay men predicted positive attitudes toward gay men better than any other demographic or social psychological variable measured (including gender, educational level, age, geographic region, religiosity, political ideology and involvement). Lemm (2006) similarly found that contact predicted more favorable implicit and explicit attitudes toward gay men.

However, what happens when individuals do not have the opportunity for direct contact? Imagined intergroup contact (Crisp & Turner, 2009; 2013) has recently been proposed as an implementation of intergroup Contact Theory that can capitalize on the benefits of contact, even where opportunities or desire for contact are unlikely or impossible. Much research now supports the hypothesis that imagined contact reduces bias and improves intergroup attitudes. However, this research has been conducted using target groups, and in social contexts, where direct contact strategies are feasible and do in fact occur (e.g., Evans-Lacko et al., 2013). In this current research we apply imagined contact in two contexts characterized by strong anti-gay prejudice and in which direct contact strategies would be less likely – Northern (Turkish) Cyprus and Jamaica.

# Imagined Contact

Imagined contact is defined as “the mental simulation of a social interaction with a member or members of an outgroup category” (Crisp & Turner, 2009, p. 234). It is based on an integration of intergroup Contact Theory, which shows that interacting with members of other groups reduces intergroup bias and improves intergroup relations (see Allport, 1954; Brown & Hewstone, 2005; Pettigrew & Tropp, 2006), with research demonstrating that mental imagery elicits emotional, motivational and neurological responses similar to real experiences (e.g., Dadds, Bovbjerg, Redd, & Cutmore, 1997; Kosslyn, Ganis, & Thompson, 2001). It is thus an intervention based on the hypothesis that imagining interactions with members of other groups should have many of the same consequences as actual interactions with members of these groups. These (positive) consequences should include reduced intergroup anxiety, more favorable attitudes toward the outgroup, more positive behavioral intentions and improved behavior (Turner, Crisp, & Lambert, 2007).

## Evidence for the Effectiveness of Imagined Contact

A substantial body of subsequent research has demonstrated that imagined contact can reduce prejudice against a variety of groups, in a number of ways, and in many different social contexts (see Miles & Crisp, 2014 for a meta-analysis). Imagined contact has been shown to reduce intergroup bias on the basis of age (Turner et al., 2007), religion (Husnu & Crisp, 2010a; Stathi, Crisp, & Hogg, 2011; Turner & Crisp, 2010; Turner & West, 2012; West & Bruckmüller, 2013), ethnicity and nationality (Husnu & Crisp, 2010b; Stathi & Crisp, 2008), immigration status (Harwood, Paolini, Joyce, Rubin, & Arroyo, 2011; Turner, West, & Christie, 2013; Vezzali, Capozza, Giovannini, & Stathi, 2012), weight (Turner & West, 2012), mental health (West & Bruckmüller, 2013; West, Holmes, & Hewstone, 2011), and sexuality (Birtel & Crisp, 2012; Turner et al., 2007).

Imagined contact has been shown to improve intergroup relations in several ways, such as reducing intergroup anxiety (Birtel & Crisp, 2012; Turner et al., 2007; West et al., 2011), improving intergroup attitudes (Turner & Crisp, 2010), increasing intergroup trust, improving intergroup behavioral intentions, (Husnu & Crisp, 2010a; Turner et al., 2013) and altering subsequent behavior (Birtel & Crisp, 2012a; Turner & West, 2012). It has been effective using participants from a variety of countries including the U.K. (Turner et al., 2013), the U.S.A. (Harwood et al., 2011), Mexico (Stathi & Crisp, 2008), Cyprus (Husnu & Crisp, 2010b), Italy (Vezzali, Capozza, Giovannini, et al., 2012) and Germany (West & Bruckmüller, 2013).

Importantly, prior research has ruled out alternative explanations for the effects of imagined contact, including cognitive load, stereotype priming (Turner et al., 2007), and generalized positive affect (Stathi & Crisp, 2008). Imagined contact has also been shown to reduce implicit bias: bias measured in a way that circumvents self-presentation strategies (Nosek, Greenwald, & Banaji, 2007). For example, Turner and Crisp (2010) found that imagined contact reduced bias against older adults and Muslims as measured by the Implicit Associations Test. Turner and West (2012) found that imagined contact reduced the seating distance that participants wanted to place between themselves and outgroup members (Muslims, and people who were overweight), though participants did not suspect that this distance would be measured. These findings show that demand characteristics also cannot account for imagined contact’s effects.

## Does imagined contact work in high-prejudice contexts?

However, despite the success of prior research using the imagined contact paradigm, some critics suggest that the initial enthusiasm for imagined contact is overly optimistic, even *unrealistic* in the face of the mechanisms that perpetuate prejudice (Bigler & Hughes, 2010) and the harsh realities of intergroup bias (Lee & Jussim, 2010). Indeed, Bigler and Hughes (2010, p. 132) concluded that imagined contact was “highly unlikely to produce meaningful attitude change”, pointing out that, despite being statistically significant, it’s effects are often “practically unimportant”. Overall, the concern is that imagined contact’s effects are limited to reducing relatively mild prejudice, and that it would not be applicable in high-prejudice contexts “where opportunities for contact are scarce . . . or . . . where opportunities for contact exist, but remain unrealized” (Crisp, Husnu, Meleady, Stathi, & Turner, 2010, p. 223): the very contexts for which it was designed.

No research to date has investigated whether this is in fact the case. While it is important to study the real and damaging prejudice against, for example, older adults (Turner et al., 2007), Muslims (Turner & Crisp, 2010), immigrants (Turner et al., 2013) or people with mental health problems in the UK (West et al., 2011), these studies do not address concerns about imagined contact’s applicability in extreme, high-prejudice contexts where systematic or legal barriers prevent the occurrence of direct contact between other people and members of these groups. On the contrary, contact-based interventions to improve responses to these groups do take place, and receive governmental support (Evans-Lacko et al., 2013). Thus, the focus of this current research is the application of imagined contact in contexts where direct contact is hampered by real social, political and legal barriers – in this case, reducing prejudice against gay men in Cyprus and Jamaica.

## Imagined Contact and Anti-Gay Prejudice in Cyprus and Jamaica

According to the FBI's "Hate Crime Statistics 2003" (FBI, 2003) hate crimes based on sexual orientation were reported as the second highest (after those based on racial bias) in the U.S.A. In the U.K. about one in five lesbian, gay and bisexual (LGB) people have been a victim of homophobic hate crime in the last 3 years, 75% of which were not reported to the police (Dick, 2008). Prejudice against other people on the basis of their sexual orientation is a pervasive, global problem (Herek, 2004; Kole, 2007; Ottosson, 2009). However, the severity of the problem varies according to country and region (Jensen, Gambles, & Olsen, 1988; West & Hewstone, 2012a, 2012b).

In Northern (i.e., Turkish) Cyprus, homosexuality is still regarded as a taboo subject and anti-gay sentiments are widespread (Duyan & Duyan, 2005). Taking cues from mainland Turkey, Turkish Cypriots can interpret homosexuality as an illness or an affront to religious values (Bakacak & Oktem, 2013), and openly gay people risk being killed for their sexuality, even by family members (Bilefsky, 2009). Similarly, Jamaica has been called the most homophobic place on Earth (Padgett, 2006). Anti-gay prejudice is high in all sections of society (West & Cowell, 2014), it is more socially acceptable than egalitarian attitudes (West & Hewstone, 2012b), and some sections of the musical culture explicitly encourage violence against gays (Farquharson, 2005; West & Cowell, 2014). The revelation that someone is gay can be met with ostracism, violence, or even death (Chin, 1997; White & Carr, 2005; Williams, 2008) and several anti-gay murders and gay bashing incidents occur on the island every year (Clunis, 2004; Martinez, 2013).

Most relevant for this current research, private acts of anal sex between consenting adults are illegal in both Northern Cyprus and Jamaica (Ottosson, 2009; West, 2012; Wheatle, 2012), effectively criminalizing male homosexuality. This imposed criminality makes direct contact interventions particularly unlikely, as identifiably gay men would not only be exposing themselves to possible ostracism, hostility and violence, but also to legal consequences including 10 years imprisonment with hard labor (Wheatle, 2012). This is not to say that direct contact cannot be beneficial in societies like Northern Cyprus or Jamaica. In a correlational study, West and Hewstone (2012b) found that contact did predict more favorable attitudes toward gay men in Jamaica. Nonetheless, when the difficulty and risk of direct contact are considered, imagined contact seems to offer a safer, easier alternative means of changing attitudes. In two experiments we investigated imagined contact’s effects on intergroup attitudes, behavioral intentions and social acceptance in Cyprus and Jamaica.

# Experiment 1 - Cyprus

Turner et al. (2007) demonstrated that imagined contact could reduce bias against gay men in the UK; our first experiment investigated whether this technique could be applied in Northern Cyprus. According to North Cypriot law same-sex relationships are regarded as “sexual acts against nature” and are classified under the same heading of “crimes against morality” which also include sex with a minor and incest (Ottosson, 2009). These restrictions, and widespread ant-gay sentiment (Duyan & Duyan, 2005), reduce the practicality of direct-contact interventions but leave the possibility open of conducting imagined contact interventions. We hypothesized that positive attitudes and behavioral intentions would be low for all our participants. However, we also hypothesized that imagined contact would lead to improved attitudes and behavioral intentions, and that attitudes would mediate the relationship between imagined contact and behavioral intentions (as has been found in prior research, e.g., West et al., 2011).

**Method**

**Participants and design.** Heterosexual men tend to hold more negative attitudes toward gay people (and gay men in particular) than do heterosexual women (Cuenot & Fugita, 1982; Herek & Gonzalez-Rivera, 2006; West & Cowell, 2014; Yarber & Yee, 1983). Thus, to avoid any unexpected variance due to gender, we used only heterosexual males participants in this first study. Forty-two heterosexual, Turkish Cypriot, male undergraduate students (Mean age= 22.01, *SD* = 1.88) were recruited for a study about ‘contemporary social attitudes’; participants were not told that the study investigated attitudes toward gay men. They were randomly assigned to one of two conditions: (1) an imagined contact condition in which they were instructed as follows: ‘take five minutes to imagine yourself meeting a male stranger for the first time. Early in the conversation you find out that he is gay. Imagine that the rest of the conversation is relaxed, positive and comfortable; or (2) a control condition taken from prior research (Turner et al., 2007) in which they were asked to imagine an outdoor scene. The imagined contact instructions were derived from the recommended instruction set, designed to ensure a positive imagined interaction (Stathi, Crisp, Turner, West, & Birtel, 2013). Prior research has investigated imagined contact’s effects compared to several control instructions and found it to be generally effective (Miles & Crisp, 2014); we thus used the control original condition from Turner et al. (2007). Participants in both conditions were instructed to write down whatever came to mind; we used these free-responses to verify that participants had completed the imagined contact (or control) task.

**Materials and procedure**. We assessed attitudes toward gay men using 4 items (*α* = .69) from Wright, Aron, McLaughlin-Volpe, and Ropp (1997) on 9-point semantic differential scales indicating participants’ feelings towards gay men: cold–warm, suspicious–trusting, negative–positive, admiration–disgust (reversed). These items have been used in previous research on imagined contact (Husnu & Crisp, 2010b; West & Bruckmüller, 2013; West et al., 2011), including that by Turner et al., (2007). To determine intentions to engage in future contact we used an item previously employed by Husnu and Crisp (2010b) to measure behavioral intentions in the Cypriot context. Participants were asked: “Next time you find yourself in a situation where you could interact with a gay man, how likely do you think it is that you would strike up a conversation?” (1 = *Not at all*, 7 = *Very much so*).

**Results and Discussion**

Participants were all heterosexual males and participant age did not differ between conditions (*M* = 22.55 vs. *M* = 21.86, *t* (39) = 1.36, *p* = .18). Thus, neither gender nor age was used as a predictor in this study. As expected, participants reported very negative evaluations of gay men. Attitude scores fell well below the midpoint of the scale (5) when participants in both conditions were investigated as a single group, *M* = 3.09, *t* (40) = 9.38, *p* < .001, and when the control group, *M* = 2.68, *t* (19) = 9.15, *p* < .001, and imagined contact group, *M* = 3.48, *t* (20) = 5.13, *p* < .001, were investigated separately. Similarly, behavioral intentions scores fell below the midpoint of the scale (4) when participants in both conditions were investigated as a single group, *M* = 2.56, *t* (40) = 5.03, *p* < .001, and when the control group was investigated separately, *M* = 1.80, *t* (19) = 7.68, *p* < .001. Only the imagined contact group’s behavioral intention scores did not differ from the midpoint of the scale *M* = 3.29, *t* (20) = 1.63, *p* = .18.

Comparisons between conditions. Means and standard deviations of both dependent measures are shown in Table 1. Using multivariate analysis of variance to investigate differences between our conditions, we found the expected multivariate effect of imagined contact on our outcome variables, *F* (2, 38) = 4.32, *p* = .02, *ηр²* = .19. As hypothesized, participants in the imagined contact condition reported more positive attitudes than did participants in the control condition, *M* = 3.48, *SD* = 1.36 vs. *M* = 2.68, *SD* = 1.14, *F* (1, 39) = 4.16, *p* = .048, *ηр²* = .10. Participants in the imagined contact condition also reported greater intentions to engage in future contact with gay men than did participants in the control condition, *M* = 3.29, *SD* = 2.00 vs. *M =* 1.80, *SD* = 1.28, *F* (1, 39) = 7.91, *p* = .008, *ηр²* = .17.

Mediation analyses. We tested whether attitudes mediated the relationship between imagined contact and behavioral intentions (see Figure 1) using Preacher-Hayes bootstrap tests (Hayes, 2009). Bias-corrected bootstrapping techniques are favored over conventional mediation tests (e.g., Sobel’s Z) because of (a) their ability to handle skewed data and (b) their superior ability to detect significant mediation effects with smaller sample sizes while (c) retaining the most power (Fritz & Mackinnon, 2007). Using a 95% bias-corrected bootstrap confidence interval based on 1000 bootstrap samples, the indirect effect of imagined contact on intentions through attitudes did not include zero (.04 to .54 with a point estimate of .22), which indicated mediation (Zhao et al., 2010). Imagined contact directly predicted more positive attitudes (β = .40, *p* = .048), and directly predicted positive behavioral intentions (β = .52, *p* = .049), which indicated partial, complementary mediation (Zhao et al., 2010). Attitudes also directly predicted behavioral intentions (β = .55, *p* = .009).

In sum, we found that imagined contact improved attitudes and behavioral intentions toward gay men in Cyprus, despite our participants’ very negative evaluations. This research thus supports the use of imagined contact as a prejudice-reducing intervention in high-prejudice contexts where direct contact is less practical. In Experiment 2, we aimed to increase confidence in our findings by testing them in another challenging context – Jamaica. Furthermore, though prior research has ruled out category priming, demand characteristics and positive affect as alternative explanations for imagined contact’s effects (Stathi & Crisp, 2008; Turner et al., 2007; Turner & Crisp, 2010), we added a category priming condition to Experiment 2 to show that our effects were not merely due to thinking about the category of gay men, or demand characteristics engendered by asking participants to think about gay men. Also, in Experiment 2, we used the original version of the imagined contact task (from Turner et al., 2007), rather than the explicitly positive version of the task used in Experiment 1, to better rule out the effect of generalized positive affect.

# Experiment 2 – Jamaica

In Jamaica, anti-gay attitudes are widespread and strong (West & Cowell, 2014). They are prevalent at all levels of society (Cowell, 2011), and considered more socially acceptable than egalitarian attitudes (West & Hewstone, 2012b). In the treatment of gay men Jamaica compares unfavorably with other nations (West & Hewstone, 2012a; 2012b), including its neighbors in the Caribbean (Boxill, Lewis, Russell, & Bailey, 2007), and several anti-gay murders occur every year (J-FLAG, 2013; Martinez, 2013). As is the case in Northern Cyprus, consensual adult gay (male) relationships are illegal in Jamaica (West, 2012; Wheatle, 2012), making direct-contact strategies less practical. Social acceptance is an important concern for gay Jamaican men, who are often told that they have no place in their own society (Adepitan, 2014; Hron, Dayle, McKnight, & Carr, 2003; West & Geering, 2013).

In this experiment we investigated whether imagined contact could improve attitudes and social acceptance of gay men in Jamaica. We hypothesized that, compared to control participants, participants who completed the imagined contact task would report more social acceptance of gay men and that this relationship would be mediated by an increase in positive attitudes. Furthermore, we hoped to build on Experiment 1 by showing that these effects were not merely due to generalized positivity or to category priming. In Experiment 1, we used an explicitly positive version of the imagined contact task, which has been shown to produce better results (Crisp, Stathi, Turner, & Husnu, 2009; Stathi, Tsantila, & Crisp, 2012; West et al., 2011). In Experiment 2 we used the original, less positive version of the task and also included a category priming condition. Participants who completed the category priming task, however, were not expected to differ significantly from control participants.

## Method

Participants and design. As this study contained more conditions and a larger sample, we used both male and female participants. One hundred heterosexual students at a Jamaican university (80 female, 20 male, mean age = 21.37, *SD* = 5.16) were recruited for a study about ‘contemporary social attitudes’; participants were not told that the study investigated attitudes toward gay men. They were randomly assigned to one of three conditions: (1) an imagined contact condition in which they were asked to “take five minutes to imagine yourself meeting a gay male stranger for the first time. Imagine their appearance, the conversation that follows and, from what you learn, all the different ways you could classify them into different groups of people” (2) a priming condition in which they were asked to simply “think about gay men” or (3) a control condition in which they were asked to imagine an outdoor scene (as in Experiment 1). Thus, we compared the neutral imagined contact task used by Turner et al., 2007, to both of the control conditions used by Turner et al. (2007, Expt 1 & Expt 2). Participants in all three conditions were instructed to write down whatever came to mind; we used these free-responses to verify that participants had correctly completed their assigned tasks. After completing their assigned tasks participants responded to questionnaire items assessing their attitudes toward and social acceptance of gay men.

Materials and procedure. We assessed attitudes using the same 4 items used in Experiment 1 (*α* = .85) on 7-point semantic differential scales. We assessed social acceptance with a modified, 5-item version of the Bogardus Social Distance Scale (Bogardus, 1925), which is still being used in contemporary research (e.g., Angermeyer & Matschinger, 2005). Participants indicated how willing they would be to accept a gay man in each of the following social roles: “neighbor”, “tenant”, “person to recommend for a job”, “member of the same social circle” and “in-law”, (1 = *Not at all*, 7 = *Very much*; *α* = .86). Higher scores indicate more social acceptance.

## Results and Discussion

Participants’ age did not differ between conditions (*F* (2, 97) = 1.22, *p* = .30). Males and females were not unevenly distributed across conditions (*χ2* (2, *N* = 100) = 2.55, *p* = .28). Furthermore, participant gender did not predict either of our outcome variables, nor were there any significant interactions between condition and gender (.11 < *p* < .68), nor was gender a significant covariate when included in an analysis of variance (*p* > .23). Hence, we did not use age or gender as predictors in this study.

As expected, participants reported very negative evaluations of gay men. Attitude scores fell significantly below the midpoint of the scale (4) when participants in all three conditions were investigated as a single group, *M* = 2.71, *t* (99) = 8.98, *p* < .001, and when the control group, *M* = 2.33, *t* (36) = 8.99, *p* < .001, the priming group, *M* = 2.72, *t* (33) = 4.72, *p* < .001 and the imagined contact group, *M* = 3.21, *t* (27) = 2.84, *p* = .008, were investigated separately. Similarly, social acceptance scores fell below the midpoint of the scale (4) when participants in both conditions were investigated as a single group, *M* = 3.22, *t* (98) = 4.79, *p* < .001, and when the control group, *M* = 2.98, *t* (36) = 4.24, *p* < .001, the priming group, *M* = 3.21, *t* (33) = 2.72, *p* = .01 were investigated separately. Only the imagined contact group’s social acceptance scores did not differ significantly from the midpoint of the scale *M* = 3.55, *t* (27) = 1.38, *p* = .18.

Comparisons between conditions. Means and standard deviations of both dependent measures are shown in Table 2. Using multivariate analysis of variance, we found the hypothesized effect of condition on attitudes toward gay men, *F* (2, 96) = 3.12, *p* = .048, *ηр²* = .06). As hypothesized, Bonferroni-adjusted post-hoc tests revealed that participants in the imagined contact condition reported more positive attitudes toward gay men (*M* = 3.21) than did participants in the control condition (*M* = 2.33), *p* = .042.

However, there was no significant difference in reported attitudes between participants in the priming condition (*M* = 2.72) and participants in the control condition, *p* = .73, nor between participants in the priming condition and participants in the imagined contact condition *p* = .53. As there were no significant differences between the priming condition and other two conditions, we investigated whether there was a significant trend in which the imagined contact was superior to the control condition, and the priming condition fell between the other two (see Figure 2). The imagined contact condition was coded as 1, the priming condition as 0, and the control condition as -1. We found this significant correlation between condition and attitudes. (*r* = .25, *p* = .01).

We did not find a significant multivariate effect of condition on our outcome variables, *F* (4, 192) = 1.52, *p* = .20, *ηр²* = .03; this was because condition did not have a significant direct effect on social acceptance *F* (2, 96) = .97, *p* = .38, *ηр²* = .02. However, despite not finding a *direct* effect of imagined contact on social acceptance, we investigated whether there was a significant *indirect* effect of imagined contact mediated by an increase in positive attitudes.

Mediation analyses. Using a 95% bias-corrected bootstrap confidence interval based on 1000 bootstrap samples, the indirect effect of imagined contact on social acceptance through attitudes did not include zero (.10 to .61 with a point estimate of .31), which indicated mediation (Zhao et al., 2010). Condition directly predicted more positive attitudes (β = .43, *p* = .01), but did not directly predict social acceptance (β = -.03, *p* = .86), which indicated indirect-only mediation (Zhao et al., 2010). Attitudes directly predicted social acceptance (β = .71, *p* < .001). In sum, these data supported our hypotheses. Despite our participants’ negative attitudes, imagined contact led to improved social acceptance, an indirect relationship that was mediated by a direct effect on attitudes (see Figure 3).

# General Discussion

This current research investigated whether imagined contact, a tool that has generally been tested in social contexts where direct contact strategies are feasible, could be applied to reduce sexual prejudice in challenging social contexts where direct contact strategies are less practical. Our results were encouraging. In the first experiment imagined contact improved Turkish Cypriot participants’ behavioral intentions toward gay men (mediated by an increase in positive attitudes) despite overall negative evaluations of gay men. In the second experiment imagined contact improved Jamaican participants’ social acceptance of gay men, and this relationship was mediated by an improvement in attitudes. Imagined contact was effective compared to a control condition (and mere category priming was not) despite overall negative evaluations of gay men by our participants. Below, we discuss these findings with reference to implications for imagined contact as a tool for promoting positive intergroup relations, study design, limitations, and suggestions for future research.

## Implications for Imagined Contact

Imagined intergroup contact was a radical addition to the broader body of Contact Theory; it suggested that a quick, easy, imagery-based task could produce many of the benefits of direct contact – an established prejudice-reducing intervention. This suggestion attracted some criticism; particularly concerning the efficacy of imagined contact in the high-prejudice and low-contact environments for which it was designed (Bigler & Hughes, 2010; Lee & Jussim, 2010). These criticisms are well-founded, with the understanding that imagined contact works well as a laboratory based technique and on relatively mild prejudice (Crisp et al., 2009; Crisp & Turner, 2013; Stathi et al., 2013) came the responsibility to investigate it as a real-world, applied intervention. Research using target groups with whom real contact is difficult, risky, costly, or legally difficult, is necessary to support the application of imagined contact as a potential solution in these circumstances. Our current research supports this application of imagined contact and is the first to demonstrate its effectiveness in social contexts where direct contact is a less practical option.

However, while the effects of imagined contact were significant in both experiments, we acknowledge that they were not particularly large (though they were larger in Cyprus than in Jamaica). Despite the intervention, none of our participants expressed attitudes toward gay men that were overall positive; even in our imagined contact conditions participants’ attitude scores fell below the midpoint of the scale. As previous authors have done, we acknowledge that it is highly unlikely that a single, brief imagery task will *eliminate* pervasive prejudices such as those against gay men in Cyprus and Jamaica (Crisp & Turner, 2013; Stathi et al., 2013). Nonetheless, imagined contact may be a highly effective *first step* on the route toward tolerance and reduced prejudice, paving the way for bolder strategies such as extended contact and direct contact.

## Limitations and Future Research

For some time, social psychological research has been criticized for using student samples rather than samples from the wider population (Henrich, Heine, & Norenzayan, 2010; Sears, 1986); student participants may be more open-minded than participants drawn from other, more representative groups. This current research used student samples as well, and we acknowledge that education is negatively correlated with anti-gay bias, in Jamaica as well as in other places (West & Cowell, 2014). However, though we did use student samples, our participants in both Cyprus and Jamaica reported very negative evaluations of gay men, even after the imagined contact interventions in some cases. While it is plausible that non-student samples would have reported even more anti-gay bias, the severe negativity of our current samples, student or not, support the use of imagined contact in contexts of severe prejudice. Furthermore, recent events show that university students in Jamaica are more than capable of extreme prejudice and violence against gay men; in November, 2012, a large mob of Jamaican university students attacked and pursued an allegedly gay man, calling for his death (Pearson, 2012).

Also concerning our participant samples, we acknowledge the possibility that some participants were not in fact heterosexual, but merely self-identified as such to avoid stigmatization. This is unfortunately a limitation of all research in which participants are required to self-identify, including almost all previously published research on contact-based mechanisms (for reviews see Brown & Hewstone, 2005; Stathi et al., 2013). As in prior research, our participants were repeatedly told that they would be anonymous and that none of their responses could be traced back to them, minimizing any motivation to lie about their sexual orientation. Furthermore, given the very negative responses to gay men reported in all conditions in both studies, the possible influence of unidentified gay participants does not seem to have adversely affected these studies. Another potential criticism of this research is that our sample sizes were somewhat small: between 20 and 37 per condition across the two experiments. However, these sample sizes were larger than sample sizes per condition used in previous published imagined contact research (e.g., Turner, Crisp, et al., 2007; Expt 1, N(per condition) = 14; Expt 2, N(per condition) = 12: also, Turner & Crisp, 2010; Expt 1, N(per condition) = 13), and were large enough to enable us to find significant effects and reasonable effect sizes.

Another criticism sometimes levied against imagined contact research in general is that significant results may simply reflect demand characteristics. However, this issue has been extensively dealt with in previous imagined contact research (see Crisp & Turner, 2012), particularly experiments showing that imagined contact alters implicit as well as explicit bias (see Turner & Crisp, 2010; Turner & West, 2012). Also, male homosexuality remains illegal in both Jamaica and Cyprus (Ottosson, 2009), and prevailing social norms in Jamaica encourage prejudice against gay men, rather than egalitarianism (West & Hewstone, 2012b). Hence, it seems unlikely that our results could be explained in terms of demand characteristics. Furthermore, in Experiment 2 we included a priming condition that could have also invoked demand characteristics; as imagined contact was superior to control, but the priming condition was not, our results also cannot be attributed exclusively to category priming or demand characteristics caused by asking participants to think about gay men. Nonetheless, we acknowledge that our design does not entirely eliminate the possibility of demand characteristics. Future research, using implicit measures of bias, could be useful in investigating whether imagined contact is still effective in very challenging contexts when self-presentation is circumvented.

Another possible criticism of this research is that it only investigated cognitive and affective measures of bias (social acceptance, behavioral intentions, and social attitudes), but did not investigate subsequent intergroup behavior. To date, no research has investigated imagined contact’s effects on actual behavior with another person. Furthermore, the legal restrictions that make direct contact interventions problematic would also restrict the use of intergroup behavior-based dependent measures. Nonetheless, future research in similar challenging contexts could look at other behaviors that do not involve outgroup members, such as signing a petition to change the laws against anal sex, or willingness to write a letter of support for gay rights.

## Policy implications

Anti-gay attitudes are quite severe in both Cyprus and Jamaica, and the public outing of gay people comes with real social and legal consequences which limit the activities of gay people and pro-gay activists. However, for the moment, neither country has any law forbidding pro-gay “propaganda”, as is the case in Russia (Elder, 2013), or the “promotion of homosexuality” as is the case in Uganda (Tamale, 2009). For countries like these (i.e., those with laws against homosexuality but not against pro-gay activism or rhetoric) the door remains open for prejudice-reducing interventions like imagined contact – interventions that offer many of the benefits of contact, but avoid the risk of involving openly gay people. For example (though high levels of prejudice may make this difficult in Cyprus and Jamaica), imagined contact could be applied in a large scale, organized manner in schools and universities (Vezzali, Capozza, Stathi, & Giovannini, 2012), changing the emerging generations’ attitudes toward gay people.

The media could also play a pivotal role in reducing anti-gay bias in these and similar countries. Prior reviews of imagined contact research point out that one of the mechanisms through which it reduces prejudice is by providing alternative behavioural scripts for more positive cross-group interactions (Crisp et al., 2010). This is supported by our current research as well, which shows that participants adopt more positive behavioural strategies in line with their imagined behaviours (Experiment 1). Currently, negative behavioural scripts involving ostracism, hostility and violence are numerous and widely available in Northern Cyprus and Jamaica (Bilefsky, 2009; Farquharson, 2005). Imagined contact, encouraged through print and audiovisual media (Paluck, 2009), could provide alternative, more harmonious behavioural scripts for interactions across sexualities, eventually leading to more positive cross-group interactions and a safer atmosphere for openly gay people.

# Conclusions

Imagined contact is a technique with the potential to reduce prejudice even when other interventions, such a direct contact, may be difficult to use. Though concerns have been raised about imagined contact’s feasibility in high-prejudice contexts, we found that imagined contact can in fact be used where it is needed the most, in contexts where prejudice is severe and where direct or extended contact may not be practical options. These findings support of the application of imagined contact as a valuable prejudice-reducing tool where other options are limited, and in doing so add to the body of research indicating that imagined contact may be an important step in reducing difficult, deep-seated prejudices.

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# Figure Captions

*Figure 1. The effect of imagined contact on behavioural intentions mediated by attitudes (Experiment 1).*

*Figure 2. Mean positive attitude scores in Experiment 2 in the control, priming, and imagined contact conditions. Error bars represent the standard error of the mean.*

*Figure 3. The effect of imagined contact on social acceptance mediated by attitudes (Experiment 2).*

# Figures

*Figure 1.*

Attitudes

*β* = .55\*\*

*β* = .40\*

*β* = .52\*

Social Acceptance

Imagined contact

Note: \* = *p* < .05, \*\* = *p* < .01, \*\*\* = *p* < .001

*Figure 2.*

*Figure 3.*

Attitudes

*β* = -.03

*β* = .71\*\*\*

*β* = .43\*

Social Acceptance

Imagined contact

Note: \* = *p* < .05, \*\* = *p* < .01, \*\*\* = *p* < .001

# Tables

*Table 1. Means and standard deviations of dependent variables according to condition in Experiment 1.*

|  |  |  |
| --- | --- | --- |
|  | Control | Imagined Contact |
| Attitudes | 2.68 (1.14) | 3.48 (1.36) |
| Behavioral Intentions | 1.80 (1.28) | 3.29 (2.00) |

*Table 2. Means and standard deviations of dependent variables according to condition in Experiment 2.*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Control | Priming | Imagined contact |
| Attitudes | 2.33 (1.13) | 2.72 (1.58) | 3.21 (1.48) |
| Social Acceptance | 2.98 (1.46) | 3.21 (1.70) | 3.55 (1.72) |