Contact *sans* Contact: Investigating a Novel Experiential Intergroup Contact Approach to Reducing Mental Health Stigma

Chloe Tresoi Tyler Farahar

School of Psychology

University of Kent

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Declaration

The research presented in this thesis was conducted while the author was a full-time postgraduate student in the School of Psychology, University of Kent (September 2015 – September 2019), on an Economic and Social Research Council awarded scholarship from the South East Doctoral Training Centre (now the South East Network for Social Sciences Doctoral Training Partnership). With the exception of Study 1, the work presented here has not contributed to any other degree or qualification. The data from Study 1 was collected and submitted in part fulfilment of my MSc in Group Processes and Intergroup Relations at the University of Kent (July 2015). These data have been reanalysed and rewritten.

Acknowledgements

For today's neurodivergents, tomorrow's (societally) neurotypical

– Chloe Farahar, September 2019

This thesis is dedicated to the psychological- and neuro-divergents amongst us: the "nutters", "weirdos", and "psychos": thank you for making the world so interesting and such a rich place to live.

Like most PhDs, this has been a journey, as well as a number of other metaphors – some with words unbecoming a thesis. In a workshop during my final year, when asked how I would describe my relationship with my thesis should it be a status on Facebook I said "it's complicated": it's a relationship I wanted to end, but one I have to grimace through until its birthday. To be fair, this was not the PhD thesis' fault. My journey was fraught with struggles my intense planning had not anticipated. In my first year as a slimmer, fresh-faced PhD student my Gramps who had brought me up since I was two-years-old was diagnosed with terminal cancer. My sister Linara and I took care of him 24-hours-a-day for several months until he died 30th November 2016. I wish with all my heart I could thank my Gramps, Terence Farahar, in person for supporting me in every aspect of life imaginable: to my Gramps, an amazing man I miss daily, and whom I wish could be here to see me in my softer, flappier graduation cap during my graduation ceremony.

During the months prior to my Gramps' passing I had also started another journey: it transpires that I am part of the rich and diverse "other" that I had always worked to support, to reduce the stigma toward. This ongoing journey was one that led to discovering my own neurodivergent identity and a later-life diagnosis of autistic in the first half of 2017. This identity also led me to some beautiful neurodivergent people who have supported my relationship with my thesis, who have supported me to be my authentic neurodivergent self, people like Annette Foster who works hard with me to reduce the

Abstract

Mental health stigma and prejudice are longstanding societal problems that require new solutions. One in six adults experience a common mental health problem in a given week (e.g. depression, generalised anxiety, phobias; Stansfeld, et al., 2016), yet the stigmatisation and its consequences are widespread. Despite the efforts of campaigns to reshape public opinion of mental illness (e.g., *Time to Change*; Time to Change, n.d.), the stigma persists as evidenced in this thesis' introductory *Chapter One, Study 1*. The challenge is to identify ways that can effectively shift public views. Derived from social psychological theory and methodology and the creative arts, the proposed research builds on work conducted at the Centre for the Study of Group Processes to evaluate an innovative prejudice-reduction method I have developed.

One of the most important social psychological theories of the 20th century is intergroup contact theory, which specifies that direct contact between groups is needed (under the right conditions) in order to reduce prejudice (Pettigrew & Tropp, 2006). Extensive research has supported the *contact hypothesis* and *extended contact hypothesis* (where only indirect contact is needed). However, direct and extended contact with mental health problem outgroup members is often not possible or counterproductive because of the accompanying stigma. A further implementation of the contact hypothesis, *imagined intergroup contact*, overcomes the barriers of direct and extended contact, and has been supported by a number of studies (Miles & Crisp, 2014), but is also limited by the narrow scope of contact, weak generalisability outside the lab, and effects that may not be sustained (Brown & Paterson, 2016).

This PhD thesis represents a further step along the continuum of intergroup contact by testing a new contact concept, referred to as *Experiential Intergroup Contact* (EIC). This approach sits between direct and indirect methods of contact, and is uniquely grounded in theories of intergroup contact, social identity, and experiential role-playing. It

is thereby providing a new multi-faceted and interdisciplinary approach to prejudice reduction, and is outlined in detail in *Chapter Two*. Central to EIC is the idea that simulated contact must shift the boundaries of group identification to create a common identity among people, in addition to engendering positive feelings and attitudes toward outgroup members, in order to produce a sustainable impact on prejudice. Experiential Intergroup Contact does so by implementing a realistic simulation of a more elaborated intergroup context in a format that is readily adapted for different populations. The *experiential contact hypothesis* proposes that simulated interactions with outgroup members can foster a common group identity and transfer knowledge about outgroup members' experiences, and therefore have a sustained positive impact on stigma and prejudice.

Underpinning EIC is my creation of a story in the form of a script that addresses mental health stigma, entitled *Stigmaphrenia*©. The story emphasises the positive aspects of being psychologically different and reclassifies mental health status under the umbrella of "neurodiversity". Experiential Intergroup Contact involves reading the Stigmaphrenia© script in a group, with each person taking the perspective of one of the characters in the story. One UK and two US schools have trialled this intervention on a small scale to test feasibility. Verbal reports from key teachers indicate positive impacts on young person's views of mental health. These anecdotal findings and user interest are promising and underscore the urgency for the systematic investigation of EIC.

The main aim for this thesis is to evaluate EIC for reducing mental health stigma and under what conditions it is most likely to be effective. The proposed work is exciting from a social psychological standpoint because it suggests an innovative integrative and

interdisciplinary approach to mental health stigma reduction, with strong theoretical and applied implications, and poses new research questions:

Q1: Can EIC reduce mental health stigma?

Q2: Do stigma-reduction outcomes following EIC last?

Q3: By what mechanisms does EIC work?

Six studies attempt to answer these questions. Following the evidence that stigma toward those with mental health problems is still prevalent in *Chapter One, Study 1* ($N = 154$ university students), *Chapter Three, Study 2* ($N = 84$ secondary school pupils) investigates the extent to which the theorised experiential element of Experiential Intergroup Contact outlined in *Chapter Two* acts as a mediating mechanism. *Chapter Four, Study 3* investigates the utility of a neurodiversity superordinate category in effecting stigma – recategorisation – with a crowd sourced population online ($N = 146$). In *Chapter Five*, studies *4* and *5* investigate the longitudinality of EICs effects in a school sample ($N = 52$) and a university sample ($N = 89$). The final sixth study in *Chapter Six* ($N = 5$) qualitatively investigates the longevity of language and behaviour change of past actors as a result of their involvement with the EIC script Stigmaphrenia$^©$ in 2013 or 2015.

Findings indicate that there is still work to be done to be able to operationalise Experiential Intergroup Contact with Stigmaphrenia$^©$ to reduce mental health stigma, and the general limitations of its investigation and future directions of this novel intergroup contact are detailed in the final *Chapter Seven*.

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Chapter One. Study 1. Still Stigmatised: Mental Health Stigma in an Online University

Student Sample

In this chapter, the findings from an online study investigating participant

stigmatising attitudes, affect, and intended behaviour toward those considered mentally ill

are critically discussed. First outlined is the problem of mental health stigma – how it

effects and affects. Following the assertion in the literature that mental illness is amongst

one of the most stigmatised groups to belong to, it was hypothesised that the mentally ill

target group would be the most stigmatised in comparison to a potentially observable

group membership (physically disabled) and a third concealable target group (gay). One-

hundred-and-fifty-four university students participated in an online study about "individual

attitudes, emotions, and intended behaviours toward different social groups", responding to

measures for the three target groups – mentally ill, gay, and disabled. Results confirmed

that overall, the mentally ill were the most stigmatised of the three group memberships, but

results also demonstrated that stigma toward gay and disabled groups is a complex and

nuanced picture. The finding that the mentally ill target group is still one of the most

stigmatised is discussed in relation to a proposed evolution of the intergroup contact

methodologies – *Experiential Intergroup Contact*.

Defining the Stigmatisation of Mental Health

While prejudice is used as a process to explain the attitudes and discrimination

toward, predominantly, ethnic groups (Phelan, Link, & Dovidio, 2008), stigma as a process

is typically used when discussing the stereotyping beliefs, prejudicial affective attitudes,

and discriminatory behaviour toward those labelled – marked out – as mentally ill (Gaebel,

Rössler, & Sartorius, 2017; Goffman, 1963; Phelan, Link, & Dovidio, 2008). This process

comprises co-occurring components of labelling, stereotyping, setting apart into "us" and

"them" categories, status loss, and discrimination (Link & Phelan, 2001) – features

considered essential of stigma (Link & Stuart, 2017). As concluded by Phelan, Link, and

Dovidio (2008) in their paper comparing the conceptualisations of prejudice and stigma, the use of stigma in this thesis considers prejudice as the attitudinal component in a larger model of stigma. As such, this multicomponent process of stigma as relates to mental health, and the evidence for its reduction, are the focus of this thesis.

The Problem: The Stigmatisation of Mental Health

It is reported that one in six adults experience a common mental health problem in a given week (e.g. depression, generalised anxiety, phobias; Stansfeld, et al., 2016); two per cent of the UK population experience bipolar; and 0.5 per cent of the adult population experience a form of psychosis in a given year (i.e. extreme mental health problems; Bebbington, et al., 2016; Marwaha, Sal, & Bebbington, 2016). Individuals who experience a mental health problem not only have to contend with the mental health problem itself, but also the ensuing stigmatisation.

Individuals who experience mental health problems are a heterogeneous population who, as a group, are considered "among the most deeply discredited of all stigmatized conditions" (Stuart, 2012, p. 455; Goffman, 1963; also see Bos, Kanner, Muris, Janssen, & Mayer, 2009; Corrigan, 2005; Heflinger & Hinshaw, 2010; Johnstone, 2001). Initially defined by Erving Goffman (1963), stigma is the severe disapproval of characteristics at odds with societal expectations, and society stigmatises those labelled as having a mental health problem due to the belief that they have personal traits that deviate from "normality". Link and Phelan (2001) later expounded on Goffman's definition, defining a complex conceptualisation of stigma where those with mental health problems are identified and labelled as deviant by society. This labelling is then associated with negative stereotyped beliefs about those with this socially-deviant identity, and this creates a categorical "them" and "us" distinction. This separation brings with it status loss and leads to discriminatory behaviour.

Mental health stigma is enacted through a number of overt and subtle forms,

including the attribution of negative stereotypes (e.g. the belief that those with mental

health problems are dangerous; responsible for their mental health problem; unpredictable;

incompetent); making those with mental health problems the target of negative attitudes

and feelings (e.g. discomfort; anxiety; fear); and discriminatory behaviour (e.g. bullying;

denial of employment and housing; Corrigan & Shapiro, 2010; Henderson, 2017). This

social stigma affects people on a daily basis in the workplace (Biggs, Hovey, Tyson, &

MacDonald, 2010; Evans-Lacko, Knapp, McCrone, Thornicroft, & Mojtabai, 2013; Stuart,

2006), at the level of institutions and policy (e.g. Corrigan, Markowitz, & Watson, 2004),

in health care and service provision settings (Sartorius, 2002), and through the

internalisation of public stigma as self-stigma (Corrigan & Rao, 2012; Livingston & Boyd,

2010).

Given the prejudice and discrimination faced in the context of mental health

problems, people come to anticipate being judged, devalued, rejected, and discriminated

against (Bos, Kanner, Muris, Janssen, & Mayer, 2009; Clement, et al., 2015; Corrigan, et

al., 2010; Pinto-Foltz & Logsdon, 2009; Quinn & Chaudoir, 2009), and this anticipation

creates a "double-edged sword" (Corrigan & Wassel, 2008, p. 43). That is, people

experience both self-stigmatisation and a worsening of their psychological state, including

increased symptom severity, reduced treatment adherence, and reduced self-esteem and

self-efficacy (Chaudoir & Fisher, 2010; Clement, et al., 2015; Link, Phelan, & Sullivan,

2017; Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Livingston & Boyd,

2010; Quinn & Chaudoir, 2009; Quinn, 2017).

Those with mental health problems who internalise the stereotypes and prejudicial

attitudes about their group identity can enact self-discriminatory behaviours such as the

avoidance of potentially stigmatising situations and people, often leaving individuals to

suffer in silence, and alone (Time to Change, 2015; Zäske, 2017). Ultimately, the

stigmatisation of mental health problems compounds the difficulties this group experience,

with research demonstrating that the experience of mental health stigma is more strongly linked to negative outcomes for members of this group than the stigmatised condition itself.

Time, effort, and money have gone into attempts to reduce public mental health stigma. The staple stigma-reduction methods – *protest*, *education*, and *intergroup contact* – have been employed to varying success by government supported charitable initiatives such as Time to Change in an effort to reduce mental health stigma (Time to Change, n.d.). And yet, mental health stigma endures (Schomerus & Angermeyer, 2017). One possible reason for this endurance is the recent trend of comparing mental health problems to physical health problems – the insistence that "mental illness is an illness like any other" (Longdon & Read, 2017; Read, Haslam, Sayce, & Davies, 2006). This narrative, while reducing public perceptions of blame, increases public need for distance from those labelled mentally "ill" (particularly those considered severely mentally ill, e.g. schizophrenia; Corrigan, 2016; Haslam & Kvaale, 2015; Schomerus & Angermeyer, 2017). This biological illness explanation for mental and emotional distress is linked to the stability of, and even increases in, stigma (Schomerus & Angermeyer, 2017). Ultimately, while there may be some improvement in public perceptions of mental health problems (e.g. decreased blame; Henderson, Evans-Lacko, & Thornicroft, 2017; Kvaale, Gottdiener, & Haslam, 2013; Mehta & Farina, 1997), are these perceptions improving in relation to other stigmatised groups, or do those with mental health problems remain the most discredited of all stigmatised experiences?

There is some evidence that mental health problems may still be one of the most stigmatised group memberships. For instance, findings in commissioned reports for the Equality and Human Rights Commission demonstrate that "[a]ttitudes towards mental health are less positive than towards physical disability" (Abrams, Swift, & Mahmood, 2016, p. 48), with respondents wanting greater social distance from persons with mental

health problems than disabled persons (Abrams, Swift, & Houston, 2018). Abrams, Swift,

and Houston (2018) found across Britain ($N = 2,853$) that respondents reported feeling

least comfortable having someone with a mental health problem marry into their family

(29%), in comparison to only eight per cent who reported they would feel uncomfortable if

the person were disabled/physically impaired. The British Social Attitudes Survey (BSAS,

2009; as cited in Abrams, Swift, & Mahmood, 2016) found that, compared to other

disabilities, participants reported feeling less comfortable with a person with mental health

problems "being part of a club or team they used, as a neighbour, in class with their child

(or a close relative's child), as a relative or friend's spouse, as their boss, [or] as [their]

local MP" (Abrams, Swift, & Mahmood, 2016, p. 48).

Comparing the mental health problem group with the lesbian, gay, bisexual (LGB)

group we find that personal perceptions of experienced discrimination is greater for those

with mental health problems than LGB people (61% vs. 46%; Abrams, Swift, & Houston,

2018). And yet, public negative feeling toward mental health (5%) was reported as less

than toward LGB persons (9%), with the disabled group receiving the least negative

feeling of the three comparison groups (3%; Abrams, Swift, & Houston, 2018).

If we compare only the LGB and disabled groups, we get a different picture again.

Results from the National Survey (Abrams & Houston, 2006) compared participant

feelings toward the LGB group and disabled group. Abrams and Houston (2006) found

two per cent negative and 76 per cent positive feelings toward disabled persons, compared

to 22 per cent negative, and 35 per cent positive feelings toward the gay/lesbian group.

Demonstrably, it is difficult to determine the extent of stigma toward different groups due

to a lack of direct comparisons on key measures between stigmatised groups (Abrams,

Swift, & Mahmood, 2016).

Overview and Hypotheses

In light of the detrimental effects of stigma, it is important to identify if having

mental health problems is still one of the most stigmatised identities (Goffman, 1963; also see Bos, Kanner, Muris, Janssen, & Mayer, 2009; Corrigan, 2005; Heflinger & Hinshaw, 2010; Johnstone, 2001). While it may seem obvious to consider mental health problems the most discredited and stigmatised group one can belong to, often different stigmatised groups are not directly compared for public attitudinal responses (Abrams, Swift, & Mahmood, 2016). It is important to identify if the need to reduce stigma toward this group is still great, and any more so than toward other historically stigmatised groups. Therefore, the present study determined the following research questions:

1. As a group, do those with mental health problems still receive the least favourable attitudes, affect, and behavioural intentions in comparison to physically disabled persons?

2. In comparison to a concealable identity such as homosexuality, does the mental health problem group receive the least favourable responses?

To answer these questions the present study gave crowd sourced participants online questionnaires where they responded to measures of negative attitude, affect, and intended behaviour toward the three target groups – mentally ill, gay, and disabled.

Based on recent research reports (e.g. those commissioned by the Equality and Human Rights Commission and those based on the National Survey; Abrams & Houston, 2006; Abrams, Swift, & Houston, 2018; Abrams, Swift, & Mahmood, 2016), and classic studies such as Tringo's (1970) hierarchy of preference toward disability groups (a hierarchy replicated 30 years later; Thomas, 2000; also see Gordon, Chariboga-Tantillo, & Feldman, 2004), it would be expected that the mental health problem target group would receive the most stigmatising responses in comparison to both the gay and physically disabled groups (H1). It is also reasonable to expect to find that the physically disabled

group is the least stigmatised of the three groups (H2), and the gay target group stigmatised more than the disabled group, but less than the mental health problem target group (H3).

Method

Design

The experiment used a within-participants design, where the independent variable, stigma target group, had three levels (mentally ill vs. gay vs. disabled). The dependent variables comprised measures of stigmatising attitude, affect, and intended behaviours toward each target group.

Participants

An *a-priori* statistical power analysis (GPower 3.1.9.2) indicated the need for an approximate sample size $N = 32$ in order to have 80% power to detect a medium effect size ($f = 0.25$), with error probability .05.

A total of 203 university students agreed to participate in the online study in return for a monetary reward (£2.50, sourced via the Prolific crowdsourcing platform). Due to the finding that those with personal, lived experience of mental health problems have, on average, less stigmatising attitudes, affect, and behaviour (cf. Alexander & Link, 2003; Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Lee & Seo, 2018), 42 participants were excluded for considering themselves to have or have had a "mental illness"[1]. A further participant was excluded for not reporting their mental health status. Of the remaining 160 participants, 154 participants sufficiently completed the questionnaire and are included in data analysis. The remaining 154 participants (92 males, 61 females, 1 undisclosed) were on average 23.43 years old ($SD = 5.15$ years), ranging between 18 and 49 (for ethnicity see Table 1).

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[1] Ethical approval granted 7/1/2015, code: 20153909.

Table 1

Study 1, Demographics: Ethnic Background (N = 154)

	n	%
Asian or Asian British - Bangladeshi	1	.6
Asian or Asian British - Indian	16	10.4
Asian or Asian British - Any other Asian background	7	4.5
Black or Black British - African	2	1.3
Black or Black British - Caribbean	1	.6
Chinese	10	6.5
Mixed - White & Asian	3	1.9
Other ethnic group	1	.6
White - Any other White background	43	27.9
White - British	59	38.3
White - Irish	4	2.6
Mixed - White & Black African	1	.6
Mixed - White & Black Caribbean	2	1.3
Mixed - Any other Mixed background	4	2.6

Measures

The term "mentally ill" was used throughout the questionnaire to describe those with mental health problems, a term conventionally used to describe this group (e.g. Gaebel, Rössler, & Sartorius, 2017; McKeague, Hennessy, O'Driscoll, & Heary, 2015; Yang & Link, 2016). Both gay (Cain, 1991; Herek, 2015) and physically disabled (Susman, 1994; Green, 2007) minorities are historically confronted with stigma, and so are used as comparison groups. An invisible stigmatised identity (gay) was used as a comparison to the mentally ill, which is also an invisible identity (concealable; Chaudoir & Fisher, 2010; Quinn & Chaudoir, 2009; Quinn, 2017). The third physically disabled group of interest was used as a comparison specifically because physical disabilities can be stigmatised, similarly to mental illness and being gay, but can also be more apparent (i.e. less concealable or invisible).

Universal measure of bias. The Latner, Durso, Brinkman, and MacDonald (2008) Universal Measure of Bias (UMB) is the first that can assess bias toward any given number of groups. The mentally ill target group of interest was inserted into the UMB, as well as the two comparison groups (gay and disabled). The three UMB subscales used comprise: five *negative judgement* items measuring bias toward those described as mentally ill (as well as gay and disabled persons; e.g. "Mentally ill people are sloppy"); five *distance* bias items (e.g. "Generally, people don't enjoy having a conversation with a mentally ill person"); and five *attraction* items corresponding to respondent attraction toward those described as mentally ill (e.g. "Mentally ill people make good romantic partners"; scored on a 5-point Likert scale, from *strongly agree* to *strongly disagree*). High scores indicative of negative judgement, a need for distance, and a lack of attraction toward each of the three target groups, mentally ill, gay, and disabled (negatively worded items reverse scored e.g. "Mentally ill people tend toward bad behaviour"; Appendix A).

Intended behaviour. Used to assess how respondents intend to behave toward the mentally ill in the future, the four *intended behaviour* (IB) items were taken from the Evans-Lacko and colleagues (2011) Reported and Intended Behaviour scale (scored on a 5-point Likert scale, from *strongly agree* to *strongly disagree*, with high scores indicative of negative intended behaviour; e.g. "In the future, I would be willing to live with someone who is mentally ill"; Appendix B). This scale was used for each target group.

Affective prejudice. Developed by Pettigrew and Meertens (1995), the Affective Prejudice scale uses two items to assess how participants feel toward each of the three groups (scored on a 5-point scale, from *never* to *all of the time*, with high scores indicative of greater affective prejudice; e.g. "How often have you felt sympathy for mentally ill people?"; both Affective Prejudice items reverse scored; Appendix C).

General evaluation. The final measure of interest was the Wright, Aron, McLaughlin-Volpe, and Ropp (1997) General Evaluation scale, assessing participant

positive-negative affective evaluations of the mentally ill group, gay group, and disabled group. The General Evaluation scale uses seven bipolar adjective pairs, separated by a seven-point scale, to assess participant general evaluations of the mentally ill target and comparison groups (e.g. 1 = *Extremely: Warm*, to 7 = *Extremely: Cold*; higher scores indicative of negative evaluations, contrary to its original use. Appendix D).

All scales and subscales were reliable for each target group (αs > .64).

Procedure

Described (ostensibly to participants) as a questionnaire study about "individual attitudes, emotions, and intended behaviours toward different social groups", participants were presented with information about the study, and following consent to participate, completed initial demographic information. Those participants who answered that "yes" they considered themselves to have or have had a mental illness were automatically excluded from the study, and directed to a debriefing page explaining why. Participants were required to answer 28 items for the *mental illness* attitudes, affect, and intended behaviour indices of interest (detailed under the Measures heading), as well as answering the same items for *gay* and *physically disabled* groups (84 questions in total). Participants were thanked and fully debriefed.

Analyses were conducted using IBM SPSS 24 software. The Greenhouse-Geisser correction is used if sphericity has been violated.

<div align="center">

Results

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Means, standard deviations, and correlations for dependent variables across the three conditions are presented in Table 2. As shown in Table 2, the mean scores for the mentally ill dependent variables were largely around or just above the mid-point of the scales, with no particularly high variances, indicating a trend in the direction of stigma. The mean scores for both the gay and disabled target groups were around or below the mid-point of the scales, indicating participants generally held fewer stigmatising attitudes,

affect, and intended behaviours for these two target groups. There were moderate

variances for the gay target group on affective prejudice and general evaluation, unlike

both the mentally ill and disabled target groups, meaning there was some variability in

participant scores for the gay target group.

The highest correlation amongst variables was $r = 0.79$, $p < .01$, and there were

significant small, medium, and large correlations amongst most of the variables. These

patterns indicate that on the whole, as stigmatising attitudes, affect, and intended

behaviours increase for one target group, stigma increases for the other target groups.

Gender did not significantly account for any of the variance in the dependent

variables toward the target groups (χ^2s $> .05$). Age was not significantly correlated with

any of the variables (χ^2s $> .05$). Gender and age were not entered as potential covariates.

Table 2

Study 1, Means (M), Standard Deviations (SD), and Correlations Among Dependent Variables (Cronbach alphas in parentheses; N = 154)

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	UMB total MI	3.17	0.46	(.78)																				
2	UMB negative judgement MI	2.55	0.71	.69**	(.76)																			
3	UMB distance MI	3.45	0.63	.79**	.27**	(.69)																		
4	UMB attraction MI	3.52	0.54	.69**	.14	.49**	(.69)																	
5	Intended behaviour MI	2.41	0.81	.54**	.47**	.36**	.35**	(.86)																
6	Affective prejudice MI	2.61	0.79	.28**	.22**	.09	.30**	.29**	(.71)															
7	General evaluation MI	3.43	0.89	.41**	.38**	.21**	.28**	.36**	.51**	(.83)														
8	UMB total gay	2.50	0.59	.29**	.21*	.28**	.16	.31**	.17*	.28**	(.88)													
9	UMB negative judgement gay	2.02	0.71	.16*	.21**	.08	.04	.20*	.18*	.27**	.82**	(.83)												
10	UMB distance gay	2.64	0.73	.35**	.25**	.36**	.14	.29**	.08	.19*	.83**	.49**	(.74)											
11	UMB attraction gay	2.85	0.69	.22**	.05	.25**	.21**	.28**	.16*	.23**	.84**	.54**	.56**	(.79)										
12	Intended behaviour gay	1.92	0.96	.25**	.27**	.16	.11	.49**	.27**	.26**	.79**	.63**	.67**	.66**	(.89)									
13	Affective prejudice gay	3.14	1.06	.17*	.05	.11	.24**	.16*	.34**	.14	.41**	.32**	.23**	.48**	.48**	(.81)								
14	General evaluation gay	2.91	1.14	.29**	.26**	.14	.23**	.31**	.29**	.37**	.72**	.69**	.48**	.64**	.72**	.57**	(.93)							
15	UMB total disabled	2.70	0.43	.37**	.37**	.31**	.09	.19*	.14	.31**	.38**	.34**	.36**	.23**	.18*	.06	.22**	(.79)						
16	UMB neg. judgement disabled	2.17	0.63	.25**	.48**	.07	-.07	.18*	.07	.29**	.33**	.42**	.28**	.11	.17*	.01	.21**	.75**	(.78)					
17	UMB distance disabled	2.59	0.62	.21**	.13	.32**	-.02	.18*	.04	.15	.35**	.27**	.35**	.24**	.19*	-.00	.15	.79**	.36**	(.70)				
18	UMB attraction disabled	3.36	0.50	.38**	.18*	.32**	.36**	.04	.22**	.25**	.13	.01	.15	.15	.01	.14	.10	.66**	.22**	.33**	(.65)			
19	Intended behaviour disabled	1.94	0.71	.24**	.27**	.12	.12	.49**	.32**	.25**	.46**	.39**	.35**	.38**	.55**	.25**	.38**	.39**	.26**	.42**	.13	(.89)		
20	Affective prejudice disabled	2.19	0.74	.02	.05	-.08	.08	.11	.62**	.16	.15	.19*	.04	.15	.20*	.43**	.24**	.14	.12	.05	.14	.24**	(.71)	
21	General evaluation disabled	2.63	0.93	.18*	.25**	.01	.13	.18*	.35**	.47**	.33**	.39**	.19*	.25**	.21**	.22**	.49**	.41**	.49**	.18*	.21**	.28**	.46**	(.89)

Notes. MI = mentally ill; UMB = Universal Measure of Bias; neg. judgement = negative judgement

* *p* < .05;

** *p* < .01

One-way GLM ANOVAs were conducted for the dependent variables. Based on the theoretical assumptions directing the hypotheses, planned contrasts were used to analyse the data (contrasts testing hypotheses are found in Table 3). In order to test the first hypothesis (H1), that the mentally ill target group would receive the greatest stigma responses compared to both the gay and disabled groups, contrast 1 (C1) compared the mentally ill group to both the gay and disabled groups. To test for H2, that the disabled group is the least stigmatised of the three target groups, contrasts 3 and 4 compare the mentally ill group with the disabled (C3), and the gay group with the disabled (C4). To test the third and final hypothesis (H3), that the gay group will receive greater stigma than the disabled group, but less than the mentally ill group, contrasts 2 and 4 compare the mentally ill with the gay group (C3), and the disabled with the gay group (C4).

Table 3

Study 1, Planned Contrasts Reflecting Hypotheses

	Planned contrasts			
Condition	Contrast 1	Contrast 2	Contrast 3	Contrast 4
Mentally ill	1	-1	-1	0
Gay	-.500	1	0	1
Disabled	-.500	0	1	-1

Universal Measure of Bias

When UMB total (comprised of the three subscales negative judgement, distance, attraction) was the dependent variable, there was a significant effect of target group, $F(1.89, 289.59) = 108.99$, $p < .001$, $\eta_p^2 = .42$. Planned contrasts revealed that participants displayed greater stigmatising attitudes toward the mentally ill ($M = 3.17$, $SD = 0.46$), $F(1, 153) = 207.77$, $p < .001$, $\eta_p^2 = .58$, than both gay ($M = 2.50$, $SD = 0.59$) and disabled groups ($M = 2.71$, $SD = 0.43$) combined, supporting hypothesis 1.

In support of hypothesis 3, the mentally ill target group received the greatest stigmatising UMB compared to the gay target group, $F(1, 153) = 171.90$, $p < .001$, $\eta_p^2 = .53$, and the mentally ill group also received significantly greater UMB scores compared to the disabled group, $F(1, 153) = 134.09$, $p < .001$, $\eta_p^2 = .47$.

The disabled group received significantly greater stigmatising UMB than the gay group, $F(1, 153) = 18.02$, $p < .001$, $\eta_p^2 = .11$, contrary to Hypotheses 2 and 3. Breaking down the UMB into its constituent subscales, we may discern which biases are more likely to be levelled at each target group.

Negative judgement. When UMB negative judgement was the dependent variable, there was a significant effect of target group, $F(1.82, 279.24) = 38.29$, $p < .001$, $\eta_p^2 = .20$. Planned contrasts revealed that participants displayed greater UMB negative judgement toward the mentally ill ($M = 2.55$, $SD = 0.71$), $F(1, 153) = 63.32$, $p < .001$, $\eta_p^2 = .29$, than both gay ($M = 2.02$, $SD = 0.71$) and disabled groups ($M = 2.17$, $SD = 0.63$) combined, supporting hypothesis 1.

In support of hypothesis 3, the mentally ill target group received the greatest UMB negative judgement compared to the gay target group, $F(1, 153) = 54.26$, $p < .001$, $\eta_p^2 = .26$, and compared to the disabled group, $F(1, 153) = 46.95$, $p < .001$, $\eta_p^2 = .23$.

Again, as with total UMB, the disabled group received significantly greater stigmatising UMB negative judgement than the gay group, $F(1, 153) = 6.37$, $p = .013$, $\eta_p^2 = .04$, contrary to hypotheses 2 and 3.

Distance. When UMB distance was the dependent variable, there was a significant effect of target group, $F(2, 306) = 121.54$, $p < .001$, $\eta_p^2 = .44$. Planned contrasts revealed that participants displayed greater UMB distance toward the mentally ill ($M = 3.45$, $SD = 0.63$), $F(1, 153) = 252.88$, $p < .001$, $\eta_p^2 = .62$, than both gay ($M = 2.64$, $SD = 0.73$) and disabled groups ($M = 2.59$, $SD = 0.62$) combined, supporting hypothesis 1.

In support of hypothesis 3, the mentally ill target group received the greatest UMB distance scores compared to the gay target group, $F(1, 153) = 164.27$, $p < .001$, $\eta_p^2 = .51$, and compared to the disabled group, $F(1, 153) = 209.87$, $p < .001$, $\eta_p^2 = .57$.

No significant difference was found on UMB distance between the disabled group or gay group, $F(1, 153) = .77$, $p = .37$, $\eta_p^2 = .005$, contrary to hypotheses 2 and 3.

Attraction. When UMB attraction was the dependent variable, there was a significant effect of target group, $F(1.81, 277.88) = 70.60$, $p < .001$, $\eta_p^2 = .31$. Planned contrasts revealed that participants displayed greater UMB attraction scores toward the mentally ill ($M = 3.52$, $SD = 0.54$), $F(1, 153) = 80.09$, $p < .001$, $\eta_p^2 = .34$, than both gay ($M = 2.85$, $SD = 0.69$) and disabled groups ($M = 3.36$, $SD = 0.50$) combined, supporting hypothesis 1.

In support of hypothesis 3, the mentally ill target group received the greatest UMB attraction scores (indicative of diminished attraction) compared to the gay target group, $F(1, 153) = 111.86$, $p < .001$, $\eta_p^2 = .42$, and compared to the disabled group, $F(1, 153) = 10.59$, $p = .001$, $\eta_p^2 = .06$.

Again, as with total UMB, the disabled group received significantly greater stigmatising UMB attraction scores than the gay group, $F(1, 153) = 64.04$, $p < .001$, $\eta_p^2 = .29$, contrary to Hypotheses 2 and 3.

Intended Behaviour

When intended behaviour was the dependent variable, there was a significant effect of target group, $F(2, 306) = 33.03$, $p < .001$, $\eta_p^2 = .17$. Planned contrasts revealed that participants displayed greater IB scores toward the mentally ill, indicative of unwillingness to engage in behaviours ($M = 2.41$, $SD = 0.80$), $F(1, 153) = 64.03$, $p < .001$, $\eta_p^2 = .29$, than both gay ($M = 1.92$, $SD = 0.96$) and disabled groups ($M = 1.94$, $SD = 0.71$) combined, supporting hypothesis 1.

In support of hypothesis 3, the mentally ill target group received the greatest IB scores compared to the gay target group, $F(1, 153) = 43.60$, $p < .001$, $\eta_p^2 = .22$, and compared to the disabled group, $F(1, 153) = 55.85$, $p < .001$, $\eta_p^2 = .26$.

No significant difference was found on IB scores between the disabled group or gay group, $F(1, 153) = .06$, $p = .80$, $\eta_p^2 < .001$, contrary to hypotheses 2 and 3 – participants intended to engage equally in behaviour toward both gay and disabled groups in the future.

Affective Prejudice

When affective prejudice was the dependent variable, there was a significant effect of target group, $F(1.61, 247.48) = 79.48$, $p < .001$, $\eta_p^2 = .34$. Planned contrasts, however, did not reveal a significant difference between the mentally ill target group ($M = 2.61$, $SD = 0.78$), $F(1, 153) = .82$, $p = .36$, $\eta_p^2 = .005$, compared to both gay ($M = 3.14$, $SD = 1.06$) and disabled groups combined ($M = 2.19$, $SD = 0.74$) on affective prejudice.

In support of hypothesis 3, the mentally ill target group received the greatest affective prejudice scores compared to the disabled target group, $F(1, 153) = 59.69$, $p < .001$, $\eta_p^2 = .28$. However, contrary to hypothesis 3, the gay target group received significantly greater affective prejudice scores than the mentally ill, $F(1, 153) = 36.63$, $p < .001$, $\eta_p^2 = .19$.

The gay target group received significantly greater stigmatising affective prejudice scores than the disabled group, $F(1, 153) = 139.24$, $p < .001$, $\eta_p^2 = .47$, supporting hypothesis 2 and 3– participants were significantly less likely to have felt sympathy or admiration for the gay group than the disabled.

Affective Prejudice

When general evaluation was the dependent variable, there was a significant effect of target group, $F(1.91, 292.95) = 45.33$, $p < .001$, $\eta_p^2 = .22$. Planned contrasts revealed that participants displayed greater stigmatising general evaluation scores toward the

mentally ill ($M = 3.43$, $SD = 0.89$), $F(1, 153) = 80.68$, $p < .001$, $\eta_p^2 = .34$, than both gay ($M = 2.91$, $SD = 1.14$) and disabled groups ($M = 2.63$, $SD = 0.93$) combined, supporting hypothesis 1.

In support of hypothesis 3, the mentally ill target group received the greatest general evaluation scores compared to the gay target group, $F(1, 153) = 30.97$, $p < .001$, $\eta_p^2 = .16$, and compared to the disabled group, $F(1, 153) = 111.65$, $p = .001$, $\eta_p^2 = .42$.

The gay target group received significantly greater general evaluation scores than the disabled group, $F(1, 153) = 10.65$, $p = .001$, $\eta_p^2 = .06$, supporting hypotheses 2 and 3.

Discussion and Conclusion

This study sought to investigate if those with mental health problems are still amongst the most stigmatised when compared to other stigmatised groups. On the whole, the results provide support for hypothesis 1: the mental health problem target group receive the most stigmatising responses in comparison to both the gay and physically disabled groups. However, the stigma picture is somewhat more complex than merely stating that those who comprise the mental health problem group are the most stigmatised in comparison to gay and disabled target groups. Dependent on the nature of the stigmatisation – *attitude*, *affect*, or *intended behaviour* – the picture of stigma differs according to target group.

Overall, on the universal measure of bias the mentally ill target group received significantly more stigmatising responses than either of the gay or disabled groups, who conversely received positive attitude scores. Drilling down to the sub-scales of the UMB, the mentally ill target group were the most negatively stigmatised of the three groups on measures of distance and attraction – participants were not attracted to the mentally ill target group, and wanted distance from them. In relation to negative judgement, the mentally ill group did receive the highest scores in comparison to the gay and disabled groups, but this did not surpass the Likert scale midway point, and so was not a negative

judgement. Contradictorily, while it was the case that the mentally ill target group received low negative judgement scores (i.e. the mean scores were not indicative of negative judgement), participants did respond with a need for social distance (UMB distance) from this group. This contradiction between attitude and behaviour has long been a finding in psychological research (LaPiere, 1934), and has been explained in relation to how stigma-reduction methods (and mental health problem discourse more generally) focus on the narrative that "mental illness is an illness like any other" (Longdon & Read, 2017; Read, Haslam, Sayce, & Davies, 2006) in an attempt to align it with physical ill health. This narrative has shown to be a mixed blessing – people do not blame those who have a biological mental illness, as it is not their fault (hence positive attitudes), but consequently want greater social distance from them as they are inherently, biologically *different* according to this narrative (Schomerus & Angermeyer, 2017).

Although the least of the three target groups, participants reported having intention to engage in behaviours with the mentally ill in the future (e.g. be willing to work with someone who is mentally ill), which contradicts the finding from the UMB distance scores. This could be due to the wording of the intended behaviour scale, where all four questions ask "In the future, I would be willing to…": participants may feel that at an undetermined future time they may be willing to engage in behaviours with the mentally ill that at present they are not (demonstrated in the UMB distance outcome). Further, all four intended behaviour items are positively worded, and so it may be pertinent in future to reverse two of the four items.

The finding that university participants reported feeling sympathy and admiration for both the mentally ill and disabled target groups, but not the gay group (e.g. often perceived ambivalently; Clausell & Fiske, 2005), is supportive of findings from stereotype content literature, where groups that can be perceived as vulnerable are treated with benevolence and warmth, but low competence (Cuddy, Fiske, & Glick, 2008). Framed this

way, the finding that the mentally ill group is not the most stigmatised when it comes to affective prejudice is not surprising (although benevolent stigma is problematic, linked as it is to low self-esteem, quality of life, and severity of symptoms; Ilic, et al., 2013).

Ultimately, what this study demonstrates is that even in a small, (largely) WEIRD (Western, Educated, Industrialized, Rich, and Democratic) sample, mental health problems as a group is the most stigmatised to be a member of (at least compared to being gay or physically disabled). This supports the findings of recent national surveys (Abrams & Houston, 2006; Abrams, Swift, & Houston, 2018; Abrams, Swift, & Mahmood, 2016), and sadly maintains the status quo – that mental health is the most discredited group to belong to (Goffman, 1963; also see Bos, Kanner, Muris, Janssen, & Mayer, 2009; Corrigan, 2005; Heflinger & Hinshaw, 2010; Johnstone, 2001). However, the stigma picture is somewhat more complex for the second and third hypotheses.

In relation to the second hypothesis – that the physically disabled group is the least stigmatised of the three groups – this was only seen to be the case in relation to the two affective scales (affective prejudice and general evaluation). This further complicated the third hypothesis, which expected the gay target group to be stigmatised more than the disabled group, but less than the mentally ill. What was found was that the gay group was the most stigmatised on the affective prejudice outcome, and was actually the least stigmatised on measures of UMB negative judgement and attraction, only supporting hypothesis 3 on the general evaluation outcome: the gay group received greater general evaluation stigma than the disabled group, but less than the mentally ill group.

Having established that mental health problems as a group is still the most stigmatised to belong to there is the question as to why stigma-reduction endeavours have not improved this situation. Discussed in Chapter Two is the current state of play regarding the three most cited forms of stigma reduction – *protest*, *education*, and *intergroup contact* (both direct and indirect) – and includes their strengths and limitations

when it comes to stigma reduction toward those with mental health problems specifically.

Introduced in Chapter Two is a novel form of *Experiential Intergroup Contact* as a means

to tackle the inherent flaws of stigma-reduction strategies. Experiential Intergroup Contact

is a novel evolution of the intergroup contact methodologies that exist at present. It

adheres to the Allportian (1979) prescription, whilst mitigating the criticisms of more

indirect contacts that formed in intergroup contacts' wake. It is hoped that this novel form

of contact will reduce the stigma toward those with mental health problems so that this

group is no longer the most stigmatised.

Chapter Two. Experiential Intergroup Contact Theory and Praxis: Filling a Critical Gap in

Intergroup Contact Research

[A]ction is ordinarily better than mere information. Programs do well therefore to

involve the individual in some project…When [s]he does *something, [s]he* becomes

something. The deeper the acquaintance and the more realistic the contact,

the better the results

— Allport (1979, p. 509)

In this chapter, *Experiential Intergroup Contact* is presented as a novel, theoretically driven, and practical method for addressing the limitations of more common modes of intergroup contact, and will be considered as a novel approach for reducing mental health stigma specifically. The core modes of mental health stigma reduction will be outlined – *protest*, *education*, and *intergroup contact* – and their key strengths and limitations examined. Experiential Intergroup Contact is introduced and compared with existing stigma reduction strategies, and its theory is set out along with a method for its operationalisation and guiding instructions. The final discussion focusses on the theoretical and empirical prospects for Experiential Intergroup Contact.

Demonstrated in Chapter One, Study 1, individuals who experience mental health problems are a heterogeneous population who, as a group, are considered the most deeply discredited of all stigmatized conditions (Goffman, 1963; also see Bos, Kanner, Muris, Janssen, & Mayer, 2009; Corrigan, 2005; Heflinger & Hinshaw, 2010; Johnstone, 2001). With government pressure to improve mental health service provision (Department of Health and Department for Education, 2017), and government and charitable initiatives focussing on stigma-reduction (e.g. Heads Together, 2018; Time to Change, 2018), it is important to identify how social psychology can be harnessed to reduce stigma.

Prejudice Reduction

While the focus of this thesis is on the process and methods of mental health stigma reduction, it is important to critically consider the literature on prejudice reduction more broadly, and how prejudice reduction is thought to work. The following overview of prejudice reduction approaches and their pitfalls will allow for a narrower focus on stigma-reduction in relation to mental health stigma more specifically.

Conceptually, prejudice is generally considered a bias toward a group we do not belong to or socially identify with, or toward an individual based on their group membership (Biernet & Danaher, 2012; Dovidio, Dovidio, Hewstone, Glick, & Esses, 2013; Paluck & Green, 2009). Having gone through three waves of conceptualisation – from prejudice as psychopathology, and prejudice as normal cognitive and motivational processes (Dovidio, 2001) – the current third wave considers prejudice a multidimensional process embedded within and affected by sociocultural contexts (Biernet & Danaher, 2012). Third wave models of prejudice can be broadly classified under the following interrelated theoretical concepts: intergroup approaches (e.g. social identity theory, and self-categorisation theory; Turner & Tajfel, 1986; Turner et al., 1987); normative approaches (e.g. group norm theories; Crandall, Eshleman, & O'Brien, 2002); evolutionary approaches (e.g. social dominance; Pratto, Sidanius, Stallworth, & Bertram, 1994); and motivational approaches (e.g. integrated threat theory; Stephan, Stephan, & Gudykunst, 1999 Biernet & Danaher, 2012; Phelan, Link, & Dovidio, 2008). These theoretical concepts have been used to develop and explain how prejudice reduction is thought to work, and have been important in identifying when and why interventions sometimes do not work on, or actively worsen, prejudice. What follows is a discussion on how theories

of prejudice reduction can help explain how interventions work, as well as why they might fail.

There are a number of prejudice reduction methods, all with varying degrees of theoretical and empirical support. For instance, Paluck and Green (2009) reviewed the literature and determined that intervention approaches such as cooperative learning, intergroup contact, and intercultural training have stronger support theoretically and empirically than approaches such as social categorisation and cognitive training, where the empirical support at the time was largely laboratory evidence only, with little or no field work. Paluck and Green (2009) also determined that prejudice reduction approaches such as diversity training, while widely used, are not strongly supported either theoretically or empirically. With such varied empirical literature, I focus specifically on two prejudice reduction strategies with strong and growing theoretical and empirical support – *intergroup contact* and *social (re)categorisation*.

Intergroup Contact Theory (critically discussed in greater detail later in this chapter) proposes that prejudice reduction occurs when equal status members of both and in- and outgroup are brought together to work cooperatively toward a common goal, as sanctioned by an authority (Allport, 1979). From the inaugural investigations into the utility of intergroup contact (IC) as defined by Allport (1979) in the 1950's, the evidence supporting this mode of prejudice reduction has grown exponentially, demonstrating its efficacy in the laboratory and effectiveness in the field (Pettigrew & Tropp, 2006). Since then, ICs proposed mediating mechanisms have been investigated, demonstrating how it is considered to work. Intergroup contact has been found to be mediated by: the reduction of intergroup anxiety; the elicitation of empathy for, and perspective taking with the outgroup; and to a lesser extent, enhancing knowledge about the outgroup (Pettigrew & Tropp, 2008). For example, Aberson and Haag (2007) demonstrated with 153 white American undergraduates that perspective taking, which lessened intergroup anxiety,

mediated the relationship between contact with, and explicit prejudice toward, African Americans.

Investigation into the optimum conditions of IC have predominantly been the focus of investigation since its prescription, but in more recent years the conditions and factors that lead intergroup contact to fail have become of interest in prejudice reduction investigation. For instance, social psychologists have long been aware of the negative affect intergroup anxiety has during contact situations (Stephan & Stephan, 1985), and following much research on the effects of optimal, positive contact, the experience of negative contact has been found to sometimes outweigh the effects of positive contact, maintaining or even worsening prejudice (Barlow, et al., 2012). Perspective taking, while found to have an important mediating effect between contact and prejudice, can also lend itself to negative self-evaluation for prejudiced ingroup members, to the detriment of potential prejudice reduction effects of contact (Sassenrath, Hodges, & Pfattheicher, 2016).

The social identity approach, encompassing social identity theory and self-categorisation theory, has informed later recategorisation approaches, and proposes that prejudice reduction methods can work if they help prejudiced individuals and groups change the category boundaries of their ingroup to include the outgroup – so that ingroup favouritism can be extended to the outgroup (Gaertner & Dovidio, 2000; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Gaertner, Dovidio, & Bachman, 1996). This can be achieved when ingroup members can cognitively perceive their ingroup and the outgroup as sharing a larger superordinate identity, for instance helping university students from different disciplines (science versus humanity students) view themselves as belonging to a larger, shared common university ingroup identity (Hornsey & Hogg, 2000). However, this recategorisation method can fail if prejudiced individuals strongly identify with their ingroup, as social identity theory asserts we derive self-esteem and a sense of belonging from favouring our ingroup over outgroups, and that we are driven to maintain

optimal distinctiveness (needing to feel included within an ingroup, fulfilling the need to belong, whilst simultaneously needing differentiation from an outgroup to fulfil a paradoxical need for individual uniqueness; Brewer, 1991). As with IC, recategorisation attempts can work via perspective-taking, and so can backfire when an individual strongly identifies with their ingroup, as high ingroup identification can lead to less favourable outgroup attitudes (Tarrant, Calitri, & Weston, 2012).

Speaking generally about prejudice-reduction strategies and under what conditions they fail, it seems that making individuals aware of their prejudice towards a group can ultimately backfire by the very fact that prejudice is made salient. For instance, prejudice reduction attempts can inadvertently increase ingroup identity salience and prime social group norms (Smith & Postmes, 2011), and make stereotypes salient, resulting in "stereotype rebound" (Macrae, Bodenhausen, Milne, & Jetten, 1994). It is also the case that social group norms can be so embedded that if ingroup members perceive prejudice to be socially acceptable, then they will be more likely to endorse and enact prejudicial attitudes and discriminatory behaviour (Crandall, Eshleman, & O'Brien, 2002). There are also the individual differences to contend with, which can impede prejudice reduction attempts, such as authoritarian personalities, those high in social dominance orientation, and political conservatism (Dovidio, Hewstone, Glick, & Esses, 2013). To conclude, a keen grasp of what works and what does not work for prejudice reduction broadly can help to narrow the focus for interventions attempting to improve intergroup attitudes, affect, and behaviour.

Attempts to Reduce Mental Health Stigma

Having discussed the prejudice reduction literature I now critically consider the stigma process as relates more specifically to mental health – as a process of labelling, stereotyping, prejudice, and discrimination (Gaebel, Rössler, & Sartorius, 2017; Goffman, 1963; Phelan, Link, & Dovidio, 2008) – and the prevalent approaches to its reduction:

protest, *education*, and *intergroup contact* (Corrigan & O'Shaughnessy, 2007; Corrigan, Roe, & Tsang, 2011; Gaebel, Rössler, & Sartorius, 2017).

As a mode of stigma reduction, protest uses "strategies highlighting the injustices of mental health stigma, which chastise those who stereotype and discriminate" (Corrigan & Shapiro, 2010, p. 910). The purpose of protest is to challenge and punish the perpetrator for depicting "inaccurate and hostile representations of mental illness", calling for the behaviour to stop (Corrigan & O'Shaughnessy, 2007, p. 91; also, Casados, 2017). Largely, protest is an individual, group, or public reaction to stigmatising reports in the media (e.g. news reports such as *The Sun*'s "Bonkers Bruno"; Gibson, 2003); stigmatising depictions of mental health in TV shows and films (e.g. the ABC show *Wonderland* in the USA, and its depiction of a dangerous "mentally-ill" person in its first episode; Corrigan & O'Shaughnessy, 2007); and more recently in the UK, reactions to the depiction of those with mental health problems as "psycho ward" patients (replete with bloodied meat-cleaver) to sell Halloween costumes (BBC News, 2013). Ultimately, protesting negative portrayals of those with mental health problems can result in the altering or removal of the object of offense.

Protest can, however, backfire causing a rebound effect, whereby the suppression of prejudice creates greater stereotype activation (Collins, Wong, Cerully, Schultz, & Eberhart, 2012; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Corrigan & Shapiro, 2010; Watson & Corrigan, 2005). In this instance, protest does not always have the desired effect of shaming the offender (one of the goals of protest; Corrigan & O'Shaughnessy, 2007), as was the case in 2017 when online Halloween costume retailer, Escapade, refused to remove "mental patient" stigmatising costumes. The retailer stated it would carry on selling the costumes because there are "people who are scared of mentally ill people" (Al-Othman, 2017).

Protest is rarely a viable option due to the difficulty in establishing its efficacy (Collins, Wong, Cerully, Schultz, & Eberhart, 2012; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Corrigan, River, & Lundin, 2001; Thornicroft, et al., 2016), or its ability to be effectively harnessed and applied (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Rüsch, Angermeyer, & Corrigan, 2005). As such, there is no empirical study demonstrating the utility of protest for reducing mental health stigma, although there is anecdotal evidence of its effectiveness. For example, public backlash in the UK led to the removal of the stigmatising Halloween "psycho ward patient" costumes following their sale by Asda and Tesco (BBC News, 2013).

Education, however, as a means of reducing prejudice, and more specifically mental health stigma has shown to be efficacious in laboratory studies, and effective in natural environments (cf. Mcluckie, Kutcher, Wei, & Weaver, 2014; Sakellari, Leino‐Kilpi, & Kalokerinou‐Anagnostopoulou, 2011; Watson, et al., 2004), particularly for those in educational settings (e.g. with school pupils, and university undergraduates; Casados, 2017; Chisholm, et al., 2016; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Dalky, 2012; Thornicroft, et al., 2016).

The aim for education-based stigma-reduction methods is to replace mental health myths and negative stereotypes (e.g. all persons with mental health problems are extremely violent) with factual information (e.g. people with mental health problems are more likely to be a victim of violence; Corrigan & Penn, 1999/2015; Rüsch & Xu, 2017). Reviews of education attempts to reduce mental health stigma demonstrate that what constitutes an education intervention is variable, with methods as diverse as: watching a video; attending a lecture/presentation; reading information (e.g. information sheets, books, articles); role-playing; attending interactive workshops; completing quizzes; participating in discussion; completing web-based activities (including simulations and animations); viewing or

making art; and attending exhibitions; or a combination of methods (Sakellari, Leino‑

Kilpi, & Kalokerinou‑Anagnostopoulou, 2011; Yamaguchi, et al., 2013).

The evidence in support of education typically finds it to be a valuable method

improving self-report knowledge about mental health problems (i.e. mental health literacy;

Mcluckie, Kutcher, Wei, & Weaver, 2014; Sakellari, Leino‑Kilpi, & Kalokerinou‑

Anagnostopoulou, 2011; Watson, et al., 2004), and attitudes (e.g. beliefs about

responsibility and dangerousness; Rickwood, Cavanagh, Curtis, & Sakrouge, 2004;

Watson, et al., 2004), as well as improving participant-reported intended behaviours and

reducing a need for social distance from those with mental health problems (Casados,

2017; Essler, Arthur, & Stickley, 2006; Mellor, 2014). For instance, comparing two modes

of education and their effects on stigma reduction, Finkelstein, Lapshin, and Wasserman,

(2008) carried out a study with 193 graduate special education students who were

randomly allocated to one of three conditions: 1) reading anti-stigma print material; 2)

engaging with an anti-stigma computer programme (comprising short, educational

messages and quizzes); or 3) a control condition. Analyses found that both forms of

education reduced mental health stigma and improved mental health literacy immediately

following intervention, and the computer-based education maintained these effects six

months later.

Nevertheless, education as a stigma-reduction approach is not without its

limitations. While capable of improving outgroup knowledge and attitudes toward those

with mental health problems (Yamaguchi, et al., 2013), education is not always effective at

translating thought into action (LaPiere, 1934). That is, improvements in attitude do not

always equate to improvements in behavioural outcomes, and discriminatory behaviours

often continue following education attempts to reduce stigma (Corrigan, Edwards, Green,

Lickey, & Penn, 2001). This finding may be in part due to the difficulty in collecting

behavioural data or identifying valid proxy measures: the literature is sparse when it comes

to studying and measuring behavioural outcomes of educational attempts to dispel mental

health stigma (Casados, 2017; Corrigan, Michaels, & Morris, 2015; Mellor, 2014;

Yamaguchi, Mino, and Uddin, 2011; Yamaguchi, et al., 2013).

A further, important critique of note concerns the number of educative interventions

that focus their efforts on educating about the biological basis of mental health problems,

in opposition to the finding that this narrative increases stigma (Haslam & Kvaale, 2015;

Kvaale, Gottdiener, & Haslam, 2013; Longdon & Read, 2017; Read, Haslam, Sayce, &

Davies, 2006; Rüsch & Xu, 2017; Schomerus, et al., 2012). Maintaining the narrative that

"mental illness is an illness like any other" (Johnstone, 2014; Kinderman, 2014; Moncrieff,

2009; Read, Bentall, & Fosse, 2009; Szasz, 1974; Whitaker, 2010), while effective in

reducing ingroup-outgroup blame (Corrigan, 2016; Mehta & Farina, 1997), increases

ingroup need for social distance and pessimism about the mental health problem outgroup.

Compared to protest and education approaches, intergroup contact (IC) is an

established intergroup prejudice-reduction method with extensive empirical support, and

importantly has some success as a mental health stigma-reduction method (Corrigan,

Morris, Michaels, Rafacz, & Rüsch, 2012; Corrigan, Roe, & Tsang, 2011; Couture & Penn,

2003; Kolodziej & Johnson, 1996; Rüsch & Xu, 2017; Thornicroft, et al., 2016).

Formulated by Gordan Allport (1979), the IC hypothesis argues that contact between

ingroup and outgroup members is required in order to reduce intergroup prejudice and

improve intergroup relations. Allport (1979) prescribed four optimal conditions under

which intergroup contact would be effective, stating that contact ought to be between

group members of equal status, cooperating toward a common goal, and that their contact

ought to be supported by an authority (Allport, 1979, p. 281; also, Pettigrew & Tropp,

2006). More than 60 years of correlational and experimental research has supported

Allportian IC as the best method for improving intergroup relations (Casados, 2017; Di

Bernardo, Vezzali, Stathi, Cadamuro, & Cortesi, 2017; Dovidio, Love, Schellhaas, &

Hewstone, 2017; Pettigrew & Tropp, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011;

Stuart, 2017; Vezzali & Stathi, 2017). The following section provides an overview of the

modes and mechanisms underlying IC, specifically in relation to the effects on mental

health stigma.

An Overview of Intergroup Contact: Modes and Mechanisms

Two primary modes of IC have been developed and investigated: direct and indirect

contact. Direct, face-to-face intergroup contact refers to strategies that provide optimal,

Allportian IC conditions via "live messages" or "interactions" between in- and outgroup

members (Casados, 2017, p. 5). This face-to-face IC has been shown to improve

intergroup attitude, affect, and intended behaviour by increasing outgroup knowledge,

empathy, and perspective-taking (Pettigrew & Tropp, 2008). Conversely, indirect contact

refers to all modes of intergroup exchange that are typically unidirectional, which do not

take place face-to-face, and have taken the form of extended contact, vicarious contact, and

imagined contact.

Direct Intergroup Contact

Strategies involving live, Allportian prescribed interactions are effective at

improving mental health stigma outcomes. For example, Desforges et al. (1991)

demonstrated improvements in university undergraduates intended behaviour and

willingness to interact in the future with persons with mental health problems following a

cooperative, one-hour dyadic learning interaction with a confederate who portrayed

themselves as a former "mental patient". However, as with the Desforges et al. (1991)

study, the majority of mental health stigma studies do not involve actual persons with

mental health problems, instead using confederate actors, and many of the early face-to-

face IC stigma studies are retrospective and correlational (Couture & Penn, 2003). It is

also the case that many mental health stigma interventions are contact-*based*, and not

necessarily contact *per se* between equal status groups, working cooperatively on a

common goal (e.g. Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004). Instead, these

interventions are more of a contact-education hybrid, making effects of contact difficult to

determine.

There are further limitations to the use of face-to-face IC in the context of mental

health stigma. First, despite evidence for the effectiveness of face-to-face IC with young

people (Tropp & Al Ramiah, 2017), and especially in the context of mental health stigma

(Tropp & Prenovost, 2008), face-to-face IC seems to be less effective as a stigma-

reduction technique compared to education among children and adolescents (Chisholm, et

al., 2016; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012). One explanation for the

weaker findings of face-to-face IC among young people is that attempts to use contact as a

mental health stigma-reduction intervention often contain an element of surprise:

participants are not informed of the mental health status of the outgroup member from the

start of the contact exchange (Chisholm et al., 2016). However, it seems more likely that

the absence of an internal script to guide their interaction with someone with a mental

health problem weakens participant "confidence in contact" (Turner & Cameron, 2016).

Everyone, especially young people, requires the skills with which to have a positive

contact experience, such as sufficient cognitive behavioural and language schemas needed

to negotiate the contact communication space (Harwood, 2010; also, Stephan, 2014).

This reasoning is consistent with a second important limitation of face-to-face IC.

Wariness of how to behave and what to expect from outgroup members produces

intergroup anxiety (Stephan & Stephan, 1985), which has been considered a critical factor

for determining the effectiveness of face-to-face IC (Pettigrew & Tropp, 2008). Indeed,

Allport pressed the need to teach communication skills in order to navigate contact, and

not to rely on contact alone (1979, p. 492). This is likely to be true to an even greater

degree in the context of mental health stigma because this group are stereotyped as

unpredictable and dangerous (Angermeyer & Matschinger, 2005; Bizub & Davidson,

2011; Couture & Penn, 2003; Thornicroft, et al., 2016). A third limitation of face-to-face

IC for mental health stigma is that contact requires the inclusion of potentially stigma-

vulnerable individuals (Casados, 2017). Ultimately, the opportunity for naturally-

occurring direct contact between those with and those without mental health problems is

quite low, and it may be impractical to bring these groups together in face-to-face IC

interventions (an established criticism directed at face-to-face IC more generally; e.g.

Crisp, Stathi, Turner, & Husnu, 2008; Pettigrew, Tropp, Wagner, & Christ, 2011).

Indirect Intergroup Contact

To overcome the limitations of direct IC, a variety of *indirect* IC methods have

been developed and empirically investigated, with variable success and real-world

application. A catchall term for modes of contact that do not involve direct experience

with outgroup members, indirect IC modes include *extended*, *vicarious*, and *imagined*.

Extended intergroup contact. Extended IC is based on the premise that positive

intergroup attitudes can result from simply knowing about an intergroup exchange between

an ingroup member and outgroup member (Wright, Aron, McLaughlin-Volpe, & Ropp,

1997). In practice, this is ingroup members relying on indirect information about the

cross-group friendship of other ingroup members as a means of overcoming a personal

lack of intergroup contact opportunity (Vezzali, Hewstone, Capozza, Giovannini, &

Wölfer, 2014). Quasi-experimental, correlational, and longitudinal studies find that

knowledge of an ingroup member having a close relationship with an outgroup member

works to improve intergroup prejudice by making groups salient (affording generalisation;

Vezzali & Stathi, 2017), increasing inclusion of other in the self (Aron, Aron, Tudor, &

Nelson, 1991), reducing intergroup anxiety, and increasing perceptions of pro-contact

social norms (Dovidio, Eller, & Hewstone, 2011).

The effects of extended IC on intergroup prejudice, although not mental health

stigma specifically, are well established (Lemmer & Wagner, 2015; Vezzali, Hewstone,

Capozza, Giovannini, & Wölfer, 2014), having been used to improve prejudice toward

diverse groups such as disabled children (Cameron & Rutland, 2006), homosexuals

(Capozza, Falvo, Trifiletti, & Pagani, 2014; Mereish & Poteat, 2015), and Asian people

(Cameron, Rutland, Hossain, & Petley, 2011). However, to my knowledge, no study has

directly investigated a link between extended IC and mental health stigma (Vezzali,

Hewstone, Capozza, Giovannini, & Wölfer, 2014), although some studies have claimed

investigation of extended IC when vicarious IC was operationalised (West & Turner, 2014;

described accurately as vicarious contact in Brown & Paterson, 2016). Studies have

shown, however, that extended IC can have a positive effect on attitudes and intended

behaviours toward other stigmatised outgroups, typically homosexuals (e.g. Capozza,

Falvo, Trifiletti, & Pagani, 2014; Mereish & Poteat, 2015).

The main criticism of extended IC is essentially the same as with direct IC: if there

is little opportunity for contact with the outgroup member, then there is likely little

opportunity for extended contact through ingroup members (Crisp, Stathi, Turner, &

Husnu, 2008). This concern is compounded by the fact that there are no objective

indicators for mental health problems: individuals often choose to conceal their stigmatised

identity in order to "pass" as "mentally-well" (Chaudoir & Fisher, 2010; Quinn &

Chaudoir, 2009; Quinn, 2017). This makes extended IC problematic when it comes to

mental health stigma in particular, as this identity can be concealed in natural settings.

Therefore, individuals may not be aware that they or those in their ingroup are interacting

with an outgroup member (Chaudoir & Fisher, 2010; Quinn & Chaudoir, 2009; Quinn,

2017), and so cannot process the interaction as an intergroup exchange.

Vicarious intergroup contact. Vicarious IC is the observation of positive,

successful intergroup contact between intergroup members (Mazziotta, Mummendey, &

Wright, 2011), either directly or via media such as television shows, documentaries, news

reports, film, and books. Similar to extended IC, vicarious IC has been shown in

experimental studies, experimental interventions, and correlational studies to improve

intergroup prejudice (Brown & Paterson, 2016; Vezzali, Hewstone, Capozza, Giovannini,

& Wölfer, 2014). Typically, these studies use vicarious IC as a means of improving

participant intergroup ethnic prejudice via observation of intergroup exchanges between

members of different ethnic groups (see Vezzali, Hewstone, Capozza, Giovannini, &

Wölfer, 2014, Table 2).

     Albeit limitedly, vicarious IC has received support as to its effectiveness on mental

health stigma (Nguyen, Chen, & O'Reilly, 2012; West & Turner, 2014). For instance,

following a vicarious, videoed IC interaction between two confederates, where one

ostensibly had schizophrenia, West and Turner (2014) improved participant physiological

and non-verbal behavioural responses during later interactions with the same confederate

from the video. Although note that West and Turner (2014) confuse extended contact (i.e.

knowledge of intergroup interaction) with vicarious contact (i.e. *observation* of contact),

when they presented their participants with an intergroup exchange between someone with

and someone without a diagnosis of schizophrenia via video (although this should not

detract from their significant findings).

     An important critique (which relates specifically to the challenge of reducing

mental health stigma) is that observation of those who have (ostensibly) mental health

problems is often afforded via television shows, films, and media reports, which are

typically stigmatising of this group (Klin & Lemish, 2008; Wahl, 2014). It is thus

important that vicarious IC exchanges are positive, and do not perpetuate and maintain

stigmatising stereotypes.

     Imagined intergroup contact. Imagined IC "involves mentally simulating a

social interaction between an ingroup member and an outgroup member", and theorises

that "…simulating a positive contact experience will activate concepts that we normally

associate with successful interactions with members of out groups" (Crisp, Stathi, Turner,

& Husnu, 2008, p. 4). Imagined IC has considerable support in experimental intervention studies, finding on average in Miles and Crisp's (2014) meta-analysis a small-to-medium effect on intergroup bias outcomes. Due to its simple and speedy application, imagined IC has been studied with a number of target outgroups including ethnic, nationality, disabled, sexual orientation, religion, and weight-based group memberships (see Miles & Crisp, 2014, Table 1).

Imagined IC has been shown to reduce stigmatising attitudes and social distance from an imagined contact partner with mental health problems, typically by imagining someone with schizophrenia (Stathi, Tsantila, & Crisp, 2012; West, Turner, & Levita, 2015). In the only (known) study to compare both direct IC and imagined IC on the stigmatisation of mental health (schizophrenia specifically), Giacobbe, Stukas, and Farhall (2013) found imagined IC was equally as effective as their direct IC condition. However, there were no follow-up measures administered, and so it is not possible to know if either of their conditions had long-term effects. The absence of any longitudinal follow-up is a common critique of imagined IC, and direct IC more generally (cf. Miles & Crisp, 2014; Paluck, Green, & Green, 2018).

Imagined IC task directions typically refer to a specific mental health problem (e.g., schizophrenia; cf. Stathi, Tsantila, & Crisp, 2012; West, Turner, & Levita, 2015). This limited focus reduces the generalisability of findings to other mental health problems (Lee & Seo, 2018). Moreover, imagined IC has rarely been tested and applied outside laboratory conditions (Lemmer & Wagner, 2015), making it difficult to determine any real-world effectiveness.

Comparisons and Critiques of Intergroup Contact

Whereas indirect IC circumvents some of the key issues inherent in direct IC, such as intergroup anxiety and the inclusion of potentially vulnerable group members with mental health problems, indirect methods seem unlikely to produce as "potent" or long-

term effects as direct methods (Brown & Paterson, 2016; Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014). The effects of indirect IC are found to be weaker than direct IC (Crisp, Stathi, Turner, & Husnu, 2008; Nguyen, Chen, & O'Reilly, 2012; Paolini, Hewstone, & Cairns, 2007), as made apparent by meta-analytic effect sizes, demonstrating a distinct downward trend in efficacy the further away the contact mode from Allportian direct IC (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Lemmer & Wagner, 2015). For example, Corrigan and colleagues (2012) demonstrate this downward trend in their meta-analytic findings where they compare vicarious IC ($d_+ = 0.16$) and direct IC ($d_+ = 0.52$) on mental health attitudes and behaviour (where d_+ represents overall combined effects of both measures). Fundamentally, the further away from Allportian direct IC a contact mode is, the smaller the effect size.

The observed decrease in effect size is arguably due to reductions in the level of *experiential* interaction between in- and outgroups as the contact becomes less direct. This possibility was made theoretically succinct in Harwood's (2010) contact space framework, where arguably the less *involvement of self in contact* (dimension 1), and the less *richness of self-outgroup experience* (dimension 2) a contact mode has, the weaker its effect. Imagined IC, for instance, sits low on both dimensions (Figure 1), and may explain imagined ICs small-to-medium effect size ($d_+ = 0.35$, the equivalent of Pearson's $r = 0.1 - 0.25$; Miles & Crisp, 2014) in comparison to direct ICs medium effect ($r = -0.33$, equivalent to $d = 0.5 - 0.8$; cf. Pettigrew & Tropp, 2006). Differences in the level and degree to which experiential sensory cues are produced by the outgroup (dimension 2), and transmitted by the ingroup during contact (dimension 1) are fundamentally what determines the effectiveness of intergroup contact. This could be summarised as a distinct lack of *experience* with the outgroup, representing a lack of sensory cue solicitation and reception (i.e. auditory; visual; tactile; olfactory).
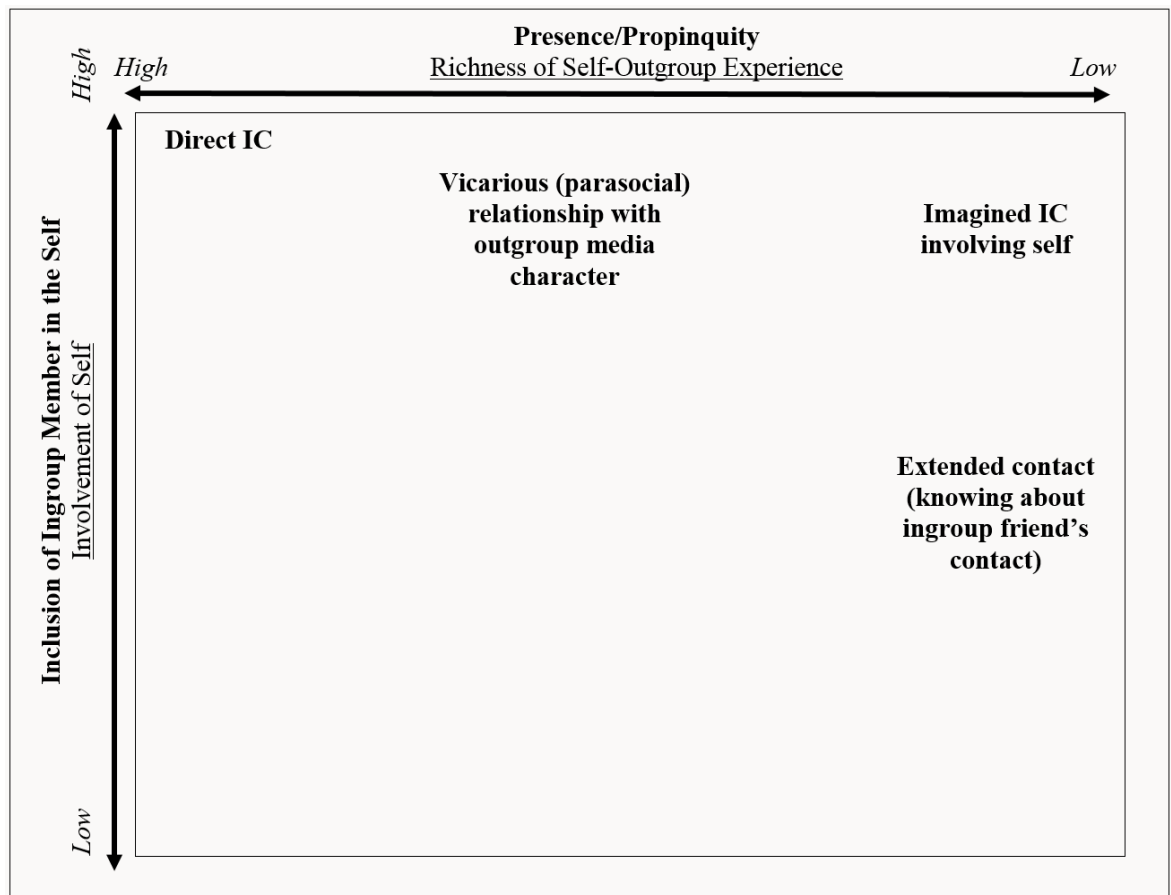
Figure 1. Simplified pictorial representation of Harwood's (2010) contact space framework, focussing on the direct and indirect intergroup contact (IC) modes: Allport direct IC; vicarious IC; extended IC; and imagined IC. Axes headings in bold are subjective labels, and those underlined are the objective labels.

This observation reflects a core concern with indirect modes of contact. At its most basic and literal meaning, contact is "[t]he state of physical touching" (Oxford University Press, 2018), and constitutes an action, such a meeting, communication, or relationship with someone. Contact involves the act of bringing people together and the *experience* of sensory exchange between them. With imagined IC there is no involvement with, or observation of any interaction with an outgroup – "there is no "real" outgroup member to be experienced", and as such is "relatively impoverished on [Harwood's (2010)] richness [of self-outgroup experience] dimension" (p. 154). Imagined IC, for instance, is an asynchronous communication that lacks key sensory cues such as sound, smell, and touch. It is also an *intra*personal process, opposed to *inter*personal, as there is no external outgroup member to be experienced "either directly or through some medium" (Harwood,

2010, p. 154). It is this need for experience that is lacking from the indirect forms of contact. Crucially, current reviews of direct IC contact research and its indirect successors show that newer modes and applications are moving further away from Allportian IC, and as such elicit even fewer sensory cues, such that some sensory modalities are never activated (e.g. smell and touch; cf. Dovidio, Love, Schellhaas, & Hewstone, 2017; Vezzali & Stathi, 2017).

The importance and influence of experiencing intergroup contact – via the presence and level of sensory cues – cannot be underestimated. Indeed, recent research has provided support for the power of eliciting sensory cues during contact as a means to reduce implicit bias toward an ethnic minority. In two studies carried out by Seger, Smith, Percy, and Conrey (2014) the authors found that a brief, simple tactile gesture (i.e. gentle shoulder touch) by an African American experimenter improved white participant implicit attitudes toward the ethnic outgroup as whole, above that of the condition with the same experimenter minus the tactile gesture. Not only did Seger and colleagues improve implicit attitudes toward the experimenter following a brief tactile sensory exchange, but this improvement generalised to an entire ethnic outgroup.

In summary, while direct and indirect IC have garnered the most empirical support for improving intergroup attitudes and intended behaviours toward outgroups (Casados, 2017; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Rüsch & Xu, 2017; Stuart, 2017), they are not without their limitations. Critically, direct IC elicits and is mediated by intergroup anxiety – and this may lead to instances where education appears more effective (e.g. Chisholm, et al., 2016; although what may be lacking is confidence in contact; Turner & Cameron, 2016).

There are further logistical and practical barriers to bringing those with and those without mental health problems together. Finding willing, mildly-moderately, stereotype-disconfirming individuals with mental health problems (Corrigan, 2005; Reinke, Corrigan,

Leonhard, Lundin, & Kubiak, 2004), who are also typical of their group in order to generalise effects (Brown & Hewstone, 2005) into a contact situation that affords Allport's cooperative, goal-oriented IC between equal status group members is a logistical and practical improbability. However, while indirect IC modes may circumvent both the issues of intergroup anxiety within and practical barriers to, direct IC, there is a distinct lack of *experience* with the outgroup, effectively weakening any positive effect that may be gained from short-lived, sensory-cue deprived endeavours.

What Works

Criticism withstanding, under optimal conditions direct IC is an effective mode of public mental health stigma reduction (Ashton, Gordon, & Reeves, 2018; Corrigan, Michaels, & Morris, 2015; Corrigan, et al., 2014; Griffiths, Carron-Arthur, Parsons, & Reid, 2014; Stuart, 2017), affording contact members a "fully dimensioned, multisensory, and immediate experience of …outgroup member[s]" (Harwood, 2010, p. 154). However, as explained, due to intergroup anxiety, and logistical and practical barriers, the application of IC to the mental health stigma domain is limited and often lacks the experiential component needed for contact to be optimally effective.

Given the concerns and limitations of extant modes of intergroup contact for mental health stigma reduction, I argue that the field requires a conceptual evolution in the intergroup contact domain. In the following section, I describe a novel mode of intergroup contact for the reduction of mental health stigma that was developed with several specific aims: (1) retain the benefits of delivering an Allportian indirect mode of contact; (2) minimise intergroup anxiety through empathy and perspective-taking; (3) construct optimally distinct dual identities to help generalise effects; and (4) harness the critical experiential cues inherent in direct IC.

Experiential Intergroup Contact

[We] learn through such "psychodrama" what it feels like to be in another's shoes

— Allport (1979, p. 436)

As a bridge between direct and indirect modes of IC, Experiential Intergroup Contact (EIC) involves *simulated intergroup contact* with outgroup members. This new mode of IC aims to provide the same sensory cues inherent in direct IC, *sans contact* (Harwood, 2010), within an intergroup context for an effective and meaningful indirect contact experience.   Primarily, EIC is proposed to integrate and operate through the process of: (1) (re)categorisation of group members under a superordinate category; (2) adherence to the Allportian IC prescriptive conditions; and (3) the generation of experiential sensory cues, thereby creating an *experiential simulation of intergroup contact*. In this way, EIC reflects an evolved and potentially superior mode of IC with which to combat mental health stigma, and eventually, other target groups of intergroup prejudice.

Critical to this intergroup contact simulation is the incorporation of psychodrama and role-play methods. Allport (1979) advocated the benefits and implementation of "psychodrama", "role-play", and "stepping into another's shoes" for prejudice reduction when direct IC was not possible (p. 436). Specifically, EIC allows for participants to *experience* being the outgroup member through the reading of a script in the role of an outgroup character. Participants engage in group sessions where they rehearse the script and thus read the dialogue for and "act out" their character. A script developed for this is described in further detail next.

Stigmaphrenia©: The Experiential Intergroup Contact Script

Stigmaphrenia© was originally written as a play to address mental health stigma in the community and further developed for use as an EIC script (Farahar, 2012; for the full script; Appendix E[2]). It was written in 2012 and first performed by undergraduate students for the public in 2013 (for a blog hosted by the stigma reduction, charitable organisation Time to Change see https://www.time-to-change.org.uk/blog/stigmaphrenia-play-mental-health-stigma). The story in the script follows the experience of nine-year-old Max and his mother, Alice, as she attempts to break down the mental health stigma her son has become preoccupied with. During a weekend with his mother Max is introduced to the curator of the "Exhibition of Neuro-Divergence" (an END Stigma waxwork android display), learns about his mother's bipolar diagnosis, and comes to embrace *neurodiversity* and *-divergent* experiences as an alternative perspective to mental illness (Stigmaphrenia© synopsis and scenes: Appendix F).

To reiterate, the EIC Stigmaphrenia© script contains three key features that align it with IC in order to stimulate experiential cues and processing, and reduce mental health stigma. These features comprise: recategorisation; Allportian prescriptive IC conditions; and experiential role-play – all of which circumvent the need for physical proximity to the outgroup, whilst affording experiential sensory cues to strengthen effects as direct IC does. As a holistically delivered mode of stigma reduction, the techniques and features of EIC were devised so as to: enable cognitive perspective taking and increase affective empathy

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[2] The script contained in the appendices is the version participants of EIC studies read. There is an updated 2018 version of Stigmaphrenia© which incorporates the evolution of the neurodiversity paradigm and consequently the expansion of the language that accompanies it. For example, the original script was written when the only term available was neurodiversity. The expansion in neurodiversity language now includes terms such as neurodivergent and neurotypical, reflected in the latest Stigmaphrenia© script – available on request.

(Pettigrew & Tropp, 2008); encourage a recategorisation of self and outgroup members under an optimally distinct, superordinate identity, increasing inclusion of other in the self (Aron, Aron, & Smollan, 1992); increase confidence in contact skills in a context that obviates intergroup anxiety; and enable the provision of sensory rich, multiple simulated contact opportunities through script rehearsals (Stuart, 2017; Tropp & Prenovost, 2008). What follows is how each of the three key features are incorporated into EIC, and how the historic criticisms of direct and indirect IC are overcome.

Recategorisation processes. The Stigmaphrenia© EIC script incorporates the iterations of Allportian IC theory which assert a central role for (re)categorisation processes: decategorisation-personalisation; categorisation; recategorisation and dual identities; established with an optimally distinct common ingroup identity (Brewer & Miller, 1984; Brown & Hewstone, 2005; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Pettigrew, 1998). These recategorisation processes are central to the message within the Stigmaphrenia© EIC script, outlined next.

Decategorisation-personalisation. Experiential Intergroup Contact, as operationalised via Stigmaphrenia©, attempts to demonstrate the diverse, individual, and personalised experiences of persons who are captured within the general term and category of "mental illness" in order to reduce reliance on stereotypes. It does so within the Stigmaphrenia© script by highlighting the use of derogatory terminology, such as "mad" and "madness", with its "them" and "us" connotations, moving on to introduce characters on an individual level. The Stigmaphrenia© script personalises the mental health outgroup, incorporating into its story the individual narratives of famous persons with mental health problems (in the wax-work 'droids scene 4; e.g. J. K. Rowling, depression) and fictitious

outgroup members (e.g. in the Jones family scene 6; depression, bipolar, and

schizophrenia).

Salient categorisation. The use of a physical, tangible script can only work to

make categories explicit. In Stigmaphrenia© this occurs via the depiction of Max and his

mother's journey as they both move from perceptions of "mental illness" and its

stigmatisation, through to the recategorisation of the mental health outgroup. The outgroup

is central to the story and thus as a category explicit, encouraging the generalisation of

attitudes toward the fictitious characters to non-present outgroup members. Critically, the

humanising, personalisation of outgroup members, and the salient categorisation of their

outgroup makes this generalisation optimal: participants can perspective-take with

outgroup members on an individual, personalised level (so that the outgroup is perceived

as heterogeneous, reducing the reliance on stereotypes; Ashton, Gordon, & Reeves, 2018),

whilst their outgroup membership is also made explicit and salient (Brewer & Miller,

1984; Brown & Hewstone, 2005; Gaertner & Dovidio, 2000).

Neurodiversity: An optimally distinct superordinate identity. The crucial feature

of the EIC Stigmaphrenia© script is the incorporation of the perspective of *neurodiversity*[3],

a paradigmatic approach asserting that neurological and psychological differences should

be recognised and respected as any other human variation and social category (Blume,

1998; Singer, 2017; Walker, 2014), given that there is no universal, optimal pattern of

brain functioning (Holmes & Patrick, 2018). Stigmaphrenia© depicts mental health

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[3] Please note that when Stigmaphrenia© was first written in 2012 the existing language of neurodiversity was

limited. As such, the Stigmaphrenia© script is continuously updated with the evolutions in terminology.

Latterly, Farahar has come to distinguish between neuro-divergences (e.g. developmental differences such as

autism; ADHD; dyslexia) and psychological-divergences (e.g. voice-hearing; anxiety; depression), in relation

to neuro- and psychological-typicality.

problems as part of the human category of neurodiversity, thereby recognising a

superordinate social identity that recategorises and subsumes all group members and

subgroups within it, without losing the self in the process (Brewer, 1991; Gaertner &

Dovidio, 2000).

The Stigmaphrenia[©] script incorporates this optimally distinct, superordinate

identity by telling the story of how we as a species are neurodiverse, and as such those in

the past labelled as "mentally-ill" and "mad" are a part of the rich tapestry of human

neurodiversity. In this way, the script attempts to show the natural (albeit difficult)

experiences of being *neuro-divergent* from mainstream societal expectations of *neuro-*

typicality (Walker, 2014). During EIC rehearsals with Stigmaphrenia[©], ingroup actors

learn that they and the non-present outgroup are part of this shared neurodiversity

superordinate identity. This superordinate social identity is optimally distinct as the very

nature of neurodiversity affords a shared common ingroup, which by its very definition

acknowledges individual divergence and variation.

The EIC Stigmaphrenia[©] script facilitates the recategorisation outcomes and IC

mediators, those of introjection of the outgroup to the self (in the literature described as

inclusion of the other in the self; Aron, Aron, Tudor, & Nelson, 1991) to facilitate empathy

(Harwood, Hewstone, Amichai-Hamburger, & Tausch, 2013; Turner, Hewstone, Voci, &

Vonofakou, 2008), and inclusion of the ingroup in the self for projection to the outgroup

(facilitating the cognitive expansion of the ingroup to include the outgroup; Gaertner,

Dovidio, Anastasio, Bachman, & Rust, 1993; Gaertner & Dovidio, 2000). Within EIC

introjection occurs when participants take on the character roles during rehearsals,

affording perspective-taking and affective empathy. Projection occurs as a result of the

neurodiversity superordinate category that runs as a central message throughout the script

story, redefining the ingroup boundary to include the outgroup (Gaertner & Dovidio,

2000), in essence extending "ingroup love" (Brewer, 1999) to the previous outgroup

members.

Stigmaphrenia[©], therefore, does not just bring the mental health problem outgroup

closer to the ingroup and the self (an important mediator of IC and outcome of

recategorisation; Aron, et al., 2004; Eller, Abrams, & Zimmermann, 2011; Harwood,

Hewstone, Amichai-Hamburger, & Tausch, 2013; Pettigrew, 1997; Schubert & Otten,

2002; Turner, Hewstone, Voci, & Vonofakou, 2008), but attempts to redefine what it

means to be "mentally ill" in-keeping with more recent perspectives of what mental illness

is (in light of the social model of disability narrative; Kinderman, 2014; Longdon & Read,

2017; Read, Haslam, Sayce, & Davies, 2006; Singer, 2017).

Dual identities. Unlike most contact programs and intervention attempts, EIC to

reduce mental health stigma acknowledges the heterogeneous and disparate nature of the

mental health problem (out)group (Casados, 2017). Typically, contact interventions aim to

reduce the "us" versus "them" mentality between two (or more) groups (Casados, 2017).

However, those who make up the mental health problem population make it a particularly

heterogeneous outgroup, with individuals further subgrouped into numerous mental health

experiences (e.g. bipolar; schizophrenia/voice-hearing; anxiety etc.), nuanced further as

some individuals may or may not (strongly) identify themselves with their sub- or

superordinate identity (e.g. bipolar *and* mental health problems).

Experiential Intergroup Contact considers the important role of subgrouping and

status (i.e. minority vs. majority), which is why the Stigmaphrenia[©] script includes

personalised information about outgroup members and their subgroup category (individual

characters, who make salient their subgroup membership, e.g. Max's mother, bipolar), as

well as making salient the superordinate category of neurodiversity. These dual identities

(e.g. neuro-divergent bipolar within the neurodiversity of humanity) acknowledge the

needs of majority and minority group memberships for self-esteem, belonging, and group

distinctiveness (Dovidio, Gaertner, & Saguy, 2007; González & Brown, 2003), with

subgroup identities shared within a common ingroup identity to highlight commonality with the majority superordinate category.

The use of dual sub- and superordinate identities within the EIC script also allows for it to be used in future work with self-stigmatising, mental health problem minority groups, and not just in the stigma reduction of majority groups. This is with the intention that it will improve minority attitudes about themselves in the hopes that if public stigma is diminished then those who self-stigmatise may be more likely to disclose their experiences (i.e. not to conceal; Quinn, 2017) and seek support. This use of dual identities also makes the EIC method ripe for combating the demobilizing effect of positive intergroup contact on intergroup injustice, a known critical shortcoming of improving minority intergroup attitudes (Dixon, Tropp, Durrheim, & Tredoux, 2010; Reimer, et al., 2017). Improving minority intergroup attitudes reduces motivations to challenge structural injustice and affect social change on behalf of their disadvantaged minority group (Dovidio, Gaertner, & Saguy, 2009; Jost, Banaji, & Nosek, 2004). The dual neurodiversity and -divergent identity in EIC may thus be optimally situated to tackle this paradox (Glasford & Dovidio, 2011; Ufkes, Calcagno, Glasford, & Dovidio, 2016).

Allport's optimal criteria. Allport's prescription should be woven into any EIC script storyline; the characters portrayed ought to be involved in: (a) cooperative; (b) common goal oriented; (c) intergroup interactions between equal status groups; (d) as supported by a neutral authority (Allport, 1979; Dovidio, Glick, & Rudman, 2005; Pettigrew & Tropp, 2006). Where actors can: (e) learn about the outgroup; (f) confront and overcome any intergroup anxiety; (g) create affective ties with the outgroup characters - increasing cognitive perspective-taking and affective empathy; (h) and reappraise their own ingroup (Pettigrew, 1998; i.e. in light of a new common ingroup identity, which affords dual identities; Gaertner, Dovidio, & Bachman, 1996; Gaertner & Dovidio, 2000).

Experiential Intergroup Contact provides the environment with which contact between groups (one present, the other absent) is between members of *equal status.* As EIC may be most suited for use in school and education settings, it is most probable that ingroup members involved in EIC with mental health problem outgroup members (the scripted roles) will be from similar backgrounds, including education and socio-economic levels. Participants involved in EIC script rehearsals will need to work *cooperatively* to achieve the *goal* of (for instance) performing the play, or at least audio-recording part of it, as well as learning about the cooperation of the script characters in their goal of teaching the protagonist (Max) about neurodiversity. In this way, the conditions of IC are strengthened within EIC, as they are invoked both within the nature of EIC in script rehearsals between ingroup participants, but also within the message of the EIC script story itself between its in- and outgroup characters. Lastly, a "director" (a teacher for instance) can act as a supportive *authority*, facilitating EIC.

Experience: sensory processing and cues. Fundamentally, definitions of experience relate to a *practical* experience of an object – to *feeling*, such as emotions or sensations – from old Latin to "try" (Oxford University Press, 2018). Experiential Intergroup Contact offers a paradigm shift, focussing on the need for experiential sensory cues in the fight against mental health stigma. This need for experience in contact is something previous attempts (such as imagined IC) have highlighted as a lack of "real" or "actual" contact in their own study discussion sections or in reviews of indirect IC (cf. Bigler & Hughes, 2010), but failed to adequately address in their application and operationalisation.

Allport himself was aware of the importance of experiential sensory cues and how they can produce, heighten, or help to rationalise intergroup prejudicial attitudes and behaviour (e.g. Allport's, 1979, Chapter 8, *Visibility and Strangeness*, pp. 129-140). Our understanding and traversing of interpersonal and intergroup situations are founded on the

use of external sensory data that are selected, accentuated, and interpreted (Allport, 1979,

Chapter 10, *The Cognitive Process*, pp. 165-177), and thus improving intergroup attitudes

will be built on this same sensory information need. Experiential Intergroup Contact is

structured as such so that, within the rehearsed, simulated contact situation, all sensory

modes typically generated within direct IC are activated: participants have to interact with

other participants. Harwood (2010) was aware of the importance experience has in

intergroup relations, and explored the meaning and role of experience within his contact

space – a communicative space between people or groups of people.

      Involvement of self in contact/Inclusion of ingroup member in the self in EIC.

Harwood (2010) discusses how there are both objective levels of self-involvement (e.g.

direct vs. vicarious involvement, the self as physically present), and subjective,

psychological levels of self-involvement (inclusion of ingroup member in the self) during

contact.

      Adhering to Harwood's assertions, firstly, within the EIC situation, the ingroup

members are physically present during the simulated, contact rehearsals. As such, the

objective involvement of the self during EIC is high. Secondly, the link between

Harwood's inclusion of ingroup member in the self in contact dimension and

recategorisation models are apparent. As such, by making group memberships salient

during EIC, the benefits of ingroup membership can be extended to the mental health

problem outgroup members – by expanding the self to include others (Harwood, 2010, p.

154; also, Gaertner & Dovidio, 2000). This is achieved with a common ingroup identity

that affords dual identities within the EIC rehearsal script, as discussed in the section on

(re)categorisation.

      Richness of the self-outgroup experience/Propinquity in EIC. The need for

richness of the self-outgroup experience relates, fundamentally, to the need for rich,

objective *sensory experience* of the outgroup – to see, hear, touch, and smell them. Within

EIC, participants are afforded synchronous, reciprocal interactions with multiple people, generating multiple sensory modalities, as if they were in a real contact situation with the outgroup. Further, in rehearsing as an outgroup member, ingroup members are also offered a unique opportunity to subjectively introject the other to the self (Aron, Aron, & Smollan, 1992) – to take on the outgroups perspective, and to empathise with them – inducing a psychological feeling of closeness (propinquity). Arguably, participants in EIC are able to "step into the shoes" of the non-present target outgroup, and in doing so come to be psychologically close to them.

Arranging EIC on Harwood's (2010) two-dimensional space EIC would theoretically sit in the upper left corner, as it is has a high richness of self-outgroup experience (i.e. it is sensory cue rich), and high involvement of self in contact (Figure 2).
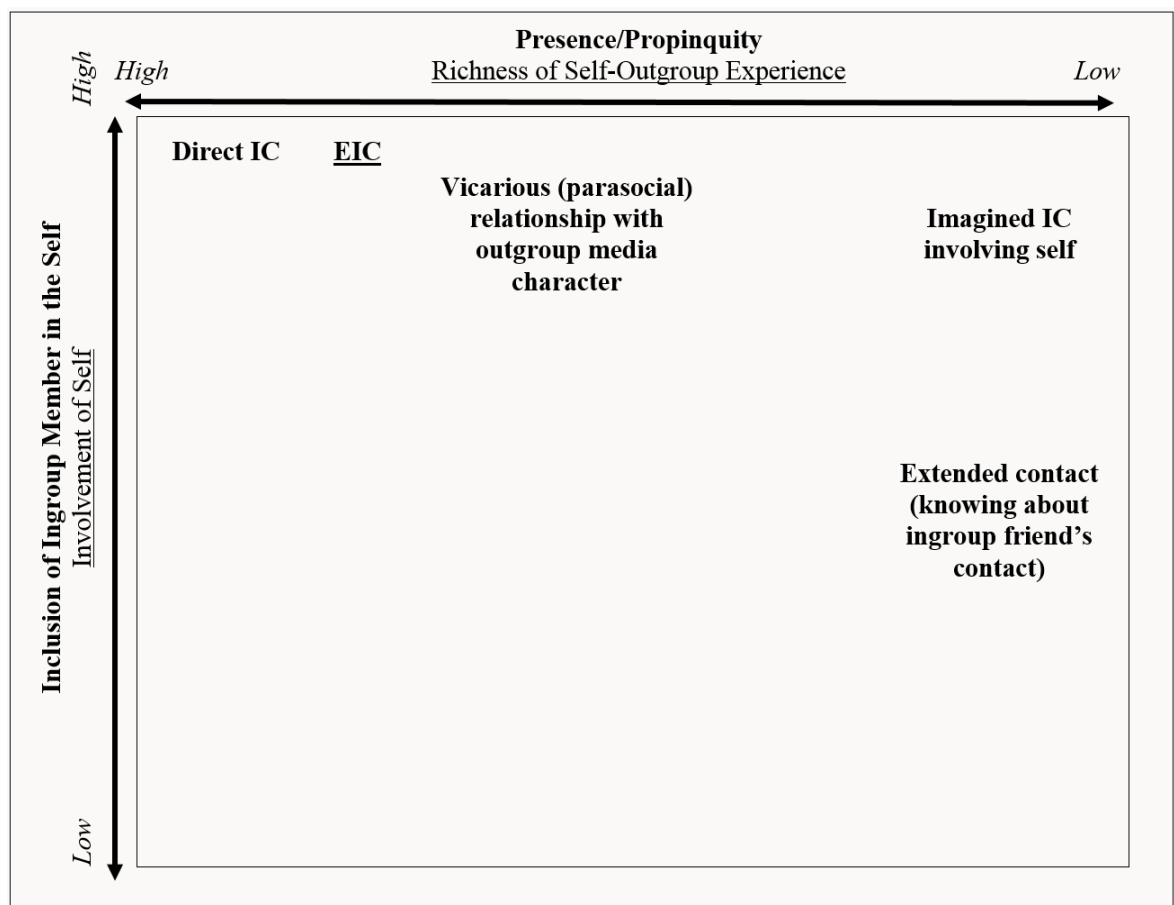
Figure 2. Simplified pictorial representation of Harwood's (2010) contact space framework, focussing on the direct and indirect intergroup contact (IC) modes: Allport direct IC; vicarious IC; extended IC; and imagined IC; and now including where Experiential Intergroup Contact (EIC) is theoretically situated. Axes headings

in bold are subjective labels, and those underlined are the objective labels.

Ultimately, the EIC Stigmaphrenia© script affords a form of indirect IC that solicits Harwood's (2010) need for both subjective psychological propinquity and objective sensory cue richness, without the need to be in direct contact with the outgroup as EIC actors role-play outgroup members (Allport, 1979; also see Ballon, Silver, & Fidler, 2007; Krameddine, DeMarco, Hassel, & Silverstone, 2013; McGregor, 1993). Experiential Intergroup Contact affords introjection of the other to the self (Aron, Aron, Tudor, & Nelson, 1991) for empathy and perspective-taking (Pettigrew & Tropp, 2008), and it utilises an optimally distinct (Brewer, 1991) dual, common ingroup identity (Gaertner & Dovidio, 2000) depicted throughout the central message of the Stigmaphrenia© script in the form of neurodiversity. This affords neuro-divergent subgrouping (e.g. schizophrenia/voice-hearing; bipolar; depression) for majority and minority needs during contact (Dovidio, Gaertner, & Saguy, 2007; Dovidio, Gaertner, & Saguy, 2009). All of which affords ample future opportunity to generalise positive effects to the outgroup as a whole, the script providing as it does the cognitive, linguistic, and behavioural schemas for confidence in contact (Turner & Cameron, 2016).

Praxis: Theatre for Change

As a praxis, EIC takes its cue from theatre for change (TFC), which follows in the wake of Boal's (2000) Theatre of the Oppressed (circa 1979), where the onus is placed on being an actor involved in the process of rehearsal, as opposed to being an audience member passively viewing the product of performance. This is an important actor-process versus audience-product distinction. Reviewing the few studies investigating the effects of the arts (including theatre) on stigma reduction, the effects are short-lived at best (Michalak, et al., 2014), or increase stigma at worse (Quinn, Shulman, Knifton, & Byrne, 2011). This is because it is important that the message of the script is in keeping with the stigma-reducing narrative of neurodiversity and -divergence; incorporates recategorisation and dual identity methods; with Allportian IC criteria; and solicits actor empathy and

perspective-taking by embodying the roles rehearsed (e.g. role-playing, not passive

viewing of performances). The few case-studies of actor-process methods used to improve

mental health stigma demonstrate that by "…having…learners role-play characters who

have differing perceptions of reality…the interaction between characters helps create

cognitive and emotional experiential learning..." (Ballon, Silver, & Fidler, 2007, p. 380;

also Krameddine, DeMarco, Hassel, & Silverstone, 2013). Experiential Intergroup Contact

praxis embodies this actor-process sentiment, and acknowledges that message rehearsal is

paramount in stigma-reduction, as "[a]ny single piece of disconfirming evidence elicits

only a minor change; substantial changes occur incrementally with the accumulation of

evidence that disconfirms the stereotype" (unlike e.g. short-lived imagined IC; Hewstone,

1989, p. 208).

Experiential Intergroup Contact affords the experience of behaviour during

rehearsals in order to inform attitudes toward the mental health problem outgroup and

consequently provides the cognitive schema for future behavioural responses (e.g.

Pettigrew, 1998). This is in-keeping with experiential learning theory, which maintains

that learning (as applied to the learning of new attitudes and behaviours) is a process of:

observation and reflection of concrete experiences; and the assimilation of these

observations into abstract concepts (i.e. attitudes); which can then form the schema for

action (e.g. future behaviour); that importantly guide new experiences (Kolb, Boyatzis, &

Mainemelis, 2001). All of which echoes the need for experiential sensory cues and

confidence in contact skills.

Experiential Intergroup Contact Guiding Instructions

There are guidelines for how to use the script, but ultimately how it is used and

rehearsed will be determined by those who intend to use it. The one important (adaptable)

instructional set for the use of Stigmaphrenia[©] in mental health problems EIC is as follows:

You are asked as a group to work:

- Cooperatively toward the goal[4] of audio recording a single scene by rehearsing the role(s) assigned to you.

- You will be given a script showing the positive message about people with mental health problems, who, in the script, are working together to explain mental health problems to a nine-year-old boy.

- You are simply asked to take on-board and experience the perspective(s) of your character role(s) assigned to you, interacting with the other students and their roles.

- I will be your [neutral research assistant[5]] helping to facilitate your learning sessions[6], you are not being judged on any aspects of your learning and involvement, I am just here to help facilitate your learning sessions.

- ***Please note that no one character/s or line is/are more important than any other.***

Future Directions for Experiential Intergroup Contact

Built on extensive social psychological evidence for improving intergroup attitudes and behaviour, Experiential Intergroup Contact is offered as a novel advancement in the intergroup contact domain. Bridging as it does the theoretical and practical elements of direct IC and indirect IC, EIC has a rich future for empirical development. This future includes testing EICs experiential mediating mechanism: the need for a high level of sensory cue generation (experiential need, Chapter Three: Study 2; Harwood, 2010); and

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[4] The goal can be determined by the (e.g.) teacher, and can be an audio recording; performing to a small/large group; filming a scene and so on.

[5] Insert appropriate relationship of EIC guiding "director", e.g. if a teacher, state their role as "director".

[6] The nature of the rehearsals can be altered dependent on the extent to which participants are to be informed of the purpose of the task (e.g. if EIC Stigmaphrenia[©] is to be used as an intervention study, rehearsals can be portrayed as a "learning method", as dependent on study aims, hypotheses, level of study deception, and so on).

the efficacy of recategorisation via the neurodiversity common ingroup identity on stigma

reduction (Chapter Four: Study 3; also, Gaertner & Dovidio, 2000); which includes the

mediating roles of empathy, perspective-taking, and intergroup anxiety (Pettigrew &

Tropp, 2008). Importantly, the longevity of EIC can be investigated longitudinally, tested

on important outcomes such as attitudes, affect, and intended behaviour, and within

different settings, with different age groups (Chapter Five: Studies 4 & 5). Finally, an

often-unconsidered effect on language can be qualitatively investigated so as to determine

changes in language and the mental health narrative, demonstrating EICs effectiveness in

natural settings across time (Chapter Six: Study 6).

Chapter Three. Study 2. The Need for Experiential Sensory Cues during Experiential

Intergroup Contact

[I]t seems probable that self-acquired knowledge, gained through first-hand **experience***,*

is more effective than information sprayed upon us by lectures, textbooks, or publicity

campaigns

― Allport (emphasis added; 1979, p. 227)

Gordon Allport, among his numerous astute observations on the nature of

prejudice, wrote about the need for the *experience* of and within contact for its reduction.

However, the need for experience in contact appears to have been lost since Allport wrote

"The Nature of Prejudice" during the 1950's, and it is arguably a component of contact that

needs re-establishing if we are to have a discernible effect on prejudice and stigma.

Having outlined the theory and praxis of Experiential Intergroup Contact (EIC) in

Chapter Two, this chapter investigates the theoretical *experiential* component proposed to

mediate EIC. Critically discussed in Chapter Two is how public protest, education, and

indirect modes of intergroup contact are empirically found to have downward trend effects

on mental health stigma. This is theorised to be due to decreasing levels of experiential

sensory cues inherent in the type of stigma-reduction method used. In Study 2 reported

here, the use of EIC operationalised via the mental health script, *Stigmaphrenia*[©], was

investigated with 84 adolescents. The EIC experimental condition was compared with a

Stigmaphrenia[©] video-only condition, and a script-only condition on stigmatising attitude,

affect, and behavioural intention. There was a significant increase in peer mental health

stigmatisation awareness from time 1 to time 2, indicating that while student participants

did not agree with stigma, they did increase their awareness of it. While no significant

difference was found on dependent variables across conditions, qualitative responses

indicated that participating students engaged with the Stigmaphrenia© material and held a preference for the interactive group-based EIC, or intimated that they would have preferred more interactive methods of engaging with the script when they were participants in either the video-only or script-only conditions. The theoretical and practical implications for moving EIC forward as a mode of stigma reduction are discussed in relation to strengthening its method of investigation with longitudinal study.

Mental Health Stigma

Stigma continues incessantly to negatively affect those one in 10 young persons who experience atypical, extreme psychological states in any given week (Taggart, 2016). Given that 50 per cent of all mental health problems first manifest by aged 14, and 75 per cent by age 24 (Korkodilos, 2016), it is paramount that young people are not alone in dealing with their experiences. And yet, the fear of public stigma is found to reduce help-seeking, and often young people wait on average a year before discussing their concerns (Time to Change, 2015). For those young people for whom stigma is a salient feature of their mental health problems, there are negative psychosocial consequences which include feelings of embarrassment and shame, and fear of receiving a negative response from stigmatisers (Byrne, 2000); the hiding of concerns about experiences (Clair, Beatty, & MacLean, 2005); and the internalisation of public stigma (as self-stigma; Livingston & Boyd, 2010). These consequences for young people have a knock-on effect, often leading to issues with academic attendance and attainment, and increased distress from the experience itself (Mental Health Foundation, 2016).

Intergroup contact is an established intergroup prejudice-reduction method with extensive empirical support, with some success as a mental health stigma-reduction method (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012; Corrigan, Roe, & Tsang, 2011; Couture & Penn, 2003; Kolodziej & Johnson, 1996; Rüsch & Xu, 2017; Thornicroft, et al., 2016). Discussed next is a critical analysis of the different modes of IC and the level

of experiential cues inherent in each.

Intergroup Contact

The efficacy and effectiveness of IC is well established (cf. Pettigrew & Tropp, 2006). Meta-analyses demonstrate the significant size of the effect of IC on the problem of prejudice in society with IC, on average, correlating with a medium sized reduction in prejudice ($r = -0.21$), and more rigorous experimental conditions resulting in greater contact-prejudice reductions ($r = -0.33$; Pettigrew & Tropp, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011). Direct, face-to-face intergroup contact is still the best hope that young people and young adults have to improve their attitudes, feelings, and behaviour toward those with mental health problems (Ashton, Gordon, & Reeves, 2018; Corrigan, Michaels, & Morris, 2015; Corrigan, et al., 2014; Griffiths, Carron-Arthur, Parsons, & Reid, 2014; Stuart, 2017). However, direct intergroup contact is not always feasible, practical, or applied due to intergroup anxiety (Turner, Hewstone, & Voci, 2007), practical issues in bringing groups together, and inaccessible populations (Crisp, Stathi, Turner, & Husnu, 2009; Pettigrew, Tropp, Wagner, & Christ, 2011). Given the criticism directed at Allportian intergroup contact, more indirect modes have evolved to tackle prejudice and stigma in society, one of the most recent of which is imagined intergroup contact.

Imagined intergroup contact has had much experimental success in reducing implicit and explicit prejudicial attitudes, affect, and intended discriminatory behaviour for a host of target groups, including those with mental health problems (e.g. Turner & West, 2012), finding across studies an average small-to-medium effect size ($d_+ = 0.35$, the equivalent of Pearson's $r = 0.1 – 0.25$; Miles & Crisp, 2014). When compared to Pettigrew and Tropp's (2006; Pettigrew, Tropp, Wagner, Christ, 2011) meta-analytic finding that direct intergroup contact has an average effect size of $r = - 0.33$ (equivalent to $d = 0.5 – 0.8$) for rigorously controlled experimental IC, and $r = - 0.21$ (equivalent to $d = 0.5$) in natural settings and correlation studies, it is apparent that imagined intergroup

contact finds, on average, a smaller effect on ingroup-outgroup prejudice than direct

intergroup contact. When we examine the effect sizes for the various other, existing modes

of contact (e.g. extended, vicarious, computer-mediated) we note a downward trend in

effect sizes the further away the contact mode gets from Allport's original direct IC (see

Table 3 in Lemmer & Wagner, 2015: although the latter meta-analysis refers to ethnic

prejudice specifically, and not mental health).

More recent meta-analyses looking specifically at the evidence for the efficacy of

mental health stigma-reduction methods within rigorous experimental laboratory

conditions, and to a lesser extent their effectiveness in real-world settings, provide support

for contact in its many guises (cf. Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012;

Griffiths, Carron-Arthur, Parsons, & Reid, 2014: Table 4 reproduction of Table 2 and 3

from Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012). What becomes apparent,

however, when looking at the effect sizes found for the different modes of contact, is that

as the contact mode moves further away from Allportian IC, so too does the effect size of

the contact mode shrink.

Table 4

Mental Health Stigma-Reduction Methods: Meta-analytic Results by Outcome (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012)

Stigma-reduction method	Attitudes				Affect				Behaviour				Overall			
	d_+	SE	SD	K	d_+	SE	SD	K	d_+	SE	SD	K	d_+	SE	SD	K
Protest – all studies (N = 79)	--	--	--	--				0				0	.09	.28	0.09	4
Education – all studies (N = 79)	.31***	.03	0.29	28	.14*	.07	0.26	24	.25***	.05	0.36	127	.27***	.02	0.30	431
Education – RCTs (N = 13)	.21*	.05	0.12	50					.10*	.05	0.17	55	.15**	.03	0.16	116
Contact – all studies (N = 79)	.41***	.05	0.61	93	- .03	.08	0.19	17	.19**	.07	0.62	66	.28***	.04	0.58	177
Contact – RCTs (N = 13)	.63***	.15	0.63	27					.27**	.06	0.36	33	.36***	.07	0.44	71
F2F contact	.66***	.09	0.51	34					.39***	.08	0.46	22	.52**	.06	0.47	58
Video contact	.29*	.12	0.09	44					.19**	.06	0.18	26	.16*	.05	0.21	83
Education – adolescents (N = 19)	.45***	.07	0.36	50					.30*	.13	0.21	22	.39***	.06	0.26	78
Contact – adolescents (N = 19)	.24**	.07	0.21	46					.30*	.15	0.28	18	.24***	.06	0.18	68
F2F contact - adolescents	.37**	.12	0.38	15					.46**	.13	0.34	8	.40***	.09	0.34	23
Video contact -adolescents	.18**	.08	0.14	31					.17	.09	0.12	10	.17**	.06	0.16	45

Note. d_+, adjusted mean effect size; *SE*, standard error of the mean effect size; *SD*, standard deviation of the mean effect size; *K*, number of effect sizes. RCT = randomised control trial;

F2F = face to face intergroup contact. Cohen effect sizes: negligible (<.10), small (.10–.30), medium (.30–.50), large (> .50).

* $p < .05$

** $p < .01$

*** $p < .001$

Experience of and in Contact

Arguably, the differential effects and efficacy across contact modes is due to the level of experiential interaction the ingroup has with the outgroup – a variable difference in the level and number of experiential sensory cues inherent in the different forms of contact.

Jacob Harwood (2010) presents a strong case for the need for the experience of contact in his contact space framework. Most discussions about modes of intergroup contact depict it on a continuum. Harwood (2010), in his contact space framework, explains modes of contact in relation to his two dimensions of *richness of self-outgroup experience* and *involvement of the self* in contact (Figure 3).
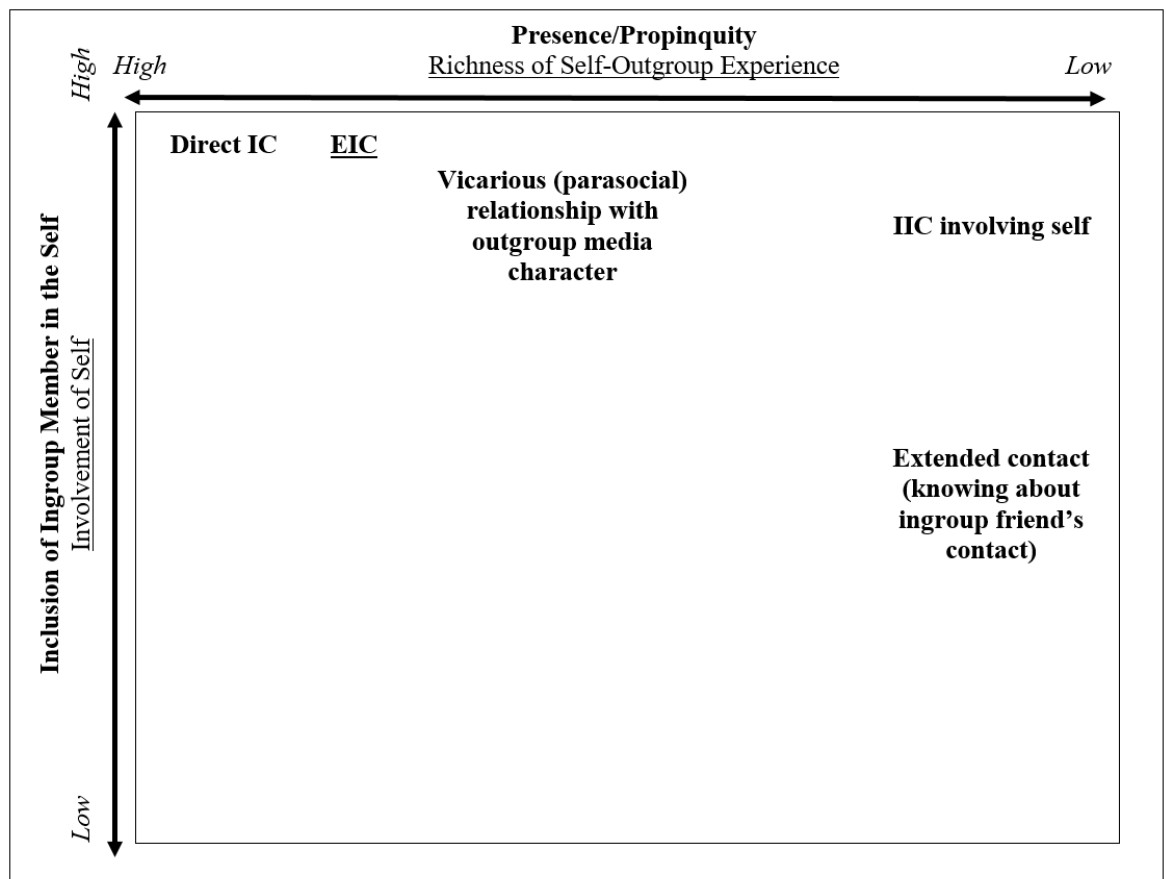
Figure 3. Simplified pictorial representation of Harwood's (2010) contact space framework, including where EIC theoretically purports to sit in relation to the two dimensions.

If we again look to differences in efficacy and effectiveness of contact modes reducing mental health stigma, we can immediately identify differences in the level and degree to which experiential sensory cues are both presented by the outgroup (the richness

of self-outgroup experience), and exuded by the ingroup during contact (the involvement of the self in contact).

From looking at the most recent reviews of the intergroup contact literature and its applications, modes of contact are continuing to move further away from Allport's IC (cf. Dovidio, Love, Schellhaas, & Hewstone, 2017; Vezzali & Stathi, 2017): there are no new modes of contact that embed the need for the experience of contact in their underlying theoretical assumptions. This might be a sign of the technological, busy age that we are currently living in with computer mediated/virtual contact the most recently established method cited presently (cf. Dovidio, Love, Schellhaas, & Hewstone, 2017; although to small, non-significant meta-analytic effect; e.g. Lemmer & Wagner, 2015[7]). However, if we are to improve difficult intergroup relations, and reduce entrenched prejudicial and stigmatising attitudes and behaviour in real-world settings, indirect modes lacking (or with a severely limited level of) interactive experience with the outgroups in question will fall short.

Experiential Intergroup Contact

Experiential Intergroup Contact bridges the original Allportian, face-to-face intergroup contact, and latter indirect modes (i.e. imagined IC) to create a *simulated intergroup contact* with outgroup members. As a mode of contact, EIC posits that in order to overcome the practical and psychological barriers to face-to-face, direct contact (i.e. segregation and intergroup anxiety), and the lack of experience with the outgroup in indirect modes of contact (such as imagined IC), it is necessary to solicit the same sensory cues inherent in direct IC (Harwood, 2010). With this premise, EIC would sit in the upper left corner of Harwood's contact space framework, activating as it does a high richness of self-outgroup experience during rehearsals with the Stigmaphrenia[©] script (i.e. it is sensory cue rich), and high involvement of self in contact with others. In practical terms, this

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[7] $\hat{\mu}_\theta = 0.08$, 95% CI [-0.13, 0.28], $z = 0.74$, $p = .46$, $k = 8$

means a group of ingroup members coming together to rehearse with a specially written script in order to role-play the mental health problem outgroup members – all without the need for physical proximity to the outgroup.

The Stigmaphrenia[©] script (Farahar, 2012; Appendix E) created to operationalise EIC reclassifies mental health problems and "madness" as neurodivergence within the neurodiversity of humanity (i.e. recategorisation; investigated Chapter Four, Study 3). In rehearsing and roleplaying with Stigmaphrenia[©] "mentally-well" ingroup participants *are* the mental health problem outgroup, bypassing issues of direct intergroup contact (e.g. intergroup anxiety, segregation), and mitigating indirect contact mode criticism (e.g. lack of propinquity/sensory cue richness) as participants rehearse as a group with others who are also roleplaying the outgroup.

In summary, as a mode of intergroup contact, EIC posits that in order to overcome the practical and psychological barriers to face-to-face, direct contact (i.e. segregation and intergroup anxiety), and the lack of experience with the outgroup in indirect modes such as imagined intergroup contact, it is necessary for new contact modes to solicit the same sensory cues inherent in Allportian intergroup contact (Harwood, 2010). It is arguably necessary to truly simulate the contact experience, to involve the self in movement with and around other people, to afford the opportunity for visual, auditory, tactile, and olfactory sensory experiences – all without physical proximity to the outgroup.

Overview and Hypotheses

Given the differences in effects sizes as dependent on the form that contact takes (e.g. when comparing face-to-face contact with video-based contact; Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012), it would be expected that stigma would decrease in-keeping with the number and level of experiential cues present in the contact mode employed. This begs the questions: can EIC, operationalised via Stigmaphrenia[©], reduce public mental health stigma in adolescents; and does the systematic reduction of sensory

cues in each experimental condition have an effect on stigma outcomes? The present study sought to answer these questions in a 3 X 2 design, in which school-age participants were either in the EIC condition, a filmed read-through of the script condition, or a script-only condition, answering pre- and post-condition measures of attitude, affect, and intended behaviour toward those with mental health problems. Across all three conditions each participant will be involved with the same Stigmaphrenia© material. However, the level of experiential sensory cues inherent in each condition will be systematically reduced by the nature of its delivery (EIC vs. video-only vs. script-only; Figure 4).

Richness of experiential sensory cues   **Condition**
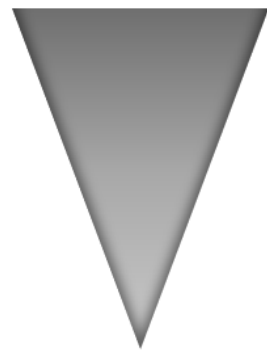
EIC with Stigmaphrenia©

Video of script read-through

Script only

Figure 4. Pictorial representation of the theorised downward trend in experiential sensory cues across the three experimental manipulations.

Based on the literature discussed, the following hypotheses are put forward:

H1. There will be a main effect of condition on stigmatising attitudes, affect, and intended behaviour. The conditions will have a downward trend for stigma based on level of experiential cues, so that EIC has the least stigma, and the script-only condition the most.

H2. There will be a main effect of time on stigma outcomes, with time 2 resulting in the least stigma compared to time 1.

H3. There will be an interaction effect of Condition X Time, so that EIC will have the least stigma at time 2 compared to time 1.

Method

Design

The study used a two-factor, mixed-model design: Condition (EIC vs. video-only vs. script-only) x Time (T1 vs. T2), where condition was a between-participants factor, and time a within-participant factor. The attitudes, emotions, and intended behaviours toward those with mental health problems were measured before and after random assignment to a condition, and these comprise the main dependent variables.

Participants

An *a-priori* statistical power analysis (GPower 3.1.9.2) indicated the need for an approximate sample size $N = 78$ in order to have 80% power to detect a medium effect size ($f = 0.25$, as based on the average effect size found for imagined intergroup contact, $d_+ = 0.35$; Miles & Crisp, 2014; VanVoorhis & Morgan, 2007), with error probability .05.

Eighty-five students from three, mixed-sex[8], South-Eastern UK secondary schools participated in the study, all aged 12-years and over[9]. One participant was excluded for not completing the study, leaving a total sample of 84 participants (genders identified[10]: female = 67; male = 15; and 2 who preferred not to disclose). Participants were randomly assigned to either the EIC intervention condition, video-only condition, or script-only condition. Participant ages ranged from 12 to 18 years ($M = 15.86$, $SD = 2.04$). Twelve participants voluntarily disclosed that they have an ongoing mental health problem (7 preferred not to disclose their mental health status). Information about participant ethnic backgrounds can be found in Table 5.

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[8] Two of the schools were comprehensives and one was a grammar school. The grammar school was a single-sex secondary, with a mixed-sex 6th form cohort from which the sample was taken.

[9] The study had ethical approval for data collection with adolescents aged 12-years and over. Ethical approval granted 25/11/2016-25/11/2018, code: 201614800632043996

[10] Participants were also asked what sex they were assigned at birth: female = 67; male = 17.

Table 5

Study 2, Participant Demographics: Ethnicity (N = 84)

	Frequency	%
Asian or Asian British - Any other Asian background	1	1.2
Black or Black British - African	2	2.4
Mixed - White & Asian	3	3.6
White - British	70	83.3
White - Any other White background	7	8.3
Other ethnic group	1	1.2

Procedure and Ethical Consideration

Prior to contact with the pupils' school headteachers were provided an invitation letter, with information and a consent form, and, if consenting, headteachers provided parents and guardians parental opt-out forms for their children to take part[11] (Appendix G).

On arrival to a PC room, participating school students[12] were briefed about the study and given the opportunity to decide whether to participate. Given the mental health and stigma nature of the study, participating pupils received both clear verbal and written information highlighting this nature before deciding to consent to take part. It was explained to participants that the study involved asking participants about their "perception of society's (as well as [their] own) attitudes, emotions and behaviours regarding people from different groups in society," and how the methods of the study will "involve material about different groups of people (for example physically disabled; gay; mental health problems)". At the end of each stage of the study participants received signposting for mental health services.

Participants were informed that they were being asked to participate in a study investigating "which of three teaching methods works best in educating students about

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[11] Opt-out prior to the new GDPR opt-in requirement of 2018.

[12] Data collection across the three schools was collected on three separate occasions.

groups in society", and as part of the cover story for the study they were also initially asked

questions relating to people who are disabled and gay. Following a baseline questionnaire

assessing participant initial mental health stigmatising attitudes, emotions, and intended

behaviours (along with demographic information, voluntary disclosure of an ongoing

mental health problem, and the cover questions asking participant attitudes toward gay and

disabled people), participating students were randomised to one of three conditions: the

EIC condition; video-only condition; or script-only condition (see Figure 5).
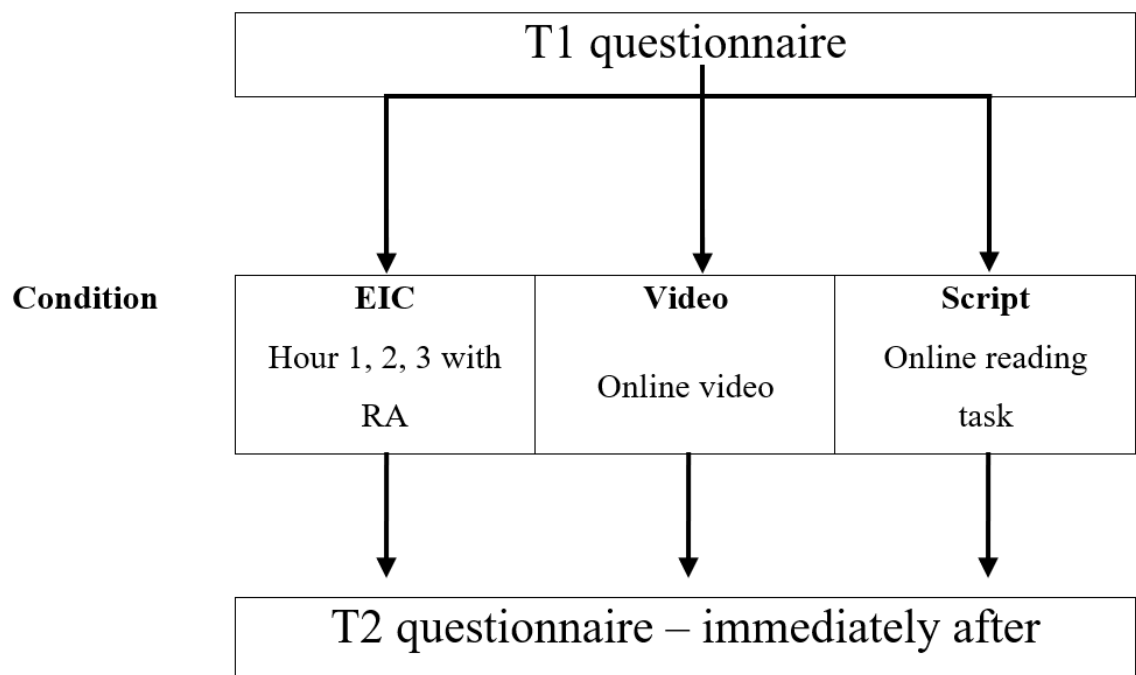
Figure 5. Procedural layout for the need for experience in contact, Study 2.

Experiential intergroup contact condition. The main condition of interest was the

EIC condition – ostensibly an "interactive story-based teaching method". In this condition,

participants were brought together in groups of six[13] in separate rooms for three hours, as

led by a research assistant (RA) reading the director lines which set the scene/s.

Experiential Intergroup Contact participants were given the Stigmaphrenia© (Farahar,

2012; Appendix E) script depicting a positive message about mental health problems re-

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[13] In instances where there were insufficient numbers of participants, a research assistant would pick up a role

from the script, or assign it as an extra role/s to participants present.

framed as neurodiversity (RA EIC guidelines, Appendix H). Participant pupils were

instructed that the purpose of the condition was for them to take on the perspectives of the

character roles given, and as a group to act out the short play, with the express instruction

to experience the roles depicted. Specifically, and in-keeping with Allportian IC criteria,

participants were informed by their RA that they were being asked as a group to work:

1. Cooperatively toward the goal of audio recording a single scene by rehearsing the

   role(s) assigned to you (just so you know, this recording will not be used in the

   study write-up, it's just to help the teaching method).

2. You will be given a script showing the positive message about people with mental

   health problems, who, in the script, are working together to explain mental health

   problems to a nine-year-old boy.

3. You are simply asked to take on-board and experience the perspective(s) of your

   character role(s) assigned to you, interacting with the other students and their roles.

4. I will be your neutral research assistant helping to facilitate your learning sessions,

   you are not being judged on any aspects of your learning and involvement, I am

   just here to help facilitate your learning sessions.

In the first of the three hours, EIC participants were introduced to the

Stigmaphrenia© script and randomly assigned character roles[14], initially reading the script

through silently to themselves. Pupils were then asked to participate in simple drama

games to help them relax, followed by the first read-through of the script together as a

group. There were short breaks between each hour to break up the rehearsals. In the

second hour participants started with simple drama games again, and then scripts were

redistributed so that different participants had different characters to rehearse as for the

remaining 40 minutes (to reduce the likelihood that participants would only take on the

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[14] Research assistants were instructed to appear to randomly hand the role of the mother, Alice, to a girl in the
group when there were boys so as not to cause issues in the group by giving a female mother role to a boy.

perspective/s of the initially assigned character/s, and because some of the characters were constant throughout the script, while some only had sporadic parts; see Appendix I for the possible roles participants could rehearse as). In the final third hour, participants could rehearse with their original roles from hour one before the final goal of audio-recording two scenes from the script (scene 4, and a scene the participants chose). The final third session ended by asking participants to recap what the teaching method and story were about, as if telling someone who was new to it. This was to ensure that participants had understood the story message, and an activity that actors rehearsing for a performance might do in order to immerse themselves in the story (it is also a way to reinforce the central message of the play; Husnu, Mertan, & Cicek, 2016). Participants were provided brief debriefs and instructions to return to a PC room to complete the final questionnaire of the study.

Video-only condition[15]. Participants in the second condition were afforded a short break following the baseline questionnaire and randomisation to the video-only condition, ostensibly a "visual teaching method". Once redirected to the video-only condition online participants were asked to request headphones from the RAs. It was then explained in writing onscreen that they would be watching a video as individuals, where they would "see a video showing the positive message about people with mental health problems, who, in the video, are working together to explain mental health problems to a nine-year-old-boy". Similar to the EIC condition participants, video-only participants were asked to "simply take on-board the perspectives in the video", which was 33 minutes and 11 seconds long.

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[15] A video of research assistants and myself performing a seated read-through of Stigmaphrenia© was filmed for the video-only condition. Unlisted video available here https://youtu.be/X8-IZqufiD4

Script-only condition. Ostensibly an "individual teaching method", the script-only condition participants were afforded a short break, and then "asked as an individual to read the story" about people with mental health problems, where the "script [shows] the positive message about people with mental health problems, who, in the script, are working together to explain mental health problems to a nine-year-old boy". Script-only participants, like EIC and video-only participants, were asked to take on-board the perspectives in the story (PDF version of the script used, Appendix E).

Following all three conditions (Table 6), participants completed the post-manipulation questionnaire and then fully debriefed as to the study aim and hypotheses, and afforded a final opportunity to ask questions[16].

Table 6

Study 2, Methods of Educating Students about Groups in Society

	Experimental conditions		
	EIC	Video	Script
Ostensibly to participants	Interactive teaching method	Visual teaching method	Individual teaching method

Measures

The mental health-stigma outcomes selected not only reflect the assumptions made in the hypotheses, but also the nature of stigma itself: the cognitive, affective, and behavioural factors comprising stigma (Corrigan & Shapiro, 2010; Corrigan, Roe, & Tsang, 2011; McKeague, Hennessy, O'Driscoll, & Heary, 2015). The term "mental health problems" was used throughout the study to refer to the target outgroup in question, and to reflect the terminology most appropriate for, and widely used by adolescents.

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[16] Following data collection, some schools accepted an offer to attend an anti-stigma workshop run by the researcher.

Cognitive.

Peer mental health stigmatisation scale. The 24-item peer mental health stigmatisation scale (PMHSS; McKeague, Hennessy, O'Driscoll, & Heary, 2015; Appendix J) was administered at both time points. Designed with items in-keeping with the themes of mental health problem stigma identified by Corrigan and Shapiro (2010; Corrigan, Roe, & Tsang, 2011), the PMHSS measures stereotypes, prejudice, and discrimination on a 5-point scale ranging from 1 (*disagree completely*) to 5 (*agree completely*), and was specifically developed for use with younger populations.

The PMHSS is invaluable as it provides a multi-faceted approach to measuring participant mental health problem stigma in-keeping with the complex nature of stigma itself and provides, (a) a total score for participant *stigma awareness* (i.e. participant awareness of societal stigma toward those with mental health problems, where high scores indicate stigma awareness; e.g. "most people believe that teenagers with mental health problems are dangerous"); (b) a total score relating to participant *stigma agreement* (i.e. the extent to which participants personally endorse stigma, where high scores represent stigma agreement; e.g. "I would be afraid of someone if I knew that they had mental health problems"); (c) an *overall stigma* score (high scores indicative of overall negative stigmatising attitudes); and (d) a total score for *positive reactions* regarding those with mental health problems (high scores representing positive attitudes and feelings towards those with mental health problems; "I believe that teenagers with mental health problems can get good grades"; all αs > .57). This latter subscale (comprising items relating to *intellectual ability*; *recovery*; and *friendship*) is important, as many a measure of mental health problems stigma neglects to include positive attitudes and feelings, as well as liking, for those with mental health problems. This positive valence salience in contact has been discussed in the literature as an important indicator of improved stigma, and one often missed from stigma research that largely concentrates on changing negative attitudes,

affect, and behaviour toward those with mental health problems (cf. McKeague, Hennessy, O'Driscoll, & Heary, 2015).

Affective.

Affective attitude thermometers. In order to measure participant feeling toward both the mentally well and those with mental health problems, participants were presented two affective attitude thermometers with sliding scales for each target group, ranging from 0 (*I don't like them at all*) – 100 (*I like them very much*; scores above the midway point of 50 indicative of a general positive feeling toward each group; adapted from the original by Abelson, Kinder, Peters, & Fiske, 1982; Appendix K). It was explained to participants that the scales measured their feeling toward mentally well people and people with mental health problems, where "the higher the number, the more positive you feel towards the group".

Behavioural.

Intended behaviour. Lifted from Evans-Lacko et al.'s (2011) reported and intended behaviour scale, the four intended behaviour (IB) items were adapted for use in the present study to assess how respondents intended to behave in the future toward those described as having mental health problems (scored on a 7-point Likert scale from 1= *completely disagree* to 7 = *completely agree* at both time points; αs > .88; Appendix B). This scale asks participant willingness to (1) live with; (2) work with; (3) live nearby; and (4) continue a friendship with someone who has mental health problems. Following the first use of this scale in study 1, Chapter One, two items were negatively worded by adding the word *not*: "In the future, I would *not* be willing to". The two positively worded items were reverse scored so that high scores were indicative of less intention to engage in behaviours with those with mental health problems.

Volunteering behaviour intention. Assessed only in the final post-manipulation questionnaire, participants were measured on realistic behavioural intentions toward those

with mental health problems. Participants were asked to indicate how many free periods in

the next two weeks they would be willing to give up to volunteer at the local mental health

drop-in centre, so that they could chat to people with mental health problems (measured on

a 4-point scale ranging from *0 - 3* free periods; Appendix L).

Qualitative perceptions of the intervention. Collected at time two (T2),

participants were asked to provide qualitative feedback on the "teaching method" they

were involved with via two open-ended questions: "Do you think your teaching method

would be a good way of highlighting a common concern for adolescents? Why/Why not?"

and "Did you enjoy the teaching method you were involved with? Why/Why not?"

(Appendix M). This qualitative information was included to contribute to refining the EIC

condition and script.

All analyses were conducted using IBM SPSS 24 software. All pairwise

comparisons adjusted using Šidák corrections for multiple comparisons. Unless stated

otherwise, there were no outliers for dependent variables, as assessed by examination of

studentized residuals for values greater than ±3, and the residuals were normally

distributed, as assessed by Normal Q-Q Plot. Across dependent variables, unless otherwise

stated, there was homogeneity of variances ($ps > .05$) and covariances ($ps > .05$), as

assessed by Levene's test of homogeneity of variances and Box's M test respectively.

Results

Counts for volunteering intentions are found in Table 7, means, standard

deviations, Cronbach's alphas, and correlations among dependent variables at T1 and T2

are presented in Table 8, and the means and standard deviations for T1 and T2 dependent

variables for the three conditions are presented in Table 9. As shown in Table 8, the mean

scores for the dependent variables were largely just below the mid-point of the scales, with

no particularly high variances, indicating that there were few stigmatising attitudes, affect,

and intended behaviours at both time points. For the positively worded variables, PMHSS

positive and affective attitudes, the mean scores were largely around or just above the mid-

point of the scales, with no particularly high variances, indicating positive attitude and

feeling toward the mental health problem target group. Condition was not significantly

correlated with any variables, indicating no relationship between the condition a participant

was in and the variables of interest.

The highest correlation amongst variables was $r = 0.87$, $p < .01$, and there were

significant small, medium, and large correlations amongst most of the variables. These

patterns indicate that on the whole, subscales for the same overall measure correlate, and

scores at time 1 correlate with scores at T2.

Table 7
Study 2, Volunteering Behaviour Intention by Condition (N = 84)

	EIC		Video		Script	
	n = 27		*n = 28*		*n = 29*	
	M	*SD*	*M*	*SD*	*M*	*SD*
No. of periods willing to volunteer	1.44	1.05	1.25	1.01	1.28	1.03
	No.	%	No.	%	No.	%
0	6	22.2	7	25.0	8	27.6
1	8	29.6	11	39.3	9	31.0
2	8	29.6	6	21.4	8	27.6
3	5	18.5	4	14.3	4	13.8

Note. EIC = Experiential Intergroup Contact

Table 8

Study 2, Means (M), Standard Deviations (SD), Cronbach's Alphas (in parentheses), & Correlations Among Dependent Variables at Time 1 & 2 (N = 84)

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Condition	2.02	.82	--															
Time 1																		
2 PMHSS overall stigma	2.36	0.49	-.11	(.82)														
3 PMHSS awareness	2.77	0.66	-.07	.83	(.82)													
4 PMHSS agree	1.94	0.56	-.11	.76**	.27*	(.78)												
5 PMHSS positive	3.79	0.44	-.09	-.47**	-.33**	-.43**	(.57)											
6 Affective attitude MW	79.24	16.22	-.04	-.17	-.05	-.25*	.05	--										
7 Affective attitude MHP	76.54	16.43	.05	-.31**	-.04	-.49**	.29**	.70**	--									
8 IB	1.98	0.95	-.02	.52**	.12	.76**	-.47**	-.17	-.39**	(.82)								
Time 2																		
9 PMHSS overall stigma	2.46	0.56	.04	.66**	.58**	.46**	-.47**	-.19	-.33**	.27*	(.82)							
10 PMHSS awareness	2.96	0.86	.08	.49**	.65**	.09	-.34**	-.03	-.07	-.06	.86**	(.85)						
11 PMHSS agree	1.94	0.59	-.03	.53**	.15	.74**	-.41**	-.31**	-.53**	.61**	.63**	.16	(.80)					
12 PMHSS positive	3.72	0.58	.04	-.46**	-.26*	-.49**	.59**	.21	.34**	-.57**	-.39**	-.18	-.51**	(.76)				
13 Affective attitude MW	79.59	17.81	.06	-.16	-.01	-.27*	.13	.87**	.74**	-.21	-.24*	-.05	-.38**	.28*	--			
14 Affective attitude MHP	78.06	17.79	.15	-.32**	-.13	-.41**	.21	.74**	.83**	-.28**	-.31**	-.07	-.48**	.39**	.77**	--		
15 IB	2.16	1.22	-.14	.37**	.09	.54**	-.38**	-.11	-.35**	.67**	.25*	.01	.51**	-.47**	-.17	-.31**	(.88)	
16 Volunteering intentions	1.32	1.02	-.07	-.10	-.09	-.06	.21	.19	.27*	-.06	-.13	-.06	-.12	.09	.17	.30**	-.05	--

Notes. PMHSS = Peer Mental Health Stigmatisation Scale; IB = Intended Behaviour; MW= mentally-well; MHP = mental health problems

* $p < .05$;

** $p < .01$.

Table 9

Study 2, Descriptive Statistics for Time 1 & 2 Dependent Variables by Condition (N = 84)

	EIC		Video		Script	
	n = 27		*n* = 28		*n* = 29	
	M	*SD*	*M*	*SD*	*M*	*SD*
Time 1						
PMHSS overall stigma	2.42	0.46	2.38	0.48	2.23	0.52
PMHSS awareness	2.82	0.59	2.79	0.61	2.72	0.77
PMHSS agree	2.01	0.55	1.96	0.57	1.86	0.56
PMHSS positive	3.89	0.43	3.69	0.44	3.79	0.44
Affective attitude MW	80.89	14.73	77.46	16.66	79.41	17.46
Affective attitude MHP	75.70	17.21	75.96	17.54	77.86	15.04
IB	1.93	0.93	2.12	1.08	1.89	0.86
Time 2						
PMHSS overall stigma	2.43	0.53	2.47	0.53	2.49	0.63
PMHSS awareness	2.92	0.83	2.87	0.80	3.09	0.95
PMHSS agree	1.92	0.61	2.03	0.55	1.89	0.63
PMHSS positive	3.74	0.69	3.62	0.53	3.79	0.49
Affective attitude MW	79.15	18.85	77.68	17.41	81.86	17.58
Affective attitude MHP	74.74	19.71	78.18	17.56	81.03	16.16
IB	2.37	1.55	2.17	1.11	1.96	0.95
Volunteering intentions	1.44	1.05	1.25	1.01	1.28	1.03

Notes. PMHSS = Peer Mental Health Stigmatisation Scale; IB = Intended Behaviour; MW= mentally-well; MHP = mental health problem/s.

Qualitative Perceptions of the Intervention

There were three common qualitative themes for the participants involved with the EIC condition when asked whether their teaching method was enjoyable, and if they felt it would be appropriate for other adolescents in highlighting a common concern (i.e. mental health problems). Eight of the 27 EIC participants alluded to speaking anxiety, feeling awkward, and/or feeling embarrassed reading aloud, which limited their enjoyment of the EIC method they were in. All eight participants were seventeen years old. The younger participants (12 and 13 years) responded that the method was "fun", "easy to understand", "interactive", and "very involved" (participant IDs: 9303; 9277; 7931; 7462; 6429). The older participants were also the only pupils to describe the method as repetitive, diminishing their enjoyment. This difference according to age of the participants is something to take into account in the future use of EIC with adolescents.

Looking to the video-only and script-only qualitative answers, responses were the opposite of the older adolescents involved in the EIC condition, with a number stating that, although their method helped put them in the shoes of those with mental health problems, the method would be better for adolescents and more enjoyable if it were more interactive: "the teaching method was purely auditory, it felt lacking in the level of interaction with me, the viewer" (participant ID 20154, 17-year-old). These pupils also stated that they could not concentrate on the video and found themselves "zoning out", alluding to their passivity as a viewer: "not much engagement and stimulation" (participant ID 27051, 17-year-old); and "I think with more serious/common concerns it's quite important to be more involved in the learning (rather than just listening). More interactive learning I find easier to remember" (participant ID 30857, 17-year-old). One 17-year-old participant in the video-only condition stated:

I did enjoy the story line of this teaching method. Only suggestion I

would have would be to make it more interactive by maybe acting

the short story rather than just reading it to capture the attention and

to make it more fun for people but either way a very enjoyable story.

(participant ID 55653)

While there was also the following from 17-year-old script-only participants:

I felt disconnected to the script and did not have an active role in it.

I felt it took too long to read some scenes that would be more exciting

if seen visually or acted out physically.

(participant ID 23451)

Just reading the script may not be as effective as turning it into a play

or a video. But teaching and showing issues through fictional

characters is a good way for adolescents to learn.

(participant ID 26394)

Young children would really benefit from acting it out themselves as

well because it really puts them in the shoes of the character and they

would really get a good feel as to what it [mental health problems]

is like.

(participant ID 56294)

Main Analyses

Two-way, mixed-model general linear, analysis of variances (GLM ANOVAs)

were conducted for the main dependent variables (PMHSS and its subscales; IB; affective

attitudes of both the mentally well and mental health problem groups) and a one-way GLM

ANOVA with volunteering intentions at T2 as the dependent variable.

Based on the theoretical assumptions directing the hypotheses, planned contrasts

were used to analyse the data (contrasts testing hypotheses are found in Table 10.).

Contrasts 1 through 4 test for H1 (EIC will have the least stigma and greatest volunteering

intention, followed by the video condition, and finally the script condition), H2 (T2 will

have the least stigma compared to T1), and H3 (EIC will have the least stigma at T3) by first comparing the EIC condition to both the video-only and script-only conditions (C1), before drilling down to determine if EIC has the least stigma compared to the video-only (C2), and script-only (C3) conditions, before comparing the video-only and script-only conditions with one another (C4) to determine if the script-only condition has the greatest stigma and least volunteer intention.

Table 10

Study 2, Planned Contrasts Reflecting Hypotheses

	Planned contrasts			
Condition	Contrast 1	Contrast 2	Contrast 3	Contrast 4
EIC	2	1	1	0
Video	-1	-1	0	1
Script	-1	0	-1	-1

Peer Mental Health Stigmatisation

PMHSS total. When PMHSS total was the dependent variable, there was a non-significant Condition X Time interaction: $F(2, 81) = 1.31$, $p = .275$, $\eta_p^2 = .03$; and a non-significant effect of condition: $F(2, 81) = .05$, $p = .955$, $\eta_p^2 = .01$. There was a significant main effect of time when PMHSS total was the dependent variable: $F(1, 81) = 4.62$, $p = .035$, $\eta_p^2 = .05$; where T2 ($M = 2.46$, $SD = 0.56$) had greater overall stigma than T1 ($M = 2.36$, $SD = 0.49$), reflecting a worsening of stigma at post-test. There were no significant contrast effects (ps > .05).

PMHSS awareness. When PMHSS awareness was the dependent variable, there was a non-significant Condition X Time interaction: $F(2, 81) = 1.77$, $p = .176$, $\eta_p^2 = .04$; and a non-significant effect of condition: $F(2, 81) = .07$, $p = .930$, $\eta_p^2 < .01$. There was a significant main effect of time when PMHSS awareness was the dependent variable: $F(1, 81) = 6.56$, $p = .012$, $\eta_p^2 = .08$; where T2 ($M = 2.96$, $SD = 0.86$) had greater scores than T1

($M = 2.77$, $SD = 0.66$), reflecting an increased awareness of mental health stigma at post-test. There were no significant contrast effects ($ps > .05$).

PMHSS agreement. When PMHSS agreement was the dependent variable, there was a non-significant Condition X Time interaction: $F(2, 81) = 1.08$, $p = .344$, $\eta_p^2 = .03$; and non-significant effect of time: $F(1, 81) < .01$, $p = .954$, $\eta_p^2 < .01$; and condition: $F(2, 81) = .39$, $p = .674$, $\eta_p^2 = .01$; and no significant contrast effects ($ps > .05$).

PMHSS positivity. The T2 EIC condition scores for PMHSS positivity were non-normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). For PMHSS positivity there was one outlier at T2 in the EIC condition, which had a studentized residual value of 3.93. Removal of this participant did not affect the result of the GLM ANOVA. When PMHSS positivity was the dependent variable, there was a non-significant Condition X Time interaction: $F(2, 81) = .75$, $p = .475$, $\eta_p^2 = .02$; and non-significant effect of time: $F(1, 81) = 2.20$, $p = .142$, $\eta_p^2 = .03$; and condition: $F(2, 81) = 1.03$, $p = .363$, $\eta_p^2 = .03$; and no significant contrast effects ($ps > .05$).

Affective Attitude Thermometers

At both time points, all condition scores for affective attitude thermometers for the mentally well were non-normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). Levene's test of equality of error variances was non-significant ($p > .05$). When interpreting the Condition X Time interaction effect, note that Box's M test of equality of covariance was significant ($p < .01$). When affective attitude thermometer, mentally well, was the dependent variable there was no statistically significant Condition X Time interaction: $F(2, 81) = 1.55$, $p = .219$, $\eta_p^2 = .04$. There was no significant effect of time: $F(1, 81) = .10$, $p = .753$, $\eta_p^2 < .01$; or condition: $F(2, 81) = .76$, $p = .435$, $\eta_p^2 < .01$; and no significant contrasts ($ps > .05$).

At both time points, all condition scores for affective attitude thermometers for those with mental health problems were non-normally distributed, as assessed by Shapiro-

Wilk's test ($p < .05$). Levene's test of equality of error variances was non-significant ($p >$ .05). When interpreting the Condition X Time interaction effect, note that Box's M test of equality of covariance was significant ($p < .001$). When affective attitude thermometer, mental health problems, was the dependent variable there was no statistically significant Condition X Time interaction: $F(2, 81) = 1.26$, $p = .288$, $\eta_p^2 = .03$. There was no significant effect of time: $F(1, 81) = 1.78$, $p = .186$, $\eta_p^2 = .02$; or condition: $F(2, 81) = .47$, $p = .630$, $\eta_p^2 = .01$; and no significant contrasts ($ps > .05$).

Intended Behaviour

At both time points, all condition scores for intended behaviour were non-normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). For intended behaviour there was one outlier at T1, which had a studentized residual value of 3.03, and one outlier at T2, which had a studentized residual value of 3.86. Removal of these participants did not affect the result of the GLM ANOVA. Levene's test of equality of error variances was non-significant ($p > .05$). When interpreting the Condition X Time interaction effect, note that Box's M test of equality of covariance was significant ($p = .001$). When intended behaviour was the dependent variable there was no statistically significant Condition X Time interaction: $F(2, 81) = 1.66$ $p = .197$, $\eta_p^2 = .04$. There was no significant effect of time: $F(1, 81) = 3.51$, $p = .065$, $\eta_p^2 = .04$; or condition: $F(2, 81) = .46$, $p = .636$, $\eta_p^2 = .01$; and no significant contrasts ($ps > .05$).

Volunteering Behaviour Intention

Volunteering behaviour intention scores for all three conditions were non-normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). Levene's test of equality of error variances was non-significant ($p > .05$). When volunteering behaviour intention was the dependent variable, there was a non-significant effect of condition: $F(2, 81) = .29$, $p = .750$, $\eta_p^2 < .01$ (Table 7), and there were no significant contrasts ($ps > .05$).

Discussion and Conclusion

As an indirect contact mode to reduce mental health stigma, Experiential Intergroup Contact posits that it is necessary to closely simulate Allportian intergroup contact – to solicit the same sensory cues experienced in face-to-face contact. Study 2 sought to investigate the need for the experience of sensory cues as a mediating mechanism of EIC to reduce mental health stigma, in an attempt to answer the questions: can EIC, operationalised via Stigmaphrenia$^©$, reduce public mental health stigma in adolescents? Does the systematic reduction of sensory cues in each experimental condition have an effect on stigma outcomes?

The Experiential Intergroup Contact condition using the Stigmaphrenia$^©$ script was compared to a videoed version condition, and a script-only condition to identify if there was a downward trend for mental health stigma the greater the number of sensory cues the condition solicited. It was expected that the EIC condition – with the greatest number of sensory cues – would have the least mental health stigma, followed by the video-only condition, with the script-only condition expected to have the most stigma.

It was found that there was greater peer mental health stigma (PMHSS) at time 2 compared to time 1 following engagement with the Stigmaphrenia$^©$ script. At first glance this looks to be a discouraging outcome of participant involvement with the script, with the script increasing stigma. However, when we look to the significant PMHSS awareness subscale and the non-significant PMHSS acceptance subscale it appears that participant involvement in the study with the Stigmaphrenia$^©$ script has increased pupil *awareness* of mental health stigma, but pupils did not significantly increase their *acceptance*, and consequently there is no significant personal endorsement of stigma.

As with most studies with modest sample sizes, it is possible that Study 2 was underpowered. Based on the sample size ($N = 84$), sensitivity analysis using GPower 3.1.9.4 indicated sensitivity to detect an $f = 0.14$ effect size with $1\text{-}\beta = .80$ power in an

ANOVA, (repeated measures, within-between interaction), assuming an alpha value of .05. While the study found no quantitative support for the three hypotheses and therefore could not contribute answers to the research questions posed, there were some encouraging qualitative responses and feedback that will be used to improve the research methodology investigating EICs ability to reduce mental health stigma, with which larger sample sizes may also prove pertinent.

Looking to the qualitative responses from school pupil participants, it is interesting and important for future studies to note the mix of positive and negative feeling toward the EIC condition. Some participants expressed "public speaking" anxiety, and as such felt the method was not suitable for them. Although these same participants did recognise that the method would be good for other or younger adolescents if they did not have speaking anxiety. One astute participant noted that "I think this teaching method would be suitable for younger people (primary school age) as role play is more suited to children in my opinion as it enables them to understand something more easily" (participant ID 30779, 17-year-old). This echoes Allport's (1979, p. 493) sentiments:

> School children, for example, may easily be led into role-playing.
> By playing the part of a child in an out-group the juvenile actor may
> learn thought his own organic sensations something of the
> discomfort and defensiveness engendered by discrimination.

Conversely, the script-only participants, whilst enjoying the story narrative ("I feel as though I learnt a lot and was able to take in the information at my own pace"; participant ID 39631), indicated that they would have preferred to act out the roles: "it was a lot of reading and may have been better conveyed if the scenes themselves wear actually acted out in order to maintain [concentration]" (participant ID 39631); "I felt it [the script] took too long to read some scenes that would be more exciting if seen visually or acted out physically" (participant ID 23451). Enjoyment is an important aspect to consider for any

intervention, and it is possible that participant enjoyment was a factor contributing to the limited significant results for the present study.

A further limitation of the present study is the lack of follow-up. It is possible that only measuring school pupil attitudes, affect, and intended behaviour immediately following condition involvement did not make the study sensitive to sleeper effects. Later follow-up may make any delayed effects of EIC apparent and thus measurable. Relatedly, participants may have succumbed to both social desirability and attempts to match responses to those given to the same measures earlier that same day. Regarding the last point, participants often try and match their post-manipulation questionnaire responses to their original responses (Seger, Smith, Percy, & Conrey, 2014). These potential limitations – delayed effects, social desirability, and pre-post responses matching – make it important for future studies to include measures of social desirability, as well as collect outcome measures several weeks following involvement with EIC, and so this chapter concludes with a need to longitudinally investigate EIC (Chapter Five, Studies 4 and 5).

The following Chapter Four reports Study 3 investigating the second potential mediating mechanism of EIC – recategorisation of the mentally well and those with mental health problems as belonging to a shared neurodiversity common ingroup identity – in an attempt to substantiate the theoretical underpinnings of Experiential Intergroup Contact as detailed in Chapter Two.

Chapter Four. Study 3. Neurodiversity: Investigating the Effect of Recategorisation on

Mental Health Stigma

Hence to liberate a person from…prejudice it is necessary at the same time to liberate

[them] from word fetishism…Therefore any program for the reduction of prejudice must

include a large measure of semantic therapy

— Allport (1979, p. 187)

In Chapter Two the theoretical underpinnings of *Experiential Intergroup Contact* (EIC) were outlined, which include the proposed mediating mechanisms of *experience* with and of the outgroup, and *recategorisation* – a means of extending a shared common ingroup identity to include those with and those without mental health problems to reduce mental health stigma. Chapter Three attempted to establish the *experiential* component as a mediating mechanism of EIC. In this chapter, the second theoretical component, *recategorisation* is investigated for its ability to reduce mental health stigma.

In Study 3 reported here, the common ingroup identity, *neurodiversity*, is investigated with 146 participants online with no self-reported ongoing mental health problem. Operationalised via fictitious news articles, a shared, common ingroup identity recategorising the mentally ill as part of a shared superordinate identity – *neurodiversity* – was compared with: a dual identity (mentally well and mentally ill within the common neurodiversity ingroup, where the mentally ill are neuro-diverse); and a separate groups condition; with controls reading a fictitious article unrelated to mental health. The purpose of these comparisons was to help identify if the term neurodiversity alone has an effect on mental health stigma. This can go some way to supporting the fundamental elements underpinning EIC, theorised to comprise: the use of a superordinate, shared neurodiversity category; in a method of contact supporting and affording Allportian intergroup contact;

via a praxis simulating experiential contact in-keeping with Harwood's (2010) propinquity and richness dimensions (detailed in both Chapters Two and Three). This chapter concludes that there is a need to embed the neurodiversity recategorisation in an experiential operationalisation of Experiential Intergroup Contact.

Intergroup Contact and Recategorisation

Since intergroup contacts' inception (Allport, 1979), several reformulations have come to pass, most notably Brewer and Miller's (1984) *decategorisation-personalisation model*, and Brewer's (1991) *optimal identity approach* (optimal group distinctiveness); Brown and Hewstone's (2005) *integrative theory*; Gaertner and Dovidio's *common ingroup identity model* (recategorisation; 1993; 2000); and Pettigrew's (1998) *reformulated* approach. These iterations place the need for, or process of, decategorisation, categorisation, and recategorisation as central to, or mediating intergroup contact effects (Tropp & Al Ramiah, 2017).

Research has shown that people who consider their own, personally important social ingroup (in this instance, the mentally well group) and a perceived outgroup (i.e. the mentally ill group) as belonging to a larger, shared common ingroup (e.g. neurodiversity: humanity) are more likely to extend positive attitudes, emotions and behaviours toward the outgroup (Gaertner, Mann, Murrell, & Dovidio, 1989; Gaertner & Dovidio, 2000). This is still the case if the subgroups (e.g. mentally well and mentally ill) are maintained, but with the understanding that both groups belong to the shared, common ingroup (a dual identity; Gaertner & Dovidio, 2000; González & Brown, 2003). Gaertner, Dovidio, and Houlette (2010) assert how the factors inherent in Allportian intergroup contact (goal-oriented cooperation between equal status groups) "can increase the perception of a common ingroup identity" (p. 533), and thus support positive intergroup relations.

Mediated by the important (re)categorisation processes, intergroup contact arguably ought to (sequentially and in parallel): personalise group members (decategorisation;

Brewer & Miller, 1984); make group memberships salient in order for positive effects to

generalise (categorisation; Pettigrew, 1998); recategorise subgroups within a shared,

optimally distinct superordinate identity (optimally distinct, common ingroup; Brewer,

1991; Gaertner & Dovidio, 2000); and maintain important dual identities for positive group

self-esteem (Dovidio, Gaertner, & Saguy, 2007; Gaertner, Mann, Murrell, & Dovidio,

1989; Tropp & Al Ramiah, 2017), and social-change motivation (Dovidio, Gaertner, &

Saguy, 2009; Glasford & Dovidio, 2011). This recategorisation process or processes

works to "[change] cognitive representations of…groups" (Gaertner & Dovidio, 2000, p.

72), extending ingroup love to outgroup members, effectively ameliorating the "us" versus

"them" mentality so that disparate groups become a commonly shared "we" (Brewer,

1991; Dovidio, Gaertner, & Saguy, 2007; Tajfel, Billig, Bundy, & Flament, 1971).

In Chapter Two, one of two underlying mechanisms of EIC, recategorisation, was

expounded. It was proposed that by using the optimally distinct superordinate category

neurodiversity, within the EIC script Stigmaphrenia$^©$, those considered to be part of the

mental health problem outgroup can be brought cognitively closer to the mentally well self

by expanding the ingroup boundary to include the mental health problem outgroup.

As detailed in the theoretical Chapter Two, the neurodiversity paradigmatic

approach asserts that psychological differences should be recognised and respected as any

other human variation and social category (Blume, 1998; Singer, 2017; Walker, 2014),

given how there is no universal, optimal pattern of brain functioning (Holmes & Patrick,

2018). The script used to operationalise EIC depicts mental health problems as part of the

human superordinate category of neurodiversity, a social identity that is optimally distinct

as the very nature of neurodiversity affords a shared common ingroup, as well as

individual divergence and variation (Brewer, 1991; Gaertner & Dovidio, 2000).

Stigmaphrenia's$^©$ use of the common ingroup of neurodiversity redefines what it means to

be "mentally ill" in-keeping with more recent perspectives of what mental illness is or

indeed is not, embracing as it does the social model of disability (Kinderman, 2014; Longdon & Read, 2017; Read, Haslam, Sayce, & Davies, 2006; Singer, 2017).

Through separating the theorised fundamental mechanisms contributing to the overall effect of EIC, it will be possible to identify how these elements have a cumulative effect when combined to form EIC in future studies. This would strengthen the theory of EIC as a method of stigma reduction, as it would empirically identify the individual strength of each underlying mechanism, controlling for them as singular constructs in reducing mental health stigma, while later investigation can demonstrate their cumulative ability.

Overview and Hypotheses

This study was a between-participants design, comparing participant stigmatising attitudes, affect, and intended behaviour following exposure to one of three fictitious news articles depicting the mental health problem outgroup as either: a part of a shared, common neurodiversity ingroup; a neurodiverse subgroup within the larger, shared neurodiversity superordinate group; or a separate group from those without mental health problems. A fourth fictitious news article about the environment acts as a control.

Given the existing evidence demonstrating the ability for recategorisation to reduce ethnic intergroup prejudice within experimental settings (Vezzali, et al., 2015), it would be expected that the conditions highlighting the recategorisation of the mentally well and those with mental health problems into a shared, neurodiversity common ingroup, or dual identity that simultaneously affords sub- and superordinate identities, will result in the least mental health stigmatising attitudes, affect, and intended behaviour. This study thus seeks to answer the questions: can participant cognitive representations of the mentally well and those with mental health problems be altered to become a more inclusive, shared common ingroup via fictitious news articles representing these two groups as part of the neurodiversity of humanity? And can presenting the mentally well and those with mental

health problems as a part of neurodiversity result in less participant mental health stigma than linguistically maintaining the separateness of those considered mentally well and mentally ill? Based on the literature outlined, the following hypotheses are put forward:

H1. Fictitious news articles depicting the mental health problem outgroup as belonging to a larger, shared neurodiversity ingroup will help participants cognitively expand their mentally well ingroup to include the mentally ill outgroup.

H2. Participants in the common ingroup or dual identity conditions (which also includes a common ingroup identity) will report the least stigmatising attitudes, affect, and intended behaviour, and greater helping intentions.

H3. Given the divisive nature of highlighting the separateness of groups, the separate groups condition will result in the greatest stigma.

Method

Design

The study employed a between-participants design, where the independent variable, condition, had four levels (common ingroup vs. dual identity vs. separate groups vs. control). Participants were randomly and equally distributed to one of the three experimental conditions, or the control (common ingroup $n = 36$; dual identity $n = 37$; separate groups $n = 37$; control $n = 36$). The dependent variables comprised measures of stigmatising attitude, affect, and intended behaviours toward those with mental illnesses.

Participants

An *a-priori* statistical power analysis (GPower 3.1.9.2) indicated the need for an approximate sample size $N = 180$ in order to have 80% power to detect a medium effect size ($f = 0.25$, a more conservative effect size based on the Gómez, Dovidio, Huici, Gaertner, & Cuadrado, 2008 study also using fictitious articles to manipulate cognitive representations of groups), with error probability .05.

Participants were obtained from the UK crowd sourcing site, Prolific. Participants were eligible to participate if they: were 18 years and over; responded that "no", they do not have – or have had – a diagnosed, on-going mental health/illness/condition[17]; had a Prolific study approval rate not lower than 80 per cent. Participants were paid £2.50 for their participation. One-hundred-and-fifty-three participants signed-up to complete the study online via Prolific (crowd-sourcing gateway), of the 153, seven were rejected for not completing the study, leaving a total of 146 participants (gender: 81 female, 64 male, 1 non- disclosure; ages ranged from 18 to 66, M age = 31.47, SD = 10.99; Table 11 for further demographic information).

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[17] Ethical approval granted 25/11/2016-25/11/2018, code: 201614800632043996

Table 11

Study 3, Participant Demographics (N = 146)

	Frequency	%
Sex		
Female	83	56.80
Male	62	42.50
Prefer not to say	1	.70
Gender		
Female	81	55.5
Male	64	43.8
Other	1	.70
Ethnicity		
Asian or Asian British - Indian	1	.70
Asian or Asian British - Pakistani	4	2.70
Black or Black British - African	2	1.40
Black or Black British - Caribbean	3	2.10
Chinese	3	2.10
Mixed - White & Asian	2	1.40
Mixed - White & Black African	1	.70
Mixed - Any other Mixed background	4	2.70
White - British	63	43.20
White - Irish	4	2.70
White - Any other White background	57	39.00
Other ethnic group	2	1.40
Employment status		
Employed full time	61	41.80
Employed part time	21	14.40
Unemployed looking for work	14	9.60
Unemployed not looking for work	15	10.30
Retired	2	1.40
Student	28	19.20
Disabled/unable to work	3	2.10
Prefer not to answer	2	1.40
Education level		

	Frequency	%
Secondary Education (GCSE/O-Levels)	24	16.40
Post-Secondary Education (College, A-Levels, NVQ3)	24	16.40
Vocational Qualification (Diploma, Certificate, BTEC, NVQ 4)	14	9.60
Undergraduate Degree (BA, BSc etc.)	56	38.40
Post-graduate Degree (MA, MSc etc.)	23	15.80
Doctorate (PhD)	1	.70
Prefer not to answer	4	2.70
Subject area		
Humanities	32	21.90
Sciences	56	38.40
Social sciences	21	14.40

Note. Age (in years), $M = 31.47$, $SD = 10.99$.

Procedure and Ethical Consideration

Invited to participate in a study ostensibly about "Public opinions about the society we live in: Part of ongoing collection of census statistics" participants from Prolific were rerouted to the Qualtrics host site in order to take part. Participants were instructed that:

The British Psychological Society (BPS), and the American Psychological Association (APA), in partnership with The University of Kent, are interested in up-to-date public opinions about the society we live in as part of an ongoing collection of census statistics.

You will be provided with information about a study carried out in 2015 relating to the society we live in.

All that is required is for you to read the information in the article, and then anonymously answer questions about public opinions toward the society we live in, as well as provide anonymous basic demographic information.

Given the mental health and stigma nature of the study, participants received information highlighting this nature before deciding to consent to take part[18].

In-keeping with existing recategorisation studies representing ingroup-outgroup information in written words (Glasford & Dovidio, 2011), participants then received one of four fictitious online news articles, ostensibly relating to "How the mentally well view the mentally ill" (Appendix N; O; and P), or "How people see the environment" (if in the control condition; Appendix Q). Fictitious news articles are a strong cover for the manipulation of cognitive representation of groups, and have been used in the literature on recategorisation (Ufkes, Calcagno, Glasford, & Dovidio, 2016). Gaertner and Dovidio (2000) discuss how "at least in terms of positive feelings…the use of ingroup designating pronouns in thought and speech may be sufficient to generate more inclusive conceptions of group boundaries, which in turn lead to more positive expectations of others" (p. 113). It is with this in mind that the language and labels in the articles systematically differed so as to present semantic markers. These labels were manipulated in the fictitious news articles in order to prime the cognitive perception of either a common ingroup (neurodiversity); a dual identity (e.g. bipolar, neurodiversity); or two separate groups (mentally ill vs. mentally well).

In order to change participant mental representations of the two groups, the wording in these fictitious news articles was changed to represent the mentally well and mentally ill groups as either:

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[18] It was explained in the "possible risk and discomfort" section of the information sheet that the study involved asking participants about their "perception of society's (as well as your own) attitudes, emotions and behaviours regarding the society we live in" and that "dependent on the article you are randomly assigned, you might be asked about the environment, and/or about people from different groups in society (for example, physically disabled; gay; mentally-ill)".

1. One large, shared group that combines and transforms both groups (mentally well and mentally ill) into a shared neurodiversity identity (a common ingroup identity);

2. Two unique subgroups (mentally well and mentally ill), but within a larger, shared neurodiversity identity (a dual identity);

3. Two separate groups, maintaining the divisive "us" and "them" representation of mentally well and mentally ill groups, emphasising difference between the groups.

4. A fourth control condition did not discuss social groups.

A decategorising, individualising condition was not included, given how this method alone does not afford generalisation of effects to the outgroup *en masse*, due to the interpersonal nature of this cognitive representation (Gaertner & Dovidio, 2000; González & Brown, 2003).

The fictitious news articles were created with a template to look like a known, online broadsheet news article, differing only in word content manipulating salient language (Gaertner & Dovidio, 2000) to induce the perception of one of the four conditions. All four fictitious news articles (including the neutral control) looked identical in terms of layout, each had a similar word count (approximately +/- 250), and were based on the articles used by Gómez, Dovidio, Gaertner, Fernández, and Vázquez (2013) in their recategorisation study. An excerpt by Crisp (2015, p. xiv) relating to diversity was used in both the common ingroup and dual identity articles, and a third except by Crisp (2015, pp. 39-40) for the separate groups condition was used reflecting the human propensity to categorise ourselves as distinct from others. An article excerpt about the diversity of the environment was used to operationalise the control condition, and found by searching Google Scholar for articles relating to the search string "attitudes toward the natural environment" (Brady, 2006, p. 288).

Once participants had read the fictitious news article, they were informed that "In the next part of this survey, you will be asked to answer a variety of questions about

different societal issues based on questions posed in the 2015 census survey. We are interested in your attitudes, beliefs, and opinions". After completing the outcome measures and demographic information, participants were debriefed and thanked for their time.

Measures

Measured are the potential consequences of recategorising two groups into a common ingroup identity, as discussed by Dovidio, Gaertner and Saguy (2007), these are the cognitive, affective, and intended behavioural consequences of recategorisation. Further measures of mental health attitudes are included as these relate to the mental health outgroup of interest. The term "mentally ill" was used throughout the questionnaire to describe those with mental health problems, a term conventionally used to describe this group in adult populations (e.g. Gaebel, Rössler, & Sartorius, 2017; McKeague, Hennessy, O'Driscoll, & Heary, 2015; Yang & Link, 2016), and considered appropriate for the online, crowd sourced sample as it was anticipated that the sample would be from diverse backgrounds, cultures, and geographies.

Conceptual representation of the mentally ill. Adapted from the original Gaertner, Dovidio, Anastasio, Bachman, and Rust (1993), a single item with three pictures (Abrams, 2010) was used to determine if participants believe the mentally well and mentally ill are best viewed as *Part of one-group*; *Two separate groups*; or *Two subgroups within one larger group* (Appendix R; typically a fourth option of viewing all as individuals is included in this scale, but was removed to avoid socially desirable responses). A further item asked to rate the extent to which the image chosen matches the belief about the mentally well and the mentally ill in our society (on a scale ranging from 1 = *Not at all*, to 5 = *Extremely*, higher scores reflecting participants belief that the picture they chose represented the mentally well and mentally ill accurately; Gonzalez & Brown, 2003; derived from Gaertner et al., 1989).

Peer mental health stigmatisation scale. Measured on a 5-point scale ranging from 1 (*disagree completely*) to 5 (*agree completely*), the Peer Mental Health Stigmatisation Scale (PMHSS; McKeague, Hennessy, O'Driscoll, & Heary, 2015) used in Chapter Three, Study 2, was used in the present study to measure stigma outcomes (Appendix J). The PMHSS subscales comprise of (a), a total score for participant *stigma awareness* (high scores indicative of stigma awareness; e.g. "most people believe that people with mental illnesses are dangerous"); (b), a total score relating to participant *stigma agreement* (e.g. "I would be afraid of someone if I knew that they had a mental illness"); and (c), a total score for *positive reactions* regarding those with mental health problems (high scores representing positive reactions; "I believe that people with mental illnesses can get good grades"; all αs > .59). Instructions and example mental illnesses were altered from how they were described in Study 2 to reflect the demographic on online crowd sourcing sites (Prolific). For example, the use of "teenager" or "adolescent" was replaced with "people". The terms "mental illness/es" and "a person with a mental illness" was used in-keeping with the language used in the fictitious news articles.

Affective attitude thermometers. In order to measure participant feeling toward both the mentally well and those with mental health problems, participants were presented two affective attitude thermometers with sliding scales for both groups, ranging from 0 (*I don't like them at all*) – 100 (*I like them very much*; scores above the midway point of 50 indicative of a general positive feeling toward each group; adapted from the original by Abelson, Kinder, Peters, & Fiske, 1982; Appendix K). It was explained to participants that the scales measured their feeling toward mentally well people and mentally ill people, where "the higher the number, the more positive you feel towards the group".

Intended behaviour. The intended behaviour items from the Evans-Lacko et al. (2011) Reported and Intended Behaviour scale were used as in study 2, measuring 4-items on a 7-point Likert scale from *completely disagree – completely agree*. Two items were

reverse scored to maintain high scores representing unwillingness to engage in behaviours with the mental health problem group (e.g. "In the future, I would be willing to live nearby someone who has a mental illness"; $\alpha = .84$; Appendix B).

Helping behavioural intention. A helping behavioural intention item was created as a means of a more approximate measure of behaviour. This item asks participants if they will post a Time to Change poster to a social media platform they use (Time to Change, n.d.). Time to Change are a government-backed charitable organisation whose main aim is to reduce mental health stigma, largely via public announcements and advertisement. At the time of the study Time to Change were promoting their "'mates in your corner" campaign, and participants were asked if they would or would not like to post the poster to a social media site they belong to, measured on a simple *yes* (I would like to share the Time to Change poster to a social media site I use) or *no* (I do not wish to share the Time to Change poster to a social media site I use) scale (Appendix S).

Mediators

Introjection of the other to the self. Adapted from Aron, Aron, and Smollan's (1992) Inclusion of Other in the Self scale, an *introjection of other to the self* (IOS) scale was used as a pictorial representation depicting to what extent participants felt that they could take on-board the perspective of the mental health problem group as a whole (measured on a 7-point scale from *A – G*; Appendix T). Higher scores indicative of greater introjection of the other group to the self. The following is the wording and pictorial representation of the IOS scale:

> Please take a moment to think about people who would be described
>
> as mentally ill.
>
> Using the scale below, please indicate to what extent you believe that
>
> you understand the perspective of members of this group, and are
>
> able to see the world through their eyes, by selecting the picture that

best represents how much your perspectives overlap.

For example, picture A would indicate that you do not believe there

is any overlap in perspective between you and people described as

mentally ill, whereas picture G would indicate that you believe there

is nearly complete overlap in perspective between you and people

described as mentally ill.
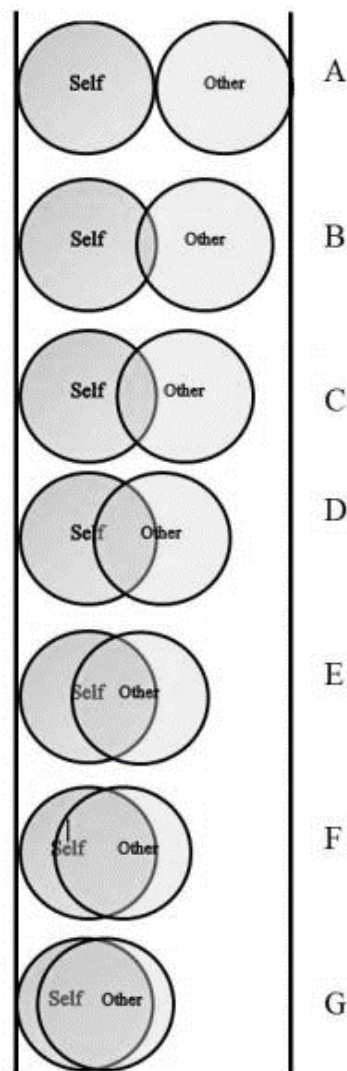
Intergroup anxiety. In order to measure feelings of intergroup anxiety,

participants were asked to rate how they "would feel mixing socially with complete

strangers who are mentally ill", by trying "to imagine how you would feel if you were the

only mentally well person and you found yourself among a group of mentally ill people".

Participants rated how they would feel in relation to eight affective states on a 5-point scale

from 1 (*not at all*), to 5 (*extremely*): *anxious, worried, awkward,* and *apprehensive*, with *comfortable, at ease, confident,* and *happy* reverse scored ($\alpha = .89$; adapted from the original Stephan & Stephan, 1985; Turner, Hewstone, & Voci, 2007; Appendix U). High scores indicative of participant feelings of anxiety at the prospect of being the only mentally well individual mixing socially with a group of mentally ill people.

Moderators

Quantity and quality of existing intergroup contact. In order to measure the quantity of existing contact with those who have a mental illness, participants were asked "In the last year, how much contact do you think you have had with people who are mentally ill?", and this was gauged on a 5-point scale, *never, once-twice a year, monthly, weekly, daily.* This was included as a potential moderator of stigma effects, as those with close others with a mental health problem are typically found to have fewer stigmatising attitudes (Anagnostopoulos & Hantzi, 2011; Corrigan, Edwards, Green, Lickey, & Penn, 2001). The quality of this contact was measured by asking "How do you experience contact with people who are mentally ill?", on a 5-point scale with higher scores indicative of good quality contact (*very negative – very positive*).

Extended contact. Possible extended intergroup contact with the mental health problem outgroup was measured with a single item: "How many of your close family and friends have relationships with people who are mentally ill?" (1 = *none*, 2 = *one*, 3 = *two-to-five*, 4 = *five-to-ten*, 5 = *over ten*). Higher scores reflect more experience of extended contact (Drury, Hutchison, Abrams, 2016; as based on Turner, Hewstone, Voci, Vonfakou, 2008).

Perceived ties to the mentally ill. For perceived ties to the mentally ill group, this item posed "I see myself as having strong ties to those who are mentally ill", answered on a scale from 1 (*Disagree completely*), to 5 (*Agree completely*). Higher scores indicative of participant perception of close ties to the mentally ill group.

All analyses were conducted using IBM SPSS 24 software. Unless stated otherwise, there were no outliers for dependent variables, as assessed by examination of studentized residuals for values greater than ±3, and the residuals were normally distributed, as assessed by Normal Q-Q Plot. Across dependent variables, unless otherwise stated, there was homogeneity of variances ($ps > .05$), as assessed by Levene's test of homogeneity of variances.

Results

Means and standard deviations among dependent variables according to condition are presented in Table 12. Means, standard deviations, Cronbach alphas, and correlations among dependent, mediator, and moderator variables are presented in Table 13.

As shown in Table 13, the mean scores for the dependent variables were largely just below the mid-point of the scales, with no particularly high variances, indicating that there were few stigmatising attitudes, affect, and intended behaviours. For the positively worded variables, PMHSS positive and affective attitudes, the mean scores were largely around or above the mid-point of the scales, with no particularly high variances, indicating positive attitude and feeling toward the mental health problem target group.

The highest correlation amongst variables was $r = 0.82$, $p < .01$, and there were significant small, medium, and large correlations amongst many of the variables. The correlations between the existing contact moderator variables and the main stigma dependent variables indicate that existing contact has a relationship with fewer stigmatising attitudes, affect, and intended behaviour. Condition was significantly correlated with the mediators' introjection of other to the self and intergroup anxiety. As the number of the condition decreased (conditions coded: common ingroup identity = 1; dual identity = 2; separate groups = 3; control = 4) introjection increased, and intergroup anxiety decreased.

Table 12

Study 3, Descriptive Statistics for Dependent Variables by Condition (N = 146)

	Common ingroup *n* = 36		Dual identity *n* = 37		Separate groups *n* = 37		Control *n* = 36	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
PMHSS overall stigma	2.60	0.52	2.60	0.61	2.83	0.52	2.73	0.59
PMHSS awareness	3.16	0.69	3.23	0.76	3.35	0.57	3.30	0.72
PMHSS agree	2.04	0.64	1.97	0.68	2.31	0.62	2.17	0.79
PMHSS positive	3.62	0.43	3.61	0.51	3.57	0.46	3.58	0.57
Affective attitude MW	77.08	19.99	76.84	19.94	75.49	18.85	74.08	18.18
Affective attitude MI	72.72	21.38	70.68	20.38	66.65	22.38	64.78	20.31
IB	2.52	1.07	2.35	1.20	2.78	1.38	2.48	1.33
Helping behavioural intention	1.61	0.49	1.73	0.45	1.54	0.51	1.53	0.51

Notes. PMHSS = Peer Mental Health Stigmatisation Scale; IB = Intended Behaviour; MW= mentally well; MI = mentally ill.

Table 13

Study 3, Means (M), Standard Deviations (SD), Cronbach's Alphas (in parentheses), and Correlations Among Dependent, Mediator, and Moderator Variables (N = 146)

		M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Condition	2.50	1.12	--														
2	PMHSS total	2.69	0.57	.13	(.86)													
3	PMHSS awareness	3.26	0.69	.09	.82**	(.83)												
4	PMHSS agree	2.12	0.69	.12	.82**	.34**	(.86)											
5	PMHSS positive	3.60	0.49	-.03	-.53**	-.37**	-.49**	(.59)										
6	Affective MW	75.88	19.09	-.06	.07	.08	.03	.07	--									
7	Affective MI	68.71	21.15	-.15	-.29**	-.05	-.43**	.41**	.61**	--								
8	IB	2.54	1.25	.03	.55**	.18*	.72**	-.53**	-.09	-.53**	(.84)							
9	Helping beh.	1.60	0.49	-.10	.03	-.09	.15	-.13	-.11	-.24**	.24**	--						
10	IOS	3.96	1.62	-.26**	-.21*	-.09	-.25**	.17*	.07	.18*	-.23**	-.05	--					
11	Intergroup anxiety	2.76	0.88	.17*	.53**	.22**	.64**	-.48**	-.05	-.45**	.59**	.21**	-.13	(.89)				
12	Existing contact MI	2.33	1.15	-.04	-.24**	-.01	-.39**	.26**	.16	.36**	-.44**	-.19*	.23**	-.41**	--			
13	Quality of contact MI	3.62	0.86	-.09	-.26**	-.06	-.36**	.37**	.21*	.45**	-.44**	-.19*	.20*	-.49**	.45**	--		
14	Extended contact MI	2.29	0.99	-.04	-.27**	-.15	-.29**	.25**	.11	.23**	-.29**	-.17*	.22**	-.26**	.52**	.26**	--	
15	Perceived ties MI	3.06	1.19	.01	-.15	.02	-.27**	.25**	.14	.32**	-.42**	-.36**	.16	-.37**	.45**	.42**	.50**	--

Note. PMHSS = Peer Mental Health Stigmatisation Scale; MW= mentally well; MI = mentally ill; IB = Intended Behaviour; Helping beh. = helping behavioural intentions; IOS = introjection of other to the self.

* *p* < .05;

** *p* < .01.

Table 14

Study 3, Conceptual Representation of Mentally Well and Mentally Ill by Condition (N = 146)

		Common ingroup		Dual identity		Separate groups		Control	
		n = 36		*n* = 37		*n* = 37		*n* = 36	
		Frequency	*%*	*Frequency*	*%*	*Frequency*	*%*	*Frequency*	*%*
Conceptual	Common ingroup	15	41.70	13	35.10	3	8.10	5	13.90
representation	Dual identity	18	50.00	18	48.60	25	67.60	23	63.90
chosen	Separate groups	3	8.30	6	16.20	9	24.30	8	22.20
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Extent participants agreed with their choice		3.50	0.78	3.54	0.84	3.62	1.04	3.39	0.96

Note. Extent participants agreed with conceptual representation chosen, on scale 1 (*Not at all*) to 5 (*Extremely*); unsplit by condition the extent to which participants agreed with conceptual representation chosen: common ingroup *M* = 3.61, *SD* = 0.93; dual identity *M* = 3.54, *SD* = 0.72; separate groups *M* = 3.31, *SD* = 1.32.

Preliminary Analyses

Preliminary analyses tested whether the articles were considered more or less credible as dependent on the condition participants had been randomised to (Gómez, Dovidio, Huici, Gaertner, & Cuadrado, 2008; Appendix V for scale; α = .84). A one-way (Condition: common ingroup vs. dual identity vs. separate groups vs. control) GLM ANOVA on article credibility was conducted, finding no significant main effect ($p > .05$): participants perceived the fictitious article to be equally credible across the four conditions.

Efficacy of experimental manipulation. The experimental manipulation (fictitious news articles) was designed to alter participant cognitive representations of the mentally well and the mentally ill. Table 14 provides the percentages of participants who selected the correct representation of the mentally well and mentally ill, as appropriate for the condition they were in. Less than half the time, those in the common ingroup condition (41.7%) and dual identity (48.6%) chose the correct pictorial representation appropriate to the condition they were in. Whilst reasonable numbers in the common ingroup and dual identity condition chose the correct representation according to the manipulation, these figures were less than expected (i.e. less than half the time). Participants in the separate groups condition chose the correct representation less than one-quarter of the time (24.3%). There was no expectation for the control condition to choose a particular conceptual representation, but, interestingly, the majority of this group chose the dual identity representation (63.9%; overall, $\chi^2(6) = 16.58$, $p = .011$). The significant finding shows that nearly 6% of the variation in frequency counts of conceptual representation can be explained by the condition a participant was in (Cramer's $V = 0.24$ – a small-to-medium effect size), and looking at the standardised residuals, common ingroup condition participants chose the common ingroup pictorial representation significantly more often than was expected ($p < .05$). Also, participants in the separate groups condition chose the common ingroup pictorial representation significantly less times than expected ($p < .05$).

Interestingly, of the 146 participants, 84 (57.5%) chose the dual identity representation for their perception of the mentally well and mentally ill in society.

Turning to participant ratings of agreement that the representation they chose reflected their perception of the mentally well and mentally ill, a one-way ANOVA demonstrated that there was no significant difference between conceptual representation chosen (common ingroup vs. separate groups vs. dual identity) on the extent to which participants agreed with their conceptual representation, $F(2, 143) = .91$, $p = .406$, $\eta_p^2 = .01$. this indicates that the manipulation was reasonably well implemented.

Mediators and moderators. Means, standard deviations, and one-way ANOVAs for mediator and moderator variables reported in Table 15. The variables that could potentially mediate the effects of the manipulations were examined to identify if they varied on the basis of the manipulations. A one-way (Conditions: common ingroup vs. dual identity vs. separate groups vs. control) GLM ANOVA on introjection of the other to the self (IOS) indicated that this measure varies as a function of the condition participants were in ($F(3, 142) = 5.45$, $p = .001$, $\eta_p^2 = .10$). There was a significant linear trend, $F(1, 142) = 10.57$, $p = .001$, $\eta_p^2 = .26$, indicating that as the conditions decreased in number (coded 1 = common ingroup; 2 = dual identity; 3 = separate groups; 4 = control), introjection increased proportionately. Contrasts revealed that being in the common ingroup condition significantly increased introjection compared to being in the control, $t(142) = 2.44$, $p = .016$, $\eta_p^2 = .04$, as did being in the dual identity condition, $t(142) = 3.55$, $p = .001$, $\eta_p^2 = .08$, but not when comparing the control with the separate groups condition, $t(142) = .57$, $p = .570$, $\eta_p^2 = .01$.

A one-way (Conditions; common ingroup vs. dual identity vs. separate groups vs. control) GLM ANOVA on intergroup anxiety indicated that anxiety does not vary across conditions ($p = .113$).

The variables that could potentially moderate the effects of the manipulations were examined to identify if they varied on the basis of the manipulations. One-way (Conditions; common ingroup vs. dual identity vs. separate groups vs. control) GLM ANOVAs on quantity of existing contact with the mentally ill; quality of existing contact with the mentally ill; extended contact with the mentally ill; and perceived ties to the mentally ill did not demonstrate significant effects (all ps > .05).

Table 15

Study 3, Means (M), Standard Deviations (SD), and One-way ANOVA for Mediator and Moderator Variables (N = 146)

| | Common ingroup | | Dual identity | | Separate groups | | Control | | | | |
| | n = 36 | | n = 37 | | n = 37 | | n = 36 | | | | |
	M	SD	M	SD	M	SD	M	SD	F	p	η_p^2
Mediators											
Introjection of other to the self	4.25	1.50	4.65	1.62	3.57	1.48	3.36	1.59	5.45	.001	.10
Intergroup anxiety	2.53	0.85	2.66	0.89	2.99	0.78	2.86	0.95	2.03	.113	.04
Moderators											
Existing contact with the MI	2.36	1.07	2.49	1.15	2.11	1.22	2.33	1.15	.69	.554	.02
Quality of contact with the MI	3.78	0.83	3.68	0.82	3.43	0.77	3.61	1.02	1.03	.380	.02
Extended contact with the MI	2.31	1.04	2.38	0.98	2.22	0.95	2.25	1.05	.18	.907	.01
Perceived ties to the MI	3.19	1.09	2.89	1.08	2.95	1.25	3.22	1.36	.73	.537	.02

Note. MI = mentally ill; $F(3, 142)$

One-way GLM ANOVAs were conducted for the main dependent variables (PMHSS and its subscales; affective attitudes of both the mentally well and mentally ill; intended behaviour). A Pearson's chi-square test was carried out for the helping behavioural intention dependent variable. Using hypothesis-driven contrast analysis (Vezzali, et al., 2015), contrasts were determined thusly (also see Table 16): the first two contrasts compare the experimental conditions containing common ingroup information (common ingroup, dual identity) with the separate groups and control conditions (C1), and then just the separate groups condition (C2), testing for H2 – that participants in the common ingroup or dual identity condition will receive the least stigmatising attitudes, affect, and intended behaviour, and the greatest helping intentions. Contrast 3 compares the common ingroup with the dual identity condition to determine if maintaining group distinctiveness, yet within the shared neurodiversity ingroup, results in lesser still stigma than a shared common ingroup alone. The final contrast (C4) compares the separate groups condition with the control, testing for H3 – given the divisiveness of the separate groups condition, this condition will result in the greatest stigma, and least helping behavioural intention.

Table 16

Study 3, Planned Contrasts for Recategorisation

Condition	Contrast 1	Contrast 2	Contrast 3	Contrast 4
Common ingroup	1	1	1	1
Dual identity	1	1	-1	1
Separate groups	-1	-2	0	-3
Control	-1	0	0	1

Peer Mental Health Stigmatisation

PMHSS total. The overall one-way GLM ANOVA on PMHSS total was non-significant, $F(3, 142) = 1.53$, $p = .209$, $\eta_p^2 = .03$. However, when PMHSS total was the dependent variable, C1 and C2 were significant contrasts: $F(1, 142) = 3.96$, $p = .048$, $\eta_p^2 =$

.03 and $F(1, 142) = 4.33$, $p = .039$, $\eta_p^2 = .03$, respectively. The C1 estimate was negative (-.37), and so the separate groups and control conditions together had the greatest scores on PMHSS total, and when comparing the common ingroup and dual identity conditions with the separate groups condition (C2), the separate groups had the greatest PMHSS total (-.47). Contrasts 3 and 4 were non-significant (ps > .05).

PMHSS awareness. No significant results were found for PMHSS awareness, $F(3, 142) = .56$, $p = .646$, $\eta_p^2 = .01$, and no significant contrasts (ps > .05).

PMHSS agreement. The overall one-way GLM ANOVA on PMHSS agreement was non-significant, $F(3, 142) = 1.84$, $p = .143$, $\eta_p^2 = .04$. As with PMHSS total, when PMHSS agreement was the dependent variable, C1 and C2 were significant contrasts: $F(1, 142) = 4.45$, $p = .037$, $\eta_p^2 = .03$ and $F(1, 142) = 5.06$, $p = .026$, $\eta_p^2 = .03$, respectively. The C1 estimate was negative (-.48), and so the separate groups and control conditions together had the greatest scores on PMHSS agreement, and when comparing the common ingroup and dual identity conditions with the separate groups condition, the separate groups had the greatest PMHSS agreement (-.62). Contrast 4 was close to significant for PMHSS agreement, $F(1, 142) = 3.83$, $p = .052$, $\eta_p^2 = .03$. Contrast 3, comparing the common ingroup and dual identity conditions, was non-significant (ps > .05).

PMHSS positivity. No significant results were found for PMHSS positive attitudes, $F(3, 142) = .08$, $p = .970$, $\eta_p^2 = .01$, and no significant contrasts (ps > .05).

Affective Attitude Thermometers

No significant results were found for mentally well affective attitudes, $F(3, 142) = .19$, $p = .905$, $\eta_p^2 = .01$, or mentally ill affective attitudes, $F(3, 142) = 1.07$, $p = .363$, $\eta_p^2 = .02$, and no significant contrasts (ps > .05).

Intended Behaviour

No significant results were found for intended behaviour, $F(3, 142) = .75$, $p = .526$, $\eta_p^2 = .02$, and no significant contrasts (ps > .05).

Volunteering Behaviour Intention

There was no significant association between the condition a participant was in and whether or not they agreed to post the Time to Change poster to social media, $\chi^2(3) = 3.95$, $p = .272$ ("yes", $n = 58$, 39.7%; "no", $n = 88$).

Given that there were no significant overall models for the dependent variables, a mediation analysis using the introjection to the self measure was not carried out between conditions and dependent variables.

<div align="center">

Discussion

</div>

This study sought to answer the questions: can participant cognitive representations of the mentally well and those with mental health problems be altered to become a more inclusive, shared common ingroup via fictitious news articles representing these two groups as part of the neurodiversity of humanity? And can presenting the mentally well and those with mental health problems as a part of neurodiversity result in less participant mental health stigma than linguistically maintaining the separateness of those considered mentally well and mentally ill? Looking to the three hypotheses in turn, it cannot be conclusively stated that the aims of this study were achieved.

Whilst the fictitious news articles were considered to be equally credible across conditions, the manipulations were not as effective as was hoped. It is possible that the manipulation of each of the articles was not as strong as it could have been, given how those in the common ingroup condition chose the corresponding pictorial representation less than half the time, as did the dual identity condition participants, and separate groups participants. From these findings, it cannot be said conclusively that hypothesis one was well supported in this instance: depicting the mentally ill as belonging to a larger, shared

neurodiversity ingroup did not necessarily help participants cognitively expand their

mentally well ingroup to include the mentally ill outgroup as depicted in the common

ingroup and dual identity manipulations. It was interesting to note, however, that across all

conditions the dual identity pictorial representation of both the mentally well and mentally

ill was chosen over half the time. It is probable that both the common ingroup and dual

identity articles referring to neurodiversity inadvertently primed the dual identity

representation, meaning that both the common ingroup and dual identity representations

were chosen when asked to choose a picture that best matches participant beliefs about the

mentally well and mentally ill in our society (especially as both conditions refer to the

mentally ill and mentally well as belonging under the umbrella of neurodiversity). This

could also be seen in the significant introjection of the other (i.e. mentally ill) to the self

measure, with the common ingroup and dual identity conditions having the greatest

introjection. However, this does not explain why across all four conditions the dual

identity representation was more likely to be chosen. It is possible that the increase in

positive narratives about mental health in the public domain (e.g. *Time to Change*

campaigns, TV, and radio; Time to Change, 2018) have influenced public perceptions of

how the mentally well and the mentally ill can be grouped in society. We also cannot rule

out that a dual identity seemed the most socially desirable response.

It is possible the findings demonstrate that it might be difficult to alter cognitive

representations of the mentally well and mentally ill during a single attempt with a short

fictitious news article. Arguably, it is necessary to engage in experiential rehearsals with a

script depicting the mentally well and the mentally ill as part of a shared, common

neurodiversity identity, as this would be a stronger, more effective means of altering

cognitive representations.

Turning to hypotheses two and three – that participants exposed to the common

ingroup neurodiversity to refer to both the mentally well and mentally ill will have the least

stigma and greater helping intentions, and those in the divisive separate groups condition

will have the greatest stigma and least helping intentions – it was found that those

conditions containing a common ingroup identity resulted in the least peer mental health

stigma agreement, and the separate groups participants had the greatest when compared to

the common ingroup and dual identity conditions, supporting hypothesis two. The close to

significant contrast comparing the common ingroup, dual identity, and control conditions

with the separate groups condition indicated a trend toward the separate groups condition

having the greatest stigma agreement overall (although not significant so as to support

hypothesis 3). This trend is perhaps due to the divisive nature of the language used in the

separate groups fictitious news article. Stronger manipulations and a larger sample size

might strengthen this approaching significant trend.

Similar findings were identified with the PMHSS total results, and is to be expected

given how the PMHSS total score subsumes the two subscales of awareness and

agreement, where PMHSS agreement found similar significant and approaching significant

contrasts.

The non-significant results for all contrasts with PMHSS awareness as a dependent

variable could be interpreted as there was no significant differences in participant

awareness of stigma following their exposure to the news articles.

The need for stronger manipulations of the mentally well and mentally ill

representations could have led to the lack of significant results for PMHSS positivity

toward the mentally ill; the mentally well and mentally ill affective attitudes; and intended

behaviour outcomes. Further, being exposed to either the common ingroup or dual identity

conditions containing information recategorising the mentally well and mentally ill under

the shared neurodiversity identity did not appear to significantly affect how likely

participants would be to post to social media to help spread the message to reduce mental

health stigma. This reluctance to share, or lack of significant difference in willingness to

share the post as a function of the condition a participant was in, may have had more to do

with participant concern of receiving stigma themselves if their social media followers

were to see the post. It is possible that the salience of stigma during the course of the study

resulted in participants deciding not to risk receiving such stigma on social media.

However, as the peer mental health stigmatisation subscale of awareness did not

significantly differ as a function of condition this critique is unsubstantiated.

The modest sample size may also be a contributing factor to the study limitations.

A post-hoc sensitivity estimation calculated with GPower 3.1.9.4 software with sample

size $N = 146$, $1-\beta = .80$, $\alpha = .05$, indicated that this sample could detect as effect size of $f =$

0.27 (fixed effects, omnibus, one-way).

Arguably, a pre- and post-questionnaire comparison across conditions would be

optimal to identify if the differences across conditions is a result of the condition

manipulations or individual differences. However, whilst a pre-questionnaire was not

completed prior to exposure to the fictitious articles, participants were randomly assigned

to conditions to limit this possibility. Further, the potential individual difference

moderators did not return significant effects to warrant moderation analyses.

General Discussion and Conclusion

Whilst studies have supported that the "use of ingroup designating pronouns in

thought and speech may be sufficient to generate more inclusive conceptions of group

boundaries...in turn lead[ing] to more positive expectations of others" (Gaertner &

Dovidio, 2000, p. 113), it is arguably necessary to strengthen this effect by increasing the

involvement of multiple sensory modalities (e.g. auditory, tactile, olfactory, visual) over a

period of repeated exposure (i.e. script rehearsals) in order for the positive effects to form

as a cognitive and behavioural schema that lasts longitudinally.

The significant findings of recategorisation on the reduction of stigma agreement in

this study is indicative of a need for greater salient exposure to the term neurodiversity in

order for it to have a significant effect on helping behavioural intentions. Critically, it is acknowledged that categorisation-based approaches do not exist in a vacuum, and can be used in tandem, or sequentially, to reduce intergroup bias (Gaertner & Dovidio, 2000), and specifically mental health stigma. The Stigmaphrenia$^©$ script used to operationalise Experiential Intergroup Contact in an attempt to reduce mental health stigma does, in fact, utilise the decategorisation, individualising, and salient categorisation approaches, as well as the dual identity approach. In this way it incorporates the understanding that categorisation approaches can complement, as opposed to compete with, one another.

Taking the findings from Chapter Three, Study 2, and the current chapter, the following Chapter Five, Studies 4 and 5, attempt to strengthen the mediating experiential element, as well as the neurodiversity recategorisation process in two longitudinal studies fully operationalising Experiential Intergroup Contact via Stigmaphrenia$^©$ to reduce school pupil and university student mental health stigma.

Chapter Five. Studies 4 and 5. Longitudinal Efficacy of Experiential Intergroup Contact

on Mental Health Stigma

I hear, and I forget;

I see, and I remember;

I do, and I understand[19]

— MacLean (1967)

Building on the previous studies and their limitations, this chapter critically

discusses the findings of two longitudinal randomised control studies investigating

Experiential Intergroup Contacts' (EIC) long-term effects on mental health stigma. In

studies 4 and 5 reported here, the longevity of EICs effects on mental health stigma, in

comparison to leading methods of stigma reduction (imagined intergroup contact and the

educative facts of stigma), are investigated first with fifty-two secondary school pupils, and

second with 89 university undergraduate students. Tested across three time points,

participants were randomised to either a three-hour "teaching method educating students

about groups in society" (EIC condition); a five-minute imagined intergroup contact

condition; facts of stigma condition; or placed on a "waitlist" for a teaching method

(control condition). These studies can go some way to supporting the long-term

capabilities of EICs effects on mental health stigma; EICs superiority compared to leading

forms of stigma reduction (indirect intergroup contact and education, discussed in Chapter

Two); and EICs capabilities of effecting mental health stigma in different settings – in

secondary schools and universities. This chapter concludes with a need to longitudinally

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[19] Adapted from the original by the Confucian philosopher, Xunzi (1990), which translates as "Not having

heard something is not as good as having heard it; having heard it is not as good as having seen it; having

seen it is not as good as knowing it; knowing it is not as good as putting it into practice" (p. 81).

investigate EIC with larger samples, and simpler, fewer outcome measures of stigma-reduction.

Identifying the long-term effect of modes of stigma reduction is important given how existing indirect intergroup contact modes are rarely investigated longitudinally (Miles & Crisp, 2014; Paluck, Green, & Green, 2018), and of those that are, they are less likely to produce as potent or long-term effects as more direct modes (Brown & Paterson, 2016; Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014). Investigating the long-term effect of EIC specifically is necessary in order to demonstrate causality. The majority of intergroup contact research investigating effects on mental health stigma is cross-sectional, and so subject to selection bias (Eller & Abrams, 2004). Further, some effects may appear strong in the short term, but may not hold across time, and so, longitudinal studies "provide more dependable tests of the contact hypothesis" (Eller & Abrams, 2004, p. 230). The aim of the present experiments is two-fold: to identify the potential longevity of EICs stigma-reduction effects, and compare innovative EIC with established modes of stigma-reduction. The latter entails comparison between EIC and a leading indirect contact mode (imagined intergroup contact), and EIC compared with psycho-educational reading material on the facts of mental health stigma. Further to these main aims, the first of two studies investigates EIC with a secondary school sample, and the second with a university sample, helping investigate both the empirical efficacy, as well as the potential ecological effectiveness of EIC.

With these points in mind, the present studies were driven by the following research questions: do the stigma-reduction effects of EIC last? Does EIC work better to reduce mental health stigma than two leading stigma-reduction methods (indirect, imagined intergroup contact and education)?

Study 4: Long-term Effects of EIC on School Pupil Mental Health Stigma

The first of the two studies reported, study 4, investigates EICs use with school pupils. Arguably, this is the best target for the intervention due to the (typically) equal status of pupils, and the natural existing authority of both the institution and its teachers (equality between group members and neutral facilitation constituting core components of the intergroup contact hypothesis; cf. Di Bernardo, Vezzali, Stathi, Cadamuro, & Cortesi, 2017; Killen, Crystal, & Ruck, 2007). It is also important to carry out investigations with populations who are likely to benefit from mental health EIC: rarely are contact interventions investigated outside the laboratory (Lemmer & Wagner, 2015; Paluck & Green, 2009), or with young persons in educational settings (Di Bernardo, Vezzali, Stathi, Cadamuro, & Cortesi, 2017). Furthermore, the stigma of mental health is extremely important to reduce or even pre-empt in adolescents, given how this is the age at which people are vulnerable to their first, personal experience of mental health problems (Korkodilos, 2016), and consequently are vulnerable to the internalisation of public stigma. This is because it is possible for individuals to be aware and endorse stigmatising attitudes and behaviours when they do not belong to the group that is being stigmatised, and then come to internalise stigma when they experience their own mental health problem. This is a unique property of mental health problems as an outgroup: anyone can belong to this group, at any time during their lifetime.

Overview and Hypotheses

To reiterate, the present two studies sought to answer the questions: do the stigma-reduction effects of EIC last? Does EIC work better to reduce mental health stigma than two leading stigma-reduction methods? To answer these questions, this study used 4 X 3 design, where participating school-age pupils were randomised to either the EIC condition, an imagined intergroup contact condition, educational facts of stigma condition, or a wait-list control, answering measures of mental health stigmatising attitude, affect, and intended

behaviour at three times points (pre-condition, post-condition, and eight-to-10-week post-condition).

Given the knowledge that educational and indirect intergroup contact methods of reducing mental health stigma are not as efficacious as more direct modes of contact (Corrigan, Morris, Michaels, Rafacz, & Rüsch, 2012), and taking into consideration the research questions aiming to investigate the longevity of EICs effects in comparison with established forms of stigma reduction, it is hypothesised that:

H1. The EIC condition will result in significantly fewer stigmatising attitudes and behavioural intention, and the greatest intention to volunteer at a local mental health drop-in centre, followed by imagined intergroup contact, and education, with controls demonstrating the greatest stigma.

H2. Time 3 will have the least stigma compared to time 1 (this finding is not expected for the control).

H3. There will be an interaction effect of Condition X Time, where EIC has the lowest levels of stigma and greatest positive behavioural intention at time 3 compared to time 1.

Method

Design

The study employed a two-factor, mixed-model design: Condition (EIC vs. imagined intergroup contact vs. facts of stigma vs. control) x Time (T1 vs. T2 vs. T3), where condition was a between-participants factor, and time a within-participant factor. Participating pupils were randomly and almost equally distributed to one of the three experimental conditions, or the control (between-participants condition: EIC, $n = 15$; imagined intergroup contact, $n = 12$; facts of stigma, $n = 13$; control, $n = 12$). The attitudes, emotions, and intended behaviours toward those with mental health problems

were measured before and after random assignment to experimental conditions, and these
comprise the main dependent variables.

Participants[20]

An *a-priori* statistical power analysis (GPower 3.1.9.2) indicated the need for an
approximate sample size $N = 76$ in order to have 80% power to detect a medium effect size
($f = 0.25$, as based on the average effect size found for imagined intergroup contact, $d_+ =$
0.35; Miles & Crisp, 2014; VanVoorhis & Morgan, 2007), with error probability .05.

Initially with 82 students from two, mixed-sex, South-Eastern UK secondary
schools[21], 52 students took part and completed all three times points of the study (ranging
in age from 16[22] years to 19 years ($M = 16.71$, $SD = 0.64$, genders identified: female $= 38$;
male $= 13$[23]). Participants were predominantly White – British (90.4%; Mixed – White and
Asian $= 5.8\%$; Mixed – any other mixed background $= 1.9\%$; and White – any other White
background $= 1.9\%$). At time 1 (T1) $n = 6$ participants answered "yes", they considered
themselves to have an ongoing mental health problem. This increased to $n = 8$ by time 3
(T3)[24]. The data were collected during the second and third terms of the 2017-2018

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[20] Data collection across the two schools was collected on three separate occasions. Where appropriate,
parental study opt-out letters were sent home to students at least two weeks in advance of data being
collected.

[21] One an academy, the other a grammar school.

[22] The study had ethical approval for data collection with adolescents aged 12-years and over; Ethics ID:
201614800632043996, expiry date: 25th November, 2018.

[23] Participants were also asked what sex they were assigned at birth: female $= 38$; male $= 14$.

[24] Participants were asked to indicate if they considered themselves to have an ongoing mental health
problem (in order to be presented with the "self-stigma of mental illness scale" later in the questionnaire),
ostensibly presented as a "general status" question alongside two distractor questions about public speaking
anxiety and an ongoing physical disability (to maintain the cover that they are randomly presented with one
of a number of social groups, e.g., physically disabled; gay; mental health problems). Initially, it would have

academic year (at baseline, immediately following completion of conditions, and again at an eight-to-10-week follow-up, dependent on school timetabling).

Measures

The term "mental health problems" was used throughout the study to refer to the target outgroup in question, and to reflect the terminology most appropriate for, and widely used by, adolescents. McKeague, Hennessy, O'Driscoll, and Heary (2015), for instance, used the phrase "emotional and behavioural problems", as opposed to the term "mental illness" typically used with adult populations.

Perceived intergroup contact. Mental health as a social group is identifiable by diagnosis and labelling only. This makes for an interesting social group, as membership can alter along with the historical changes to diagnostic criteria (we are currently on the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders; American Psychiatric Association, 2013), as well as with "recovery" from, and consequently removal of, specific diagnostic labelling. It is also possible to encounter someone from this non-visible group and be unaware of their group status (due its concealable nature; Chaudoir & Fisher, 2010). With no physical demarcation for group membership, it is possible to hold stigmatising attitudes and behaviours about the mental health outgroup as an abstract social entity and not be aware that those with whom we interact would be categorised as belonging to this group (as a concealable stigmatised identity, it is possible to "pass" as not belonging to the mental health outgroup; Chaudoir & Fisher, 2010).

With this in mind, the current study included a measure to identify participants' initial perceptions of level of contact with the mental health outgroup prior to condition assignment, and to compare these initial perceptions with consequent estimations at post-manipulation assessment. A single item asked "In the past year, how much contact do you

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been interesting to consider this measure as a dependent variable, but there was an insufficient number of participants who responded in the affirmative to this and who consequently answered the self-stigma scale.

think you have had with people who are mentally ill?", with five possible responses:

Never; *Once/twice a year*; *Monthly*; *Weekly*; or *Daily* (Appendix W). If participants

perceive a greater level of intergroup contact post-manipulation, then arguably they are

more aware of the invisible mental health problem group. Initially, it would be expected

that there is no difference between conditions on the perception of contact with those with

mental health problems, but this might significantly differ following condition completion

(i.e. no significant difference in perceived level of contact for the control condition across

time points, but significant differences across the time points for the experimental

manipulations – EIC, imagined intergroup contact, and facts). Typically, this item is

considered a moderating variable or covariate affecting dependent variables

(Anagnostopoulos & Hantzi, 2011; Corrigan, Edwards, Green, Lickey, & Penn, 2001).

However, it is of interest to consider it as an outcome variable, given how it is measured at

all three time points.

Peer mental health stigmatisation scale. Measured on a 5-point scale ranging

from 1 (*disagree completely*) to 5 (*agree completely*), the 24-item peer mental health

stigmatisation scale (PMHSS; McKeague, Hennessy, O'Driscoll, & Heary, 2015; Appendix

J) was administered at all three time points. The PMHSS subscales comprise of (a), a total

score for participant *stigma awareness* (high scores indicative of stigma awareness; e.g.

"most people believe that teenagers with mental health problems are dangerous"); (b), a

total score relating to participant *stigma agreement* (e.g. "I would be afraid of someone if I

knew that they had mental health problems"); and (c), a total score for *positive reactions*

regarding those with mental health problems (high scores representing positive reactions;

"I believe that teenagers with mental health problems can get good grades"; all αs > .55).

Intended behaviour. Lifted from the Reported and Intended Behaviour scale

(Evans-Lacko, et al., 2011) the intended behaviour items were used at all time points. The

intended behaviour of participants is important to gauge as "intentions represent a more

reliable predictor of actual behavior than attitudes" (Vezzali, Stathi, Crisp, & Capozza, 2015, p. 48). Two items reverse scored so that high scores indicated participant stigmatising intended behaviour (e.g. "In the future, I would *not* be willing to live with a teenager who has mental health problems"). More precisely, higher scores reflect a lack of willingness to engage in the behaviours described (measured on a 7-point scale, from *strongly agree – strongly disagree*; all αs > .69).

Volunteering behaviour intention. Assessed only in the final T3 questionnaire, participant realistic behavioural intentions were measured to ascertain differences in intentions toward those with mental health problems. "[H]elping may be an especially relevant behavior in educational contexts, where it could signal social support for minority members" (Vezzali, Stathi, Crisp, & Capozza, 2015, p. 48), and this item asked participants "how many free periods in the next two weeks would you be willing to give up to volunteer at the local, charitable mental health drop-in centre" to "chat to people with mental health problems" (measured on a 4-point scale ranging from *0* to *3* free periods).

Mediating variables.

State interpersonal reactivity. Nine items from Davis' (1980) Interpersonal Reactivity index (IR) were included at T2 following participant involvement with one of the three experimental conditions (consequently, controls did not see this scale). Measured on a 5-point scale from *does not describe me – describes me extremely well*, Davis' IR subscales were adapted to reflect state interpersonal reactivity (IR-S; Appendix X) to identify if the EIC rehearsal condition was effective in soliciting participant ability to fantasise (2 items, e.g. "I felt quite touched by the things that happened to the people/person I learnt about"), perspective take (2 items, e.g. "I found it difficult to see things from the points of view of the people/person I learnt about", reverse scored), and empathise (5 items, e.g. "I felt quite touched by the things that happened to the people/person I learnt about"; $n = 40$; $\alpha = .86$). High scores indicative of greater state

interpersonal reactivity (empathy, perspective taking, fantasy) toward those with mental

health problems.

Introjection of other to the self. Adapted from Aron, Aron, and Smollan's (1992)

Inclusion of Other in the Self scale, an *introjection of other to the self* (IOS) scale was used

as a pictorial representation to depict to what extent participants felt that they could take

on-board the perspective of the mental health problem group as a whole (measured at T2

and T3, on a 7-point scale from *A - G*, where picture *A* represented that participants did not

feel that they took on-board the other perspective at all, and picture *G* represented

participants' taking on-board the other perspective almost completely; Appendix Y). This

measure was included given the role-playing nature of the EIC rehearsal condition. It

would be expected to be easier to take on-board the perspective of an outgroup member(s)

with which one has role-played.

Moderator variables.

Trait interpersonal reactivity. Used to assess participant individual differences in

fantasy ability, perspective taking, and empathy, 12 items of Davis' (1980) larger

Interpersonal Reactivity index (IR) were included at T1. If individuals are high in trait

level IR, then this may be a moderating factor of EICs efficacy. Measured on a 5-point

scale from *does not describe me – describes me extremely well*, the Davis IR subscales

were adapted to reflect trait interpersonal reactivity (IR-T; Appendix Z), measuring

individual participants ability to fantasise (2 items, e.g. "Becoming extremely involved in a

good book or movie is somewhat rare for me", reverse scored), perspective take (5 items,

e.g. "I try to look at everybody's side of a disagreement before I make a decision"), and

empathise (5 items, e.g. "I often have tender, concerned feelings for people less fortunate

than me", $\alpha = .79$). High scores indicative of greater trait interpersonal reactivity

(empathy, perspective taking, fantasy) toward those with mental health problems.

Self-stigma of mental illness scale. The 10-item short form Self-Stigma of Mental Illness Scale (SSMIS; Corrigan, et al., 2012) was used to measure participant self-reports of self-stigma (collected if participants indicated that they have had an ongoing mental health problem in the demographics; T1 $n = 6$; T2 $n = 6$; T3 $n = 8$). Only the two, five-item subscales *application of stigma to self* (e.g. "Because I have a mental health problem I am unable to take care of myself") and *harm to self* (e.g. "I currently respect myself less because I am dangerous"; Appendix AA) were included as measures of self-stigma, as items relating to stigma awareness and agreement are already included in the PMHSS. Participants reported their self-stigma at all three time points to identify if EIC had the added benefit of reducing self-stigma following their involvement with the EIC Stigmaphrenia© script, and if this effect lasted across time. Measured on a 9-point Likert scale, from *strongly disagree - strongly agree*, high scores indicative of greater self-stigma.

Covariate.

Social desirability. Collected at T1, participants were measured for socially desirable responding with the Marlow-Crowne short social desirability scale (SD-SF; Reynolds, 1982; e.g. "It is sometimes hard for me to go on with my work if I am not encouraged"; Appendix BB). Responded on a dichotomous scale as either *True* or *False*, and scored so that items 1, 2, 3, 4, 6, 8, 11, 12 receive 1 point if answered *false*, and 0 points if *true*. Items 5, 7, 9, 10, 13 receive 1 point if answered *true*, and 0 points if answered *false*. Total sum score banded into low, medium, and high socially desirability responders. Of the school participants, 31 (59.6%) were low responders, 18 (34.6%) were medium, and only three (5.8%) were high socially desirable responders.

Qualitative perceptions of the intervention. Collected at T2 and T3, participants were asked to provide qualitative feedback on their involvement with the "teaching method" they were involved with via two open-ended questions: "Do you think your teaching method would be a good way of highlighting a common concern for adolescents?

Why/Why not?" and "Did you enjoy the teaching method you were involved with?

Why/Why not?". This qualitative information was included to contribute to the refining of

the EIC condition and script. Whether or not participants enjoyed the teaching method,

and whether or not participants thought their method would be good for others received

yes, *no*, *depends* responses during analysis.

Procedure and Ethical Consideration

Via the host site Qualtrics, participating pupils[25] were provided online information

about the study investigating "which of four teaching methods works best in educating

students about groups in society, and how long the knowledge is remembered". The

information sheets contained ethical[26] consideration of informed consent (i.e. highlighting

the study involved material about different groups of people, for example physically

disabled; gay; mental health problems). Following consent, participants were asked to

enter the name of their school and their unique identity number (generated by a random

number generator and allocated to them by the RAs involved) as a means of anonymously

keeping track of participant data at each time point (also providing the ability to withdraw

participant data, as their unique ID number is linked to their name on a document stored

separately from questionnaire responses). Participants answered demographic information,

which included an item on participant personal consideration of having an ongoing mental

health problem (in order to selectively force the display of the latter dependent variable

self-stigma of mental illness scale). Participants then answered T1 main dependent

variable, moderator, and covariate measures of interest via the online questionnaire, before

the Qualtrics programme randomly allocated participants to one of the four conditions.

Each condition task comprised the following:

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[25] Following headteacher approval and parental opt-out letters to parents, Appendix G.

[26] Ethical approval granted 25/11/2016-25/11/2018, code: 201614800632043996

Experiential Intergroup Contact condition. Those participants allocated to the EIC condition (ostensibly "interactive story-based teaching method") were instructed to leave the computer room and follow a research assistant (RA) who would be carrying out their teaching method with them as a neutral facilitator. Where possible, participants were split into small groups of six with one facilitating RA[27]. Research assistants followed written EIC condition instructions to make sure each group of participants carried out the EIC condition in the same way (Appendix CC). Research assistant kits contained written RA instructions and six, role-highlighted versions of the EIC Stigmaphrenia[©] script (script Appendix E; potential participant roles Appendix DD). Over a three-hour period (with breaks in-keeping with the school) EIC participants were led through the Stigmaphrenia[©] script and tasks as guided by the RA and their written instructions (as described in detail in Chapter Three, Study 2).

Mental health imagined intergroup contact condition. The imagined intergroup contact (IIC) condition participants (ostensibly the "imaginative story-based teaching method"), followed instructions about their teaching method online. These instructions follow the Crisp, Stathi, Turner, and Husnu (2008) instructional set, whereby the imagined scenario is a positive interaction between the participant and the mental health outgroup member. Given how the target group in question is those with mental health problems, a suitable scenario was adapted from the West, Holmes, and Hewstone (2011). The imagined task depicts a train station scenario where a man – Tom Harrell (who has a diagnosis of schizophrenia) – sits next to them and they engage in a pleasant conversation (full instructions Appendix EE).

Facts of stigma condition. The facts condition ("individual learning-based teaching method") participants followed instructions about their teaching method online,

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[27] In instances where there were insufficient numbers of participants, a RA would pick up a role from the script, or assign it as an extra role/s to participants present.

and were asked "to read through the document describing facts about people with mental health problems, in order to explain what it's like to have them" (full instructions and document link Appendix FF).

      Control. Control condition participants read the information online stating that there were no teaching methods left and that they were on a waiting list for when one becomes available, and to follow the further instructions provided.

      Following involvement in one of the three experimental conditions (EIC; imagined intergroup contact; facts), participants answered the IR-State items, and all participants then saw a brief debrief explaining the next step of the study. Participants then received T2 study information and instructions, which were followed by attention checks and qualitative items (if they were involved in one of the three experimental conditions; Appendix M). Participants answered the main dependent variable measures a second time, as well as the IOS mediator scale. Eight-to-10-weeks later participants answered the final T3 online study information and instructions, which were followed by the same attention checks and qualitative items if they were involved in one of the three experimental conditions[28]. Participants answered the main dependent variable measures a third time, as well as the IOS mediator scale, and the final volunteering behaviour intention dependent variable, before answering a hypothesis check item and receiving the full debrief for the study. At the end of each stage of the study participants received signposting for mental health services. Figure 6 depicts the study design.

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[28] One of the schools completed the T3 questionnaire with their pupils online independently without a researcher present.

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┌─────────────────────────────────────────────────────────────────┐
│                    T1 questionnaire – All N                       │
└─────────────────────────────────────────────────────────────────┘
```

Condition	EIC	IIC	Facts	Control
	Hour 1, 2, 3 with RA	Online imagination task	Online reading task	Waitlist information

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┌─────────────────────────────────────────────────┐
│                 IR – state DV– n                 │
└─────────────────────────────────────────────────┘

┌─────────────────────────────────────────────────────────────────┐
│          T2 questionnaire – immediately after– all N             │
└─────────────────────────────────────────────────────────────────┘

┌─────────────────────────────────────────────────────────────────┐
│          T3 questionnaire – 8-10 weeks later – all N             │
└─────────────────────────────────────────────────────────────────┘
```
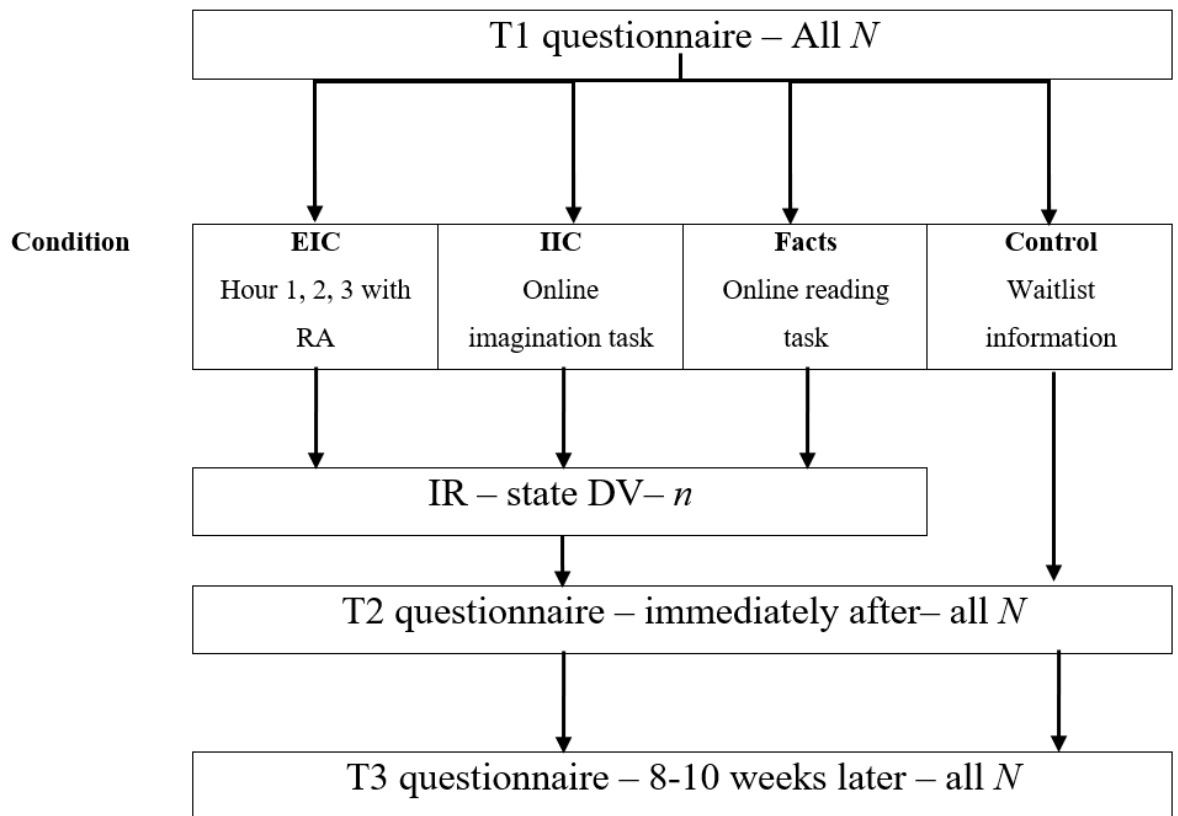
Figure 6. Study 4 longitudinal design.

All analyses were conducted using IBM SPSS 24 software. The Greenhouse-Geisser correction is used if sphericity has been violated. All pairwise comparisons adjusted using Šidák corrections for multiple comparisons. Unless stated otherwise, there were no outliers for dependent variables, as assessed by examination of studentized residuals for values greater than ±3, and the residuals were normally distributed, as assessed by Normal Q-Q Plot. Across dependent variables, unless otherwise stated, there was homogeneity of variances (ps > .05) and covariances (ps > .05), as assessed by Levene's test of homogeneity of variances and Box's M test respectively.

Results

Means, standard deviations, Cronbach's alphas, and correlations among dependent, mediator, moderator, and covariate variables at T1, T2, and T3 are presented in Table 17 (SSMIS not included due to small n). Counts for volunteering intentions are found in Table 18, and the means and standard deviations for T1, T2, and T3 dependent and mediator variables split according to the four conditions are presented in Table 19.

As shown in Table 17, the mean scores for the dependent variables were below the mid-point of the scales, with no particularly high variances, indicating that there were few stigmatising attitudes, and intended behaviours. The highest correlation amongst variables was $r = 0.86$, $p < .01$, and there were significant small, medium, and large correlations amongst half of the variables. Condition was significantly correlated with the mediator introjection of other to the self at T2. As the number of the condition decreased (conditions coded: EIC = 1; imagined intergroup contact = 2; facts of stigma = 3; control = 4) introjection increased.

Table 17

Study 4, Correlations, Means (M), Standard Deviations (SD), & Cronbach Alphas (in parentheses) for Dependent, Mediator, Moderator, & Covariate Variables Across Times 1, 2, & 3 (N = 52)

		M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Condition	2.42	1.14	--															
Time 1																			
2	SD	4.98	2.57	-.24	(.66)														
3	Contact	3.30	1.24	.05	-.12	--													
4	PMHSS	2.34	0.41	.02	-.47**	.18	(.77)												
5	IB	1.75	0.81	.01	-.14	-.19	.36**	(.69)											
6	IR – trait	3.68	0.59	-.07	.45**	.09	-.23	-.37**	(.79)										
Time 2																			
7	Contact	3.46	1.24	-.15	-.01	.86**	.08	-.28*	.24	--									
8	PMHSS	2.52	0.58	.12	-.37**	.21	.73**	.33*	-.28*	.12	(.84)								
9	IB	1.97	1.22	.08	-.12	.07	.32*	.25	-.32*	-.01	.31*	(.92)							
10	IR – state	2.82	0.80	-.21	.36*	.03	-.15	-.14	.42**	.26	-.03	-.14	(.86)						
11	IOS	4.50	1.59	-.30*	.42**	.23	-.20	-.33*	.46**	.39**	-.31*	-.05	.37*	--					
Time 3																			
12	Contact	3.92	1.04	-.07	.07	.68**	-.03	-.42**	.17	.62**	-.01	-.11	.17	.28*	--				
13	PMHSS	2.51	0.60	.14	-.34*	.19	.64**	.41**	-.29*	.04	.70**	.28*	-.11	-.28*	-.12	(.85)			
14	IB	1.88	0.90	.02	-.13	.00	.27	.52**	-.17	-.09	.16	.49**	-.34*	-.08	-.23	.32*	(.73)		
15	IOS	4.67	1.51	-.01	.26	.21	-.22	-.19	.49**	.21	-.13	-.37**	.39*	.35*	.33*	-.25	-.34*	--	
16	Volunteer behaviour	1.19	1.12	-.13	.04	.07	-.21	-.26	.19	.20	-.04	-.13	.34*	.19	.11	-.21	-.43**	.22	--

Notes. Condition entered as variable to correlate. SD = social desirability; Contact = perception of level of contact with outgroup; PMHSS = peer mental health stigmatisation scale; IB =

intended behaviour (high scores = negative intentions); IR = interpersonal reactivity; IOS = introjection of other to the self; volunteering behaviour intention., high scores = greater

volunteering behavioural intention/s. Covariate: social desirability. Moderator: interpersonal reactivity – trait. Mediators: interpersonal reactivity – state; introjection of other to the self.

 * $p < .05$;

** $p < .01$

Table 18
Study 4, Volunteering Behaviour Intention by Condition (N = 52)

	EIC $n = 15$		IIC $n = 12$		Facts $n = 13$		Cont. $n = 12$	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
	1.73	0.88	.83	1.19	.62	0.96	1.50	1.16
No. of periods willing to volunteer	No.	%	No.	%	No.	%	No.	%
0	1	7	7	58	8	61	3	25
1	5	33	2	17	3	23	3	25
2	6	40	1	8	1	8	3	25
3	3	20	2	17	1	8	3	25

Notes. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact; Cont. = control

Table 19

Study 4, M & SD for Dependent & Mediator Variables across Times 1, 2, & 3, According to Condition (N = 52)

	Conditions							
	EIC $n = 15$		IIC $n = 12$		Facts $n = 13$		Control $n = 12$	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Time 1								
Contact with target MHP	3.13	1.40	3.58	1.31	3.07	1.18	3.50	1.08
SSMIS	7.70	--	4.00	1.60	5.00	--	3.10	--
PMHSS overall stigma	2.34	0.47	2.35	0.47	2.32	0.42	2.38	0.31
PMHSS aware	2.88	0.67	2.91	0.84	2.74	0.60	2.93	0.41
PMHSS agree	1.80	0.38	1.79	0.56	1.91	0.46	1.82	0.40
PMHSS positive	3.96	0.49	3.76	0.40	3.88	0.38	3.77	0.53
IB	1.73	0.75	1.72	1.11	1.82	0.86	1.72	0.53
Time 2								
Contact with target MHP	3.73	1.43	3.66	1.23	3.00	1.22	3.41	0.99
SSMIS	6.60	--	3.96	1.85	5.20	--	2.50	--
PMHSS overall stigma	2.43	0.78	2.47	0.54	2.57	0.60	2.60	0.31
PMHSS aware	3.11	1.12	3.10	1.00	3.21	0.95	3.28	0.63
PMHSS agree	1.75	0.56	1.84	0.43	1.94	0.40	1.93	0.41
PMHSS positive	4.04	0.58	3.92	0.26	3.73	0.42	3.65	0.40
IB	1.56	0.57	2.39	1.73	2.15	1.56	1.85	0.64
IR state – total	2.97	0.85	2.91	0.81	2.56	0.75	--	--
IR state – empathy	3.66	0.79	2.50	0.92	2.42	0.93	--	--
IR state – pers.	2.86	1.12	3.58	0.99	3.34	0.55	--	--
IR state – fantasy	2.74	0.91	2.81	0.81	2.30	0.86	--	--
IOS	5.33	1.44	4.41	1.31	3.92	1.55	4.16	1.80
Time 3								
Contact with target MHP	4.00	1.06	4.08	1.16	3.69	1.03	3.91	0.99
SSMIS	6.00	1.41	4.96	1.40	5.05	0.35	4.00	--
PMHSS overall stigma	2.32	0.69	2.60	0.60	2.61	0.66	2.55	0.40

	EIC $n = 15$		IIC $n = 12$		Facts $n = 13$		Control $n = 12$	
	Conditions							
	M	SD	M	SD	M	SD	M	SD
PMHSS aware	2.95	1.14	3.12	1.02	3.32	1.08	3.29	0.64
PMHSS agree	1.69	0.49	1.90	0.55	1.89	0.38	1.81	0.45
PMHSS positive	3.70	0.36	3.71	0.50	3.80	0.45	3.63	0.40
IB	1.66	0.85	2.18	1.11	2.00	0.91	1.72	0.69
IOS	4.80	1.65	4.41	1.37	4.76	1.69	4.66	1.43
Volunteer behaviour intention	1.73	0.88	0.83	1.19	.62	0.96	1.50	1.16

Notes. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact. MHP = mental health problems; SSMIS = self stigma of mental illness scale; PMHSS = peer mental health stigmatisation scale; IB = intended behaviour (high scores = negative intentions); IR = interpersonal reactivity; IR state persp. = interpersonal reactivity state perspective taking; IOS = introjection of other to the self; volunteering behaviour intention, high scores = greater volunteering behaviour intention/s; T1 SSMIS, $n = 6$; T2 SSMIS, $n = 6$, T3 SSMIS, $n = 8$

Manipulation Checks

Open-ended, qualitative manipulation checks helped to identify if participants remembered the study, the target group they saw (i.e. those with mental health problems), and the conditions they were involved with, and if this changed across time (i.e. forgetting). Participants were asked "Please think about the teaching method you were involved with and provide a brief description of what you think it was about and its main themes"; "Please provide a brief summary of your role in the teaching method you were involved with" (T2 and T3). A single *yes/no/not applicable* (n/a) item was created for analysis – those participants who remembered both the "teaching method" (condition) they were in, and that the group of interest was those with "mental health problems" received *yes* responses, and were compared across conditions to see if, dependent on condition, there was a difference between T2 and T3 on remembering.

All participants were equally likely to remember their "teaching method" (condition) at T2 and T3, regardless of which condition they were in (T2: $\chi^2(4) = 4.71$, $p = .319$; $\phi = .34$ & $V = .24$, $p = .319$; T3: $\chi^2(4) = 5.05$, $p = .283$; $\phi = .36$ & $V = .25$, $p = .283$). Although not significantly so, nearly 100% of EIC participants remembered what they did at both time points (T2, EIC = 100%; IIC = 91.7%, facts = 76.9%; T3, EIC = 93.3%; IIC = 75%; Facts = 69.2%).

All participants remembered the mental health problems target group at T2 (100%), and all conditions were equally likely to remember the target group at T3 (EIC = 100%; IIC = 75%; facts = 84.6%; Control = 100%; $\chi^2(3) = 6.64$, $p = .084$; $\phi = .36$ & $V = .36$, $p = .084$).

Qualitative Perceptions of the Intervention

When asked at T2 (immediately following teaching method involvement) if participants thought their teaching method would be good for adolescents, 66.7% of EIC participants agreed that, "yes", it would, and 13.3% thought it depended on the adolescents

(or some other factor, such as issues of speaking anxiety), although this finding was non-significant ($\chi^2(4) = 8.82$, $p = .066$; $\phi = .47$ & $V = .33$, $p = .066$). Seventy-five per cent of IIC participants, and only 38.5% of facts participants thought their teaching method would be good for adolescents.

In regards to enjoyment, 53.3% of EIC participants enjoyed their teaching method, and 26.7% liked some elements over others (seemingly in relation to e.g. teaching method length), although there was no significant difference across conditions ($\chi^2(4) = 5.61$, $p = .231$, $\phi = .37$ & $V = .27$, $p = .231$). Fifty per cent of IIC participants, and only 30.8% of facts participants liked their condition, with 16.7% and 7.7% of IIC and facts participants (respectively) stating it depended.

Hypothesis Check

Measured with a single item: "Thinking about the whole of the study from beginning to end, what do you think the purpose of the study was?" (T3 only). No participant qualitative responses reflected the study hypotheses.

At T3 participants were asked if they had encountered the play Stigmaphrenia[©] or the term neurodiversity before. This was to identify any possible prior experience with the material used to operationalise mental health EIC (also assessed with a "*yes/no*" item). Only one participant of the 52 reported having heard of Stigmaphrenia[©] before, and six reported having come across the term neurodiversity. These items were not included as potential covariates.

During preliminary analyses, social desirability was found to negatively correlate with the subscales of PMHSS (Table 20): the greater the socially desirable responding, the less participants reported to stigmatise the mental health target group. However, given the repeated measures factor of time, social desirability was not entered as a potential covariate during analyses (Delaney & Maxwell, 1981).

Table 20

Study 4, Correlations for DV PMHSS with Potential Covariate Social Desirability Across Times 1, 2, & 3 (N = 52; Cronbach alpha in parentheses)

	M	SD	1	2	3	4	5	6	7	8	9	10
Time 1												
1 Social desirability	4.98	2.57	(.66)									
2 PMHSS aware	2.86	0.63	-.36**	(.88)								
3 PMHSS agree	1.83	0.44	-.36**	.17	(.71)							
4 PMHSS positive	3.85	0.45	.07	-.06	-.41**	(.67)						
Time 2												
5 PMHSS aware	3.17	0.93	-.30*	.73**	.14	-.12	(.87)					
6 PMHSS agree	1.86	0.45	-.34*	.27	.69**	-.39**	.34*	(.68)				
7 PMHSS positive	3.84	0.46	.32*	-.15	-.42**	.65**	-.41**	-.45**	(.68)			
Time 3												
8 PMHSS aware	3.20	0.98	-.28*	.62**	.21	-.10	.67**	.35*	-.30*	(.88)		
9 PMHSS agree	1.81	0.47	-.29*	.12	.62**	-.38**	.19	.64**	-.40**	.28*	(.75)	
10 PMHSS positive	3.71	0.42	.22	-.09	-.57**	.46**	-.12	-.33*	.42**	-.21	-.38**	(.55)

Notes. PMHSS = peer mental health stigmatisation scale

* $p < .05$;

** $p < .01$

Mediators and Moderators

Means, standard deviations, and one-way GLM ANOVAs for mediator and moderator variables reported in Table 21.

The variables that could potentially mediate the effects of the manipulations were examined to identify if they varied on the basis of the manipulations. A one-way (Conditions; EIC vs. imagined intergroup contact vs. facts) GLM ANOVA on interpersonal reactivity state, and a one-way (Conditions: EIC vs. imagined intergroup contact vs. facts vs. control) GLM ANOVA on introjection of other to the self at T2 did not vary across conditions ($p > .05$).

The mediator variable, introjection of other to the self (IOS) at time 2, correlated with the independent variable condition, and the dependent variable PMHSS total at time 2 and 3. IOS at time 3 correlated with dependent variable intended behaviour (IB) at time 3 (but not condition). To test if IOS at time 2 mediates the effect of EIC on the PMHSS total outcome measures at times 2 and 3, and to test if IOS at time 3 mediates the effect of EIC on the IB outcome at time 3, mediator analyses were performed using PROCESS, and the indirect path was bootstrap tested with 5000 resamples, bias corrected (condition was simple effect dummy coded, the EIC condition negatively coded to compare with IIC, facts, and control).

For the PMHSS total dependent variable at time 2, the b path from the IOS at time 2 mediator to PMHSS at time 2, was significant, so that less IOS predicts greater PMHSS at time 2: $b = -0.11$, $t(47) = -2.09$, $p = .041$. The indirect effect of condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) on PMHSS time 2 via

IOS time 2, was non-significant: X1: *ab* = 0.01, CI = -0.07 – 0.11; X2: *ab* = 0.06, CI = -

0.02 – 0.19; X3: *ab* = 0.03, CI = -0.07 – 0.15 (Figure 7).
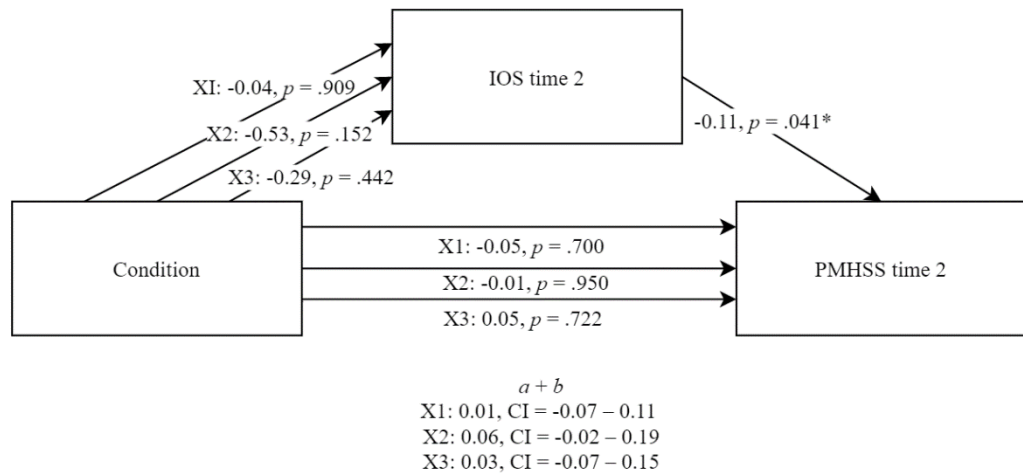
Figure 7. Path diagram illustrating the direct effect, *a* and *b* paths, and indirect effect path from condition

(dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to Peer Mental Health

Stigmatisation Scale (PMHSS) total at time 2, where introjection of other to the self (IOS) at time 2 is the

proposed mediator.

N = 52.

* *p* < .05

        For the PMHSS total dependent variable at time 3, the indirect effect of condition

(dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) on PMHSS

time 3 via IOS at time 2 was non-significant: X1: *ab* = 0.003, CI = -0.06 – 0.09; X2: *ab* =

0.04, CI = -0.02 – 0.16; X3: *ab* = 0.02, CI = -0.06 – 0.13 (Figure 8).

<p style="text-align:center">

XI: -0.04, p = .909

X2: -0.53, p = .152

X3: -0.29, p = .442

IOS time 2

-0.09, p = .117

Condition

X1: 0.08, p = .586

X2: 0.03, p = .798

X3: 0.001, p = .993

PMHSS time 3

$a + b$

X1: 0.003, CI = -0.06 – 0.09

X2: 0.04, CI = -0.02 – 0.16

X3: 0.02, CI = -0.06 – 0.13

</p>
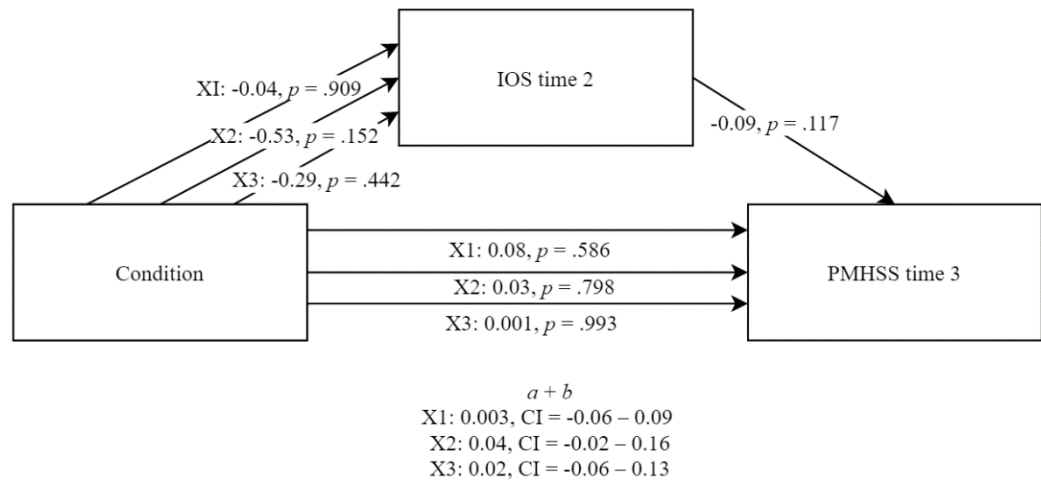
Figure 8. Path diagram illustrating the direct effect, *a* and *b* paths, and indirect effect path from condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to Peer Mental Health Stigmatisation Scale (PMHSS) total at time 3, where introjection of other to the self (IOS) at time 2 is the proposed mediator.

$N = 52$.

* $p < .05$

For the IB dependent variable at time 3, the *b* path from the IOS at time 3 mediator to IB at time 3, was significant, so that less IOS predicts greater IB at time 3: b = -0.19, $t(47)$ = -2.44, p = .018. The indirect effect of condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) on IB time 3 via IOS time 3 was non-significant: X1: *ab* = 0.04, CI = -0.08 – 0.22; X2: *ab* = -0.02, CI = -0.15 – 0.18; X3: *ab* = -0.001, CI = -0.17 – 0.15 (Figure 9).
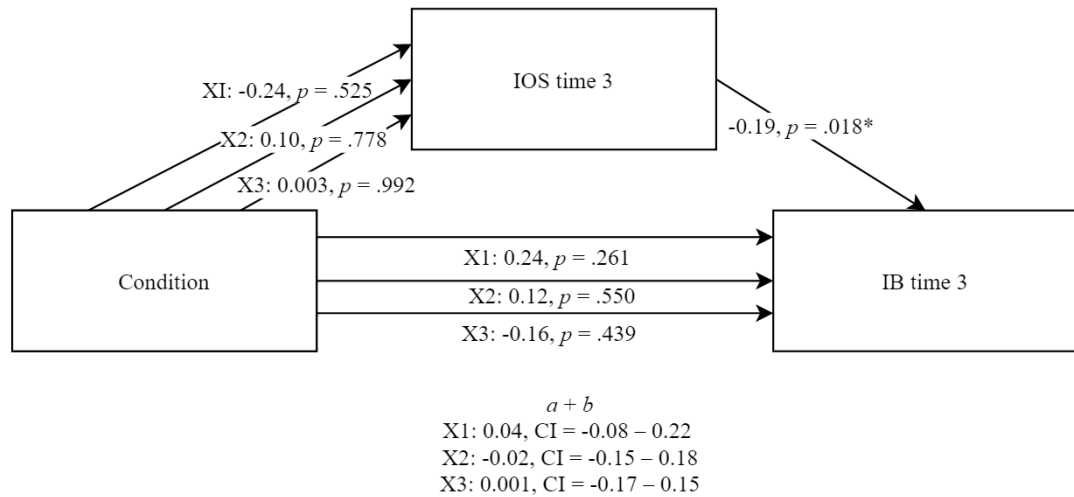
Figure 9. Path diagram illustrating the direct effect, *a* and *b* paths, and indirect effect path from condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to intended behaviour (IB) at time 3, where introjection of other to the self (IOS) at time 3 is the proposed mediator.

N = 52.

* *p* < .05

The small sample will have left the study with low power, and in the mediator analysis with IB as the dependent variable, the lack of significance is not surprising given how the mediator was not significantly correlated with both the condition predictor variable and IB outcome variable, as recommended by Baron and Kenny (1986).

To test if trait interpersonal reactivity (IR-T) moderates the effect of condition on the outcome measures at times 2 and 3 (Peer Mental Health Stigmatisation Scale total, and intended behaviour), moderator analyses were performed using PROCESS.

For the PMHSS total dependent variable at time 2, condition, IRI-T, and the interaction terms in the overall model did not significantly account for variance in PMHSS total, $F(7, 44) = 1.77$, $p = .116$, $R^2 = .16$, and there were no significant interaction terms, *p*s > .05.

For the PMHSS total dependent variable at time 3, condition, IRI-T, and the interaction terms in the overall model did not significantly account for variance in PMHSS

total, $F(7, 44) = 1.82$, $p = .107$, $R^2 = .21$, and there were no significant interaction terms, ps $> .05$.

For the IB dependent variable at time 2, the overall model explains 22% of the variance in IB, $F(7, 44) = 5.97$, $p < .001$, $R^2 = .22$. Alone, the moderator IRI-T predicts IB at time 2, $b = -.79$, $t(44) = -3.15$, $p = .003$, where for every 1 unit increase in IRI-T we see a -.79 decrease in IB at time 2. There were no significant interaction terms, ps $> .05$.

For the IB dependent variable at time 3, condition, IRI-T, and the interaction terms in the overall model did not significantly account for variance in IB, $F(7, 44) = 1.16$, $p = .339$, $R^2 = .09$, and there were no significant interaction terms, ps $> .05$.

Table 21

Study 4, M, SD, and One-way ANOVA for Mediator and Moderator Variables (N = 52)

	EIC n = 15		IIC n = 12		Facts n = 13		Control n = 12				
η_p^2	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*	η_p^2
Mediators											
IR - state	2.98	0.85	2.92	0.81	2.56	0.75	--	--	1.02[†]	.370	.05
IOS	5.33	1.45	4.42	1.31	3.92	1.55	4.17	1.80	2.29	.090	.13
Moderators											
IR - trait	3.77	0.67	3.69	0.46	3.58	0.64	3.70	0.58	.45	.862	.02
Self-stigma	--	--	--	--	--	--	--	--	--	--	--

Note. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact. IR = interpersonal reactivity; IOS = introjection of other to the self. Controls did not receive the

interpersonal reactivity state measure. The self-stigma measure had too few respondents, and so no GLM ANOVA was carried out to consider this measure a potential moderator of

manipulation effects. $F(3, 48)$.

[†] $F(2, 37)$

For the dependent variables perceived intergroup contact; PMHSS (and its

subscales); and IB, mixed 4 (Condition: EIC vs. IIC vs. facts vs. control; between-groups)

x 3 (Time: T1 vs. T2 vs. T3; within-groups) GLM ANOVAs were conducted. A one-way

GLM ANOVA compared the effect of condition, 4 (Condition: EIC vs. IIC vs. facts vs.

control; between-groups) on actual volunteering behaviour intention at T3.

Based on the theoretical assumptions directing the hypotheses, planned contrasts

were used to analyse the data (contrasts testing hypotheses are found in Table 22).

Contrasts 1 through 5 test for H1 (EIC will have the least stigma, then IIC, facts, and

control the greatest), H2 (T3 will have the least stigma compared to T1), and H3 (EIC will

have the least stigma at T3) by first comparing the EIC condition against the imagined

intergroup contact, facts, and control conditions (C1), before drilling down to determine if

EIC has the least stigma compared to imagined contact (C2), and facts conditions (C3),

with controls expecting to exhibit the greatest stigma (C4 and C5).

Table 22

Study 4, Planned Contrasts Reflecting Hypotheses

Condition	Contrast 1	Contrast 2	Contrast 3	Contrast 4	Contrast 5
EIC	3	1	1	1	1
IIC	-1	-1	0	0	1
Facts	-1	0	-1	0	1
Control	-1	0	0	-1	-3

Note. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact

Perceived Intergroup Contact

When perceived intergroup contact was the dependent variable, there was no

statistically significant Condition X Time interaction: $F(4.69, 74.99) = 1.04$, $p = .401$, $\eta_p^2 =$

.06. There was a significant effect of time, accounting for a large proportion of the

variance: $F(1.56, 74.99) = 31.10$, $p < .001$, $\eta_p^2 = .21$. Simple effects show no difference

between T1 and T2 ($p = .354$; T1 $M = 3.30$, $SD = 1.24$; T2 $M = 3.46$, $SD = 1.24$) and a

significant increase in perceived intergroup contact at T3 ($M = 3.92$, $SD = 1.04$) compared to both T1 ($p < .001$) and T2 ($p = .006$).

The main effect of condition did not return a statistically significant difference in mean perceived intergroup contact for the four conditions: $F(3, 48) = .53$, $p = .664$, $\eta_p^2 = .03$, and there were no significant contrast effects ($ps > .05$).

Peer Mental Health Stigmatisation

PMHSS total. When PMHSS total was the dependent variable, there was no statistically significant Condition X Time interaction: $F(6, 96) = .83$, $p = .550$, $\eta_p^2 = .05$. There was a significant effect of time, accounting for a medium-to-large proportion of the variance: $F(2, 96) = 5.24$, $p = .007$, $\eta_p^2 = .09$. Simple effects show a significant increase in PMHSS total at T3 ($M = 2.51$, $SD = 0.60$) compared to T1 ($M = 2.35$, $SD = 0.41$; $p = .028$), with T1 receiving significantly the least PMHSS total compared to T2 ($p = .011$; $M = 2.52$, $SD = 0.58$) and T3.

The main effect of condition did not return a statistically significant difference in mean PMHSS total for the four conditions: $F(3, 48) = .27$, $p = .849$, $\eta_p^2 = .02$, and there were no significant contrast effects ($ps > .05$).

PMHSS awareness. When PMHSS awareness was the dependent variable, there was no statistically significant Condition X Time interaction: $F(6, 96) = .71$, $p = .644$, $\eta_p^2 = .04$. There was a significant effect of time, accounting for a large proportion of the variance: $F(2, 96) = 6.92$, $p = .002$, $\eta_p^2 = .13$. Simple effects show a significant increase in PMHSS awareness at T3 ($M = 3.20$, $SD = 0.99$) compared to T1 ($M = 2.87$, $SD = 0.63$; $p = .006$), with T1 receiving significantly the least PMHSS aware compared to T2 ($p = .004$; $M = 3.18$, $SD = 0.93$) and T3.

The main effect of condition did not return a statistically significant difference in mean PMHSS awareness for the four conditions: $F(3, 48) = .13$, $p = .939$, $\eta_p^2 = .01$, and there were no significant contrast effects ($ps > .05$).

PMHSS agreement. When PMHSS agreement was the dependent variable, there was no statistically significant Condition X Time interaction: $F(6, 96) = .53$, $p = .787$, $\eta_p^2 = .03$. There was no significant effect of time: $F(2, 96) = .39$, $p = .677$, $\eta_p^2 = .01$; condition: $F(3, 48) = .40$, $p = .752$, $\eta_p^2 = .03$; and no significant contrasts (ps > .05).

PMHSS positivity. When PMHSS positivity was the dependent variable, there was no statistically significant Condition X Time interaction: $F(6, 96) = 1.69$, $p = .133$, $\eta_p^2 = .09$. There was a marginal effect of time: $F(2, 96) = 3.07$, $p = .051$, $\eta_p^2 = .06$, but there were no significant simple effects (ps > .05). The main effect of condition did not return a statistically significant difference in mean PMHSS positivity for the four conditions: $F(3, 48) = .74$, $p = .534$, $\eta_p^2 = .04$, and there were no significant contrast effects (ps > .05).

Intended Behaviour

For intended behaviour there was one outlier at T1, which had a studentized residual value of 3.76, two outliers at T2, which had studentized residual values of 3.93 and 4.12, and one outlier at T3, which had a studentized residual value of 3.24. When interpreting the Condition X Time interaction effect, note that Box's M test of equality of covariance was significant ($p < .001$). When intended behaviour was the dependent variable, there was no statistically significant Condition X Time interaction: $F(4.99, 79.75) = .71$, $p = .621$, $\eta_p^2 = .04$. There was no significant effect of time: $F(1.66, 79.75) = 1.21$, $p = .299$, $\eta_p^2 = .03$; condition: $F(3, 48) = .93$, $p = .435$, $\eta_p^2 = .06$; and no significant contrasts (ps > .05).

Volunteering Behaviour Intention

Volunteering behaviour intention scores for the imagined intergroup contact and facts conditions were non-normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). Levene's test of equality of error variances was non-significant ($p > .05$). When volunteering behaviour intention was the dependent variable, a one-way GLM ANOVA returned a statistically significant effect of condition accounting for a large proportion of

the variance: $F(3, 48) = 3.46$, $p = .023$, $\eta_p^2 = .18$. With volunteering behaviour intention as

the dependent variable, contrasts C1, C2, and C3 were significant: $F(1, 48) = 5.48$, $p =$

$.024$, $\eta_p^2 = .10$; $F(1, 48) = 4.92$, $p = .031$, $\eta_p^2 = .93$; and $F(1, 48) = 7.93$, $p = .007$, $\eta_p^2 = .14$

respectively. The C1 estimate was positive (2.25), and so the EIC condition had the

greatest volunteering behaviour intention score compared to imagined intergroup contact,

facts, and control conditions combined. The positive C2 estimate (.90) indicates that EIC

had greater volunteering behaviour intention than the imagined intergroup contact

condition. Contrast 3 was also positive (1.12), and so EIC had greater volunteering

behaviour intention than the facts condition. Contrasts 4 and 5 were non-significant (ps >

.05), and so EIC did not have significantly greater volunteering behaviour intention

compared to controls, and controls did not have significantly the least volunteering

behaviour intention compared to EIC, imagined intergroup contact, and facts.

Discussion and Implications of Study 4

The aim of Study 4 was to investigate if the stigma-reduction effects of

Experiential Intergroup Contact last up to eight-to-10 weeks later with school pupils. A

second aim was to identify if EIC reduces stigma and improves pupil behavioural

intentions toward those with mental health problems more so than a comparison indirect

intergroup contact method (imagined intergroup contact) and reading about the facts of

mental health stigma.

The significant effect of time on perceived intergroup contact indicated that,

regardless of condition, participants perceived significantly greater intergroup contact with

the mental health problem outgroup eight-to-10-weeks following time one (H2). This may

have been a result of making salient the mental health problem group in general, given how

the study made this group the explicit focus of the study in all study materials.

Highlighting the mental health outgroup may have been sufficient to increase participants'

awareness of being in contact with the outgroup. This demonstrates why a variable that is

typically considered a moderator of stigma intervention effects is important to consider a

dependent variable in repeated measure designs.

Turning to stigma outcomes, while it appears that peer mental health stigmatisation

significantly increases across each time point, so that participants appear more stigmatising

at time three than at baseline time one, when we look to the subscales this finding can be

interpreted as a significant increase in *awareness* of stigma (H2), while there was no

significant effect for time on stigma *agreement*. More simply, it is possible participants

were made aware of the stigma surrounding mental health during their time involved in the

study, but they did not significantly agree with this stigmatisation.

In regards to intention to volunteer at a local drop-in centre, Experiential Intergroup

Contact participants were significantly more likely to volunteer to give up more of their

time than either the imagined intergroup contact condition participants, or the facts of

stigma participants (H1). Interestingly, it seems that doing nothing (controls) does not

significantly result in participants volunteering the least of their time compared to any of

the experimental conditions. This could indicate that participants were negatively affected

by being in either the imagined intergroup contact or facts conditions – perhaps finding the

conditions disinteresting (as indicated by qualitative responses) reduced participant

volunteering intentions.

The lack of significant interaction or main effects of EIC on the majority of the

outcome measures of interest could be interpreted as an issue with the operationalisation of

the condition. This could indicate a need for more sensory cues, effectively a need to

increase the number of experiential elements. This could be accomplished by updating the

instructions (e.g. RA guidelines) and supplying props to participants. It is also possible

that school participants simply did not enjoy being a part of the study, regardless of

condition they were involved in, with no discernible effect on their stigmatising attitudes,

affect, and behaviours. There is also the concern that participants spoke to one another

during the interim between T2 and T3 when they were tested again, effectively diluting possible condition effects on outcomes.

Alternately, the lack of significant difference in stigma between conditions across time could be due to the possible limited statistical power of the modest sample size ($N = 52$). The difficulty in recruiting and maintaining a large enough sample size when using school cohorts for a longitudinal, group-based study design could have resulted in an underpowered analysis. A post-hoc sensitivity estimation calculated with GPower 3.1.9.4 software with sample size $N = 52$, $1\text{-}\beta = .80$, $\alpha = .05$, indicated that this sample could detect an effect size of $f = 0.63$. It would be prudent to attempt to test with a larger sample size, and to see if there are any significant effects in another population such as a university sample, a population for whom stigma is still important (Cage, Stock, Sharpington, Pitman, & Batchelor, 2018; The Prince's Trust, 2017; Time to Change, 2015; Vogel, Wade, & Haake, 2006)

Although EIC had no significantly discernible effect on quantitative stigma outcomes, encouragingly, while some school pupils expressed anxiety at speaking in front of others:

> At first I was a bit awkward as I have a bit of anxiety with meeting new people but once I got to know everyone it was funny and we all just had a laugh, which I think helped us more as it wasn't too serious. (participant ID 147)

or boredom from repetition of the script:

> I enjoyed the first couple of run throughs because it was something different to what is normally done at schools. But the last few repetitions became dull because it was a length exercise that we already felt we understood. (participant ID 112)

there were some positive qualitative responses from EIC participants involved with the

Stigmaphrenia© script:

> [I] thought it was interactive and a great opportunity to start
>
> conversations to speak about a possible awkward subject. [P]eople
>
> began to feel relaxed and in my opinion felt as though they could
>
> express their true opinions about mental health. [I]n addition, [I] felt
>
> as though reading others opinions and ideas on mental health really
>
> helped to empathize with the mentally ill and change [people's]
>
> opinions on how mental health should be perceived as. (Participant
>
> ID 169)

Study 5: Long-term Effects of EIC on University Student Mental Health Stigma

Due to the limitations discussed in Study 4, Study 5 replicates Study 4, but with a

larger university student sample and increased sensory cue richness in the Experiential

Intergroup Contact condition. As with the school sample, it is important to address mental

health stigma in universities, given how, according to The Prince's Trust eBay Youth Index

(2019), 16 to 25-year-olds emotional health is at a Youth Index record low. Even with a

fivefold increase in student mental health disclosure since 2007 (Gunnell, Kidger, &

Elvidge, 2018), university students still cite stigma as a barrier to help-seeking, with 46 per

cent stating that they do not confide in someone about their mental health problem due to

stigma (The Prince's Trust, 2017; also see Cage, Stock, Sharpington, Pitman, & Batchelor,

2018; Time to Change, 2015; Vogel, Wade, & Haake, 2006).

Overview and Hypotheses

Similar to Study 4 with school pupils, the present study sought to answer the

questions: do the stigma-reduction effects of EIC last? Does EIC work better to reduce

mental health stigma than two leading stigma-reduction methods? To answer these

questions, this study used 4 X 3 design, where participating university undergraduates were

randomised to either the EIC condition, an imagined intergroup contact condition,

educational facts of stigma condition, or a wait-list control, answering measures of mental

health stigmatising attitude, affect, and intended behaviour at three times points (pre-

condition, post-condition, and seven weeks post-condition).

The Study 5 hypotheses are the same as Study 4: to investigate the longevity of

EICs effects, and compare its effects with established forms of stigma reduction. It is

hypothesised that:

H1. The EIC condition will result in significantly fewer stigmatising attitudes and

behavioural intention, and the greatest intention to volunteer at a local mental health drop-

in centre, followed by imagined intergroup contact, and education, with controls

demonstrating the greatest stigma.

H2. Time 3 will have the least stigma compared to time 1 (this finding is not

expected for the control).

H3. There will be an interaction effect of Condition X Time, where EIC has the

lowest levels of stigma and greatest positive behavioural intention at time 3 compared to

time 1.

Method

Design

As with study 4, study 5 employed a two-factor, mixed-model design: Condition

(EIC vs. imagined intergroup contact vs. facts of stigma vs. control) x Time (T1 vs. T2 vs.

T3), where condition was a between-participants factor, and time a within-participant

factor. Participating students randomly assigned to one of the three experimental

conditions, or the control were almost equally distributed across conditions (EIC = 23;

imagined intergroup contact = 21; facts = 24; control = 21). The attitudes, emotions, and

intended behaviours toward those with "mental health problems" were measured before

and after random assignment to experimental conditions, and these comprise the main

dependent variables.

Participants

An *a-priori* statistical power analysis (GPower 3.1.9.2) indicated the need for an

approximate sample size $N = 76$ in order to have 80% power to detect a medium effect size

($f = 0.25$, as based on the average effect size found for imagined intergroup contact, $d_+ =$

0.35; Miles & Crisp, 2014; VanVoorhis & Morgan, 2007), with error probability .05.

Participants were university students enrolled on a psychology degree, participating

in research studies for course credit (i.e. on the university's Research Participation

Scheme; RPS). Initially 108 participants signed up to participate at T1, with 92 completing

the final post-questionnaire at T3 sent seven weeks following the completion of T1. Out of

this 92, three were excluded from analysis for incompletion of one or more of the

questionnaires, leaving a final sample size of 89. Participants were on average 19.16 years

of age ($SD = 1.76$, Min. = 17 years, Max. = 29 years), 84% identified as female ($n = 75$),

and 38% were White British ($n = 34$), or White Other (18%, $n = 16$; see Table 23 for

further participant ethnic breakdown; of the 89 participants, $n = 7$ considered themselves to

have an ongoing mental health problem at T1, $n = 6$ at T2, and $n = 12$ at T3[29]).

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[29] Similar to Study 4, it would have been interesting to consider this measure as a dependent variable, but

there was an insufficient number of participants who responded in the affirmative to this and consequently

who answered the self-stigma scale.

Table 23

Study 5, University Participant Demographics (N = 89)

	Frequency	%
Sex		
Female	75	84.3
Male	14	15.7
Prefer not to say	--	--
Gender		
Female	75	84.3
Male	13	14.6
Other	1	1.1
Ethnicity		
Asian or Asian British - Bangladeshi	1	1.1
Asian or Asian British - Indian	3	3.4
Asian or Asian British – any other Asian background	7	7.9
Asian or Asian British - Pakistani	1	1.1
Black or Black British - African	8	9
Black or Black British - Caribbean	2	2.2
Black or Black British – and other Black background	2	2.2
Chinese	10	11.2
Mixed - White & Asian	1	1.1
Mixed - White & Black African	1	1.1
Mixed - White & Black Caribbean	1	1.1
White - British	34	38.2
White - Any other White background	16	18
Other ethnic group	1	1.1
Prefer not to say	1	1.1

Note. Age (in years), $M = 19.16$, $SD = 1.76$

Measures

The same measures were used in study 5 as in study 4, replacing item wording

"teenagers" with "people", or "someone".

Perceived intergroup contact. As in study 4, a single item asked "In the past year, how much contact do you *think* you have had with people who are mentally ill?", with five possible responses: *Never*; *Once/twice a year*; *Monthly*; *Weekly*; or *Daily*.

Peer mental health stigmatisation scale. The PMHSS was used in study 5 as described in study 2 and 4, with the exception that the word teenager was replaced with "people" (e.g. "Most people are afraid of people who visit a counsellor because they have mental health problems"; all αs > .74). High scores indicative of stigma awareness, agreement, and positive reactions.

Intended behaviour. The intended behaviour items from the Evans-Lacko et al. (2011) Reported and Intended Behaviour scale were used as in study 4, but unlike study 4, study 5 used a 7-point Likert scale from *strongly disagree – strongly agree*. Two items were reverse scored to maintain high scores representing unwillingness to engage in behaviours with the mental health problem group, and were the alternative items to those reversed in study 4 (e.g. "In the future, I would be willing to live nearby someone who has mental health problems"; all αs > .76).

Volunteering behaviour intention. As in study 4, participant realistic behavioural intentions were measured to ascertain differences in intentions toward those with mental health problems, and was assessed only in the final questionnaire ("how many free periods in the next two weeks would you be willing to give up to volunteer at the local, charitable mental health drop-in centre" to "chat to people with mental health problems", measured on a 4-point scale ranging from *0* to *3* free periods).

Mediating variables.

State interpersonal reactivity. The adapted Davis (1980) 9-item IR-S scale was used in study 5 at T2 as described in study 4 to identify if EIC is effective in soliciting participant fantasy ability, perspective taking, and empathy ($\alpha = .86$; $n = 67$ participants

who were randomised to one of the three experimental conditions, less one participant who

failed to complete this measure).

   Introjection of other to the self. The adapted introjection of other to the self (IOS)

scale was used as a pictorial representation depicting to what extent participants felt that

they could take on-board the perspective of the mental health problem group as a whole

(measured at T2 and T3). Higher scores indicative of greater introjection of other to the

self.

   Moderator variables.

   Trait interpersonal reactivity. The adapted Davis (1980) 12-item IR-T scale was

used in study 5 at T1 as described in study 4 to identify if EIC outcomes are moderated by

individual differences in participant ability to fantasise, perspective take, and empathise (α

= .75). Measured on a 5-point scale from *does not describe me – describes me extremely*

well, high scores indicative of greater trait interpersonal reactivity (empathy, perspective

taking, fantasy) toward those with mental health problems.

   Self-stigma of mental illness scale. The two, 5-item subscales of the short form

Self-Stigma of Mental Illness Scale (SSMIS; Corrigan, et al., 2012) was used at each time

point as in study 4 to measure participant self-reports of self-stigma (if they indicated that

they have had an ongoing mental health problem in the demographics; T1, $n = 7$; T2, $n = 6$;

T3, $n = 12$). Measured on a 9-point Likert scale, from *strongly disagree - strongly agree*,

high scores indicative of greater self-stigma. As with study 4, the number of participants

who completed this measure was too few to consider it a dependent variable.

   Covariate.

   Social desirability. The Marlow-Crowne short social desirability scale (SD-SF;

Reynolds, 1982) was used again in study 5, and scored as in study 4. Forty-four

participants (49.4%) were low socially desirable responders, and only five participants

were high responders (5.6 %; there were 40, 44.9%, medium responders).

Qualitative perceptions of the intervention. Collected at T2 and T3, participants

were asked to provide qualitative feedback on their involvement with the "teaching

method" they were involved with via two open-ended questions: "Do you think your

teaching method would be a good way of highlighting a common concern for adolescents?

Why/Why not?" and "Did you enjoy the teaching method you were involved with?

Why/Why not?". Whether or not participants enjoyed the teaching method, and whether or

not participants thought their method would be good for others received *yes*, *no*, *depends*

responses during analysis.

Procedure and Ethical Consideration

Invited to participate in a study investigating "which of four teaching methods

works best in educating students about groups in society, and how long the knowledge is

remembered"[30], the university students accessed the T1 baseline questionnaire online via

the host site Qualtrics. Once informed about the study and consenting to participate, all

participants completed the first of the three time point measures of interest, as well as

demographic information, voluntary disclosure of an ongoing mental health problem, and

cover questions asking participant attitudes toward gay and disabled people[31]. Participants

were then randomly allocated by the host site to one of the four conditions.

---

[30] As part of the ethical consideration, and to maintain informed consent regarding the study's mental health

nature, this cover story detailed how the study would be asking participants about their "perception of

society's (as well as [their] own) attitudes, emotions and behaviours regarding people from different groups

in society," and how the methods of the study would "involve material about different groups of people (for

example physically disabled; gay; mental health problems)".

[31] Ethical approval granted 25/08/2016-25/08/2018, code: 201614721452623989

The four conditions (EIC, IIC, facts, control) were as described in study 4, with the exception of added props in the EIC condition as a means of increasing sensory cues (Appendix GG). It was explained to the EIC participants (informed that they would be involved in an "interactive story-based teaching method") when and where they would need to go in order to carry out the laboratory part of the study (there were initially 4 dates available), who then saw a brief debrief having completed the first part of the study. The EIC participants later attended based on the dates they chose. In the event of an absentee, RAs were instructed to pick up the roles of the no-show participant(s). If two groups were low on participants (e.g. 3 in each group instead of 6) then the groups could be combined. Once EIC participants completed their three-hour session they received the IR-state items, completed the T2 questionnaire, and the brief debrief reminding them of their commitment to complete the final questionnaire seven weeks later.

The IIC and facts conditions immediately carried out their condition tasks online, whilst it was explained to controls that they were on a waiting list for a teaching method to become available, and that they were still required to complete the further two questionnaires in order to receive course credits (controls completed the T2 questionnaire immediately after seeing this message). Once the IIC and fact conditions completed their online "teaching methods", they too received the T2 questionnaire. All participants were sent the final T3 questionnaire seven weeks[32] following completion of the T2 questionnaire and were thanked and fully debriefed (study design Figure 10). At the end of each stage of the study participants received signposting for mental health services.

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[32] Seven weeks being the latest date from the last pre-questionnaire completed by a participant, and to coincide with the end of term and the allocation of that term's Research Participation Scheme credits.
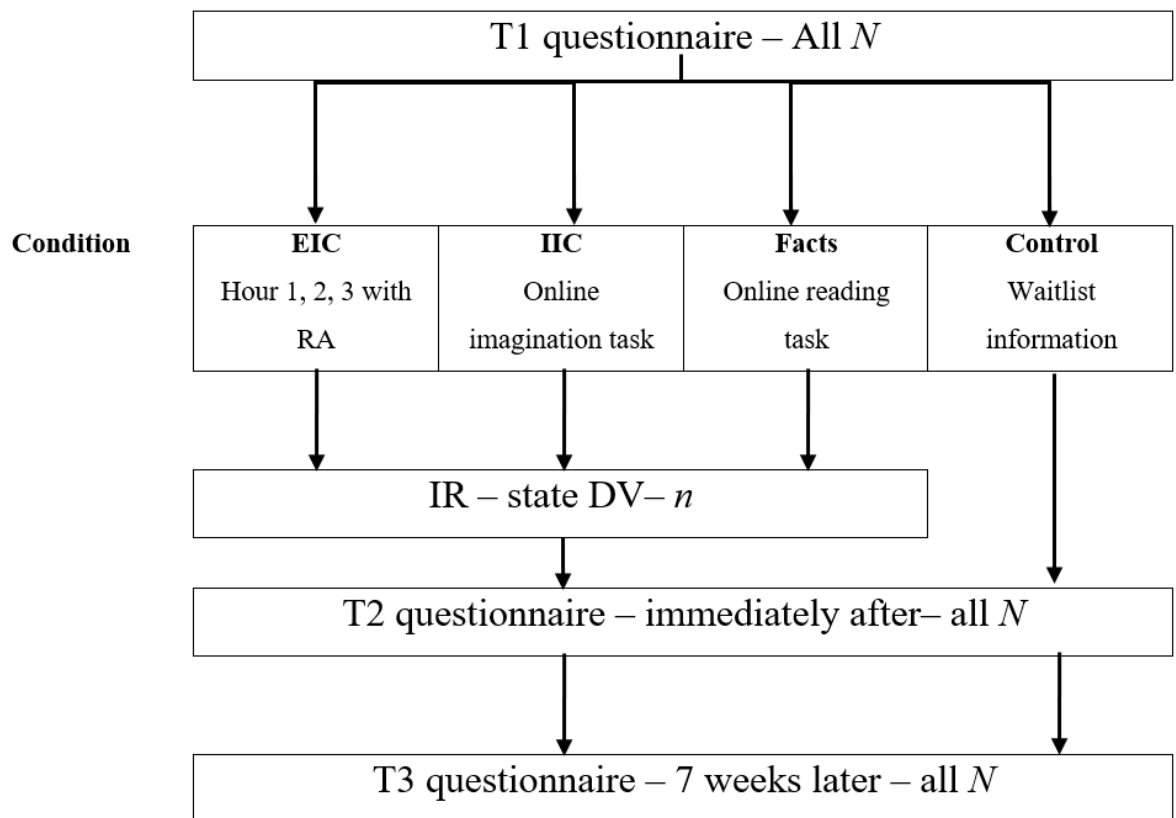
Figure 10. Study 5 longitudinal design.

All analyses were conducted using IBM SPSS 24 software. The Greenhouse-Geisser correction is used if sphericity has been violated. All pairwise comparisons adjusted using Šidák corrections for multiple comparisons. Unless stated otherwise, there were no outliers for dependent variables, as assessed by examination of studentized residuals for values greater than ± 3, and the residuals were normally distributed, as assessed by Normal Q-Q Plot. Across dependent variables, unless otherwise stated, there was homogeneity of variances (ps > .05) and covariances (ps > .05), as assessed by Levene's test of homogeneity of variances and Box's M test respectively.

Results

Means, standard deviations, Cronbach's alphas, and correlations among dependent, mediator, moderator, and covariate variables at T1, T2, and T3 are presented in Table 24 (SSMIS not included due to small n). Counts for volunteering intentions are found in Table 25, and the means and standard deviations for T1, T2, and T3 dependent and mediator variables split according to the four conditions are presented in Table 26.

As shown in Table 24, the mean scores for the dependent variables were below the mid-point of the scales, with no particularly high variances, indicating that there were few stigmatising attitudes, and intended behaviours. The means for perceived contact was above the mid-point, and significantly negatively correlated with the other dependent variables. The highest correlation amongst variables was $r = 0.92$, $p < .01$, and there were significant small, medium, and large correlations amongst half of the variables. Condition was significantly correlated with the mediators' state interpersonal reactivity and introjection of other to the self at T2, as well as the dependent variables PMHSS and intended behaviour at T3. As the number of the condition decreased (conditions coded: EIC = 1; imagined intergroup contact = 2; facts of stigma = 3; control = 4) introjection and state interpersonal reactivity increased, and as the condition number increased, so too did the dependent variables at T3, indicating greater stigma the greater the condition number.

Table 24

Study 5, Correlations, M, SD, & Cronbach Alphas (in parentheses) for Dependent, Mediator, Moderator, & Covariate Variables Across Times 1, 2, & 3

(N = 89)

		M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Condition	2.48	1.12	--															
	Time 1																		
2	SD	5.36	2.91	.09	(.73)														
3	Contact	3.30	1.45	.05	-.10	--													
4	PMHSS	2.53	0.51	.01	-.25*	-.13	(.84)												
5	IB	2.04	0.99	.14	-.02	-.35**	.42**	(.78)											
6	IR – trait	3.83	0.53	-.14	.19	.12	-.10	-.30**	(.75)										
	Time 2																		
7	Contact	3.45	1.46	.01	-.08	.92**	-.15	-.37**	.15	--									
8	PMHSS	2.55	0.55	.01	-.36**	-.14	.84**	.46**	-.19	-.11	(.87)								
9	IB	2.08	1.13	.07	.04	-.33**	.39**	.68**	-.21*	-.35**	.39**	(.86)							
10	IR – state	3.22	0.79	-.27*	.28*	.14	-.27*	-.21	.26*	.21	-.36**	-.20	(.86)						
11	IOS	4.79	1.28	-.28**	.15	.01	-.30**	-.16	.25*	.03	-.22*	-.22*	.39**	--					
	Time 3																		
12	Contact	3.53	1.39	.10	-.23*	.75**	-.16	-.37**	.18	.80**	-.15	-.31**	.15	.06	--				
13	PMHSS	2.61	0.50	.27**	-.28**	-.29**	.59**	.45**	-.31**	-.29**	.61**	.24*	-.32**	-.30**	-.22*	(.83)			
14	IB	2.27	1.10	.31**	-.09	-.30**	.37**	.58**	-.45**	-.31**	.36**	.47**	-.27*	-.43**	-.25*	.55**	(.76)		
15	IOS	4.77	1.34	-.15	.11	.20	-.15	-.22*	.19	.19	-.11	-.15	.27*	.29**	.19	-.28**	-.44**	--	
16	Volunteer behaviour	1.60	1.05	-.09	-.02	.06	.08	-.02	.06	.05	.09	-.01	.14	.21	-.09	-.13	-.14	-.06	--

Notes. Condition entered as variable to correlate. SD = social desirability; Contact = perception of level of contact with outgroup; PMHSS = peer mental health stigmatisation scale; IB =

intended behaviour (high scores = negative intentions); IR = interpersonal reactivity; IOS = introjection of other to the self; volunteering behaviour intention, high scores = greater

volunteering behaviour intention/s. Covariate: social desirability. Moderator: interpersonal reactivity – trait. Mediators: interpersonal reactivity – state; introjection of other to the self.

 * $p < .05$;

** $p < .01$

Table 25

Study 5, Volunteering Behaviour Intention by Condition (N = 89)

	EIC		IIC		Facts		Control	
	$n = 23$		$n = 21$		$n = 24$		$n = 21$	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
No. of periods willing to volunteer	1.83	1.03	1.52	1.17	1.46	1.06	1.57	0.98
	No.	%	No.	%	No.	%	No.	%
0	3	13	6	29	6	25	4	19
1	5	22	3	14	5	21	4	19
2	8	35	7	33	9	37	10	48
3	7	30	5	24	4	17	3	14

Note. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact

Table 26

Study 5, M & SD for Dependent & Mediator Variables across Times 1, 2, & 3, According to Condition (N = 89)

	EIC n = 23		IIC n = 21		Facts n = 24		Control n = 21	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Time 1								
Contact with target MHP	3.22	1.35	3.19	1.57	3.46	1.50	3.33	1.46
SSMIS	2.05	0.35	2.00	1.41	1.40	--	4.45	1.90
PMHSS overall stigma	2.54	0.44	2.56	0.55	2.48	0.56	2.58	0.51
PMHSS aware	3.16	0.56	3.16	0.66	3.09	0.74	3.13	0.61
PMHSS agree	1.92	0.59	1.97	0.52	1.85	0.56	2.05	0.61
PMHSS positive	3.76	0.44	3.79	0.58	3.87	0.58	3.56	0.43
IB	1.95	0.95	1.85	0.83	2.08	1.12	2.29	1.05
IR trait	3.91	0.64	3.88	0.51	3.81	0.48	3.70	0.47
IR trait – empathy	3.81	0.83	3.71	0.64	3.65	0.69	3.75	0.65
IR trait – pers.	3.67	0.77	3.77	0.74	3.62	0.65	3.47	0.67
IR trait – fantasy	4.21	0.74	3.95	0.75	4.04	0.70	3.71	1.05
Time 2								
Contact with target MHP	3.52	1.24	3.19	1.63	3.63	1.53	3.43	1.50
SSMIS	2.25	0.07	2.00	1.41	--	--	3.75	1.34
PMHSS overall stigma	2.53	0.49	2.59	0.58	2.57	0.59	2.55	0.56
PMHSS aware	3.25	0.63	3.18	0.79	3.30	0.83	3.11	0.68
PMHSS agree	1.79	0.53	2.02	0.62	1.84	0.52	1.97	0.63
PMHSS positive	3.73	0.49	3.78	0.57	3.74	0.62	3.66	0.37
IB	1.89	1.04	2.21	1.44	2.08	1.04	2.18	1.01
IR state – total	3.56	0.75	3.07	0.76	3.03	0.77	--	--
IR state – empathy	3.43	1.04	2.73	1.24	3.06	0.95	--	--
IR state – pers.	4.09	0.68	3.67	0.96	3.75	1.02	--	--
IR state – fantasy	3.40	0.77	2.98	0.77	2.74	0.79	--	--
IOS	5.08	1.34	5.19	0.98	4.70	1.51	4.14	0.96

	EIC $n = 23$		IIC $n = 21$		Facts $n = 24$		Control $n = 21$	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Time 3								
Contact with target MHP	3.30	1.39	3.48	1.40	3.67	1.37	3.67	1.46
SSMIS	2.83	2.51	2.60	0.42	1.77	0.97	3.47	1.76
PMHSS overall stigma	2.44	0.58	2.57	0.58	2.59	0.41	2.85	0.34
PMHSS aware	2.99	0.84	3.17	0.72	3.20	0.63	3.36	0.42
PMHSS agree	1.89	0.55	1.98	0.66	1.97	0.49	2.33	0.65
PMHSS positive	3.82	0.56	3.58	0.52	3.75	0.63	3.45	0.42
IB	1.95	0.89	2.07	1.02	2.17	1.13	2.94	1.13
IOS	5.00	1.31	4.76	1.13	4.95	1.30	4.33	1.55
Volunteering intention	1.83	1.03	1.52	1.17	1.46	1.06	1.57	0.98

Notes. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact. MHP = mental health problems; SSMIS = self stigma of mental illness scale; PMHSS = peer mental

health stigmatisation scale; IB = intended behaviour (high scores = negative intentions); IR = interpersonal reactivity; IR state pers. = interpersonal reactivity state perspective taking; IOS =

introjection of other to the self; volunteering behaviour intention, high scores = greater volunteering behaviour intention/s; T1 SSMIS, $n = 7$; T2 SSMIS, $n = 6$, T3 SSMIS, $n = 12$

Manipulation Checks

All participants were equally likely to remember their "teaching method" (condition) at T2, regardless of which condition they were in (T2: $\chi^2(2) = 4.69$, $p = .096$; $\phi = .26$, $p = .096$; T2: EIC = 100%; IIC = 81.0%, Facts = 83.3%). There was, however, a significant difference in the percentage of participants who remembered their "teaching method" (condition) at T3, dependent on the condition they were in at T2 seven weeks prior (T3: $\chi^2(2) = 19.67$, $p < .001$; $\phi = .54$, $p < .001$). One hundred per cent of EIC participants remembered what they did at both time points, where only 38.1% of IIC participants remembered their condition at T3, and 62.5% of facts participants.

Eighty-seven per cent of EIC participants remembered the mental health problems target group at T2 ($\chi^2(3) = 3.77$, $p = .288$; $\phi = .21$, $p = .288$; IIC = 95.2%; Facts = 95.8%; Control = 100%), and there was a significantly unequal chance of remembering the correct target group at T3 dependent on condition: the EIC participants were more likely to remember correctly ($\chi^2(3) = 18.39$, $p < .001$; $\phi = .46$, $p < .001$; EIC = 95.7%; IIC = 85.7%; Facts = 87.5%; Control = 47.6%).

Qualitative Perceptions of the Intervention

When asked at T2 (immediately following teaching method involvement) if participants thought their teaching method would be good for adolescents, 78.3% of EIC participants agreed that, "yes", it would, and 13.0% thought it depended on the adolescents (or some other factor, such as issues of speaking anxiety; $\chi^2(6) = 30.55$, $p < .001$; $\phi = .69$ & $V = .49$, $p < .001$). Fifty-five per cent of IIC participants, and only 30.4 % of facts participants thought their teaching method would be good for adolescents.

In regards to enjoyment, 91.3% of EIC participants enjoyed their teaching method, and 4.3% liked some elements over others (in relation to e.g. teaching method length; $\chi^2(6) = 19.39$, $p = .004$, $\phi = .54$, & $V = .38$, $p = .004$). Eighty-five per cent of IIC participants,

and only 39.1% of facts participants liked their condition, with 5% and 8.7% of IIC and

facts participants (respectively) stating it depended.

Hypothesis Check

Measured with a single item: "Thinking about the whole of the study from

beginning to end, what do you think the purpose of the study was?" (T3 only). No

participant qualitative responses reflected the study hypotheses.

None of the 89 participants reported having heard of Stigmaphrenia[©] before, and

eight reported having come across the term neurodiversity – items considered as possible

confounds if participants answered in the affirmative. These items were not included as

potential covariates.

During preliminary analyses, social desirability was found to negatively correlate

with the subscales of PMHSS (Table 27), and perceived intergroup contact with the mental

health problem group at T3 (Table 24): the greater the socially desirable responding, the

less participants reported to stigmatise the mental health target group, and the less

perceived contact at T3. Given the repeated measures factor of time, social desirability

was not entered as a potential covariate during analyses (Delaney & Maxwell, 1981).

Table 27

Study 5, Correlations for DV PMHSS with Potential Covariate Social Desirability Across Times 1, 2, & 3 (N = 89; Cronbach alpha in parentheses)

	M	*SD*	1	2	3	4	5	6	7	8	9	10
Time 1												
1 Social desirability	5.34	2.91	(.73)									
2 PMHSS aware	3.14	0.64	$-.21^*$	(.80)								
3 PMHSS agree	1.94	0.56	$-.22^*$	$.43^{**}$	(.78)							
4 PMHSS positive	3.75	0.52	.15	$-.57^{**}$	$-.55^{**}$	(.74)						
Time 2												
5 PMHSS aware	3.22	0.73	$-.30^{**}$	$.76^{**}$	$.47^{**}$	$-.46^{**}$	(.88)					
6 PMHSS agree	1.90	0.57	$-.29^{**}$	$.37^{**}$	$.81^{**}$	$-.47^{**}$	$.41^{**}$	(.79)				
7 PMHSS positive	3.73	0.52	.14	$-.62^{**}$	$-.49^{**}$	$.77^{**}$	$-.66^{**}$	$-.46^{**}$	(.76)			
Time 3												
8 PMHSS aware	3.18	0.67	$-.26^*$	$.56^{**}$	$.35^{**}$	$-.43^{**}$	$.61^{**}$	$.33^{**}$	$-.46^{**}$	(.84)		
9 PMHSS agree	2.04	0.60	-.17	.08	$.57^{**}$	$-.28^{**}$	.14	$.52^{**}$	$-.23^*$	$.23^*$	(.81)	
10 PMHSS positive	3.66	0.56	.08	$-.27^*$	$-.33^{**}$	$.47^{**}$	$-.35^{**}$	$-.25^*$	$.53^{**}$	$-.43^{**}$	$-.45^{**}$	(.76)

Notes. PMHSS = peer mental health stigmatisation scale

 * *p* < .05;

** *p* < .01

Mediators and Moderators

Means, standard deviations, and one-way GLM ANOVAs for mediator and moderator variables reported in Table 28.

The variables that could potentially mediate the effects of the manipulations were examined to identify if they varied on the basis of the manipulations. A one-way (Conditions: EIC vs. imagined intergroup contact vs. facts) GLM ANOVA on interpersonal reactivity (IR) state indicated that IR state varies as a function of the condition participants were in: $F(2, 64) = 3.22$, $p = .046$, $\eta_p^2 = .09$. There was a significant linear trend, $F(1, 64) = 5.38$, $p = .024$, $\eta_p^2 = .28$, indicating that as the conditions decreased in number (coded 1 = EIC; 2 = imagined intergroup contact; 3 = facts), IR state increased proportionately. Contrasts revealed that being in the EIC condition significantly increased IR state compared to being in the imagined intergroup contact: $t(64) = 2.06$ $p = .043$, η_p^2 .25, or being in the facts condition: $t(64) = 2.32$, $p = .024$, η_p^2 .27. There was no significant contrast between the imagined intergroup contact and facts conditions on IR state: $t(64) = .19$, $p = .854$, η_p^2 .02. More simply, the EIC condition had the greatest level of IR state than both the imagined intergroup contact and facts conditions.

A one-way (Conditions: EIC vs. imagined intergroup contact vs. facts vs. control) GLM ANOVA on introjection of other to the self (IOS) indicated that IOS varies as a function of the condition participants were in at T2: $F(3, 85) = 3.11$, $p = .030$, $\eta_p^2 = .09$, but not at T3 ($p > .05$). There was a significant linear trend, $F(1, 85) = 7.87$, $p = .006$, $\eta_p^2 = .29$, indicating that as the conditions decreased in number (coded 1 = EIC; 2 = imagined intergroup contact; 3 = facts; 4 = control), introjection increased proportionately. Contrasts revealed that being in the EIC condition significantly increased introjection compared to being in the control condition: $t(85) = 2.52$ $p = .013$, η_p^2 .26 (C3). There was no significant contrast between the EIC and imagined intergroup contact conditions, EIC and facts conditions, or imagined intergroup contact and facts conditions on introjection of

other to the self (all $ps > .05$). More simply, the EIC condition had the greatest level of

introjecting other to the self compared to controls immediately following condition

involvement.

The mediator variable, introjection of other to the self (IOS) at time 2, correlated

with the independent variable condition and outcome measure PMHSS total at time 2, and

time 3. To test if IOS at time 2 mediates the effect of EIC on the PMHSS total outcome

measure at time 2, and time 3, mediator analyses were performed using PROCESS, and the

indirect path was bootstrap tested with 5000 resamples, bias corrected (condition was

simple effect dummy coded, the EIC condition negatively coded to compare with IIC,

facts, and control).

For the PMHSS total dependent variable at time 2, the b path from the IOS at time

2 mediator to PMHSS at time 2, was significant, so that less IOS predicts greater PMHSS

at time 2: $b = -0.10$, $t(85) = -2.26$, $p = .026$. The a path from condition (dummy coded: X1

= IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to IOS returned one statistically

significant effect, where being in the EIC condition, compared to the control, significantly

predicts IOS: X3, $b = -0.63$, $t(85) = -2.75$, $p = .007$ (X1: $b = 0.40$, $t(85) = 1.75$, $p = .082$;

X2: $b = -0.07$, $t(85) = -0.33$, $p = .740$). The indirect path returned one statistically

significant effect, where being in the control condition, compared to the EIC condition,

significantly predicts PMHSS total at time 2: X3: $ab = 0.06$, CI $= 0.002 - 0.17$ (X1: $ab = -$

0.04 [CI $= -0.12 - 0.002$]; X2: $ab = 0.01$ [CI $= -0.05 - 0.07$]; Figure 11).

XI: 0.40, *p* = .082

X2: -0.07, *p* = .740

X3: -0.63, *p* = .007*

IOS time 2

-0.10, *p* = .026*

Condition

X1: 0.08, *p* = .428

X2: 0.002, *p* = .976

X3: -0.08, *p* = .434

PMHSS time 2

a + *b*

X1: -0.04, CI = -0.12 – 0.002

X2: 0.01, CI = -0.05 – 0.07
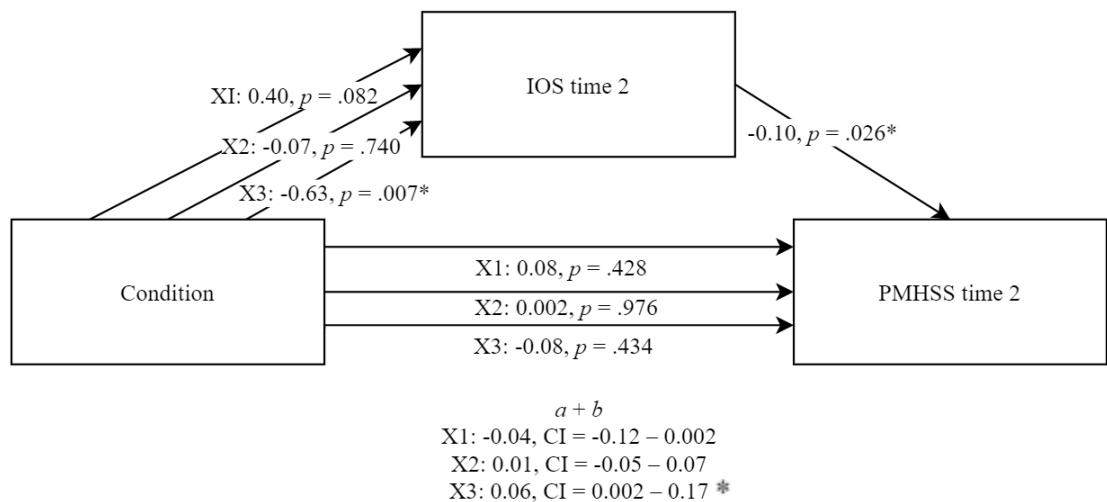
X3: 0.06, CI = 0.002 – 0.17 *

Figure 11. Path diagram illustrating the direct effect, *a* and *b* paths, and indirect effect path from condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to Peer Mental Health Stigmatisation Scale (PMHSS) total at time 2, where introjection of other to the self (IOS) at time 2 is the proposed mediator.

N = 89.

* *p* < .05

For the PMHSS total dependent variable at time 3, the *a* path from condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to IOS at time 2 returned one statistically significant effect, where being in the EIC condition, compared to the control, significantly predicts IOS: X3, *b* = -0.63, *t*(85) = -2.75, *p* = .007 (X1: *b* = 0.40, *t*(85) = 1.75, *p* = .082; X2: *b* = -0.07, *t*(85) = -0.33, *p* = .740). The *b* path from the IOS mediator to PMHSS total at time 3, was significant, so that less IOS predicts greater PMHSS total at time 3: *b* = -0.09, *t*(84) = -2.30, *p* = .023. The total effect (*c*) of condition on PMHSS total (including IOS mediator) returned one statistically significant effect, where being in the control condition, compared to the EIC condition, significantly predicts PMHSS total at time 3: X3: *b* = 0.23, *t*(85) = 2.56, *p* = .012 (X1: *b* = -0.03, *t*(85) = -0.41, *p* = .677; X2: *b* = -0.02, *t*(85) = -0.27, *p* = .780). The indirect path returned one statistically significant effect, where being in the control condition, compared to the EIC condition,

significantly predicts PMHSS total at time 3: X3: $ab = 0.06$, CI $= 0.005 – 0.15$ (X1: $ab = -$

0.03 [CI $= -0.10 – 0.002$; X2: $ab = 0.01$ [CI $= -0.04 – 0.06$; Figure 12).
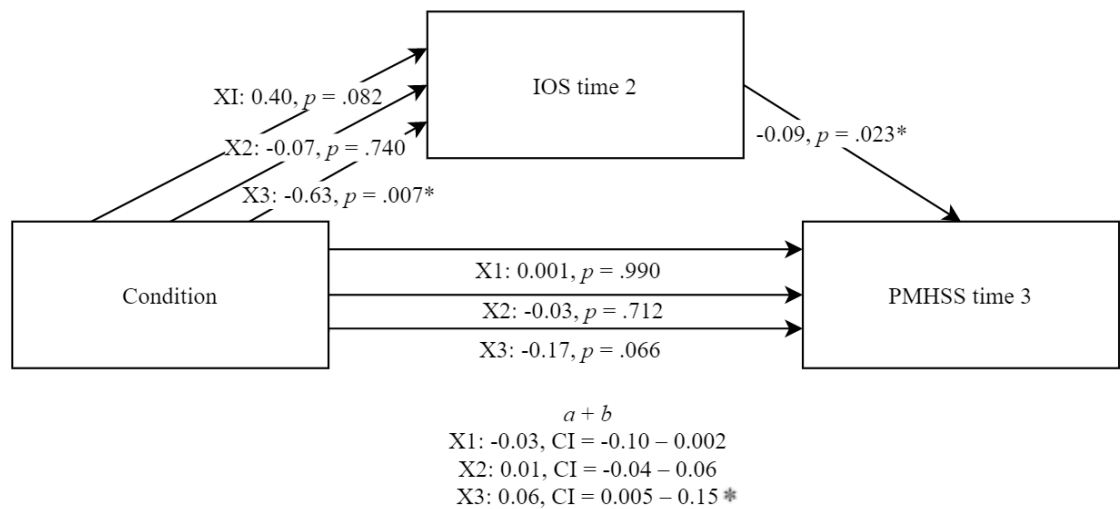

Figure 12. Path diagram illustrating the direct effect, *a* and *b* paths, and indirect effect path from condition

(dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to Peer Mental Health

Stigmatisation Scale (PMHSS) total at time 3, where introjection of other to the self (IOS) at time 2 is the

proposed mediator.

$N = 89$.

* $p < .05$

The mediator variable, IOS at time 2 correlated with condition and intended

behaviour (IB) at time 2, and time 3. To test if IOS at time 2 mediates the effect of EIC on

the IB outcome measure at time 2, and 3, mediator analyses were performed using

PROCESS, and the indirect path was bootstrap tested with 5000 resamples, bias corrected

(condition was simple effect dummy coded, the EIC condition negatively coded to

compare with IIC, facts, and control).

For the IB dependent variable at time 2, the *a* path from condition (dummy coded:

X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to IOS at time 2 returned one

statistically significant effect, where being in the EIC condition, compared to the control,

significantly predicts IOS: X3, $b = -0.63$, $t(85) = -2.75$, $p = .007$ (X1: $b = 0.40$, $t(85) =$

1.75, $p = .082$; X2: $b = -0.07$, $t(85) = -0.33$, $p = .740$). The *b* path from the IOS mediator to

IB at time 2, was significant, so that less IOS predicts greater IB at time 2: b = -0.19, $t(84)$ = -2.03, p = .044. The indirect path returned one statistically significant effect, where being in the control condition, compared to the EIC condition, significantly predicts IB at time 2: X3: ab = 0.12, CI = 0.01 – 0.30 (X1: ab = -0.08 [CI = -0.21 – 0.002]; X2: ab = 0.01 [CI = -0.09 – 0.14; Figure 13).
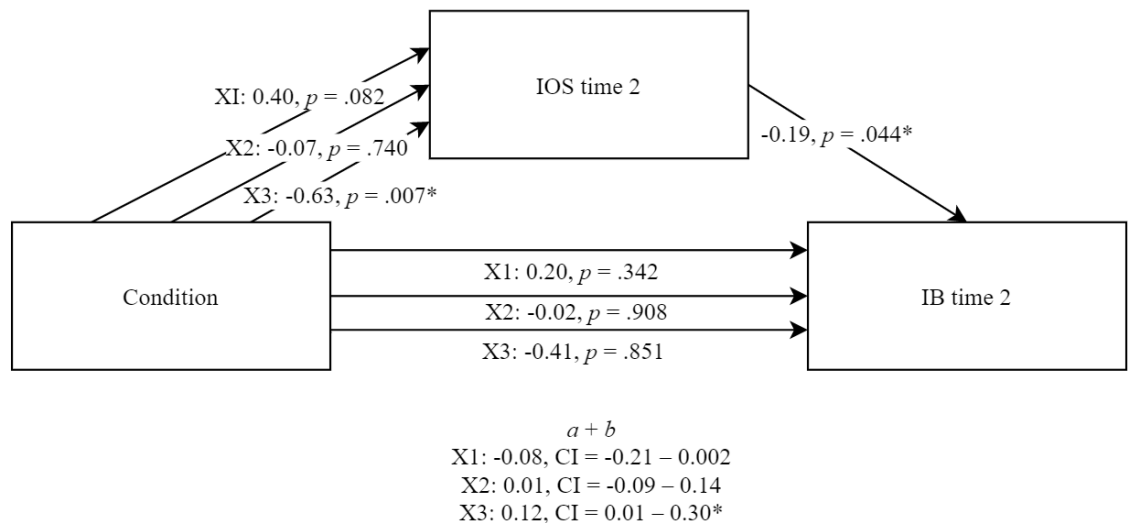

Figure 13. Path diagram illustrating the direct effect, a and b paths, and indirect effect path from condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to intended behaviour (IB) at time 2, where introjection of other to the self (IOS) at time 2 is the proposed mediator.

N = 89.

* $p < .05$

For the IB dependent variable at time 3, the a path from condition (dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to IOS time 2 returned one statistically significant effect, where being in the EIC condition, compared to the control, significantly predicts IOS: X3, b = -0.63, $t(85)$ = -2.75, p = .007 (X1: b = 0.40, $t(85)$ = 1.75, p = .082; X2: b = -0.07, $t(85)$ = -0.33, p = .740). The b path from the IOS mediator to IB at time 3, was significant, so that less IOS predicts greater IB at time 3: b = -0.30, $t(84)$ = -3.55, $p < .001$. The direct effect (c') of condition on IB time 3 returned one significant effect, where being in the control condition, compared to the EIC condition, predicts IB at time 3: X3: b = 0.46, $t(84)$ = 2.40, p = .018 (X1: b = -0.08, $t(84)$ = -0.44, p = .655; X2: b =

-0.13, $t(84)$ = -0.77, p = .440). The indirect path returned two statistically significant

effects, where being in the control condition, compared to the EIC condition, significantly

predicts IB at time 3: X3: ab = 0.19, CI = 0.06 – 0.38, and being in the EIC condition,

compared to the IIC condition, significantly predicts IB at time 3: X1: ab = -0.12 (CI = -

0.27 – -0.003; X2: ab = 0.02 [CI = -0.13 – 0.19]; Figure 14).
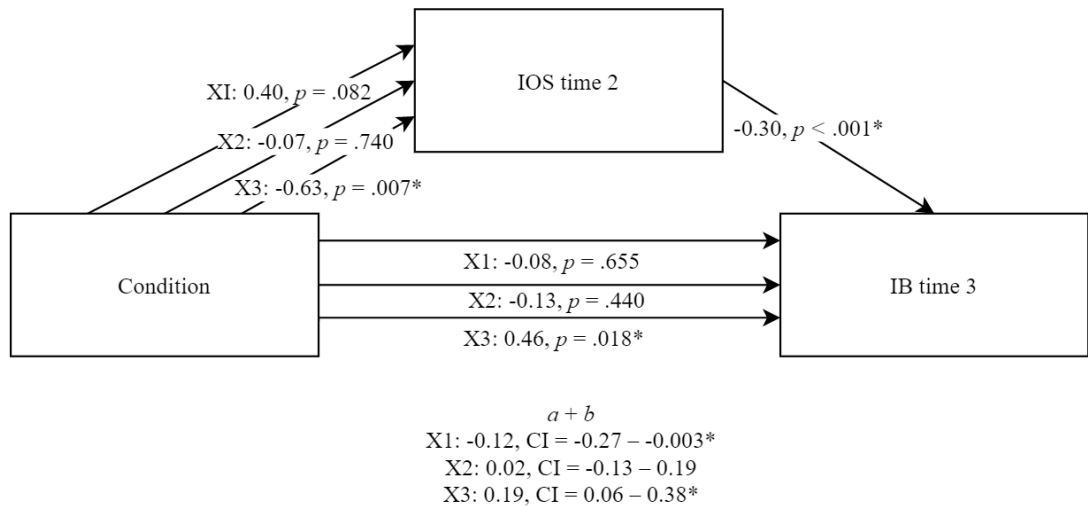
Figure 14. Path diagram illustrating the direct effect, a and b paths, and indirect effect path from condition

(dummy coded: X1 = IIC vs EIC; X2 = facts vs EIC; X3 = control vs EIC) to intended behaviour (IB) at time

3, where introjection of other to the self (IOS) at time 2 is the proposed mediator.

N = 89.

* $p < .05$

To test if trait interpersonal reactivity (IRI-T) moderates the effect of condition on

the outcome measures at times 2 and 3 (Peer Mental Health Stigmatisation Scale total, and

intended behaviour), moderator analyses were performed using PROCESS.

For the PMHSS total dependent variable at time 2, condition, IRI-T, and the

interaction terms in the overall model did not significantly account for variance in PMHSS

total, $F(7, 81)$ = 1.58, p = .152, R^2 = .06, and there were no significant interaction terms, ps

> .05.

The overall model at time 3 explains 19% of the variance in the PMHSS total

dependent variable, $F(7, 81)$ = 3.38, p = .003, R^2 = .19. Alone, the moderator IRI-T

predicts PMHSS total at time 3, $b = -.23$, $t(81) = -3.02$, $p = .003$, where for every 1 unit

increase in IRI-T we see a -.23 decrease in PMHSS total at time 3. We also see that the

control condition significantly predicts PMHSS total at time 3, $b = .22$, $t(81) = 2.99$, $p =$

.004, where the control condition is positively coded, and the EIC condition is negatively

coded, demonstrating that being in the control condition significantly predicts greater

PMHSS total at time 3. There were no significant interaction terms, $ps > .05$.

For the IB dependent variable at time 2, the overall model explains 9% of the

variance in IB, $F(7, 81) = 2.96$, $p = .015$, $R^2 = .09$, but there were no significant predictors

or interaction terms, $ps > .05$.

For the IB dependent variable at time 3, the overall model explains 30% of the

variance in IB, $F(7, 81) = 10.30$, $p < .001$, $R^2 = .30$. Alone, the moderator IRI-T predicts

IB at time 3, $b = -.90$, $t(81) = -4.82$, $p < .001$, where for every 1 unit increase in IRI-T we

see a -.90 decrease in IB at time 3. We also see that the control condition significantly

predicts IB at time 3, $b = .55$, $t(81) = 2.63$, $p = .01$, where the control condition is

positively coded, and the EIC condition is negatively coded, demonstrating that being in

the control condition significantly predicts greater IB total at time 3. There were no

significant interaction terms, $ps > .05$.

Table 28

Study 5, M, SD, & One-way ANOVA for Mediator & Moderator Variables (N = 89)

| | EIC | | IIC | | Facts | | Control | | | | |
| | n = 23 | | n = 21 | | n = 24 | | n = 21 | | | | |
η_p^2	M	SD	M	SD	M	SD	M	SD	F	p	η_p^2
Mediators											
IR - state	3.56	0.75	3.07	0.76	3.03	0.77	--	--	3.22[†]	.046	.09
T2 IOS	5.09	1.35	5.19	0.98	4.71	1.52	4.14	0.96	3.11	.030	.09
T3 IOS	5.00	1.31	4.76	1.14	4.96	1.30	4.33	1.56	1.14	.339	.04
Moderators											
IR - trait	3.91	0.64	3.88	0.51	3.82	0.48	3.71	0.48	.60	.615	.02
Self-stigma	--	--	--	--	--	--	--	--	--	--	--

Note. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact. IR = interpersonal reactivity; IR – state, EIC $n = 22$; IOS = introjection of other to the self. Controls did not receive the IR state measure. The self-stigma measure had too few respondents, and so no GLM ANOVA was carried out to consider this measure a potential moderator of manipulation effects. $F(3, 85)$.

[†] $F(2, 64)$

For the dependent variables perceived intergroup contact; PMHSS (and its subscales); and IB, mixed 4 (Condition: EIC vs. IIC vs. facts vs. control; between-groups) x 3 (Time: T1 vs. T2 vs. T3; within-groups) GLM ANOVAs were conducted. A one-way GLM ANOVA compared the effect of condition, 4 (Condition: EIC vs. IIC vs. facts vs. control; between-groups) on volunteering behaviour intention at T3.

Based on the theoretical assumptions directing the hypotheses, the same planned contrasts used in Study 4 were used to analyse the data (contrasts testing hypotheses are found in Table 29). Contrasts 1 through 5 test for H1 (EIC will have the least stigma, then IIC, facts, and control the greatest), H2 (T3 will have the least stigma compared to T1), and H3 (EIC will have the least stigma at T3) by first comparing the EIC condition against the imagined intergroup contact, facts, and control conditions (C1), before drilling down to determine if EIC has the least stigma compared to imagined contact (C2), and facts conditions (C3), with controls expecting to exhibit the greatest stigma (C4 and C5).

Table 29

Study 5, Planned Contrasts Reflecting Hypotheses

Condition	Contrast 1	Contrast 2	Contrast 3	Contrast 4	Contrast 5
EIC	3	1	1	1	1
IIC	-1	-1	0	0	1
Facts	-1	0	-1	0	1
Control	-1	0	0	-1	-3

Note. EIC = Experiential Intergroup Contact; IIC = imagined intergroup contact

Perceived Intergroup Contact

When interpreting the Condition X Time interaction effect on perceived intergroup contact, note that Box's M test of equality of covariance was significant ($p < .001$). When perceived intergroup contact was the dependent variable, there was no statistically significant Condition X Time interaction: $F(4.49, 127.19) = .82$, $p = .524$, $\eta_p^2 = .03$. There was no significant effect of condition: $F(3, 85) = .21$, $p = .886$, $\eta_p^2 = .01$; and no significant contrasts ($ps > .05$). There was a marginal effect of time on perceived intergroup contact:

$F(1.49, 127.19) = 3.28$, $p = .055$, $\eta_p^2 = .04$; but there were no significant simple effects (ps > .05).

Peer Mental Health Stigmatisation

PMHSS total. When PMHSS total was the dependent variable, there was a medium-to-large statistically significant Condition X Time interaction: $F(4.97, 140.78) = 2.45$, $p = .037$, $\eta_p^2 = .08$. The EIC condition ($M = 2.44$, $SD = 0.58$) had significantly less PMHSS total than controls ($M = 2.85$, $SD = 0.35$) at T3: $F(3, 85) = 2.63$, $p = .055$, $\eta_p^2 = .09$.

There was no significant main effect of time: $F(1.66, 140.78) = 1.59$, $p = .210$, $\eta_p^2 = .02$; or condition on PMHSS total for the four conditions: $F(3, 85) = .45$, $p = .716$, $\eta_p^2 = .02$, and there were no significant contrast effects (ps > .05).

PMHSS awareness. When PMHSS awareness was the dependent variable, there was a non-significant Condition X Time interaction: $F(5.59, 158.35) = 1.83$, $p = .102$, $\eta_p^2 = .06$; a non-significant main effect of time: $F(1.86, 158.35) = .79$, $p = .450$, $\eta_p^2 = .01$; a non-significant main effect of condition: $F(3, 85) = .07$, $p = .978$, $\eta_p^2 < .01$; and no significant contrasts (ps > .05).

PMHSS agreement. When PMHSS agreement was the dependent variable, there was a non-significant Condition X Time interaction: $F(4.84, 137.08) = 1.53$, $p = .187$, $\eta_p^2 = .05$. There was a significant main effect of time when PMHSS agreement was the dependent variable: $F(1.61, 137.08) = 3.73$, $p = .035$, $\eta_p^2 = .04$, but there were no significant mean differences in PMHSS agreement scores between time points (ps > .05). There was a non-significant main effect of condition: $F(3, 85) = 1.13$, $p = .341$, $\eta_p^2 = .04$; and no significant contrasts (ps > .05).

PMHSS positivity. When PMHSS positivity was the dependent variable, there was a non-significant Condition X Time interaction: $F(4.89, 138.39) = 1.33$, $p = .257$, $\eta_p^2 = .05$; a non-significant main effect of time: $F(1.63, 138.39) = 1.81$, $p = .174$, $\eta_p^2 = .02$; a

non-significant main effect of condition: $F(3, 85) = 1.21$, $p = .313$, $\eta_p^2 = .04$; and no significant contrasts (ps > .05).

Intended Behaviour

For intended behaviour (IB) there was one outlier at T1, which had a studentized residual value of 3.24, and one outlier at T2, which had a studentized residual value of 4.30.

When IB was the dependent variable, there was a non-significant Condition X Time interaction: $F(5.43, 153.86) = 2.11$, $p = .062$, $\eta_p^2 = .07$; a non-significant main effect of time: $F(1.81, 153.86) = 2.92$, $p = .062$, $\eta_p^2 = .03$; and a non-significant main effect of condition: $F(3, 85) = 1.43$, $p = .240$, $\eta_p^2 = .05$. Contrasts C4 and C5 were significant: $F(1, 85) = 3.93$, $p = .051$, $\eta_p^2 = .04$; and: $F(1, 85) = 3.79$, $p = .055$, $\eta_p^2 = .04$, respectively. The C4 estimate was negative (-.54), and so the control condition had greater IB scores (indicative of stigmatising behaviour – an unwillingness to engage in behaviour with the mental health problem outgroup) compared to the EIC condition, and in C5 controls had the greatest IB stigma compared to EIC, imagined intergroup contact, and facts (-1.32). Contrasts C1, C2, and C3 were non-significant (ps > .05).

Volunteering Behaviour Intention

When volunteering behaviour intention was the dependent variable, there was a non-significant effect of condition: $F(3, 85) = .53$, $p = .662$, $\eta_p^2 = .02$, and there were no significant contrasts (ps > .05).

Discussion and Implications of Study 5

Similar to Study 4, the aims of Study 5 sought to investigate if Experiential Intergroup Contact stigma-reduction effects are long-lasting – if stigma reduction effects in the university sample last up to seven weeks later. The second aim was to identify if EIC works better to reduce mental health stigma than either imagined intergroup contact or reading about the facts of stigma – established forms of stigma reduction.

Unlike with the school sample, there were no significant main effects of EIC on perceived contact with the mental health problem outgroup across time. This may be because university students are already aware of contact with those with mental health problems, more so than school pupils. The conditions in the study did not make university students more aware that they have contact with those with mental health problems, whereas in the school sample the possibility of existing contact may have been made salient by pupil involvement with the study. This is seemingly supported by the school pupils increase in peer mental health stigmatisation *awareness* scores in Study 4, where in Study 5 with university students there were no significant effects for PMHSS awareness – university students did not significantly increase their awareness of mental health stigma, and nor did they increase or reduce their acceptance of it.

There was a significant interaction effect on university participant overall scores for PMHSS: EIC had less stigma than controls at time three, supporting hypothesis three – that involvement with EIC Stigmaphrenia$^{©}$ will result in the least mental health stigma compared to controls, and the least stigma seven weeks following involvement. This goes someway to demonstrating the longevity of EIC stigma-reduction effects. This is an encouraging finding: involvement in mental health EIC is better than doing nothing to reduce stigmatising attitudes.

The significant main effect of condition on intended behaviour demonstrated that EIC results in the least stigmatising behavioural intention than controls, but with no significant difference compared to alternative, established methods (imagined intergroup contact and facts of stigma). This partially supports hypothesis one: EIC received the least stigma compared to controls.

Unlike the school sample in Study 4, there was no significant effect of condition on volunteering behaviour: university students' willingness to give up their time to volunteer at a local mental health drop-in centre was not affected by the condition they took part in.

It is probable that university psychology students are generally more willing to volunteer

their time for this form of volunteering out of interest relating to their choice of degree

(e.g. welfare is typically the field that psychology graduates go in to the most; Ball, et al.,

2018), and so university participants may have been overall more willing than school

participants to volunteer their time. This may be evident as the majority of university

participants (38.2%), regardless of condition, volunteered on average two sessions of their

time compared to the school majority (36.5%) who volunteered zero sessions.

Turning to the potential mediators and moderators, it was interesting to note that for

the university sample the EIC condition received the greatest scores on state interpersonal

reactivity than either imagined intergroup contact or facts participants. This demonstrates

that, at least in the university sample, EIC helped to elicit state empathy, perspective-

taking, and fantasy ability, the first two representing the cognitive and affective empathy

cited as key mediators of intergroup contact more generally (Pettigrew & Tropp, 2008).

Similarly, EIC participants had greater introjection of the mental health problem outgroup

to the self at time two than controls, demonstrating EICs ability to help participants bring

the outgroup closer to the self – a key mechanism proposed by the common ingroup and

dual identity recategorisation models (Gaertner & Dovidio, 2000).

As with the modest school sample, even with the larger sample size in Study 5,

there was still a lack of significant condition effects on the majority of the outcome

measures. A sensitivity estimation calculated with GPower 3.1.9.4 software with sample

size $N = 89$, $1\text{-}\beta = .80$, $\alpha = .05$, indicated that this sample could detect as effect size of $f =$

.13, and so it is necessary to consider that either the conditions were not strong enough to

affect significant change, or the means of measuring stigma and change across time need to

be revised.

As in Study 4, there were some encouraging qualitative responses from university

participants following involvement with EIC. When asked if the method of teaching they

were involved with would be a good way of highlighting a common concern for

adolescents, a number of EIC participants wrote in relation to empathising and perspective-

taking with the mental health problem group, stating that the method was "engaging and

[a] different way to highlight this issue by getting us all involved and forming [an]

emotional bond with characters" (participant ID 34). Another participant (ID 72) wrote

"experiencing and put[ting] yourself in the shoes of someone else can make you

understand more of their life and experience [a]nd why they act in a certain way". The

theme of putting yourself in another's shoes came up for further participants too: "It [the

teaching method] allows you to try and place yourself into the shoes of those with mental

health issues" in a "fun environment" (participant ID 41).

Importantly and encouragingly, there were some qualitative responses that echoed

the underlying premise of Allportian intergroup contact, such as: "I enjoyed the role play

and understanding the story line. Being able to work with the group and completing the

task together" (participant ID 67). A number of participants also stated they enjoyed the

method due to its interactive nature, lending qualitative support for the experiential need of

intergroup contact to reduce mental health stigma.

General Discussion and Conclusion

In relation to both studies, it is important to note the possibility that social

desirability played a part on the stigma outcomes given the significant correlations in both

populations between social desirability, peer mental health stigmatisation, and its

subscales. However, given the repeated measures factor of time, it was not appropriate to

include this potential covariate during analyses carried out (Delaney & Maxwell, 1981). It

may be prudent to consider further means of measuring stigma that may be less susceptible

to socially desirable responding. It is possible, given the positive nature of many of the

participant qualitative responses, that the quantitative methods of measuring attitude,

affect, and intended behaviour are not appropriate and do not relate to the nuance of mental

health stigma, or are simply not sensitive to such nuances. Qualitative methods may be
more sensitive in describing and measuring the stigma of mental health problems and the
effect Experiential Intergroup Contact via Stigmaphrenia© can have on attitude, affect, and
behaviour.

Of interest to note (although not statistically so), is the increased number of
participants of both populations who disclose that they consider themselves to have a
mental health problem between T1 and T3, following teaching method tasks (conditions).
Within the school settings there were six participants at T1, and eight, seven weeks later.
The EIC condition gained one participant, as did the facts condition. In the university
sample there was an increase of five participants disclosing that they have a mental health
problem between T1 and T3, with EIC gaining one participant, facts gaining three, and the
control gaining one participant (of note, there was no change in the IIC condition
disclosures). It is possible that these participants simply felt more comfortable
acknowledging their mental health experiences following the anti-stigma content of their
teaching method (which both the EIC and facts condition make explicit), or that there was
a change in their circumstances from T1 to T3 (given how a participant in the control
condition disclosed at T3, but not at T1). However, without further qualitative data as to
why this was the case this is speculation. It would be of interest to investigate EICs
potential to reduce self-stigma, and increase disclosure and help-seeking behaviour in
future research.

Ultimately, this chapter aimed to establish the longevity of Experiential Intergroup
Contacts effect on mental health stigma, and in comparison with established forms of
stigma reduction. While the significant effects may be limited in the present studies, those
stigma-reduction effects that were identified – greater intention to volunteer following EIC
involvement in the school sample, and the least stigmatising attitudes and intended
behaviour in the university sample – may hope to be strengthened within a full stigma-

reduction intervention, whereby EIC is carried out to its fullest potential as outlined in Chapter Two. The significant findings for Studies 4 and 5 encourage future empirical investigation into the longevity of EIC to reduce mental health stigma.

This chapter concludes with a need to longitudinally investigate EIC with larger samples, and simpler, fewer outcome measures of stigma-reduction in order to pre-empt participant study fatigue and to better capture participant attitudes and behaviour about and toward those with mental health problems. As well as a need for larger representative sample, improvement might include carrying out nested analyses as a means of analysing quantitative data at the group level as opposed to the individual level (González & Brown, 2003), given the group-based nature of EIC as a method. As mentioned, it would also be prudent to include qualitative means of measuring stigma-reduction outcomes.

The following Chapter Six details the final, qualitative study for this thesis, which investigates past Stigmaphrenia[©] actors' attitudes, behaviour, and language about and toward those with mental health problems following their involvement with the script.

Chapter Six. Study 6. The Language of Experience: Qualitative Interviews with Past

Actors Involved with Stigmaphrenia©

As perspective grows, a deeper understanding of the feelings and thoughts of others

develops. Along with such personal involvement comes better conceptualization of the

principles of human relations

– Allport (1979, p. 491)

Following the quantitative investigation of Experiential Intergroup Contact's (EIC)

effects on mental health stigma, the present chapter seeks to identify how original cast

members involved with Stigmaphrenia© express mental health language, attitude, and

behaviour some four and five years after their involvement. This will build on and

supplement the traditional quantitative measures used in previous studies, providing

qualitative and rich support for the longevity of EICs effects.

In Study 6 reported here, five interviews with past Stigmaphrenia© actors

qualitatively investigate interviewee mental health language, attitude, and behaviour about

and toward those with mental health problems. Semi-structured, individual interviews

with five past actors from 2013 and 2015 were carried out in 2018, and analysed via

thematic analysis. Five themes were identified: before Stigmaphrenia©; after

Stigmaphrenia©; self-stigma; intergroup contact criteria; and actor/process versus

audience/product. These findings are critically discussed in relation to the social meaning

of language, and the social construction of the mental illness narrative (Foucault, 1988;

Georgaca, 2014; Roberts, 2000), reminding us that *how* experiences are defined affects

how individuals *experience* them (Conrad & Barker, 2010). The findings are also

discussed in relation to the methodological limitations of conducting qualitative research

with participants for whom both interviewer and interviewee have potential personal biases driving the construction of the qualitative narratives.

It is concluded that for past actors Experiential Intergroup Contact with Stigmaphrenia[©] is an effective means of creating positive attitude, language, and behaviour about and toward those with mental health problems, and critically is a strategy that can reduce or even pre-empt self-stigma.

Stigmaphrenia[©] and Past Actors

In 2012 the play script titled *Stigmaphrenia*[©] was developed as a means to provide public audiences in the UK a new narrative with which to consider "mental illness" in order to combat stigma. The main theme of this play was to reconsider mental illnesses within the neurodiversity of humanity – to consider mental illness as a socially neurodivergent experience, opposing its pathologisation. An unexpected and interesting outcome following the rehearsals and consequent performances of Stigmaphrenia[©] was an explicit change in actor attitudes and language about and toward the neurodivergent[33] – interesting as this was not considered a potential outcome, whereas an effect on audience members was.

Following the unexpected finding that the mental health, stigma-reduction play Stigmaphrenia[©] had a positive effect on actor attitudes and language, the theory for a novel form of intergroup contact began to take shape. The Stigmaphrenia[©] script later became the method of operationalising a programme of research investigating the efficacy and effectiveness of *Experiential Intergroup Contact* (EIC; outlined in detail in Chapter Two) – a method of indirect contact underpinned by the theories of Allportian intergroup contact, the common ingroup identity model, and the need for experiential sensory cues in contact.

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[33] The original script used by actors in 2013 and 2015 did not include the recent updates in neurodiversity paradigmatic language. Consequently, the actors were only introduced to the term neurodiversity. The updated script now includes the nuances in narrative, including the term neurodivergent used in this chapter.

The present qualitative study interviewed past Stigmaphrenia© actors to qualify attitude and language prior to and directly following their involvement with the play. A further aim was to see if the original anecdotal finding of attitude and language change made a lasting impact on the original UK actors who rehearsed in 2012 and performed early 2013, as well as a further UK actor from 2015.

The Sapir-Whorf hypothesis states that language shapes perceptions of the world and significantly influences cognitive processes (Wolff & Holmes, 2011). Given the neurodiversity narrative imbedded in the Stigmaphrenia© script, it is of interest to learn how the interviewees – the past actors – construct their realities prior to and post involvement with the script. The "object" under study, more broadly, is "mental illness" – how it is constructed by past actors – and if and how this object has been affected by the passage of time for the past actors. How was mental health constructed prior to, and consequently following involvement with Stigmaphrenia©? Of particular interest is *if* and *how* an altered narrative has been sustained, given how four of the interviewees began their involvement with the play in late 2012, some five years prior to being interviewed. Further questions arise from this initial line of questioning: how does this language, and language change (if it occurred), reflect larger social discourse about mental health more generally? Especially given the largely psychobiological model of mental illness that has dominated Western attitudes since the introduction of psychopharmacological intervention (Johnstone, 2014; Kinderman, 2014; Moncrieff, 2009; Read, Bentall, & Fosse, 2009; Szasz, 1974; Whitaker, 2010)?

This qualitative study intends to explore and illuminate mental health problem language, and the relation this language has to interviewee's perceptions of mental health – how this shapes their realities, in a way that perhaps eludes quantitative data collection methods. The study will consider both the "what" interviewees talk about, and the "how" they choose to tell it (Sarup, 1996; as cited in Forrester, 2010, p. 82). This "how" might

differ dependent on interviewee personal experience of mental health, and this might differ again dependent on remembering past perceptions of others who have mental health problems, or past perceptions of the self in relation to personal mental health, both before and after Stigmaphrenia[©] involvement.

This study thus aims to identify via thematic analysis if there are core themes that occur for all or most of the interviewees regarding their experience of and involvement with Stigmaphrenia[©] from 2012/2013 or 2015. This may help refine the Experiential Intergroup Contact praxis, and lead to nuanced measures of stigma. Further to this, a second study aim is to determine if involvement with Stigmaphrenia[©] as an actor is an effective strategy to positively alter mental health attitudes, affect, language, and behaviour, and if these changes last.

Method

Design

The study design comprised a thematic analysis methodology using in-depth, semi-structured individual interview methods, and frames the findings within a language discourse and narratives framework (Foucault, 1988; Georgaca, 2014; Roberts, 2000).

Participants

Interviews took place between February and April 2018, and participants were five UK university graduates, four of whom had taken part as an actor in rehearsals of Stigmaphrenia[©] in 2012, performing in early 2013, and one past actor who had taken part in rehearsals and filming of Stigmaphrenia[©] for a filmed version in January 2015 for use in research evaluating Experiential Intergroup Contact (4 males, 1 female, ranging in age from 23 to 28 years, 3 participants were White British, and 2 were White Other). Four of the five participants considered themselves to have an ongoing mental health problem at the time of interview[34]. Following casting calls distributed at a university campus, the

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[34] Ethical approval granted 19/02/2018-19/02/2020, code: 201815169709324618

2012-2013 actors spent approximately 34 hours rehearsing with Stigmaphrenia© across November, December, and January preparing for two public performances in February of 2013. The video actor from 2015 spent approximately 13 hours rehearsing and 14 hours filming in January 2015.

Thematic Analysis Theory

Thematic analysis is an iterative process of coding and identifying categories and themes from descriptively rich data (Howitt & Cramer, 2011). More thoroughly:

> Thematic analysis is a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set. Through focusing on meaning across a data set, TA allows the researcher to see and make sense of collective or shared meanings and experiences. Identifying unique and idiosyncratic meanings and experiences found only within a single data item is not the focus of TA. This method, then, is a way of identifying what is common to the way a topic is talked or written about and of making sense of those commonalities. (Braun & Clarke, 2012, p. 57)

From this description of the analytic method, it is apparent that its core principles and process are well-suited to the study aims. Thematic analysis is versatile and flexible enough that I can attempt a deductive approach to analysing past actors' data in-keeping with my specific interests – are there core themes across all or most actors involved with Stigmaphrenia©, and is the script an effective strategy to affect mental health attitudes, affect, language, and behaviour, and do changes last – whilst also allowing for inductive analysis of the data, as driven by what is in the data itself. The latter will help determine past actor collective or shared meanings and experiences, ones that my initial study aims may not have considered.

Second to inductive *and* deductive transparency in my use of thematic analysis is how I will be coming at the data analysis from a constructionist theoretical perspective. This is essential given the mental health nature of the topic, and the social construction of discredited or discreditable identities (Goffman, 1963). It is of interest to determine how mental health narratives are constructed, perpetuated, maintained, and altered by past actors involved with Stigmaphrenia© (Foucault, 1988; Georgaca, 2014; Roberts, 2000). This will demonstrate the malleability of experiences currently considered essentialist within a psychobiological narrative.

Interview Method of Data Collection

An interview schedule was developed based on the key questions of interest, with open-ended questions, prompts, and probes devised and structured in what was considered a logical flow. This interview schedule included an introductory welcome to set interviewees at ease (Appendix HH[35]). A semi-structured method was used to allow interviewees opportunity to discuss specifics important to them individually, while simultaneously affording the researcher opportunity to identify and collate similar experiences as themes across interviewees. Note that the interview schedule purposefully did not use the term stigma until a final question on Stigmaphrenia's© use to combat stigma for adolescents, so as to avoid leading the interviewees.

In order to minimise the potential for psychological harm, no participant was asked directly about their personal mental health during interview, and personal mental health was only explored if the interviewee volunteered this information without prompting. The schedule was structured as follows:

- Identification of past actor interviewees understanding of mental health

- Identifying what interviewees remembered of their involvement with the script, as a means of orientation

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[35] Ethics committee approved prior to use with interviewees.

- o   Establishing when they were involved with Stigmaphrenia©

- o   Detailing their character role/s rehearsed and performed

- Prompting interviewees to describe and discuss the term neurodiversity, and what this means for them (if anything) if they do not spontaneously discuss the term

- Identification of interviewee attitudes and language – did their involvement have an impact on their attitudes and language about and toward those with mental health problems

- Identification of interviewee behaviour – did their involvement have an impact on their behaviour toward those with mental health problems

- Without direct questioning (an ethical consideration), do participants discuss their own mental health, and in what way (positively? negatively? in relation to the script?)

- Identifying if interviewees think Stigmaphrenia© should be changed, and if it should be used with young people, adolescents, and young adults to combat mental health stigma

Procedure and Ethical Consideration

Participants were recruited following informal requests for interest via Facebook messages and emails to individuals known to have acted in Stigmaphrenia©. Once interest was established, formal emails were sent detailing the study information, including highlighting the mental health nature of the interview questions, and requesting that those interested in participating please enter their demographic information, pseudonyms to be used in transcription and analysis, and available dates for interview on a Qualtrics form created for the study. Informed consent was detailed and obtained both in writing via Qualtrics, and verbally at the start of recording during interviews.

Using the interview schedule, semi-structured interviews were carried out via Skype due to diverse interviewee geographical locations. Interviews were recorded via

screen capture and audio recording software (AnyCap Screen Recorder, EuroTech Technology), and saved under interviewee pseudonyms as MP4s on an encrypted USB device. Interviews ranged in length between 43 minutes 30 seconds and 60 minutes 23 seconds (M = 50 minutes 36 seconds). On completion, interviewees were thanked, debriefed verbally as well as via email, and offered the opportunity to read the final transcript and analysis should they wish.

Transcription and Analytic Strategy

Prior to transcription, notes on initial thoughts were made during the live interviews on each participant interview schedule. Interviews were automatically transcribed verbatim via otter.ai, and manually checked for accuracy with the use of an Olympus AS-2400 transcription kit with pedal. Transcription was a direct, literal, secretarial format (Howitt, 2010; full transcripts available on request as supplementary material), affording further familiarisation with the data beyond the live interviews themselves. These transcripts were saved as simple Word documents with wide margins for coding. Further notes were made during audio play-back and transcription when thoughts relating to what was being said created links to existing literature, particularly if it linked to literature on the narratives of mental health and stigma.

Right-hand margin, line-by-line coding was used to describe the data – "to capture a segment of the text's essence" (Howitt, 2010, p. 174). These codings were then categorised into meaningful groups of codings to identify subthemes per interviewee in the left-hand margin, which in-turn were compared across interviewees to identity if there were common subthemes. Superordinate themes were identified by seeing if there were commonalities between subthemes across interviewees. The superordinate themes were then checked via a process of reversal, to check that they related to the subthemes and line-by-line example excerpts.

Analysis and Findings

Following transcription and analytic strategy, five superordinate themes were

identified: before Stigmaphrenia©; after Stigmaphrenia©; self-stigma; intergroup contact

criteria; and actor/process versus audience/product (themes with excerpts Appendix II,

Table II1).

Before Stigmaphrenia©

The before Stigmaphrenia© theme is represented by the subthemes of mental health

and stigma unawareness/peripheral awareness; acceptance of stigma stereotypes; limited

experience of mental health and stigma; concealment of own mental health experiences;

negative narrative of mental health as illness, pathology, and disorder.

Interviewee[36] understanding about mental health problems and stigma prior to

involvement with the Stigmaphrenia© script was limited:

> [B]efore, before Stigmaphrenia or anything like that, anything like
>
> that was just scary. And alien, and incomprehensible.
>
> (Ge, 661-663)
>
> I could fully put my hands up to say I, you real, like, I was very naive
>
> about mental health.
>
> (Ru, 120-121)
>
> I wasn't aware of it. I could see but I wasn't aware of it.
>
> (Ro, 165-166)

Across all five interviewees there was a trend for mental health and stigma *unawareness*.

Many of the past actors described a peripheral awareness of mental health, and described

stigmatising attitudes and behaviours about and toward those with mental health problems

learnt from and expressed by their friends and family:

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[36] Pseudonym names key: Ca = Casandra; Eu = Eugen (filmed version 2015); Ge = George; Ro = Rocco; Ru

= Russ

> My family's very religious and so on, and you can, you know, you
>
> can pray away the bad feelings. So I wasn't, I didn't really know
>
> much to be honest. (Ca, 128-131)

their school:

> And even in at secondary school, it was kind of a taboo topic that
>
> people didn't talk about. (Ru, 122-125)

and even by their home country:

> Because, yeah, coz back home, you're, you're crazy. Or you're not.
>
> (Ca, 446)
>
> I mean, where I come from, we, we split people to crazy and normal.
>
> (Ro, 121-123)

The before theme also contained the subtheme of negative narratives of mental

health as illness, in-keeping with the dominant pathology discourse (Parker, Georgaca,

Harper, McLaughlin, & Stowell-Smith, 1995):

> If you had anything if you even discussed the idea that your mental
>
> health was not 100% it was like your mental acuity was not, was not
>
> right and just the very notion of, "oh" mental health that means
>
> something is automatically wrong.
>
> (Ge, 88-92)
>
> [B]ut I'd always just thought that mental illness is mental illness.
>
> (Eu, 315-316)

All of which several interviewees implied led to the concealment of their own

mental health problems:

> I wouldn't really talk about it and I think as a young man, you're not
>
> really supposed to have mental health problems you kind of
>
> supposed to have a stiff upper lip, you get on with it and and keep

going.

(Ge, 108-111)

I think, especially, well with a number of different mental health

issues, that you get very worried about telling people about them.

Because I felt there still was a bit of a stigma around them.

(Ru, 506-509)

After Stigmaphrenia©

The after Stigmaphrenia© theme comprises the subthemes: heightened mental

health and stigma awareness; non-acceptance/active refutation; understanding of own

mental health; positive attitudes, language, and behaviour; and adoption of the

neurodiversity narrative of difference, not illness.

Past actors described greater awareness or becoming cognizant of mental health

problems following their involvement with the script rehearsals:

I've become more and more aware of different mental health, people

with different mental health. But my kind of, like, it's, I guess I've

become more aware of, it's not what defines you.

(Ru, 68-74)

Yeah, erm. Well, it's I'm much more understanding than I used to

be.

(Ca, 100-101)

and non-acceptance and rejection of mental health stigma:

Instead, we should help them become part of the society. We're, as

they already are. And, erm, I don't know, don't stigmatize them.

Don't treat them differently.

(Ro, 383-386)

[T]hey [mental health problems] aren't something that we should be

trying to get rid of, or, or create stigma around, that we actually need

to be more accepting of what is a natural diversity in the population.

(Ru, 288-290)

having internalised and used the language and narrative of neurodiversity as opposed to the

pathology narrative:

[I]t's not like a bug that she's caught, or anything like that…and you

can't just treat it with a magic pill, like it, like you couldn't just give

an antibiotic for it, and it will clear up in a week or so.

(Ru, 387-393)

Because it's, you can't see it. You've not, and this is very cliché for

all of this, but you've not broken your leg, and you can't, you know,

you can't fix it like that.

(Ca, 109-111)

I think it's [neurodiversity] beneficial when it's expressing

differences in terms of the expression that we are all different, and

that there is no normal, that there are no true centres.

(Eu, 479-481)

Not only did actors not accept the stigma of mental health, they actively rejected

and combated it when they saw it in their workplaces:

And, and so for me, one of the things that I really felt that was

important was to let the people I was working with know that a) you

can talk to me about this stuff, if you need to.

(Ge, 595-598)

[T]hey were really annoyed with the guy from accounts, and he

wasn't, you know, he was off sick with anxiety, that's so stupid. And

I said, well, no, I was off with anxiety, and I just kind of, I don't

know, just told them everything. I didn't really, I don't really care.

Because that's how it is. And they feel they've changed their attitude

towards him.

(Ca, 504-513).

This awareness and neurodiversity language also helped interviewees feel better equipped

to discuss it with close loved ones who were experiencing their own mental health

problem:

[O]ne of my relatives, was diagnosed with bipolar. And I think some

of their family weren't really sure how to deal with it, or like what

they should do? And so when that occurred, I was able to chat with

them, and just explain to them, that they're still, that they're still, who

they are, they're just gonna, at times, they're going to have highs and

lows, and just to try and, try and, it's helped me explain it to other

people as well.

(Ru, 360-374)

Stigmaphrenia is the best coaching tool I've ever had. Erm, mental

health issues are a big part of my life and my family's life. And

having the tools and knowledge to understand those things better.

Makes makes it an awful lot more bearable, and makes dealing with

the hardest stuff, you know, easier to deal with.

(Ge, 672-682)

Unlike a qualitative study carried out by Matteo (2013), which found university

undergraduates to have negative language about and toward those with mental health

problems following a six-hour psychopathology course, the Stigmaphrenia[©] actors were

largely positive about mental health problems. The Stigmaphrenia[©] actors discussed

mental health largely in a non-pathologising way, compared to the Matteo undergraduates who used pathologising and stigmatising language. Russ for instance felt more comfortable with the term neurodiversity than the term mental health issues:

> I'm not a big fan of saying mental health issues, like, from the play I actually prefer now using neurodiversity, I think it's a much nicer words to say. (Ru, 346-348)

This demonstrates how maintaining the psychopathology, psychobiological narratives of psychological difference and distress can perpetuate and maintain stigma. Matteo (2013, p. 241) themselves call for future research to "consider how particular terms may impact [stigma] responses", and the current findings demonstrate the impact pathology versus neurodiversity terminology has on stigma. This is made succinct with Russ' statement:

> I don't like describing, because as soon as I think of [mental health], I immediately think, the connotation is it's just negative. And, while I know a number of mental health issues definitely don't make the person's life easier, it doesn't necessarily make it worse, and so in a sense, it's just that, it's just a difference, I guess. (Ru, 437-442)

Arguably the after Stigmaphrenia© theme demonstrates the importance of narratives about mental health as neurodiversity as opposed to pathology, and shows the strength of the neurodiversity narrative used in the Stigmaphrenia© script to combat stigma.

Self-stigma

The third theme identified was self-stigma and its reduction, an unexpected and welcome finding of interviewee involvement with Stigmaphrenia©. The self-stigma theme thus comprises: reduction and pre-emption of self-stigma; reframing embodied experience; managing discredited and discreditable identity with the neurodiversity narrative; and disclosure.

The perception, awareness, and acceptance of public stigma, and the internalisation of this stigma as self-stigma is consistently found in the literature (Cage, Stock, Sharpington, Pitman, & Batchelor, 2018; Dinos, Stevens, Serfaty, Weich, & King, 2004) and by charitable surveys (Time to Change, 2015; The Prince's Trust, 2017; Vogel, Wade, & Haake, 2006) as a main preventer of disclosure and help seeking. In the qualitative interviews, we are seeing the same process of awareness and acceptance of experiences, but where awareness and acceptance is of the neurodiversity paradigm leading to lower levels of reported stigma: less stereotyping attitudes; fewer prejudicial beliefs and affect; reduced negative language; and behaviour; as well as lower levels of internalised, self-stigma, and a greater willingness to disclose their experiences for their own benefit, as well as acting as models for others to feel safe to disclose. Actors disclosing their mental health to friends, family, and work colleagues following their involvement is thus an important finding. Cassandra and George, for instance, experienced mental health problems at the time of their involvement, and cite Stigmaphrenia[©] as contributing to their later disclosing:

> Yeah, no, I'm, I'm very open about it now. Erm, I don't feel that it's something that needs to be shh-ed away.
>
> (Ca, 504-505)
>
> [I]t was as surprising to me as anyone else that I was, you know, quite happy to be the icebreaker. And, you know, kind of get the ball rolling, talking about myself and my own experiences. And I'd certainly never have done that.
>
> (Ge, 579-583)

Importantly, as well as those actors who reframed their mental health problems at the time of their involvement, participation with Stigmaphrenia[©] also appeared to curb self-stigma for those past actors who later developed mental health problems, allowing them to feel safe disclosing, as well as able to explain to and educate others:

> I feel that this point of view where, where I am now, where I'm happy
>
> to talk to people about it, like it's not something that I shy away from,
>
> or, you know, I don't see it as a taboo topic, I actually think it's, I
>
> almost see it now, more that it's an important thing to talk about.
>
> (Ru, 417-423)
>
> I think that's more the personal issue that having had help, it's kind
>
> of helped me to get over the fact of, I kind of self-stigmatisation
>
> really… I was willing to help others, but I was never willing to let
>
> other people know that I needed help, erm, and that's something
>
> that's changed.
>
> (Eu, 387-403)

and helped them not to pathologise themselves:

> I've learnt it's OK to ask for help really, that it's OK to not not think
>
> of yourself as in one category, you can, yeah, [laughs], you can still
>
> be perfectly normal, but just need a bit of help.
>
> (Eu, 565-568)
>
> It can be literally anybody. And it doesn't mean you're not normal.
>
> That to me was kind of like a light bulb. And I was like, Oh, right.
>
> I get this now.
>
> (Ge, 489-492)

Stigmaphrenia© gave past actors awareness of mental health issues and stigma; acceptance

of the neurodiversity narrative, and thus the normalcy of neurodivergent experiences; and

the ability to disclose without the need to pathologise themselves, or others. Although, for

Russ, disclosure was to the "right kind of people" (536). For Russ this disclosure was to

those who knew the message of Stigmaphrenia© and neurodiversity, highlighting Russ'

heightened awareness of public stigma regarding the mental illness narrative, and his not

wanting this stigmatisation to be directed at him. This brings into stark relief the need for

families and close others to understand and experience the narrative of neurodiversity in or

from Stigmaphrenia©. The script gave both Russ and his close others the knowledge and

skills (language and narrative), and confidence to have less-stigmatising conversations

about his depression as they knew the neurodiversity narrative with which Russ wanted to

frame his embodied experience:

> I only disclose it to the people I'd also talked about the play with
>
> them, about. So the people I told were my parents, my best friend.
>
> And my partner, and all of them had been, had seen the play. I kind
>
> of felt that they were the right kind of people to also tell. (Ru, 526-
>
> 536)

Past actors can thus be seen to manage a potentially discreditable and discredited

identity by adopting the neurodiversity narrative and neurodiverse identity. Cassandra and

George talk about their embodied experiences of anxiety and depression, which they

experienced at the time of their involvement with Stigmaphrenia©, and still experience at

the time of interview. However, they embed these experiences in two different narratives –

before and after Stigmaphrenia©. Cassandra and George discuss how they perceived their

mental health prior to their involvement within the socially constructed knowledge of

pathology and illness, which perpetuated self-stigma:

> Yeah, it was too easy to be just explained away. Like, just like, oh,
>
> you just have mental, you know, I didn't really. I didn't really believe
>
> in it.
>
> (Ca, 414-416)
>
> [B]efore I did the play, erm, I knew that I definitely had what I
>
> perceived as mental health issues mental health problems.
>
> Erm, but because I also sort of misunderstood mental health and

> what it meant I would keep very quiet about it.
>
> (Ge, 104-108)

Though they still experience anxiety and low mood at the time of interview, they frame it within the neurodiversity narrative, which empowered them to disclose and actively combat public stigma:

> [R]ather than mental health being almost like a dirty word, it is now
>
> it is now just something that is, you know, it's a simple to me
>
> something I check, I check on, like the weather… And it's carried
>
> on, you know, here we are, six years later, five years, and it is it is
>
> something that I, I actively encourage people to talk about, because
>
> it only helps to talk about it.
>
> (Ge, 97-99 & 583-587)
>
> So yeah, I think I think the whole experience, to be honest, has been
>
> what it's been rewarding for me, because I feel I can handle it better
>
> now. And I'm fine with talking aloud about it. And it's just, it's just
>
> how it is really.
>
> (Ca, 544-548)

This difference in narrative and responses about and toward the self and others is demonstrative of how:

> Medical discourse can influence people's behaviors, impact their
>
> subjective experiences of embodiment, [and] shape their identities.
>
> (Conrad & Barker, 2010, p. S69; paraphrasing Foucault 1975; 1977)

Of note, Stigmaphrenia© was a positive experience for three cisgender, heterosexual men, all of whom experienced their own mental health issues (Ge during rehearsal, Ru and Eu subsequently), finding Stigmaphrenia© useful in helping them seek support and disclose to others. This is important as it is found that stigma-reduction

messages do not reach men as easily as they do women, which is why the organisation

Time to Change has focussed their next five-year stigma-reduction campaign on men

(Time to Change, 2017). The past actors still refer to the message of Stigmaphrenia© to

guide their attitudes, emotions, and behaviours, with George even viewing his involvement

as a form of personal support:

> I was learning so much about my own mind, and, and my own mental
>
> health. That, you know, it was it was, it was it was almost, it was
>
> almost like, like therapy. You know, it was it was it was
>
> performance therapy. (Ge, 564-568)

Intergroup Contact Criteria

The intergroup contact criteria theme comprises the subthemes: positive

experience; goal-oriented performance; cooperation; empathy, perspective-taking, and

meta intergroup contact; and neutral facilitator. Some key underlying assumptions of

Allportian (1979) intergroup contact.

All interviewed actors expressed enjoyment from cooperatively taking part in

rehearsals with the goal to perform Stigmaphrenia©:

> We'd get together as a group. Usually there would be some
>
> unhealthy food for us to consume. And there would be an awful lot
>
> of laughs and sort of like camaraderie developing between us… it
>
> was a fun time on those evenings where we would, where we we'd
>
> get together and we'd rehearse. (Ge, 217-220)

citing the importance of making friendships, bonds, and connections with the other actors:

> [I]t had, I mean the whole experience got me closer to people, I
>
> would never have the chance to get close to, get closer to.
>
> (Ro, 655-657)
>
> It was lovely. They were, it was really fun. They were all lovely

people. Erm I think I've got all of them [on] Facebook still.

(Ca, 376-377)

Interestingly, George appeared to experience a positive *meta* intergroup contact, empathising and perspective-taking with particular roles in the script that were not his own:

George was was was really fun to play… I didn't emotionally relate

to him in the way I did, to erm, in the way I did to Alice, because in

sort of, in, again, I don't like to use word normal, but she, she was

the most uncomplicated character. And the, the point that I got

across was that you don't have to be, you don't have to be like an

eccentric person to be on this, you know, to be part of this

neurodiverse spectrum… Yeah, it was a connection. It was a

relation… I could understand her as a human being. And erm, yeah,

I could see, I could see myself as her, in a way. (Ge, 518-525 & 540-

543)

Russ talks about his connection to playing the celebrity Stephen Fry, and how he enjoyed trying to take on his persona:

I think it was trying to recreate Stephen Fry's, like welcome that he

does in QI, yeah, the like Hello. Hello. Hello. Hello. And I just

kind of, that was one of the bits that I really enjoyed. (168-171)

and Eugene made succinct the connection, empathy, and perspective-taking with the script characters that can happen as an actor:

[B]ecause even though you talking about other people to some

degree, you're starting to think about yourself when you're acting

something, you're starting to think how does this person relate to me.

(737-739)

Rocco spoke of his interaction with the fictional child character, talking about nine-year-old Max as a real person with which the actors, in their roles, had to teach about neurodiversity:

> So we the the actors I mean the different roles try to make to help
>
> that boy understand, erm what mental health is, or why people act
>
> differently around people with mental health issues. (371-373)

As well as the positives of involvement in script rehearsals, those who rehearsed and performed 2012/2013 expressed negative feeling toward the director at the time, seeing the need for a director, but perhaps a different individual:

> I remember we had a director come down, he helped kind of put, the
>
> I say put it together, he helped use some like, some drama. So his
>
> drama knowledge to help bring it all together…. maybe someone
>
> who's a little bit gentler. erm, and you know, can probably just help
>
> explain things through a bit more.
>
> (Ru, 204-214)
>
> But, you know, if there was one thing that stopped it from being huge
>
> amounts of fun, it was, it was him, but then, you know, he is kind of
>
> the boss, when you're the director and you're not always supposed
>
> to be liked as the boss, so.
>
> (Ge, 266-269)

This highlights the importance of the director needing to be a neutral facilitator, as prescribed in Allport's intergroup contact hypothesis (1979), and is something to be mindful of for the future of Experiential Intergroup Contact.

Actor/process versus Audience/product

The actor/process versus audience/product theme comprises the subthemes: experiential, embodied sensory experience; importance of actor performing, as opposed to

being an audience member; practicalities of performing; aesthetics, props; stage; set

design; and improvements to the script.

There were several clear indications that it is important to elicit multiple sensory

cues and to embody the roles in Stigmaphrenia©, above that of (e.g.) reading the message

the script contains:

> Well, I think a play works well, because I always think, it's quite,
>
> plays make it a bit easier to take a message from it. I think it works
>
> better than, say, just a leaflet, or, er kind of just text to read. Like
>
> with a stage, you've got the like visual, my information all of that.
>
> (Ru, 612-616)
>
> [T]he way that the play was set up and everything, it just makes it
>
> realistic in my head, like I remember it much better than I think I
>
> would remember something else. erm instead of just reading it, and
>
> so on, but it's it's, it's stuck in my head and I think about often, it pops
>
> in my head once in a while.
>
> (Ca, 580-585)

There was also an obvious importance placed on being an actor involved in the rehearsal

process, as opposed to an audience member viewing the performance:

> I had a great experience from being the actor. I don't know if it
>
> would have had the same effects on me, as it did if I hadn't been in
>
> it instead of just watching it.
>
> (Ca, 743-746)
>
> [F]or those who are acting there's definitely much more of a self-
>
> involvement… [L]ike it's, you're exploring the possibility of these
>
> mental health dimensions.
>
> (Eu, 700-701 & 731-732)

[F]or me the, the, what's so great about the play was that and just the whole process of it and learning for yourself and learning from others around us… I mean, it was it was as much as it was an exploration of the text that you'd written, it was an exploration of, yeah, ourselves as well… What's really stuck with me is things that I learned in the process of making it. And the things I learned about myself and other people.

(Ge, 111-113, 560-562, & 698-700)

I mean theatre, you know, brings people closer because you share an experience with the other person. That was the most important thing… If I go watch a play or watch a movie, if you asked me like, five years later, I would just remember that it was just something I watched.

(Ro, 660-662 & 809-812)

The benefit of them being actors, is that it seemed it would seem a lot, I think it would help, I think that overridingly would help break down the stigma. (Ru, 670-673)

The experiential need and need for embodiment may also be seen in participants' need for props and suggestions to improve the performance with props and set design:

[W]e had very limited. Erm, oh what's it called, like props and stuff. That could, that would be you know, it could be made a little bit cooler.

(Ca, 662-664)

[P]rops and costumes. And they always help because they help people get into their characters… actors often say that when they get into their characters costume for the first time, it's when they can

properly appreciate the role.

(Ge, 793-794 & 807-809)

I like the state, the play for what it was, like I thought, like the story

arc actually worked really well. For what, you say, I mean, I guess

the only thing that you could do is up, not necessarily update the

celebrities, but, erm, [maybe just], erm, yeah, just keep the

celebrities up to date with modern time.

(Ru, 555-560)

In summary, analyses reveal that the use of Stigmaphrenia$^{©}$ as a means of

Experiential Intergroup Contact was an effective, long-lasting method for positively

affecting mental health attitudes, affect, language, and behaviour for the past actors

interviewed. There was also a welcome and unexpected finding that involvement with the

script during rehearsals afforded actors self-stigma reduction and even pre-emption of the

internalisation of stigma.

Discussion

This study aimed to identify via thematic analysis if there are core themes that

occur for all or most of the past actor interviewees regarding their experience of and

involvement with Stigmaphrenia$^{©}$. A second aim sought to determine if involvement with

Stigmaphrenia$^{©}$ as an actor is an effective strategy to positively alter mental health

attitudes, affect, language, and behaviour, and if these changes last. Analyses identified

five key themes: before Stigmaphrenia$^{©}$; after Stigmaphrenia$^{©}$; self-stigma; intergroup

contact criteria; and actor/process versus audience/product

Before and after Stigmaphrenia$^{©}$ appears ultimately to be defined by a change in

narrative held about mental health, from one of pathology and disorder, to that of

neurodiversity, and difference and not less. This is evident in the changes in

communication about and toward the neurodivergent seen post-Stigmaphrenia$^{©}$, with

interviewees discussing mental health in terms of difference and diversity, as well as disclosing personal experiences to friends, family, and work colleagues either as a means of disclosing to support themselves or seek help, or to object to stigma they witnessed.

While a thematic analysis was carried out for the present qualitative study identifying key themes, the apparent relevance of the findings in relation to language discourse and narrative construction are in-keeping with Foucauldian discourse and narrative theories: how language – discourses and narratives – constructs and perpetuates the dominant, socially sanctioned knowledge that psychologically divergent ways of experiencing distress are medical illness (Foucault, 1988; Georgaca, 2014; Roberts, 2000). This is particularly prudent given the mental health and stigma topic, and helps us consider the discourse at the macro, societal level (Parker et al., 1995).

The contrast between how past actors remember their language and perception of mental health before Stigmaphrenia© and how they discuss it some three-to-five years later demonstrates the malleability of the mental illness narrative. This further demonstrates the power that language has on attitudes and behaviour about and toward others, and toward the self – how language shapes interviewee reality and worldviews (Foucault, 1988; Georgaca, 2014). We can be said to think and act according to narrative structures (Howitt, 2010; Roberts, 2000), and it can be argued that the interviewees spoke of two narratives: one they embodied and enacted prior to Stigmaphrenia©, and the narrative they appear to embody and enact following their involvement.

Arguably, what can be seen from the present study findings with the interviewed past Stigmaphrenia© actors is they tell a story of two realities relating to those who are considered mentally ill. Prior to exposure and involvement with the script, the outgroup is ill. Following involvement this group are no longer an outgroup, nor ill: they are diverse. Inherently, inescapably ill versus divergent from societal ideas of normality, and normal behaviour. It could be argued the past actors involved with Stigmaphrenia© and the

narrative of neurodiversity challenged the dominant mental illness narrative, which in turn

affected their attitudes and behaviour about and toward the neurodivergent, and most

importantly, themselves.

<div align="center">**Methodological Limitations and Ethical Consideration**</div>

The use of qualitative interviews to investigate past Stigmaphrenia© actors'

experiences of being involved in the play is a strength of this study, allowing for collection

of rich, in-depth data. However, the analyses need to be interpreted with caution, as there

were no further coders, and as a reflexive researcher it is personally acknowledged that

subjective bias is likely to have guided the development of themes identified (Mehra,

2002):

> [T]he degree of affinity researchers have with the population under study
>
> including researchers being a member of the group themselves can
>
> introduce a question of bias in the study (Mehra, 2002). Given this affinity
>
> these "insider" investigators may limit their curiosities so they only
>
> discover what they think they don't know, rather than opening up their
>
> inquiries to encompass also what they don't know they don't know.
>
> (Chenail, 2011, p. 257)

While attempts were made to allow the data to lead the analysis approach, it is

acknowledged that codings and themes cannot emerge organically from the data, but are

created by the researcher (Howitt, 2010; Mehra, 2002). It should not be ruled out that in

developing the superordinate themes and findings, then relating the interviewee narratives

to the discourses held in macro society, qualitative interviewers are capable of seeing what

they want to see.

Given how "[i]nterpretive research begins and ends with the biography and self of

the researcher" (Denzin, 1989; as cited in Mehra, 2002, p. 7), as a researcher I

continuously attempted to remind myself of the bias that can occur at every stage of

qualitative research. I reminded myself of the personal bias that can establish the research

questions, interview schedule development, interviewing the participants, and analysing

the data, particularly as I knew the participants prior to interviewing them, having recruited

them for their roles and involvement with Stigmaphrenia©. For full transparency, the latter

is a critical ethical consideration that readers should be made aware of, as both interviewer

and interviewee could be motivated to construct a bias narrative validating the

effectiveness of the Stigmaphrenia© script and rehearsal process.

Given my awareness of personal bias, I stuck closely to the interview schedule, but

I am mindful that just my interviewing them may have influenced past actor responses.

Quantitative or qualitative, as a researcher it is not possible to detach oneself from one's

values and assumptions, and these will inevitably impact practice (Prilleltensky, 1997).

This can impact the validity (or trustworthiness) as well as the reliability (or consistency)

of the findings (Ali & Yusof, 2011), as without further coders to assure the credibility of

the themes identified it is possible to call the internal validity into question (Chenail,

2011). I have attempted to take accountability of my research practices through explicit

description of my research steps, as prescribed in debates on the practice of qualitative

research (Ali & Yusof, 2011).

As with any study, and particularly so with qualitative studies, given the

methodological and ethical issues it would be remiss to discuss generalisability of the

present findings. However, finding that Stigmaphrenia© improved interviewed past-actor

attitudes, language, and behaviour toward those with mental health problems, and pre-

empted or reduced the internalisation of stigma, there is potential for Experiential

Intergroup Contact to tackle public and self-stigma.

Conclusion

The findings of this qualitative study suggest that involving university students in

Experiential Intergroup Contact with Stigmaphrenia© may be a feasible method that may

be effective in impacting attitudes, language, and behaviour about and toward those with

mental health problems. Critically, the findings also demonstrate how EIC with

Stigmaphrenia© may help pre-empt or reduce stigma directed toward the self. These

findings have implications for future EIC research and practice. To validate the findings,

future work with Stigmaphrenia© would involve longitudinal, mixed-method data

collection during a randomised control trial building on the qualitative findings identified

here. This would involve creating quantitative measures of attitude and behaviour, and

importantly self-stigma, building on the qualitative themes found, strengthening the

evidence for Experiential Intergroup Contact with Stigmaphrenia's© efficacy and

effectiveness. Given the effectiveness of Stigmaphrenia© for the interview participants, it

would be prudent to work with drama schools and departments to facilitate EIC similarly

as experienced by the past actors and in-keeping with its praxis detailed in Chapter Two.

In conclusion, the experiential, embodied involvement with Stigmaphrenia© and its

neurodiversity narrative was an important factor contributing to interviewee mental health

awareness; positive attitudes, language, and behaviour; and the pre-emption or reduction of

personal self-stigma, leading to disclosure. This is a particularly humbling legacy for

Stigmaphrenia©, and encouraging for the future of Experiential Intergroup Contact.

Chapter Seven. General Discussion: Limitations and Future Directions for Experiential

Intergroup Contact

The main aims for this thesis were to evaluate an evolution in the intergroup

contact literature, *Experiential Intergroup Contact* (EIC), for reducing mental health

stigma and under what conditions it is most likely to be effective, and asked:

Q1: Can EIC reduce mental health stigma?

Q2: Do stigma-reduction outcomes following EIC last?

Q3: By what mechanisms does EIC work?

Six studies attempted to answer these questions. The following is a critical consideration

and summary of what can be said about the effectiveness of EIC following the studies

carried out in this thesis.

Summary of Findings

Following the evidence that stigma toward those with mental health problems is

still prevalent in *Chapter One, Study 1* ($N = 154$ university students), *Chapter Three, Study

2* investigated the extent to which the theorised experiential element of EIC acts as a

mediating mechanism on stigma-reduction outcomes ($N = 84$ secondary school pupils),

finding a significant increase in pupil awareness of mental health stigma. This study's

findings did not significantly contribute an answer to the question about what mechanisms

EIC works via, but participant pupils' qualitative responses provided valuable insight into

how EIC and the Stigmaphrenia© script are experienced. The following is a more critical

consideration of the findings of Study 2.

In Study 2 ($N = 84$ secondary school participants aged 12 to 18 years), EIC was

compared with a videoed actor read-through of the Stigmaphrenia© script, and a script-only

condition to determine if the level – quantity and quality – of experiential sensory cues

differentially affected stigma outcomes. Of the key stigma outcomes only two significant

results were found. While the means for all stigma outcomes indicated low levels of

stigma, both at baseline and post-test, we saw an increase in Peer Mental Health Stigmatisation at post-test, regardless of the condition participants were in. This can be said to tell us that adolescent participants were not positively affected by their involvement with the Stigmaphrenia narrative as was hoped, and that engaging adolescents with a narrative about mental health increased their awareness of mental health stigma as indicated by the significant increase in the subscale stigma awareness at post-test. Participants did not increase their personal acceptance of stigma attitudes, affect, and intended behaviour, but neither did they reduce it, which is the aim of EIC.

Looking to the qualitative responses, it could be argued that there is an age-appropriateness for the use of EIC. I say this in response to the evaluations from the 12-years-plus participants compared to the older adolescents aged 17-years-plus, where the younger pupils seemed to enjoy the interactive EIC method, where the older adolescents did not. This is a possible limitation in the application of EIC with Stigmaphrenia©, and one to consider in future investigation.

As well as the possibility that EIC with Stigmaphrenia© may be more suitable for younger participants than older adolescents, it is also possible that encouraging adolescents to consider themselves as belonging to the same superordinate identity as those considered mentally ill – priming and making salient the stereotypes of the outgroup (e.g. in the script) – they may have strengthened their identification with the mentally well ingroup, resulting in a need to maintain negative evaluations of the outgroup to maintain positive self-esteem and optimal distinctiveness (Brewer, 1991; Tarrant, Calitri, & Weston, 2012). However, this is conjecture and not substantiated in the limited findings, as while stigma appeared to increase, it was *awareness* of stigma that increased, and overall, at baseline and post-test, the majority of stigma outcome mean scores did not surpass the midway point, indicating low stigma. This latter point is important to consider for future research: if stigma is already low, the aim of reducing explicit indices of stigma may not be a fruitful one. It

may be prudent to move forward with aims to affect benevolent attitudes and behaviours.

For adolescents seemingly already low in mental health stigma this may mean encouraging

positive narratives and increasing knowledge of mental health (literacy indices), and

confidence in contact – contact self-efficacy (Turner & Cameron, 2016).

     Chapter Four, Study 3 investigated the utility of the neurodiversity recategorisation

element with a crowd sourced population online ($N = 146$). While the manipulation of the

neurodiversity recategorising element could have been stronger, those exposed to the

neurodiversity common ingroup narrative had significantly less mental health stigma

agreement than either the condition that maintained the divisiveness between the mentally

well and mentally ill (separate groups condition), or controls. This provided some support

for the recategorisation properties of the neurodiversity common ingroup identity

embedded within the Stigmaphrenia© script, although this study could not successfully

contribute to the question about the mediating mechanisms with which EIC theorises to

operate via, as the recategorisation element was not tested in a comprehensive model.

Looking at the methodology of the recategorisation Study 3, Chapter Four, on critical

reflection an opportunity was missed to investigate the second mediator theorised to

contribute to the overall EIC model as described in the theoretical Chapter Two.

     Future study should investigate the theorised recategorisation element as a potential

mediating mechanism, as outlined in the EIC theory and praxis. This will allow for testing

of a comprehensive model of EIC, whereby the theorised experiential and recategorisation

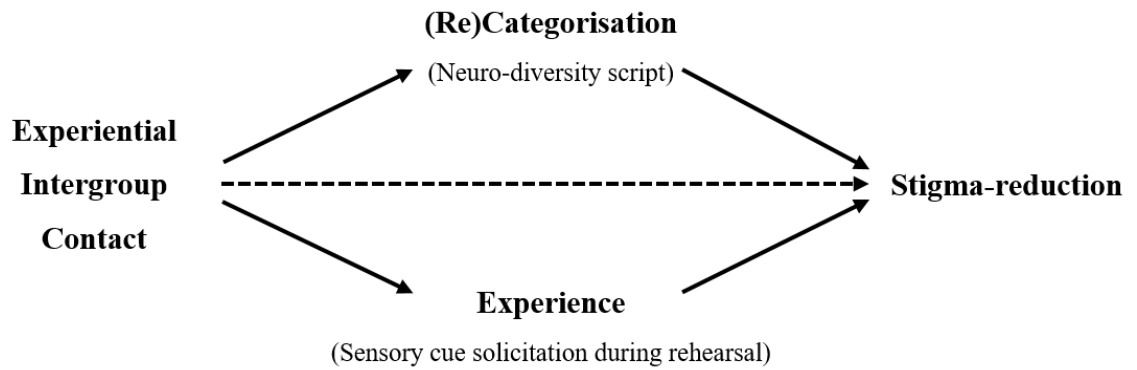mediating mechanisms can be investigated (Figure 15).

Figure 15. Future mediator studies investigating the fundamental mechanisms of experience and recategorisation for Experiential Intergroup Contact to work

In *Chapter Five*, studies *4* and *5* investigated the longevity of EICs effects with a school sample ($N = 52$ secondary school pupils) and a university sample ($N = 89$ university students), finding school pupil participants to have significantly greater intention to volunteer at a local mental health drop-in centre following their involvement with EIC. Some support for the longevity of EICs effects were found with the university sample, who had significantly the least stigma and unwillingness to engage in future behaviour with the mental health problem outgroup seven weeks following their involvement with the EIC method. These findings go some way to answering the questions *if* and *for how long* EIC works to reduce mental health stigma. The following is a more critical consideration of the findings of Studies 4 and 5.

In Study 4 ($N = 52$ secondary school participants aged 16 to 19 years) and 5 ($N = 89$ university undergraduates students aged 17 to 29 years), the potential longevity of EICs effects on stigma were measured at three time points in a randomised control design. In both studies, EIC was compared with a leading indirect contact method (imagined intergroup contact), an educative method (reading the facts of mental health and stigma), and a control, and stigma outcomes were measured before, after, and seven-to-10 weeks later to determine if there was a reduction in stigma, how long the reduction might last, and if it depends which stigma reduction method a participant was in.

Much like Study 2, both samples in Studies 4 and 5 did not return negative

attitudes, affect, and intended behaviour either at baseline or following intervention –
neither sample was particularly stigmatising either before or after intervention. However,
like Study 2, the school student participants had greater stigma awareness at time 3,
regardless of the condition they were in, and EIC did not decrease (or increase) their
personal endorsement of stigma. Arguably, what we are seeing is that regardless of the
condition school participants were in they all became more aware of mental health stigma
due to its salience in the study methods, and this is supported by the significant increase in
perceived existing intergroup contact at time 3. Encouragingly, while self-report
stigmatising attitudes and affect did not change, EIC encouraged more pupils to sign up to
volunteer at a local mental health drop-in centre compared to the other conditions, and so
while attitudes may not have been affected, arguably EIC had an effect on intended
behaviour.

In study 5 specifically, there were only two significant effects: university
participants in the EIC condition had the least stigma (Peer Mental Health Stigmatisation
Scale) at time 3, some seven weeks following intervention, than control participants; and
EIC participants had significantly less discriminatory behavioural intention than controls.
These findings tell us that EIC is better on these stigma indices than doing nothing, but
does not tell us why EIC was not significantly better or different on stigma scores
compared to the imagined contact or facts of stigma conditions. This may, however, tell us
something about the comparison conditions themselves. Null findings themselves can be
illuminating, and in this instance it is important to note that there were no significant main
effects for imagined contact on stigma, which would be expected given how the imagined
contact scenario was lifted from an established procedure (West, Holmes, & Hewstone,
2011). Although this was not a replication study focussing on the use of an established
imagined contact instructional set, the lack of stigma reduction is worth mentioning.

The final sixth study in *Chapter Six* ($N = 5$) qualitatively investigated the longevity of changes in mental health attitudes, affect, language, and behaviour for past actors as a result of their involvement with the EIC script Stigmaphrenia©. The thematic analysis identified that past actor experiential, embodied involvement with Stigmaphrenia© and its neurodiversity narrative was an important factor contributing to interviewee mental health awareness; positive attitudes, language, and behaviour; and the pre-emption or reduction of personal self-stigma, leading to disclosure. While the findings ought to be interpreted with caution (due to my familiarity with participating interviewees), these are particularly encouraging findings for the future of Experiential Intergroup Contact.

In summary, the data collected for the five studies investigating the effects of EIC on stigma indicate, albeit limitedly, that: as a method it can increase school pupils awareness of stigma and encourage them to volunteer at a mental health drop-in centre; the neurodiversity narrative can result in the least stigma agreement (personal endorsement) than a narrative maintaining the divisiveness of separate groups (mentally well versus mentally ill); in university student samples EIC is better than doing nothing to reduce stigma, and these effects may last up to seven weeks later; and introjecting the outgroup to the self may go some way to explaining the effects of EIC on stigma, but study methodology needs to be strengthened before mediating mechanisms can be established.

Critical Discussion

Having had time to reflect on the thesis in its entirety, and what did not work, it is important to consider *why*. The prejudice-reduction literature describes reasons for prejudice reduction to fail, and these may have played a role in the limited efficacy of EIC during this thesis. For instance, externally motivated primes to reduce prejudice – e.g. societal requirement, study demand characteristics – can backfire due to enforced prejudice change. Removing a person's freedom to choose to reduce prejudice can paradoxically increase prejudice toward a target group (Legault, Gutsell, & Inzlicht, 2011), as can

focussing on prevention of prejudice opposed to promotion of positive contact (West & Greenland, 2016). Even though thesis study procedures did not explicitly state the aim of studies was to reduce stigma, it is possible that EIC backfired if participants felt that this was the aim. Although the qualitative study interviews and analysis need to be interpreted with caution, it is possible that original actors of Stigmaphrenia© autonomously valued the non-stigma message of the play, having volunteered to take part in rehearsals and performances, where participants in the studies carried out for this thesis had their autonomy weakened or removed – important distinctions.

On closer inspection of the possible differences between the voluntary actors in the rehearsal process of Stigmaphrenia 2012-2013, and the majority of the participants in the thesis studies, it may be prudent to consider that the target of stigma reduction with EIC should not, in fact, be those without mental health problems. The main goal of this thesis was to identify if EIC was effective in reducing *public* stigma – the negative stereotypes, attitudes, and intended behaviour of those *without* mental health problems. As discussed in Chapter Two, there are many reasons why stigma and prejudice reduction strategies backfire for majority ingroup members – threat to positive social identity; norm priming; stereotype rebound; negative self-evaluation via perspective-taking – and it is possible that those without mental health problems (the majority group) experienced some or all of these effects, particularly as the praxis of EIC with Stigmaphrenia© asks participants to "take on-board and experience the perspective(s) of your character role(s) assigned to you, interacting with the other students and their roles" (Chapter Two, p. 52) . Experiential Intergroup Contact with Stigmaphrenia© may contribute best to the theoretical and applied literature as a mode of *self-stigma* reduction, one that affords improved self-esteem, a sense of positively belonging to the neurodivergent subgroup, but also a self-stigma-reduction method that can maintain a sense of friction with the majority neurotypical group

so as not to impede any action on behalf of the stigmatised minority ingroup (Dovidio, Gaertner, & Saguy, 2007; Glasford & Dovidio, 2011).

Moving forward, it would be important to reconsider the methodologies employed to investigate my theory of Experiential Intergroup Contact, building on and learning from what did and did not work during my thesis studies. On reflection, this deeper appreciation of when and why prejudice reduction methods can and do backfire would be essential in designing studies that seek to operationalise the EIC method. As well as factors already discussed, it would be important to consider aspects known to impede prejudice reduction, such as: an enforced stigma-reduction message versus an autonomous one (Legault, Gutsell, & Inzlicht, 2011); intergroup anxiety (Stephan, 2014), and more relevantly, rehearsal/performance anxiety (Study 4, Chapter Five), so that the contact experience is positive not negative (Barlow, et al., 2012); as well as consideration of personality and individual differences of participants, such as age, authoritarianism, and social dominance orientation (Dovidio, Hewstone, Glick, & Esses, 2013).

Finally, and critically, I consider how EIC can theoretically contribute to the wider stigma and prejudice reduction literature. I argue in theoretical Chapter Two that Experiential Intergroup Contact works as a form of indirect, simulated contact that has been informed by Allportian Intergroup Contact Theory prescriptions; (re)categorisation approaches; and the fundamental need for experiential sensory cues to break down intergroup stigma toward those with mental health problems. I also discussed how often much of the literature does not separate and compare education versus contact stigma-reduction elements (Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004). I must, then, consider whether EIC can be considered as solely a contact method, or if the praxis of EIC makes it a contact-education hybrid. Given how I myself argue in Chapter Two that many interventions claiming to be a contact intervention are more of a contact-education hybrid, which makes the effects of contact difficult to determine, it is possible that EIC has an

education component, teaching participants about the mental health outgroup, and the

narrative of neurodiversity. This is not a detriment of my contact method, its praxis, or

theoretical underpinnings, but is an element than can be considered and factored into future

research. This would then make measures of mental health literacy valuable outcomes to

consider in future study design.

Future Directions

Future investigation of EIC to reduce mental health stigma will need to consider

and reconfigure the methodological designs employed in this thesis in order to reliably

establish answers to the initial research questions posed: can EIC reduce mental health

stigma? do stigma-reduction outcomes following EIC persist across time? and by what

mechanism does EIC work? Firstly, as a means of answering these questions it will be

necessary to first operationalise EIC as theoretically described as a praxis in-keeping with

the proposed rehearsal process described in Chapter Two. It is likely that the constraints of

working within an experimental setting, rehearsing with Stigmaphrenia$^{©}$ over a short three-

hour period, does not capture the true potential of EIC. This is a potential observed in

qualitative Study 6 with past actors, findings which could be further substantiated with an

experimental design capable of quantitatively capturing these qualitative outcomes.

Further investigation would attempt to replicate the experience that past actors felt during

rehearsal intended for performance and latter actors involved in rehearsing and filming a

version of Stigmaphrenia$^{©}$, qualities that are not easy to replicate in experimental

laboratory conditions during a three-hour period. Crucially, given the finding that the

positive effects for past Stigmaphrenia$^{©}$ actors related to self-stigma reduction or

prevention, future work might reconsider whether the target population for stigma

reduction with EIC ought to be those with or those without mental health problems (public

versus self-stigma).

Secondly, as a means of answering these questions it will be prudent to simplify experimental designs and limit the number of outcome measurements. This is particularly important in real world settings working with adolescents who experience study fatigue (as comments from younger participants indicated in Study 4, such as comments questioning why pupils saw the same questions repeatedly). It may be beneficial to measure at only two time points for instance, both pre-involvement with EIC Stigmaphrenia$^{©}$ and three months later, given how data collected immediately after involvement may experience confounding noise effects from the emotional and cognitive arousal of the study experience, or conversely delayed sleeper effects when measured immediately following EIC involvement, as posed in Chapter Three, Study 2. This noise may be reduced or minimal when measuring after a period of time following EIC involvement.

Thirdly, the types of measurements and the fundamental aims of future study with EIC can be revised in light of the limited findings of this thesis and the critical discussion on the wider theoretical implications of the research overall – i.e. as a contact-education intervention to reduce self-stigma. The use of an unestablished measure of stigma – Peer Mental Health Stigmatisation Scales – although factor analysed (McKeague, Hennessy, O'Driscoll, & Heary, 2015), and seemingly measuring all the components of stigma (public and self-stigma; positive and negative aspects; stereotypes; prejudice; and discrimination; Corrigan & Shapiro, 2010), could have been problematic. Future investigation of EIC ought to use established measures of stigma, which will also make any results comparable to other studies of mental health stigma reduction. As well as simplifying and reducing the number of outcome measures, using established and comparable scales, concentrating on key outcomes that may be better placed to test EICs effects would be a must. This would include an established stigma-reduction measure with the key factors known to comprise the cognitive and behavioural elements of stigma, as well as measures of the two theoretical mediators – recategorisation into a common ingroup affording dual identities,

and the need for experience of sensory cues. An interesting dependent variable would be one that measures participant confidence in contact during EIC – contact self-efficacy – ascertaining the importance of this factor as one discussed in recent years (Turner & Cameron, 2016), and mentioned in Chapter Two, but not measured in thesis studies.

Aside from methodological consideration, EICs future includes investigating:

- The creation and application of EIC scripts for further marginalised groups

- Experiential Intergroup Contacts' ability to reduce or pre-empt self-stigma

- The efficacious, real-world impact of EIC within highly stigmatising populations, such as clinical settings with professionals

The future of EIC includes the creation of further scripts for other stigmatised and discriminated groups. These further scripts would be developed in conjunction with persons from stigmatised groups in order to authentically represent their narrative.

Concluding Remarks

I hear, and I forget;

I see, and I remember;

I do, and I understand[37]

― MacLean (1967)

The need for experience of the outgroup is fundamentally a prerequisite for intergroup contact (Harwood, 2010). Where direct experience with the outgroup is either logistically, geographically, or psychologically difficult or improbable, the personal involvement in the simulation of the intergroup contact experience is arguably the next

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[37] Adapted from the original by the Confucian philosopher, Xunzi (1990), which translates as "Not having heard something is not as good as having heard it; having heard it is not as good as having seen it; having seen it is not as good as knowing it; knowing it is not as good as putting it into practice" (p. 81).

step in creating the necessary psychological propinquity to the target outgroup. In realistically simulating the intergroup contact situation during Experiential Intergroup Contact, theoretically ingroup members can feel psychologically close to the outgroup, as well as objectively experience the sensations expected within direct intergroup contact (e.g. auditory, visual, tactile, olfactory). More than this, EIC arguably affords a first-person perspective of the outgroup as ingroup members take on outgroup member roles. In this way, EIC is unique in that ingroup members role-playing the outgroup can introject the other to the self. The method should also help ingroup members project their ingroup self to the outgroup via the salient common ingroup identity of neurodiversity embedded within the EIC script. Finally, without the need for physical proximity to the mental health outgroup the issue of intergroup anxiety may be averted.

Thus, Experiential Intergroup Contact has the potential to be an inexpensive, in-depth, guided application of Allport's intergroup contact theory, which affords a safe space to confront stigma: a truly experiential contact method to tackle a difficult topic (Kolb, Boyatzis, & Mainemelis, 2001). Ultimately, EIC takes the advances in intergroup contact – the evidence for direct intergroup contacts efficacy and effectiveness; the knowledge about what mediates intergroup contacts effects (i.e. empathy; perspective-taking; intergroup anxiety); and the more recent integrative theories of intergroup contact, which include the need for a shared common ingroup identity (Brown & Hewstone, 2005) – and concentrates on the basic premise of contact: the *experience* of intergroup communication (Harwood, 2010), in an attempt to get back to the roots of Allport's direct, face-to-face intergroup contact.

With regards to the theory and praxis of EIC, undoubtedly, it is expected that the same criticism that is levelled against existing indirect contact modes may be directed at EIC – that there is a lack of *actual* contact with the outgroup. However, unlike some discriminated groups it is highly probable that individuals will come into contact with

those with mental health problems at some time in their life, given how 43.4 per cent of

adults believe they have had a diagnosable mental health problem at some point (Stansfeld,

et al., 2016). Further, unlike some social groupings and identities, mental health problems

can affect anyone: it is a non-discriminatory phenomenon, affecting anyone regardless of

race, ethnicity, culture, and socioeconomic status. This makes it possible that ingroup

members without mental health problems can later become an outgroup member, affected

by their own mental health problems at some point in their lifetime (Stansfeld, et al.,

2016). With the use of Stigmaphrenia[©] EIC, it may be possible to affect self-stigma,

helping those who come to experience their own mental health problem feel safe in

disclosing their experience, curtailing the need to conceal. The self-stigma reduction

potential of EIC was found, anecdotally, in Chapter Six, Study 6, where past actors with

their own mental health problems found their involvement in Stigmaphrenia[©] beneficial in

terms of: their understanding of mental health in relation to neurodiversity; an increased

inclination to disclose their experiences; a change in attitude and behaviour toward others

they encounter who are neurodivergent; and improvement in personal self-esteem.

This inaugural treatise has described the theoretical foundation for, and practical

potential of, a novel Experiential Intergroup Contact for reducing mental health stigma.

Where real or overt contact is not practical, particularly with regards to the concealable

nature of mental health problems, Stigmaphrenia[©] can potentially provide a truly

experiential intergroup contact: a contact *sans* contact.

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APPENDICES

Contact sans Contact: Investigating a Novel Experiential Intergroup Contact Approach to

Reducing Mental Health Stigma

Chloe Tresoi Tyler Farahar

School of Psychology

University of Kent

Appendix A: Universal Measure of Bias in Study 1

Stem: Each of the statements below refer to people who are mentally ill [gay; disabled]. Please indicate to what extent you agree or disagree with each of the statements using the scales provided.

Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers.

Strongly agree	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**

1. ____people tend toward bad behaviour. [a]
   ____ people are sloppy. [a]
   Sometimes I think that ____ people are dishonest. [a]
   ____ people have bad hygiene. [a]
   In general, ____ people don't think about the needs of other people. [a]
2. Generally, people would not want to have a ____ person as a roommate. [a]
   Generally, people like ____ people.
   Generally, people don't enjoy having a conversation with a ____ person. [a]
   Generally, people would be comfortable having a ____ person in my group of friends.
   Generally, people would like having a ____ person at my place of worship or community centre.
3. Generally, people find ____ people attractive.
   ____ people make good romantic partners.
   Generally, people find ____ people to be sexy.
   ____ people are a turn-off. [a]
   Generally, people find ____ people pleasant to look at.
   Universal Measure of Bias Total

Note. Scoring the UMB scale: The mean average was found for all items per subscale to calculate the UMB scores. Items rated on a 5-point scale from *Strongly Agree* to *Strongly Disagree*. Factor 1 reflects negative judgment, factor 2 distance, and factor 3 attraction.

[a] = item is reverse-scored: high scores indicative of negative judgement, a need for distance, and a lack of attraction toward someone who is mentally ill; gay; and disabled.

Appendix B: Intended Behaviour Measure in Study 1, 2, 3, 4, and 5

Intended Behaviour Measure Instructions and Scale in Study 1 with University Students

Instructions: Each of the statements below refer to people who are mentally ill [gay; disabled]. Please indicate to what extent you agree or disagree with each of the statements using the scales provided.
Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree

1. In the future, I would be willing to live with someone who is _____.
2. In the future, I would be willing to work with someone who is _____.
3. In the future, I would be willing to live nearby someone who is _____.
4. In the future, I would be willing to continue a friendship with a friend who is _____.

Note. Scoring the Intended Behaviour scale: the mean average of the IB scale was computed for each group (mentally ill; gay; disabled), with high scores indicative of negative intended behaviour (scored on a 5-point Likert scale, *Strongly Agree – Strongly Disagree*).

Intended Behaviour Measure Instructions and Scale in Study 2 with Schools, Study 3 [Prolific], and Study 5 [University Students]

Instructions: Please indicate to what extent you agree or disagree with each of the statements using the scales provided.
Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers.

Completely disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Completely agree

1. In the future, I would *not* be willing to live with [someone] a teenager who has [a mental illness] mental health problems.
2. In the future, I would be willing to work with [someone] a teenager who has [a mental illness] mental health problems.[a]
3. In the future, I would be willing to live nearby [someone] a teenager who has [a mental illness] mental health problems.[a]
4. In the future, I would *not* be willing to continue a friendship with [someone] a teenager who has [a mental illness] mental health problems.

Intended Behaviour Measure Instructions and Scale in Study 4 with Schools

Instructions: Please indicate to what extent you agree or disagree with each of the statements using the scales provided.
Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers.

Strongly agree	**Agree**	**Somewhat agree**	**Neither agree nor disagree**	**Somewhat disagree**	**Disagree**	**Strongly disagree**

1. In the future, I would ***not*** be willing to live with a teenager who has mental health problems.[a]
2. In the future, I would be willing to work with a teenager who has mental health problems.
3. In the future, I would be willing to live nearby a teenager who has mental health problems.
4. In the future, I would ***not*** be willing to continue a friendship with a teenager who has mental health problems.[a]

Note. IB = mean of items 1 – 4; high scores = negative intended behaviour – participants do not intend to engage in the behaviours stated. [a] = reverse scored

Appendix C: Affective Prejudice Scale in Study 1

Stem: For the statements below, we are interested in how you feel toward people who are mentally ill [gay; disabled].

Never   **Rarely**   **Sometimes**   **Often**   **All of the time**

1. How often have you felt sympathy for _____ people?[a]
2. How often have you felt admiration for _____ people?[a]

Note. Scoring the Affective Prejudice scale: the mean average of the Affective Prejudice scale was computed for each group (mentally ill; gay; disabled), with high scores indicative of negative emotion toward those categorised as mentally ill, gay, or disabled (scored on a 5-point Likert scale, from *Never - All of the Time*). [a] = item is reverse-scored.

Appendix D: General Evaluation Scale in Study 1

Instructions: Please use the scale below to rate how you feel about people who are mentally ill [gay; disabled] on each of the dimensions listed. You should base your ratings on your first impressions and how you view this group of people, as there are no right or wrong answers.

For example, if asked to rate how you feel about 'Politicians' on the dimension of warm-cold, you would indicate how you view members of this group, from being extremely warm on one end to extremely cold on the other end.

How do you feel about people who are mentally ill [gay; disabled]?

Extremely	**Quite**	**Slightly**	**Neutral**	**Slightly**	**Quite**	**Extremely**

1. Warm .... Cold
2. Negative .... Positive[a]
3. Friendly .... Hostile
4. Suspicious .... Trusting[a]
5. Respect .... Contempt
6. Admiration .... Disgust
7. Good .... Bad

Note. Scoring the General Evaluation scale: the mean average of the General Evaluation scale was computed for each group (mentally ill; gay; disabled), with high scores indicative of negative evaluations toward each group (scored on a 7-point semantic scale, 1, *Extremely: Warm*, to 7, *Extremely: Cold*). [a] = item is reverse-scored.

STIGMAPHRENIA

SCENE 1   SUITABLE, STRANGE, A-TONAL MUSIC.
THE ACTORS SLOWLY, EERILY ENTER, NOT QUITE HUMAN.
OUT OF THEM, A BOY EMERGES, [WHO WILL LATER BECOME MAX],

THE FOLLOWING POEM HAS BEEN ADAPTED FROM ROBERT BURTON'S, ANATOMY OF MELANCHOLY, 1651

But see the madman rage downright
With furious looks, a ghastly sight.
Naked in chains bound doth he lie,
And roars amain he knows not why!

ALL ROAR, MAX STANDS AS A BEAR

Observe him, for as in a glass,
Thine angry portraiture it was.
His picture keeps still in thy presence;
Twixt him and thee, there's no difference

GROUP TURN TO STARE AT THE AUDIENCE

A BEAT

THE GROUP PUT A BEAR-OUTFIT ONTO THE BOY, WHO BECOMES MAX. OTHERS BRING HIM TOYS

THEY RETREAT SLOWLY TO THE SIDES OF THE STAGE, WHISPERING

Max…… Max….. Mad Max……, Max….. Max….Mad….. Max…

SCENE 2

THE SCENE SHIFTS INTO THE NEXT SECTION. THE MUSIC FADES AS MUM ALICE EMERGES FROM THE GROUP. MAX PLAYS IDLY WITH SOME OF THE TOYS

ALICE   …. Max….. Max! Time to put your toys away, bedtime soon…..

NO RESPONSE

ALICE   Max!!!

SHE BENDS TO GET HIS ATTENTION, TICKLES HIM

ALICE   Maximus Gray, are you there?

SHE LAUGHS

NO RESPONSE

ALICE	My, you're in a funny mood tonight. What's up?
	MAX IMAGINES HIS CLASSMATES TAUNTING HIM, HEARS:
GROUP	What's up Max!
MAX	I don't wanna be called Max any more, Mum.
	ALICE HUMOURS HIM
ALICE	Oh!.... Who then?
MAX	Maybe, Jake.
ALICE	Jake?
	MAX WARMS TO THE IDEA
MAX	Jake…..
ALICE	What on earth for? Your dad and I love your name.
MAX	….Or, Harry.
ALICE	Not many Max's around, you know.
	SHE TICKLES HIM AGAIN. MAX SQUIRMS, EMBARRASSED. GROUP SNIGGER
ALICE	Come on, love… what's wrong?
MAX	Everyone's calling me 'Mad Max'.
	GROUP TRY AND SUPPRESS ROARS OF LAUGHTER
ALICE	Who's everyone? You're nine.
MAX	At school.
ALICE	At school?
MAX	They're all calling me "Mad" now.
ALICE	But why, love?
MAX	'Coz I'm a brown bear…. They say I'm crazy 'coz I'm a brown bear!
	GROUP DO IMITATION BEAR NOISES AND ACTIONS
	ALICE, UNSURE HOW TO PROCEED
ALICE	Yes, but…. I mean… why…..?
	SUDDEN OUTBURST, AS MUCH TO AUDIENCE AS MOTHER
MAX	We watched Alice in Wonderland in class today….

GROUP BECOME THE CLASS ON KNEES, WATCHING A 'TV SCREEN'

MAX	…. I don't understand!
ALICE	Understand what, love?
MAX[38]	Why there's so much madness. So many films, and TV and books with mad people in them.
	ALICE, STRUGGLING A LITTLE
ALICE	Well, er.. it's not so much "madness"… more… er…
IMAGINATION	Neuro-diversity.
ALICE	Neuro-diversity, er…
IMAGINATION	Part of being human.
ALICE	Part of being human…. And some programmes and films show it in a good way, and some – well, maybe most - show it in a bad way.
MAX	Why?
ALICE	Well, because most people don't understand it.
MAX	Madness?
IMAGINATION	Neuro-diversity!
ALICE	You see, a long time ago, people didn't really understand, er… "neuro-diversity", and just locked people away because they thought they were just mad, and other people would pay to see them, as if they were animals in a zoo.
	GROUP BRIEFLY RE-ENACT A BEDLAM SCENE, WITH "MAD" PEOPLE, AND OTHERS POINTING AND LAUGHING AT THEM. THIS FREEZES AFTER A FEW SECONDS

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[38] The script contained in the appendices here is the version participants of EIC studies read. There is an updated 2018 version of Stigmaphrenia© which incorporates the evolution of the neurodiversity paradigm and consequently the expansion of the language that accompanies it. For example, the original script was written when the only terminology available was neurodiversity. The expansion in neurodiversity language now includes terms such as neurodivergent and neurotypical, reflected in the latest Stigmaphrenia© script – available on request. Below is an example of an update.

MAX	Why there's so much madness. So many films, and TV and books with mad people in them.
	ALICE, STRUGGLING A LITTLE
ALICE	Well, er.. it's not so much "madness"… more… er…
IMAGINATION	Neuro-divergence.
ALICE	Neuro-divergence, er…
IMAGINATION	Part of being human.

ALICE	Now, we're moving away from locking them up
	GROUP UNFREEZES AND REVERTS TO WATCHING MAX INTENTLY
ALICE	But… they are still being shown on TV. TV has become the new "lunatic zoo"
	GROUP RE-ENACT (POSSIBLY AS A FREEZE-FRAME) THIS MODERN "ZOO" – SOME AS THE TV IMAGE, THE REST GAWPING AT THEIR TV
ALICE	As for your classmates, well….
	GROUP RETURN TO SCHOOL IMAGE ON KNEES, LOOKING AT 'TV SCREEN'
ALICE	… they're all silly sausages for being mean and not trying to understand you.
	SHE RUFFLES HIS HAIR, PULLS HIS BEAR EARS
ALICE	Come on you, I've got a good story for bed tonight.
	MAX, GLOOMY AND UNHAPPY
MAX	Alright
	HE TAKES A SMALL TEDDY BEAR FROM HIS PILE OF TOYS
ALICE	Yes, bring little Minimus bear with you!
MAX	Yep.

SCENE 3

	THE GROUP CHANGE THE SCENE INTO A BEDROOM, WITH MAX UNDER A SHEET, AND ANOTHER HELD UP BEHIND HIM, FOR THE SHADOW-PLAY RE-ENACTMENT
	THE GROUP SIT IN A PERFECT SEMI-CIRCLE AROUND THE PUPPET SCREEN, WATCHING THE SHOW AND PROVIDING SUITABLE SOUNDS AND DIALOGUE MOMENTS DURING THE TELLING (ADAPTED FROM KAHLIL GIBRANS THE WISE KING FABEL)
ALICE	Once upon a time, there was a King and his Queen who ruled over a beautiful and happy kingdom of people. Indeed, the happiness of his subjects was the envy of every other country.
	HAPPY PEOPLE SOUNDS
NARRATOR	But one day, a terrible wizard appeared….
GROUP	BOO!
NARRATOR	…. and cruelly poisoned all the wells throughout the Kingdom….
GROUP	OH NO!
NARRATOR	… which sent everyone in the Kingdom mad!
	SUITABLE 'MAD' SOUNDS

NARRATOR	But the King and the Queen were safe from the wizard's potion, because they drank from their own special well inside the castle.
	KING AND QUEEN MAKE DRINKING SOUNDS
KING	Hmmm, delicious!
QUEEN	A very sweet and pure taste!
NARRATOR	But, because everyone in the kingdom had gone crazy, they all looked on each other as still perfectly normal, and that it was the King and Queen who had actually gone mad.
CROWD 1	His Majesty's gone barmy!
CROWD 2	Lost 'is marbles, he 'ave.
CROWD 3	Us can't have that, can us?
CROWD 1	Aye, barmy King; what'll the world think, eh?
CROWD 2	Not good enough, is it?
CROWD 3	Have to do something, I reckon….
	DARK MURMURINGS OF AGREEMENT
NARRATOR	The King was worried and tried to control the population. He told the police he was issuing a series of laws governing security and public health.
KING	I am issuing a series of laws governing security and public health!
NARRATOR	The policemen, however, had also drunk the poisoned water, and thought his decisions were absurd.
PC 1	Daft!
PC2	Stupid!
PC3	Crackpot!
CROWD 1	Ignore him. Take no notice!
	GENERAL AGREEMENT
NARRATOR	So the police ignored the King and his new laws. But the inhabitants were now more convinced than ever that the King had gone mad, and was giving senseless orders. Everyone – from the palace footman to the greengrocer's wife - attempted to convince the King that he was crazy, and to try different remedies to cure his madness.
CROWD 1	Stand on your head and recite the Russian alphabet backwards, your Majesty.
CROWD 2	Drink this lovely slug juice, your Majesty – you'll feel much better.

CROWD 3	Wear these skunk-skin pantaloons on your head, your Majesty – they really are the latest fashion!
KING	Oh, go away, all of you!
NARRATOR	The King was in despair, and prepared to step down from the throne.
KING	I will have to abdicate!
NARRATOR	But the Queen stopped him.
QUEEN	No, no, no, dear. I've got a much better idea. Let's go and drink from the same well as everyone else. Then we'll be the same as them.
NARRATOR	And that was what they did. The King and Queen drank the water of madness and immediately began talking nonsense.
	KING AND QUEEN HAPPILY TALK GOBBLEDEGOOK
NARRATOR	Their subjects saw that the King was now displaying great wisdom, and were once again happy with him as their ruler.
CROWD 2	God save the Kingleblop!
NARRATOR	The country continued to live in peace, although its inhabitants all behaved very differently to their neighbours. And the King ruled happily till the end of his days.
	CONTENTED SIGHS
ALICE	The End.
	THE SCREEN DISSOLVES AND THE GROUP FALL ASLEEP
ALICE	So, Max, what did you think of the story?
MAX	The wizard was very mean.
ALICE	Yes he was.
MAX	But… wouldn't the King be useless once he went mad? He wouldn't be able to do anything.
ALICE	What makes you say that?
MAX	'Coz of what Chris told me at school.
ALICE	What did he say, Max?
	STANDING FROM THE SLEEPING GROUP
CHRIS	Oi, Mad Max! I don't wanna be your friend no more.
MAX	Why not?
CHRIS	Coz you're mad, and you can't do anything if you're mad. You can't know who you are.

	HE SITS AGAIN
ALICE	What do you think that story was about Max?
MAX	A mad King and his mad people.
ALICE	You think so? I think that story tells us that we're only mad if a group tells us we are, like the people in the story: they all said the king was mad because he wasn't like them anymore.
	A FIGURE STANDS
LEE	They said I was mad, and I said they were mad, and damn them, they outvoted me!
MAX	Who are you?
LEE	A playwright called Nathaniel Lee. I said that in 1684, after they locked me away at an insane asylum called Bedlam… Tell me, young Max, before the children at school called you 'Mad' Max, did you think you were?
	MAX SAYS SHEEPISHLY
MAX	I guess not.
LEE	Ah!... Besides, why is being mad such a bad thing? Some of the best people are, y'know.
MAX	Like who?
ALICE	That can wait till morning. I think you should come with me to the museum tomorrow. See what I've been helping George to work on.
LEE	A Max and Mum Saturday outing!
MAX	Alright.
LEE	Now, goodnight, Max.
MAX	'Night.
	ALICE GOES AS IF TO LEAVE
MAX	Mum, you have to say it.
ALICE	As if I'd forget….. Night, night, sleep tight. Bite the bed-bugs, num, num, num!
	THE SCENE SHIFTS INTO THE MUSEUM

SCENE 4

THE GROUP FORM A BIZARRE REPRESENTATION OF THE OPENING IMAGE TO THE EXHIBITION. GEORGE IS FIXING "E", "N", "D", "STIGMA" CARDS TO THE IMAGE – HELD UP BY GROUP MEMBERS

ALICE AND MAX APPROACH

ALICE	Well, this is where Mummy works. And here's George – the brains behind the latest exhibition.
GEORGE	Morning Alice!
ALICE	George.
GEORGE	And who's this dashing young fellow?
ALICE	This is Max – come to see the genius at work!
GEORGE	Max! Welcome! You can be our first visitor. We actually open on Monday, but you can be our guinea-pig!
MAX	I'm not a guinea-pig, I'm a brown bear!
	QUICK GLANCE AT ALICE
GEORGE	Er… yes, yes, my mistake.
ALICE	Max, you can learn about some very interesting people here – some from history, and some still alive.
MAX	Why does it say "End Stig-mar"?
GEORGE	Ah, well spotted! That stands for…
	SUDDENLY INTONING, DROID-LIKE
GROUP	…"Exhibition of human Neuro-Diversity"
	MAX, ALICE AND GEORGE ARE STARTLED
GEORGE	Always gets me, that trick! Clever though, eh?... Yes, "Exhibition of Neuro-Diversity." Bit of a mouthful though, so we just call it END.
ALICE	It's full of creative, intelligent, and interesting people whose minds – and their way of thinking – are seen as different.
GEORGE	Mad, even! But here, we see them for what they did with their lives **despite** their differences.
ALICE	Or, **because** of them.
GEORGE	Indeed.
MAX	What's "stig-mar"?
ALICE	Stigma is what happens when other people decide they don't like those differences and behave badly towards them because of it.
GEORGE	And this is something we want to end.
ALICE	George was given a really big budget to put this on ---
GEORGE	As you can see!!

GEORGE INDICATES THE WAXWORK DROIDS

ALICE   - so we've made some really awesome droids to play all the people. It's really cool, isn't it, Max?

MAX   Could be….

GEORGE   Pull this lever to start it all off.

GESTURING A NEARBY ARM IN THE GROUP

MAX MOVES TO GRASP THE LEVER

MAX   OK,…

PAUSES

MAX   Mum?

ALICE   Yes, dear?

MAX   Don't say awesome or cool – you sound silly.

ALICE   Oh… OK, dear.

MAX PULLS THE LEVER. THE GROUP EXHIBIT CLANKS INTO LIFE, AND RE-ASSEMBLES ITSELF INTO THE FIRST IMAGE (VAN GOGH IN HIS STUDIO, PAINTING IN A DROID-LIKE FASHION)

MAX   Cool!.... I know this one, we did about him at school. He paints things, like his bedroom… Though he forgot to put a teddy in it.

VAN GOGH   I am Vincent Van Gogh, known as 'fou roux' – the red-headed one. I grew up in the Netherlands, and am known for my post-impressionist art work, most famously my painting entitled "Sunflowers". My father was a minister, and I loved my brother, writing him hundreds of letters in my lifetime. For a time I taught art in Ramsgate – in "the garden of England". I died aged just 37 years…. I have bipolar.

THE EXHIBIT FREEZES FOR A MOMENT, THEN CLANKINGLY REASSEMBLES ITSELF INTO THE SECOND IMAGE (J K ROWLING, READING TO CHILDREN)

ROWLING   I am Jo [J K] Rowling, the author of the Harry Potter novels. As a child I liked to write fantasy stories for my little sister, and as an adult, when I was at a low point in my life, I thought-up the idea for Harry Potter, which is currently the best-selling book series in history. I have been awarded an OBE by the Queen for helping children get interested in reading, and in 2010 I was named the most influential woman in Britain... I have had depression.

ONCE AGAIN, THE EXHIBIT FREEZES, AND REASSEMBLES ITSELF, CLANKING MORE THAN EVER, INTO THE THIRD IMAGE, THE MATHMATICIAN, JOHN NASH.

NASH   I am John Forbes Nash. My father was an electrician. My mother taught at a school. I loved playing with toy airplanes and matchbox cars as a child.

HE CONTINUES HIS SPEECH, BUT A SEVERE GRINDING AND CLANKING DEVELOPS, WHICH CAUSES THE NEXT EXHIBIT TO COME TO LIFE TOO EARLY, OVERLAPPING THE NEXT DROIDS' SPEECH.

AFTER A FEW SECONDS, THE NEXT, THEN THE NEXT ALSO COME TO LIFE AND START SPEAKING

ALICE LOOKS CONCERNED. MAX REMAINS CAPTIVATED. GEORGE IS ALARMED, AND SCURRIES AROUND, ATTEMPTING TO FIX THE GLITCH

DURING HIS EFFORTS, VAN GOGH AND ROWLING BOTH START UP AGAIN. DROIDS WHO COMPLETE THEIR SPEECHES IMMEDIATELY START UP AGAIN. THERE IS A LOT OF NOISE.

EVENTUALLY, GEORGE SUCCEEDS IS STOPPING EVERYTHING, AND THE EXHIBITION FREEZES IN CONFUSION

THE WAX-WORK DROIDS CONTINUE……

NASH
At 17, I decided I was going to be a mathematician. I have published 23 scientific papers and awarded a Nobel Memorial Prize in Economic Sciences. I advocate the view that human diversity is of beneficial value to the species…. I have schizophrenia.

APPLEGATE
I am Jessica-Jane Applegate, and when I was fifteen I won Gold in the 2012 Paralympics, swimming the 200 metres freestyle, setting a Paralympic record time. In 2013 I was awarded an MBE, and in 2015 I received the Para-athlete of the year British Swimming award. I love animals, and I helped a sanctuary release a rescued seal, which they had named after me. I work with numerous charities, including Mencap who are a voice for those with learning disabilities….. I have Autism.

LEVINE
I am Adam Levine, and the lead singer in Maroon 5. As well as singing, I can play the guitar, piano, and drums. I own a record label, and loved listening to The Beatles and Nirvana growing up. In high school all I wanted to do was make music, and here I met two of my future bandmates. I have taken part in an education campaign raising awareness about how Attention Deficit Hyperactivity Disorder can carry on into adulthood, because "ADHD isn't a bad thing, and you shouldn't feel different from those without ADHD"…. I have ADHD.

GAGA
I am Stefani Germanotta, better known as Lady Gaga. I am a singer, and one of the best-selling musicians of all time, learning to play piano when I was only four years old. In 2012, I established the 'Born This Way Foundation' – a non-profit organisation helping to show teens they aren't alone. I have had depression, but "I learned that my sadness never destroyed what was great about me. You just have to go back to that greatness, find that one little light that's left. I'm lucky I found one little glimmer stored away."…I have had depression and anxiety.

LOVATO
I am Demi Lovato, a singer and actress. I started my career as a child actress on Barney & Friends, and I recorded a version of 'Let it Go' for the credits of Frozen. I have had a breakdown, and whilst being treated found out that I have a mental health issue. I am now a part of an initiative to Speak Up For Mental Health. I created a Lovato Treatment Scholarship Program paying the costs for

those with mental health issues, I believe "It's possible to live well, and also find happiness with bipolar disorder"....I have bipolar.

ONCE STILLNESS AND SILENCE IS ACHIEVED: GEORGE LAUGHS NERVOUSLY

GEORGE   Teething problems. Soon have it fixed. Let me see now…

HE STARTS TO TINKER. FIRST ONE, THEN THE OTHER DROIDS COME BACK TO LIFE, AND THE CHAOS RETURNS. ALICE GOES TO TRY AND ASSIST GEORGE

EACH DROID REPEATS, LIKE A STUCK DISC

VAN GOGH   I am Vincent Van Gogh …. I have bipolar.

ROWLING   I am J K Rowling…. I have depression.

NASH   I am John Forbes Nash….. I have schizophrenia.

APPLEGATE   I am Jessica-Jane Applegate…. I have autism.

LEVINE   I am Adam Levine…. I have ADHD.

GAGA   I am Lady Gaga…..I have depression and anxiety.

LOVATO   I am Demi Lovato…..I have bipolar.

MAX BEGINS TO LAUGH LOUDLY AT THIS CHAOS. SEEING HIS MOTHER IS BUSY, HE IMPISHLY LOOKS AROUND, AND RUNS OFF BEHIND THE GROUP

THE SCENE FADES, AND SHIFTS INTO ANOTHER ROOM AT THE EXHIBITION

SCENE 5

A DROID STANDS, HOLDING A LARGE SIGN : *"EVOLUTION AND NEURO-DIVERSITY"*

ATTEMPTING TO READ IT, MAX SAYS:

MAX   "Evol…ushun and Neuro…Diver… city"

HE STARTS TO WALK PAST THE DROID, WHO SIDESTEPS TO PREVENT HIM. THE DROID REVERSES THE SIGN, WHICH NOW READS *"CLOSED TO THE PUBLIC"*

MAX   Closed?..... Why?

THE ACTION REVERSES, SO THAT MAX IS PEERING BEHIND THE DROID INTO THE STAGE SPACE AND DIRECTLY OUT INTO THE AUDIENCE.

HE ATTEMPTS TO SIDESTEP THE DROID, AND EVENTUALLY SLIPS PAST THEM, INTO THE ROOM.

THE NEW EXHIBITION DROIDS GLIDE INTO PLACE.

MAX WANDERS AROUND, EVENTUALLY FINDING A SUITABLE-LOOKING LEVER. HE PULLS IT. THE DROID SPRINGS TO LIFE, LIKE AN ACTOR GIVING A BIG SPEECH, RECITING A HARVEY BLUME QUOTE

ACTOR   Neuro-diversity may be every bit as crucial for the human race as biodiversity is for life in general. Who can say what forms of life can prove best at any given moment?

THE ACTOR JUST AS ABRUPTLY FREEZES

TV THEME MUSIC STARTS, AND MAX FOCUSSES ON A SEATED GROUP, CONSISTING OF A TV ANCHOR AND TWO PUNDITS, WHO TRY TO OUTDO EACH OTHER IN THEIR ENTHUSIASM TO BACK EACH OTHER UP

ANCHOR   And welcome back to our discussion on Neuro-diversity and Evolution. Once again, we welcome Professor----

PROFESSOR INTERRUPTS ENTHUSIASTICALLY

PUNDIT 1   Yes, as I was saying, the fact that neuro-diversities such as schizophrenia are so---

PUNDIT 2   And autism!

PUNDIT 1   …and autism of course, are so universally and historically prevalent throughout human history, strongly indicates that, er..

PUNDIT 2   .. that they are a genetic variation within the species…

PUNDIT 1   A genetic variation, exactly!

PUNDIT 2   … which **either** has had a past advantage for the species…

PUNDIT 1   …**Or**, has the capability of being adaptive in an uncertain future.

PUNDIT 2   We can never know what diversities in our species will be beneficial to our survival.

PUNDIT 1   Survival of the fittest does not mean the strongest and biggest.

THE THREE OF THEM TURN IN UNISON TO FACE THE "ACTOR DROIDS" WHO BRIEFLY RE-ENACT A CAVEMAN ACTING TOUGH, BUT BEING OUTSMARTED BY A "WEAKER" CAVEGIRL: HE TRIES UNSUCCESSFULLY TO PLACE THE SQUARE-END OF A LARGE PEG INTO A ROUND HOLE, GETTING ANNOYED AND FRUSTRATED. SHE SMUGLY TURNS IT OVER AND SUCCEEDS.

ANCHOR   There we see it. Survival means those who can---

PUNDIT 1   …adapt to their current environment. If an organism is alive---

PUNDIT 2   --- and thus surviving!

PUNDIT 1   … then it is the fittest to live in its environment.

PUNDITS SIT BACK SMUGLY. A MOMENT'S PAUSE

TRYING TO KEEP THE PROGRAMME GOING, THE ANCHOR SAYS:

ANCHOR   And where does a diversity – such as schizophrenia – fit into this?

PUNDITS LOOK AT EACH OTHER, THEN LAUNCH BACK INTO THEIR STYLE

PUNDIT 2   Well, diversities still occur throughout the world…

PUNDIT 1   Indeed. In tribal communities, they are called Shamen. And revered.

ACTORS FORM A SLO-MOTION SCENE OF THE MAN BEING ADORED BY THE OTHERS

ANCHOR   Oh, yes I see…

PUNDIT 2   Yes, yes, Shamen, exactly…

PUNDIT 1   Yes, revered, absolutely.

PUNDIT 2   But, in our society, they are feared.

PUNDIT 1   Degraded.

PUNDIT 2   Stigmatised.

THE ACTORS CHANGE SCENE TO A SLO-MO OF THE MAN BEING BEATEN AND FORCIBLY INJECTED BY THE OTHERS

ANCHOR   So who can argue which society is the more close-minded?

PUNDIT 1   Indeed... Scientists, psychologists and governments throughout history have tried to eliminate these individuals and their genes from the human race.

THE MAN IS HELD BY OTHERS AS IF ABOUT TO BE SHOT. HE RETALIATES, AND STANDS TRIUMPHANT

PUNDIT 2   But they have not succeeded. They have not even reduced their occurrence. Surely that tells us something?

PUNDITS LOOK EXPECTANTLY AT ANCHOR

ANCHOR   Er… That these diversities are here to stay?

PUNDIT 1   Exactly! So it's time to try something new!

ANCHOR   Something new?

PUNDIT 2   Something new!

PUNDIT 1   Trying to rid the world of diverse people, and then failing to even dent their prevalence, is insanity.

ANCHOR   Insanity?

PUNDIT 2	Insanity! As Einstein said…
	ACTOR SAYS AS EINSTEIN
ACTOR	Insanity is doing the same thing over and over again, and expecting different results.
PUNDIT 2	Neuro-diversity is not a mistake in humanity to be eradicated. No, no, no, no! In evolution, there are no mistakes, only variations.
ANCHOR	Variations!
PUNDIT 1	Consider, what would we miss if we no longer had these diversities in humanity?
PUNDIT 2	Creativity. Thinking outside the box. Humanity as we know it.
PUNDIT 1	Depression is not just great sadness, but the ability to empathise with others.
PUNDIT 2	Bipolar is not just highs and lows, but great warmth.
PUNDIT 1	Schizophrenia is not just hearing voices, but a way of thinking differently.
PUNDIT 2	It is no coincidence that those who have achieved greatness had a diverse mind.
PUNDIT 1	A diverse mind, exactly. Which brings me to---
ANCHOR	So, to sum up. It's clear to me that nothing is black and white, that we need to accept that neuro-diversity is here to stay. Humanity is more than one type of person.
PUNDIT 2	That's what makes us human!
	THE TV SHOW FREEZES, AS THE ACTOR STANDS FORWARD AGAIN
	THE ACTOR GRANDLY QUOTES DARWIN (AS PARAPHRASED BY SUSANNE ANTONETTA, 2005)
ACTOR	To be robust and successful, a species needs to be as diverse as possible, allowing for millions of possible reactions to evolutionary pressures. If allowed to, us humans could conceivably genetically engineer ourselves into oblivion.
	SUITABLE BACKGROUND MUSIC SWELLS AND SUDDENLY CUTS OFF AS ALICE ENTERS, SWITCHING THE EXHIBIT OFF. SHE IS FOLLOWED BY GEORGE.
ALICE	Max. Here you are. Didn't you see the sign?
MAX	Why's it closed? It looks finished.
ALICE	It is. But it's not something everyone will agree is right.
GEORGE	Some of the Museum Board think it's too controversial to be seen.
	EVERYONE – DROIDS AS WELL - LOOK BROODINGLY AT THE AUDIENCE FOR A MOMENT

MAX'S EYE IS DRAWN TO ANOTHER AREA, BEHIND THE ACTION

MAX   What's in there?

ALICE   Oh, just storage space, love. Come on, we've got to meet your Daddy, ---

GEORGE   Actually, Alice, I've been working on another exhibit. Come, come, and let me show you.

SCENE 6
               THE GROUP SHIFTS INTO THE JONES FAMILY DROIDS, AS GEORGE, ALICE AND MAX MOVE INTO THE NEW SPACE

GEORGE   It's not quite finished yet, but…. You remember we discussed how we need some ordinary people for the exhibition?

ALICE   Yes, but---

GEORGE   Well, I found a **family** with examples of neuro-diversities!

               ALICE LAUGHS

ALICE   A family of **ordinary** neuro-diverse people? Bit of a contradiction, don't you think!

GEORGE   You know, not famous.

ALICE   So, who are they?

GEORGE   May I introduce… The Jones Family!

               HE STANDS BACK. NOTHING HAPPENS. HE REALISES HE HAS NOT SWITCHED THE EXHIBIT ON. HE PULLS AN ARM/LEVER

               Oh, just a second, just a second…

               THE JONES EXHIBITS COME TO LIFE IN A DOMESTIC SCENE.

MR JONES   I am Mr Jones. I come from London. I am six foot and a bit, a husband and father, and I play the guitar. I wrote a song called "If you love fish and chips". I died in 2006….. I have schizophrenia.

MRS JONES   I am Mrs Jones. I am Mr Jones' widow, with two grown-up children, a grandchild, and two sisters and a brother of my own. I am an artist. I love animals, and live in a mini-zoo!.... I have bipolar.

SAM   I am Sam Jones. I am the eldest child of the Jones', and a student…… I have had depression.

               THE EXHIBITS FREEZE

ALICE   I like that. A nice, normal, happy family.

GEORGE   Ah, well, not quite. They help show the importance of really understanding these issues. And knowing how to deal with them in a supportive way. Neuro - diversities are amazing, but they can also be very distressing.

ALICE	What happened with this family, then?
GEORGE	Ah, yes… I've started programming that part…. Just a second.
	HE FIDDLES FOR A MOMENT, THEN DROIDS RETURN TO LIFE
MR JONES	I was filled with old versions of anti-psychotic drugs for many years. This meant I couldn't hold a conversation, I couldn't get to know my family…..
MRS JONES	I was not considered mentally-stable enough to bring up my children. I find it hard to accept my condition. I am confronted by the stigma from other people…..
SAM	My sister and I were fostered out to our grandparents for the whole of our childhood. Although I saw my Dad often, I never knew him. I don't know if he knew himself….
	ALICE SAYS ANGRILY
ALICE	That was the answer to everything, wasn't it. Fill 'em up with drugs, break-up the family, and damn the consequences.
GEORGE	There was a lot of ignorance.
ALICE	There still is. Put a label on them! He's schizophrenic! She's bi-polar! He's a depressive! My goodness! You wouldn't say, "He's cancer" or "She's Parkinson's." It's a **part** of you, not **all** of you. He may not be famous, but Mr Jones is a husband, a father, a guitarist, and a hundred other things besides. What kind of world do we live in!
GEORGE	You're right. I'll work that into the presentation.
ALICE	Damn right!
GEORGE	"Before we can celebrate, we must accept!"... Now, relax, Alice. No need to get excitable!
ALICE	Sorry, sorry. Your Mum goes on a bit sometimes, doesn't she? Time to go and meet up with Daddy, I think.
GEORGE	And how is John?
ALICE	He's fine. Had a social services case-conference this morning. We're meeting him for lunch at the "White Horse". Come and join us!
GEORGE	All right, I will. You go on, I'll just lock up here.
ALICE	OK. Come on, Max.
	AS THEY START TO MOVE OFF, THE SCENE SHIFTS INTO THE PUB GARDEN

SCENE 7

THE GROUP BECOME CUSTOMERS IN THE PUB GARDEN.
JOHN – MAX'S FATHER – IS SITTING DRINKING HIS BEER.

ALICE AND MAX CIRCLE ROUND INTO THE SCENE, PICKING UP
DRINKS AS THEY ARRIVE

ALICE	Oh, look, Daddy's here already!
MAX	Daddy!
JOHN	Hello, you two.
ALICE	You're early!
JOHN	Meeting finished early… Good day, Max?
MAX	Yep, lots of fun.
ALICE	George and I showed him round the new exhibition.
MAX	George wanted me to be a guinea-pig, but I told him I was a brown bear.
JOHN	Oh, that's George for you. Never gets things right!

ALICE AND JOHN LAUGH

MAX	I didn't understand everything though. Like, about being a polar bear.
JOHN	Pardon?
ALICE	He means bi-polar.
JOHN	Oh, I see.
ALICE	And we also learnt about autism, didn't we. And depression, and schizophrenia.
MAX	Like Auntie Nora! She gets depressed sometimes. She got really sad once because I didn't want to play baby games any more. That's no reason to be sad.
ALICE	Yes, she does get sad for no apparent reason.
JOHN	But that's what depression is. You feel bad about yourself – or other people – but you don't know why. There's no obvious reason.
ALICE	But Auntie Nora also loves people a lot, which is not a bad thing. And you remember J K Rowling? She got really creative when she was depressed. She isn't **just** a depressed person.
MAX	What's autism, Daddy?
JOHN	Ah! Some of the children I work with have that. Autism means they find it difficult to interact with other people. But some can be very good at other things, like maths or music, or remembering things they've only seen for an instant.
ALICE	Like the artist Stephen Wiltshire. He can draw whole scenes he's only seen for a short while.

JOHN	People with autism find the internet useful as they don't have to work out the feelings behind what other people are saying to them. They'll chat online to their friends, much more than they would face to face.
	GEORGE EMERGES FROM THE GROUP
MAX	Here's George!
ALICE	All locked up?
GEORGE	Yes, yes…. John, how's things?
JOHN	Fine, George, thank you…. I think Max enjoyed his visit today.
GEORGE	A pleasure having him.
ALICE	We were just talking about the various neuro-diverse experiences.
MAX	Like polar bears and schiz…schiz….?
ALICE	Schizophrenia.
MAX	What is it anyway? Schizo-phrenia?
JOHN	People with schizophrenia, Max, live in the same world as us, but - you can say - they just see more of it.
GEORGE	That's right. They can have hallucinations and delusions, where they see or hear or believe things exist which you or I can't see or hear.
ALICE	So they can be very creative people.
GEORGE	Yes, seeing the world as it could be, not as it is.
MAX	Are they like it all the time?
GEORGE	Actually, no. Sometimes they have those experiences, sometimes they don't. It goes in a circle.
MAX	Do they hear voices in their head?
JOHN	Everyone gets voices in their head. That's how we humans think. They remind your Mum to pick you up from school, me to get petrol for the car, George to lock up the Museum.
ALICE	And they tell you off if you do something you know is naughty.
JOHN	Like farting in front of your grandmother!
ALICE	John!
JOHN	And they congratulate us when we finish a job **really well**, like when I'd put those shelves up in the kitchen.
	CONSPIRATORIALLY TO GEORGE, JOHN SAYS, DRAWING IN THE AIR

JOHN	Ninety degrees.
ALICE	Don't always believe the voices, John.
JOHN	But the question is, what's the difference between our voices and the voices of those with psychosis? Any ideas, Max?
MAX	No… I don't know.
JOHN	Loudness. The voices they hear are louder.
GEORGE	And they can find it hard to decide if the voice is inside their head, or coming from what somebody actually says to them.
MAX	That's confusing…. But what about the polar bears?
ALICE	Bi-polar.
GEORGE	Ah, now that's an interesting one. If you think of the North Pole and the South Pole. At one Pole, you feel very happy and excited, and, at the other, you feel very sad. Most people would say they are in the middle of the two poles. But, for someone with bi-polar, there is no middle. Just the two extremes. Excitable and manic or depressed and very low.
ALICE	So, someone with bi-polar can be wonderfully creative and achieve a great deal.
MAX	Like Stephen Fry, he has bipolar!
ALICE	Yes! And then they can suddenly get very depressed. But they can be really sensitive and full of love for other people.
MAX	Like you, Mummy!
	ALICE AND JOHN EXCHANGE A GLANCE
ALICE	Yes, Max… Like me. I have bipolar.
MAX	But you're just like all the other Mums – only better! You play Doctor Who games with me, and talk to me like a grown up. You're normal!
ALICE	I guess so!
JOHN	She's more than normal, Max. She's amazing. That's why I married her.
MAX	But you do get very mopey sometimes. Or do silly things like stay up all night making cupcakes!
ALICE	That's true. I do get ups and downs. And sometimes I need a bit of extra help to get me through stuff. If I realise I'm getting too manic or too sad, I go to the doctor.
GEORGE	Like we all go to the doctor when we need help. Like when I did my back in lifting Adam Levine!
ALICE	Or when your stupid Daddy nearly sawed his thumb off because he wasn't concentrating.

JOHN	That was an accident.
MAX	Well, I don't care if you have bi-polar. You're still my Mummy. It doesn't make any difference.
ALICE	Well, if it doesn't make a difference to you, then it certainly doesn't make a difference to me!
	HUGS MAX, TRYING TO SMOTHER HIM IN KISSES THE GROUP ALL STOP AND TURN TO THEM
MAX	Aw, Mum, get off. Everyone's watching!
	HE PULLS HIMSELF AWAY, TURNS AND ADDRESSES EVERYONE
MAX	Anyway, I've got a question. Why has Mummy got bi-polar? Why do all these things exist?
	GROUP ALL MAKE "AH, GOOD QUESTION" NOISES
GEORGE	You remember the "Closed" exhibit : "Humanity is more than one type of person" ?
MAX	"That's what makes us human!"
GEORGE	Exactly! We can say that neuro-diversity is the creative force behind becoming human in the first place.
ALICE	We can say they're our mind's way of coping with the pressures of life. They're naturally occurring differences.
GEORGE	The labels on their own can be helpful in understanding ourselves, so long as we use them to see differences.
JOHN	And not failings. We're not saying that experiences such as schizophrenia or depression are easy or always positive Max, sometimes they are very difficult to cope with. We're also not saying that you can only be creative or achieve a great deal if you have these sorts of experiences, it's more that they are part of the neuro-diversity of ALL people, all humans.
	GEORGE IS NOW INTO HIS STRIDE, AND INCREASINGLY ADDRESSES HIS SPEECH TO THE WATCHING GROUP, AND THE AUDIENCE. HE IS ON HIS IMAGINARY SOAP-BOX
GEORGE	We must rid the world of the negativity attached to the labels, Max. They don't change the person. Van Gogh was still a great painter. Jessica-Jane Applegate is still a great swimmer. Stephen Fry is still quite funny sometimes. Mr Jones is still Sam's Dad. And Max's mother is still his mother. And what's more, these differences, these diversities should not be stifled. They should not be changed. We should not rid the world of its spark of madness!
	THE GROUP BURST INTO ENTHUSIASTIC APPLAUSE, AS THE SCENE SHIFTS INTO THE CLASSROOM
	THE GROUP CONTIUE WITH COMMENTS SUCH AS "WELL SAID GEORGE, HEAR, HEAR"
SCENE 8	

THE GROUP BECOME ROWS OF PUPILS. MAX IS AMONGST THE PUPILS. THEY ARE TEASING HIM, CALLING HIM "MAD MAX" AND THROWING HIS TEDDY-BEAR AROUND LIKE A BALL. MAX IS FURIOUSLY TRYING TO RETRIEVE IT.

THE TEACHER EMERGES

TEACHER   All right, that's it, that's it. Quieten down.

THE CLASS SETTLE. ONE STILL HOLDS THE TEDDY-BEAR.

TEACHER   Now, today is Max's turn to tell us what he did this weekend. Up you get, Max, and take that bear-hood off your head!

MAX SLOWLY STANDS, REMOVES BEAR HOOD, TAKES A LOUD BREATH, AND WITH A GROWING CONFIDENCE, BEGINS

MAX   I am Max Gray. I love my Dad and my Mum, and my teddy-bear Minimus. My favourite toy is my Doctor Who Tardis. I can do some really awesome scooter tricks. I'm arty and messy, and my Mum is always telling me off for not putting my toys away. My Mum is awesome. She took me to the Museum on Saturday, and I learnt a lot. I learnt we're all a bit different. She's a polar bear, and I'm a brown bear…..

HE PULLS HIS BEAR HOOD ON,

MAX   ….I like being me.

THE GROUP DISSOLVES INTO A "NORMALISED" IMAGE OF THE OPENING SCENE, WITH MAX IN THE CENTRE

GROUP   Observe him, for as in a glass,
               Your angry portraiture it was.
               His picture keeps still in your presence;
               Between him and you, there's no difference.

THE COMPANY ALL FACE THE AUDIENCE, AS LIGHTS FADE

LIGHTS UP…. BOW

EPILOGUE

THE GROUP FORM A LOOSE CIRCLE AND SPEAK TO THE AUDIENCE

GROUP 1   Like anything, there are good and bad points to the neuro-diversity of the whole human race.

GROUP 2   Those who are considered mentally ill are actually a part of the diversity of human minds.

GROUP 3   So let's stop calling them illnesses and think of them as diverse experiences,…

GROUP 4   …A part of the person, both a significant and insignificant part.

MAX   While not all neuro-diverse experiences are positive or easy to live with, …

ALICE   … neuro-diversity across all of humanity can create art, solve maths problems, or write beautiful poetry and music.

GROUP 5   Our abilities are only limited by our creative imaginations.

MAX   So let's not limit it with labels, let's just **be**

Scene 1. Opening scene, a poem adapted from Robert Burton's Anatomy of Melancholy (1651). The poem depicts a "madman", but also implies there is no difference between the "mad" and the "sane".

Scene 2. We are introduced to Max and his mum, Alice. Max is dejected and in a funny mood. He explains he is upset and confused. He is being bullied at school for wearing a bear onesie, with his peers calling him "Mad Max", and is confused by the portrayals of madness everywhere – in books and on television. Alice tries to explain it is not madness, but neuro-divergence.

Scene 3. Max goes to bed, and Alice tells him The Wise King/The Madman Parable by Kahlil Gibran (1883–1931; depicted in the play as shadow puppetry). The moral of the story is that we are only mad if a group of people tells us that we are. Alice convinces Max to come to her place of work, the museum, that weekend.

Scene 4. Max meets Alice's co-worker and curator of the museum, George. George shows Max around the "Exhibition of Neuro-Divergence" (END) - the END Stigma waxwork android display. At the exhibition Max hears from waxwork 'droids who depict famous persons who are neuro-divergent, such as Adam Levine, lead singer of Maroon Five, who has attention differences ("Attention Deficit Hyperactivity Disorder").

Scene 5. Having fun, Max wonders off and finds a closed exhibit depicting a 'droid scene about the evolutionary importance of neuro-divergent experiences, such as "schizophrenia". The exhibit depicts how "[n]euro-diversity may be every bit as crucial for the human race as bio-diversity is for life in general. Who can say what forms of life can prove best at any given moment?" (Actor; quoted from Blume, 1998; Farahar, 2012, p.11). Alice and George catch up with Max and explain the "Evolution and Neuro-diversity" room is closed at present because "[s]ome of the Museum Board think it's too controversial to be seen" (George; Farahar, 2012, p.14), indicating those who may disagree with a non-pathologising theory of mental health.

Scene 6. Max, Alice, and George head into a work-in-progress room where there is a family of 'droids. The family of 'droids introduce themselves as a mother, father, and son, each with their own neuro-divergent experience. As well as descriptions of themselves similar in tone to the famous 'droids exhibit, the 'droids family also depict the distress that these experiences can cause.

Scene 7. Max, Alice, and George head to a local pub to meet Max's Dad, John. Here the adults explain to Max, in simple terms, what bipolar, schizophrenia, and autism are, and also why they may exist in the first place. It is here that Alice discloses to her nine-year-old son Max that she has a diagnosis of bipolar. Max reaffirms his love for his mother, and how he thinks of her as "normal". Alice and John explain that when she gets low or has a "manic" episode she seeks support.

Scene 8. Back in school Monday, Max confronts his classmates during his turn to "show and tell" what he did that weekend. He describes himself in a similar way that the 'droids did in the exhibition, ending by saying "I like being me" (Max; Farahar, 2012, p.20). The opening poem is reiterated, but with contemporary language.

Epilogue. The cast speak to the audience:

"GROUP 1   Like anything, there are good and bad points to the neuro-diversity of the whole human race.

GROUP 2   Those who are considered mentally ill are actually a part of the diversity of human minds.

GROUP 3   So let's stop calling them illnesses and think of them as divergent experiences,…

GROUP 4   …A part of the person, both a significant and insignificant part.

MAX   While not all neuro-divergent experiences are positive or easy to live with, …

ALICE   … neuro-diversity across all of humanity can create art, solve maths problems, or write beautiful poetry and music.

GROUP 5   Our abilities are only limited by our creative imaginations.

MAX   So let's not limit it with labels, let's just be." (Farahar, 2012, p.21).

Appendix G: Example School Parental Opt-out Information and Non-consent Sheet in Study 2 and 4

Chloe Farahar
School of Psychology
Keynes College
University of Kent
Canterbury
Kent
CT2 7NP
psychgroupstudy@kent.ac.uk

[DATE LETTER SENT]

RE: Important information about a research project being conducted at your child's school
University of Kent Psychology Ethics Approval # 201614800632043996

Dear Parents/Carers,

My name is Chloe Farahar and I am a PhD student researcher in the School of Psychology at the University of Kent. I am currently working on a research project looking at which method of teaching works best when educating students about difference groups in society and how long the knowledge is remembered. The study is being supervised by Dominic Abrams who is a professor in the department.

[HEADTEACHERS NAME] would like [SCHOOL NAME] to participate in the project. I would be most grateful if you would allow your child to take part. Your child's participation in this study will help me find out which method of teaching works best to educate students about groups in society (for example physically disabled; gay; mental health problems). This will help me get the best teaching method into classrooms in the future. Also, your child will benefit from being involved in a study such as this and will receive a lesson during the study on how to carry out research in the social sciences at university. I will provide certificates of participation to all students who complete the study for their school portfolio.

Students who participate will be asked to complete three online questionnaires during school; the first is a baseline, then there will be a second immediately following the completion of the teaching method they are randomly assigned to, and a third and final one three months later.

Teaching method/conditions: Dependent on the teaching method your child is asked to participate in, they may be asked to interact with other students and researchers, they may also have parts of their participation audio recorded (this recording will not be used in any publication, and never made public, it is to help facilitate one of the teaching methods).

All students' answers are highly confidential and anonymous. Finally, we will, of course, ask your child whether they agree to participate before beginning. If they do not agree, they will just continue normal school activities.

Publishing results: The information generated by this study may be included in a PhD thesis, conference preceding and/or included in a journal publication. Again, no identifying information will be included in this instance.

Information collected during this study will be held confidentially by the researcher in line with the UK Data Protection Act 1998.

Only researchers involved in the study and, if required, the body funding this research will be authorized to access the data.

I am a PhD student researcher and have been trained by and will be supervised by a professional researcher at the University. The University conducts police criminal records checks on all researchers (including me) working with children. Furthermore, our research has been reviewed by the University's Psychology Ethical Review committee (http://www.kent.ac.uk/psychology/ethics/) to ensure that it meets ethical guidelines and poses minimal risk to participants. Studies involving children are subject to the fullest review by the committee. We have also obtained consent from the school's headteacher before beginning the study and we will coordinate with teachers throughout the study. My colleagues and I generally find that the students really do enjoy taking part. After taking part in the study, children will be given a letter to take home outlining in more detail the purpose of the study.

Although [HEADTEACHERS NAME] has most kindly allowed me access to the school, I will not include your child if you object to their participation but you need to let me know this. If you do NOT wish your child to take part please let us know by EITHER:

    (1) Returning a signed copy of the slip below back to your child's school:
        FAO: Chloe Farahar
    (2) **Contacting me by email at:**
        psychgroupstudy@kent.ac.uk

If you are happy for your child to take part, you do not need to do anything. Unless we receive a signed copy of the slip below within two weeks following your receipt of this letter [specific date], we will assume you are happy for your child to take part. Should you decide after the study that you no longer want your child's data included, simply contact me and I will withdraw it. If you have any further questions please do not hesitate to contact me on psychgroupstudy@kent.ac.uk.

Thank you for your cooperation.

Sincerely,

Chloe Farahar

……………………………………………………………………………………………

I **DO NOT** give permission for my child to participate in Chloe Farahar's project.

Name of pupil…………………………………………………………………………...

Signature of parent / guardian……………………………………………………..

If you have any serious concerns about the ethical conduct of this study, please inform the Chair of the Psychology Research Ethics Panel in writing, providing a detailed account of your concern. Email: psychethics@kent.ac.uk or Post: Ethics Chair, School of Psychology, University of Kent, Canterbury, CT2 7NP.

Appendix H: Experiential Intergroup Contact Condition Research Assistant Instructions in Study 2

Interactive story-based teaching method
RA: instructions & layout, hours 1-3 (sessions 2-4)

As an RA you are a:
- Neutral authority
- Confident in facilitating
- Answer/alleviate potential problems e.g. non participation, pick up role when absenteeism
- What to do if people become upset – signpost to the school safeguarding/appropriate person, and allow them to leave the room

RA – all students taking part in this condition are to be split into groups of 6, and that is their group for the three sessions. Names can be used in the sessions, but not recorded with any responses/data

RA – read through the participant information and instruction sheet with them each session.
****

~~1ST HOUR/Session 2 (1st questionnaire was session 1)~~

RA – introduce yourself>>>> "Hello, I am _____ "
RA – "In this session I am merely a neutral facilitator for the teaching method you're about to do. As a research assistant, I am here to oversee and facilitate, and to guide the sessions by reading the instructions provided."

[RA – read through the participant information and instruction sheet with them]

Information/instructions

Having completed the first questionnaire in session one, you have been randomised to an interactive story-based teaching method.

~~Interactive story-based teaching method:~~ In the teaching method you have been randomly assigned to you will be interacting as a six person group with a story about members from the mental health problem group.

You are asked a as a group to work:
- Cooperatively toward the goal of audio recording a single scene by rehearsing the role(s) assigned to you (just so you know, this recording will not be used in the study write-up, it's just to help the teaching method).
- You will be given a script showing the positive message about people with mental health problems, who, in the script, are working together to explain mental health problems to a nine-year-old boy.
- You are simply asked to take on-board and experience the perspective(s) of your character role(s) assigned to you, interacting with the other students and their roles.
- I will be your neutral research assistant helping to facilitate your learning sessions, you are not being judged on any aspects of your learning and involvement, I am just here to help facilitate your learning sessions.
- Please note that no one character/s or line is/are more important than any other.

There is no deception being used in this study. You are simply asked to take on board and experience the perspective of your character/s in the script as you rehearse together.

~~FIRST HOUR (Session 2)~~

- For the remainder of this second session you will be randomly assigned roles from the script [note: research assistant – randomly assign roles here - collect scripts at end of session, Alice[39]].
- [Set Mobile Timer:] For 20 minutes, please read the script silently to yourself to get used to the script and your role(s). The lines highlighted are your roles specifically.

  You are now asked to take part in some simple drama games for 10 minutes to help you relax, which I will do with you.

Walking game:

RA – "for this walking game, we are all going to walk around the room, taking up all the space and switching up our route, and you don't need to interact with the other participants

Now, "walk as if you are…."
1. A detective, walking slowly, looking at the ground for clues
2. Getting out of a helicopter, and walking away from it, trying to avoid the rotor blades
3. Visiting New York and staring up at the skyscrapers
4. Walking toward an opponent in the ring at a boxing match
5. Walking on a catwalk at a fashion show
6. Treading on hot sand with bare feet
7. Crossing a river with a strong flow
8. Walking to fridge in the middle of the night, trying not to wake anyone
9. Walking home knowing you have to give someone bad news
10. Walking on a high ledge on a building

Mime

Now, for this miming game, I will show each of you a mime, and the others need to guess what they are miming [RA, you will need to cover the consecutive mime options, as soon as students get a close enough guess move on quickly]:
- Brushing teeth, run out of toothpaste
- Waiting for a bus, it's late
- Opening a letter and reading good news
- Listening to a song that makes you feel happy
- Your favourite animals at the zoo
- Walking in space
- A mime

Fish and chip shop:

In this fish and chip shop game, 3 of you will get to act a small scene, with the others acting as the audience, then we will swap over.

RA read out-loud:

"Three people are waiting in a takeaway fish and chip shop (the audience), two people are serving behind the counter, and one is the customer.

---

[39] Research assistants were instructed to appear to randomly hand the role of the mother, Alice, to a girl in the group when there were boys so as not to cause issues in the group by giving a female mother role to a boy.

Servers mime, for example, frying the fish and chips, wrapping them, handing them over, taking the money, chatting and bantering with the customers."

Servers and customer, now follow these instructions [RA direct]
- One character acts normally; everyone else moves normally, but are silent
- One character acts normally; everyone else is frozen
- One character acts normally; everyone speaks normally, but do not move at all
- One character acts normally; everyone else works in slow motion
- One character acts normally; one is frozen

Swap and allow the other group of 3 a go

- For 20 minutes, you will be asked to please read through your roles out-loud as a group (you are not being judged on reading or acting ability- I will read the stage directions to help guide rehearsals).
  - RA – you are the 'director/narrator' roles – keep momentum going.
- Session closes.
  Gather the scripts back from the participants
- Read the 'brief debrief' found at the end of this document
- Thank you all for your participation. We're going to take a short break now and I'll see you soon, back in this room.
  Let them leave, mention the duration of the break _____ minutes – see timetable.

****

2nd HOUR/Session 3

RA – read through the participant instruction sheet with them, hand out their assigned scripts from the previous session.

~~Instructions~~

~~Interactive story-based teaching method:~~ In the teaching method you have been randomly assigned to you will be interacting as a six person group with a story about members from the mental health problem group.

You are asked a as a group to work:
- Cooperatively toward the goal of audio recording a single scene by rehearsing the role(s) assigned to you (just so you know, this recording will not be used in the study write-up, it's just to help the teaching method).
- You will be given a script showing the positive message about people with mental health problems, who, in the script, are working together to explain mental health problems to a nine-year-old boy.
- You are simply asked to take on-board and experience the perspective(s) of your character role(s) assigned to you, interacting with the other students and their roles.
- I will be your neutral research assistant helping to facilitate your learning sessions, you are not being judged on any aspects of your learning and involvement, I am just here to help facilitate your learning sessions.
- Please note that no one character/s or line is/are more important than any other.

There is no deception being used in this study. You are simply asked to take on board and experience the perspective of your character/s in the script as you rehearse together.

~~SECOND HOUR (Session 3)~~

- For 10 minutes we will do some more simple games, as done previously to help you relax.

Emotional Reaction

Please get into two groups of three, this group needs to form a line and face the three who are the audience.

1. I will call out "What if" situations and then you can react using only your facial expressions.
2. I will now call out "what if" situations and the audience this time as the actors, have to react with only body language (your faces must remain neutral).
3. Now, back to the first group, you can react using face and body language together.

Examples of "what if" situations:
- Your name is called at the dentist
- Someone is falling from a building
- You get a sudden sharp pain in your hand
- You remember a beautiful memory
- You are insulted by a best friend
- You insult a shop assistant
- You can't remember your name
- You are confused by a train timetable
- You are very hungry and alone in a forest
- You are just about to ask a loved one for a loan of money

Micro Scenes

In this micro scenes game, you will get to act out very short scenes, in rapid succession.
So, lets all:
- Walk like a rat
- Walk like a tired cat
- Stand still like a fishing rod; now bend that rod as you feel a fish bite
- Become a flower with lots of petals; now the petals are falling off
- Become a bee; now you have so much pollen you are too heavy to fly
- Move like a fish landed on the riverbank; now you've jumped back into the water
- Smile like a clown; walk like a clown; sit down like a clown
- Salute like a soldier; now stand like a saluting statue of a soldier
- Move your arms like a windmill
- Move your hands like the hands of a clock
- Sit like a garden ornament
- Fly like a seagull
- Move as if you are washing a car; now adopt the shape of that newly washed car
- Walk like a pigeon looking for food
- Creep like a lion hunting
- Look as if something you see is disgusting
- Now look at something as if it's beautiful
- Stand like a shop assistant after a long day
- Stand like a band manager on the tube on his way to work.

> The weather meter
> Ok, find a space. I'm going to call out a number on a scale of 1-10, representing temperature. The number 5 is room temperature, and this moves up the scale to 10, which is Sahara Desert heat, and down to 0, which is Antarctic.
> We're going to move around demonstrating how the temperature would affect our movements.
> [RA] shout out numbers between 0 and 10, with 5 being 'normal' movements.
> It is a good idea to stop them with a 'freeze' command every now and then, and walk around pointing out things you're noticed.
> Now, 0 represents no wind at all, and 10 is gale-force winds, with 5 a mild wind.
> [RA] shout out numbers between 0 and 10, with 5 being 'normal' movements.

- For 30-40 minutes you're going to swap roles with the person on your left (this is a chance to play another role). You are asked to please read through your new roles out-loud as a group (you are not being judged on reading or acting ability – I will read the stage directions to help guide rehearsals).
- Session closes.
  Gather the scripts back from the participants
- Read the 'brief debrief' found at the end of this document
- Thank you all for your participation. We're going to take a short break now and I'll see you soon, back in this room.
  Let them leave, mention the duration of the break _____ minutes – see timetable.
  ****

3rd HOUR/Session 4

IMPORTANT: RAs please email/set up tablet for the feedback questionnaire link at the start of this session so that they can complete it at the end, prior to debrief.

LINK FOUND IN EMAIL, LIST IN FOLDER, AND ON USB STICKS

RA – read through the participant instruction sheet with them, hand out their assigned scripts from the previous session.

Instructions

Interactive story-based teaching method: In the teaching method you have been randomly assigned to you will be interacting as a six person group with a story about members from the mental health problem group.

You are asked a as a group to work:
- Cooperatively toward the goal of audio recording a single scene by rehearsing the role(s) assigned to you (just so you know, this recording will not be used in the study write-up, it's just to help the teaching method).
- You will be given a script showing the positive message about people with mental health problems, who, in the script, are working together to explain mental health problems to a nine-year-old boy.
- You are simply asked to take on-board and experience the perspective(s) of your character role(s) assigned to you, interacting with the other students and their roles.
- I will be your neutral research assistant helping to facilitate your learning sessions, you are not being judged on any aspects of your learning and involvement, I am just here to help facilitate your learning sessions.

- Please note that no one character/s or line is/are more important than any other.

There is no deception being used in this study. You are simply asked to take on board and experience the perspective of your character/s in the script as you rehearse together.

- For the first 20 minutes you are asked to please read through your roles from the first session, out-loud as a group (you are not being judged on reading or acting ability – I will read the stage directions to help guide rehearsals).
  - RA HANDOUT scripts from first session.
  - Set-up audio recording device and record one scene from the script
- For 20 minutes, we will now rehearse scene 4, and record it once. You may then pick a scene you like to rehearse and record once. Please read out-loud and assume the perspective of those characters highlighted for you for the benefit of the audio detector (you are not being judged on reading or acting ability - I will read the stage directions to help guide rehearsals).
  - Audio-record SCENE FOUR and participant chosen scene.
- Now that we are finished, would you be able to explain the teaching method and the story to someone who was new to it?
  - [brief, 5 mins] Ask each participant to help each other explain it to you as if you are a new student encountering the teaching method and story.

Thank you for completing the teaching method. Before we go back to do the final questionnaire, please use these tablets and go to the link provided for some questions relating to the teaching method.

- Try and finish by 14:30
- Brief debrief is at the end of the tablet questions.
- Session close – hand scripts back in to research assistant
- Thank you all for your participation. We're going to move back over to the PC room.

Appendix I: Experiential Intergroup Contact Condition Script Roles List for Research Assistants in Study 2

RAs list of possible participant role assignments

ROLES

1 RA Director
A   Alice (mother)
B   Max (son)
C   Crowd 2, George, Group 1, Group 3
D   King, van Gogh droid, John Forbes Nash droid, Adam Levine droid, Pundit 2, Mr Jones, John (father)
E   Narrator, Nathaniel Lee, J K Rowling, Actor, Anchor, Mrs Jones, Teacher
F   Group, Imagination, Queen, PC 1, 2, 3, Crowd 1 & 3, Chris, Jessica-Jane Applegate, Demi Lovato, Pundit 1, Sam, Group 2, 4, & 5

Note. RA = research assistant

Appendix J: School [University/Prolific] Peer Mental Health Stigmatisation Scale Measure and Instructions in Studies 2, 3, 4, and 5

The following statements are about what *most people* **believe.**
The following statements refer to people who have mental health problems.
[Study 3 Prolific participant instructions: The following statements refer to mentally-ill people.]

Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers.

What are mental health problems [mental illnesses]?
You may have heard of autism and Asperger's. People who have autism or Asperger's may have:
- **difficulty in communicating**
- **forming relationships** with other people
- using **language** and **abstract concepts**

[Study 3 Prolific participant instructions: Most likely you have heard of depression. People who have depression are likely to have times where they experience:
- **depressed mood** and **irritability**
- **decreased interest or pleasure** in most activities
- **changes in sleep,** such as insomnia]

You may have also heard about bipolar (Type I). People who have bipolar are likely to have times where they experience:
- **manic or hypomanic episodes** (feeling high)
- **depressive episodes** (feeling low)
- potentially some **psychotic symptoms** during manic or depressed episodes

Autism/Asperger's and bipolar (Type I) are examples of mental health problems [Depression and bipolar (Type I) are examples of mental illnesses.].

Please read each sentence and decide your answer.

Disagree Completely	**Disagree**	**Neither Agree nor Disagree**	**Agree**	**Agree Completely**

2. Teachers [People] believe that teenagers [people] with mental health problems [mental illnesses] do not behave as well as other [people.] teenagers in class.

6. Most people are afraid of teenagers [people] who visit a counsellor because they have mental health problems [a mental illness].

7. Most people believe that teenagers [people] with mental health problems [mental illnesses] are dangerous.

8. Most employers believe it is a bad idea to give a part-time job to a teenager [person] with mental health problems [a mental illness].

9. Most people believe that teenagers [people] with mental health problems [a mental illness] are not as trustworthy as other teenagers [people].

10. Most people look down on teenagers [people] who visit a counsellor because they have mental health problems [a mental illness].

11. Most people believe that teenagers [people] with mental health problems [a mental illness] are to blame for their problems.

12. Most people believe that teenagers [people] with mental health problems [a mental illness] are not as good as other people at taking care of themselves.

The next statements are about what *you* believe:
Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers.
Please read each sentence and decide your answer.

Disagree Completely	**Disagree**	**Neither Agree nor Disagree**	**Agree**	**Agree Completely**

14. I believe that teenagers [people] with mental health [mental illnesses] are not as trustworthy as other teenagers [people].

17. I look down on teenagers [people] who visit a counsellor because they have mental health problems [a mental illness].

18. I believe that teenagers [people] with mental health problems [mental illnesses] do not behave as well as other [people.] teenagers in class.

19. I believe that teenagers [people] with mental health problems [mental illnesses] are dangerous.

20. I believe that teenagers [people] with mental health problems [mental illnesses] are not as good as other teenagers [people] at taking care of themselves.

22. I believe that teenagers [people] with mental health problems [mental illnesses] are to blame for their problems.

23. I believe that it is not a good idea for employers to give part-time jobs to teenagers [people] with mental health problems [mental illnesses].

24. I would be afraid of someone if I knew that they had mental health problems [a mental illness].

Disagree Completely   **Disagree**   **Neither Agree nor Disagree**   **Agree**   **Agree Completely**

1. Most teenagers [people] would be happy to be friends with somebody who has mental health problems [a mental illness].
3. Most people believe that teenagers [people] with mental health problems [mental illnesses] are just as intelligent as other teenagers [people].
4. Most people believe that teenagers [people] with mental health problems [mental illnesses] will get better someday.
5. Most people believe that teenagers [people] with mental health problems [mental illnesses] can get good grades.
13. I believe it is good to be friends with someone who has mental health problems [a mental illness].
15. I believe that teenagers [people] with mental health problems [a mental illness] are just as intelligent as other teenagers [people].
16. I believe that teenagers [people] with mental health problems [a mental illness] can get better.
21. I believe that teenagers [people] with mental health problems [mental illnesses] can get good grades.

Note. PMHSS - stigma awareness = mean of items 2, 6, 7, 8, 9, 10, 11, 12; high scores = stigma awareness/awareness of societal stigma. PMHSS stigma agreement = mean of items 14,17, 18, 19, 20, 22, 23, 24; high scores = stigma agreement/personal endorsement of stigma. PMHSS overall stigma score = mean of items: 2, 6, 7, 8, 9, 10, 11, 12, 14,17, 18, 19, 20, 22, 23, 24; high scores = overall stigmatising attitudes. PMHSS positive reactions = mean of items: 1, 3, 4, 5, 13, 15, 16, 21; high scores = positive attitude/feeling toward those with mental health problems. Order of numbers reflects the original order for the PMHSS measure and scoring outlined by McKeague, Hennessy, O'Driscoll, and Heary (2015)

This scale measures how you feel toward mentally-well people and people with mental health problems; numbers go from 0 to 100 degrees, like in a thermometer. The higher the number, the more positive you feel towards the group.
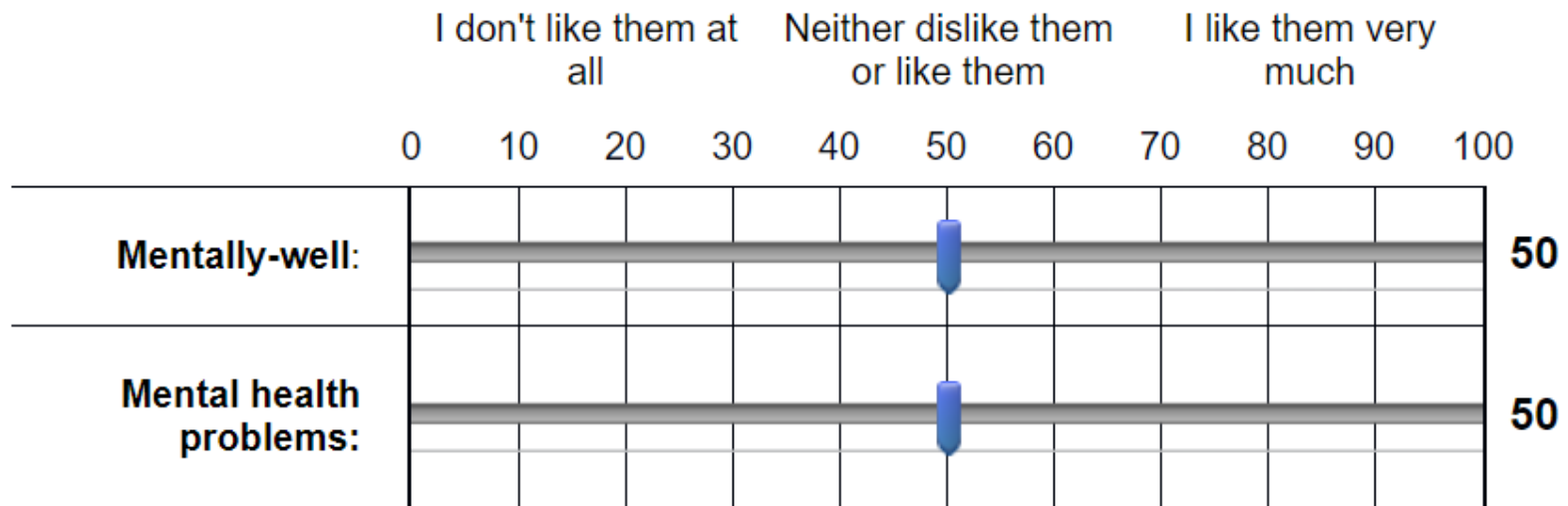
Thank you for taking part and contributing to this study investigating methods of educating students about groups in society.

Now that the study is finished, **if your tutors were able to give you free periods to volunteer at a local mental health drop-in centre** (The Umbrella centre), how willing would you be to volunteer there?

This charity needs volunteers to come to the centre to chat to people with mental health problems.

Please indicate below how many free periods in the next two weeks you would be willing to give up to volunteer at the local mental health drop-in centre:

<div align="center">

0   1   2   3

</div>

Appendix M: Attention Check and Qualitative Items in Studies 2, 4, and 5

Please think about the teaching method you were involved with and provide a brief description of what you think it was about and its main themes: _____

Please provide a brief summary of your role in the teaching method you were involved with:_____

Do you think your teaching method would be a good way of highlighting a common concern for adolescents? Why/Why not? _____

Did you enjoy the teaching method you were involved with? Why/Why not?
_____

Note. Qualitative items not displayed to control condition participants

Appendix N: Common Ingroup Identity Fictitious News Article in Study 3

Instructions: In this part of the survey you will be asked to read part of an article that was published in 2015 in The Guardian. Please read the article to familiarise yourself with the topic and the conclusions based on the findings. You will be asked some questions later about the article. The British Psychological Society and the American Psychological Association are interested in the opinions of mentally-well people toward the mentally-ill.

To familiarise yourself with the issues, please read the following article reporting on a research project carried out in 2015:

Mental Illness

How the mentally-well see the mentally-ill

The British Psychological Society and the American Psychological Association: Year-long study finds interesting results about public attitudes toward the mentally-ill

Photograph: Courtesy of The British Psychological Society

In 2015, American and British psychologists asserted there is very little difference between those with and without mental illnesses.

Professor Karen Stanely, a psychologist at the University of Kent, has long recognised the importance of understanding how human minds are neuro-diverse, and that neuro-diversity is good for society.

According to her, "Neuro-diversity research demonstrates that we are all unique, mentally, and it is this infinite diversity of the human mind that unites us. Everyone fits somewhere under the umbrella of neuro-diversity."

In his book, "*The Social Brain: How Diversity Made the Modern Mind,*" Professor Richard Crisp describes the importance of neuro-diverse thinking:

> "Creative thinking is crucial to human development. It helps us to achieve great feats of engineering, forge companies and careers, craft beautiful symphonies and charm potential partners. It is the essence of innovation, the staple of success. We now know a great deal about the psychology that drives creative thinking and, most importantly, the conditions that enable it to be captured, cultivated and grown. It is diversity in our social environments that shapes creativity; and, properly harnessed, it can maximise our potential in a whole range of everyday domains."

In a large-scale research project carried out in 2015, community samples of mentally-well people from the US and UK responded to a survey asking for their opinions about people with mental illness.
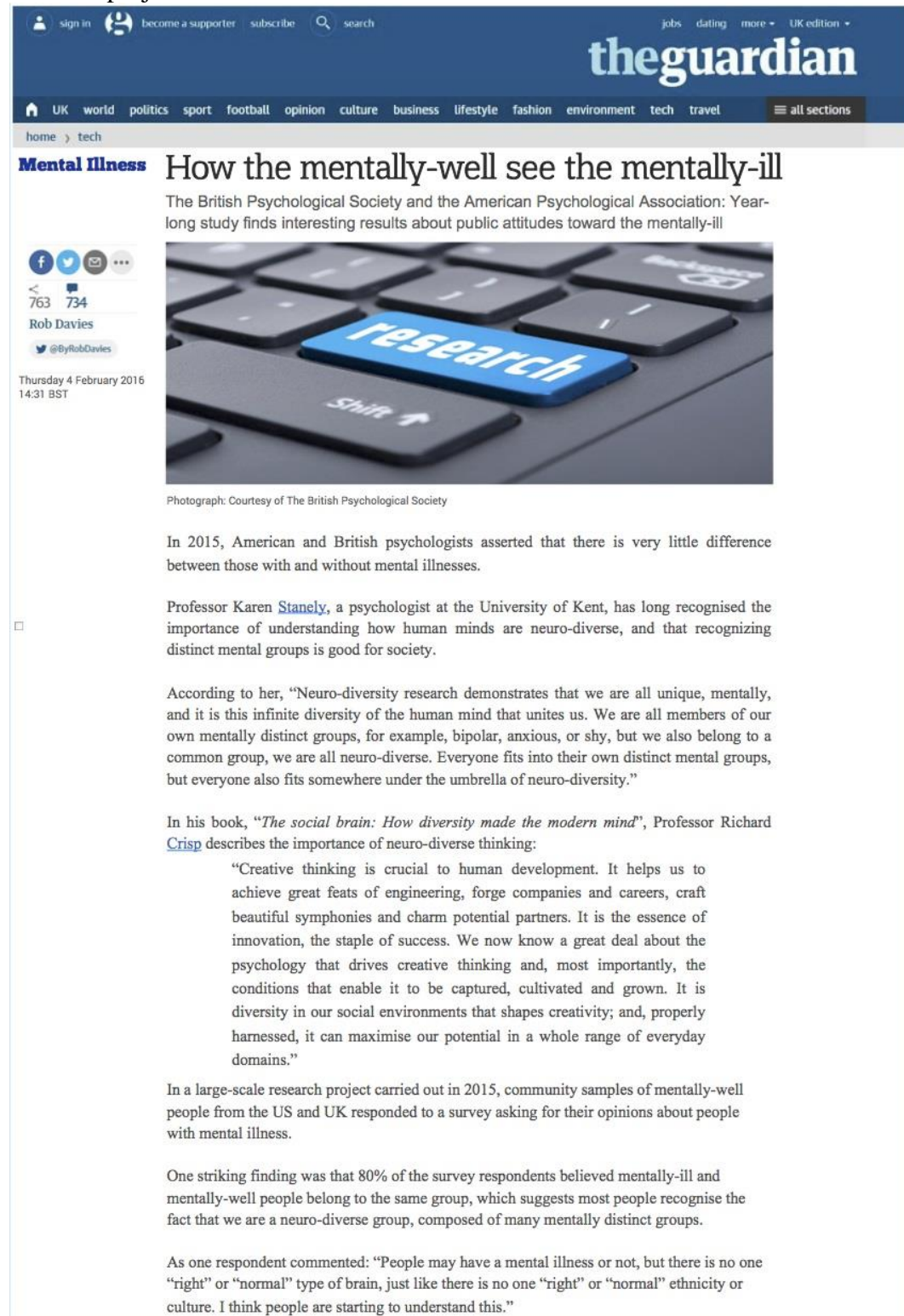
One striking finding was that 80% of the survey respondents believed mentally-ill and mentally-well people belong to the same group, which suggests most people recognise the fact that we are a neuro-diverse group.

As one respondent commented: "There is no one "right" or "normal" type of brain, just like there is no one "right" or "normal" ethnicity or culture. I think people are starting to understand this."

Appendix O: Dual Identity Fictitious News Article in Study 3

Instructions: In this part of the survey you will be asked to read part of an article that was published in 2015 in The Guardian. Please read the article to familiarise yourself with the topic and the conclusions based on the findings. You will be asked some questions later about the article. The British Psychological Society and the American Psychological Association are interested in the opinions of mentally-well people toward the mentally-ill.

To familiarise yourself with the issues, please read the following article reporting on a research project carried out in 2015:

Mental Illness

How the mentally-well see the mentally-ill

The British Psychological Society and the American Psychological Association: Year-long study finds interesting results about public attitudes toward the mentally-ill

Photograph: Courtesy of The British Psychological Society

In 2015, American and British psychologists asserted that there is very little difference between those with and without mental illnesses.

Professor Karen Stanely, a psychologist at the University of Kent, has long recognised the importance of understanding how human minds are neuro-diverse, and that recognizing distinct mental groups is good for society.

According to her, "Neuro-diversity research demonstrates that we are all unique, mentally, and it is this infinite diversity of the human mind that unites us. We are all members of our own mentally distinct groups, for example, bipolar, anxious, or shy, but we also belong to a common group, we are all neuro-diverse. Everyone fits into their own distinct mental groups, but everyone also fits somewhere under the umbrella of neuro-diversity."

In his book, "*The social brain: How diversity made the modern mind*", Professor Richard Crisp describes the importance of neuro-diverse thinking:

> "Creative thinking is crucial to human development. It helps us to achieve great feats of engineering, forge companies and careers, craft beautiful symphonies and charm potential partners. It is the essence of innovation, the staple of success. We now know a great deal about the psychology that drives creative thinking and, most importantly, the conditions that enable it to be captured, cultivated and grown. It is diversity in our social environments that shapes creativity; and, properly harnessed, it can maximise our potential in a whole range of everyday domains."

In a large-scale research project carried out in 2015, community samples of mentally-well people from the US and UK responded to a survey asking for their opinions about people with mental illness.

One striking finding was that 80% of the survey respondents believed mentally-ill and mentally-well people belong to the same group, which suggests most people recognise the fact that we are a neuro-diverse group, composed of many mentally distinct groups.

As one respondent commented: "People may have a mental illness or not, but there is no one "right" or "normal" type of brain, just like there is no one "right" or "normal" ethnicity or culture. I think people are starting to understand this."

Appendix P: Separate Groups Fictitious News Article in Study 3

Instructions: In this part of the survey you will be asked to read part of an article that was published in 2015 in The Guardian. Please read the article to familiarise yourself with the topic and the conclusions based on the findings. You will be asked some questions later about the article. The British Psychological Society and the American Psychological Association are interested in the opinions of mentally-well people toward the mentally-ill.

To familiarise yourself with the issues, please read the following article reporting on a research project carried out in 2015:

Mental Illness

How the mentally-well see the mentally-ill

The British Psychological Society and the American Psychological Association:
Year-long study finds interesting results about public attitudes toward the mentally-ill

763 734

Rob Davies

🐦 @ByRobDavies

Thursday 4 February 2016
14:31 BST

Photograph: Courtesy of The British Psychological Society

In 2015, American and British psychologists asserted that there are many differences between those with and without mental illnesses.

Professor Karen Stanely, a psychologist at the University of Kent, has long recognised the importance of understanding these inherent differences, as this understanding is good for society.

According to her, "Mental illness research demonstrates that people with mental-health diagnoses have unique difficulties in comparison to those who are mentally-well. Mentally-ill people fit under a very different umbrella from mentally-well people - they are not part of the same group."

In his book, "*The social brain: The modern mind*", Professor Richard Crisp describes the importance of differentiating between groups:

> "[M]any psychological processes have evolved to protect us from the potential threat posed by outgroups. Proponents of this perspective argue that evolved human preferences for stability, simplicity and structure reflect behavioural adaptations that conferred a survival advantage to humans in the distant past. These preferences are exemplified in the way we mentally represent groups and group differences to ourselves. In other words, a manifestation of the brain's need for simplicity and structure is our inclination to categorise, generalise, stereotype and differentiate people from different groups than our own."

In a large-scale research project carried out in 2015, community samples of mentally-well people from the US and UK responded to a survey asking for their opinions about people with mental illness.

One striking finding was that 80% of the survey respondents believed mentally-ill and mentally-well people belong to different groups, which suggests most people recognise the fact that mentally-ill and mentally-well people belong to different groups.

As one respondent commented: "There is a "right" type of brain and people with mental illness don't necessarily have it. I think people are starting to understand this."

Appendix Q: Control Condition News Article on the Environment in Study 3

Instructions: In this part of the survey you will be asked to read part of an article that was published in 2015 in The Guardian. Please read the article to familiarise yourself with the topic and the conclusions based on the findings. You will be asked some questions later about the article. The British Psychological Society and the American Psychological Association are interested in the opinions of people toward the environment.

To familiarise yourself with the issues, please read the following article reporting on a research project carried out in 2015:

Environment

How people see the environment

The British Psychological Society and the American Psychological Association: Year-long study finds interesting results about public attitudes toward the environment

Photograph: Courtesy of The British Psychological Society

In 2015, American and British psychologists asserted that engagement with the natural environment is important for society.

Professor Karen Stanely, a psychologist at the University of Kent, has long recognized the importance of understanding our natural environment, and how this understanding benefits everyone.

According to her, "Environmental research demonstrates that conservation of the environment is especially important for the health and well-being of people and societies."

In his book, "*Aesthetics in Practice: Valuing the Natural World*", Professor Emil Brady describes the multiple benefits of nature:

> "In relation to wild nature, Edward O. Wilson argues that 'to explore and affiliate with life is a deep and complicated process of mental development; our existence depends on this propensity. Douglas Porteous cites a range of psychological studies which show how both passive contemplation of nature and more active engagement through gardening and recreational activities promote human well-being. These studies support the long-standing 'nature tranquillity hypothesis', which recognises the benefits of nature for humans and has had an important role in urban planning and landscape design, including the work of Frederick Law Olmstead, who designed Central Park and Prospect Park in New York, among other green urban spaces."

In a large-scale research project carried out in 2015, community samples of people from the US and UK responded to a survey asking for their opinions about the natural environment.

One striking finding was that 80% of the survey respondents believed the environment should be an important consideration in their everyday lives and for their well-being, which suggests most people recognise the fact that conservation and appreciation of the environment is important.

As one respondent commented: "We must care for our environment if we want our environment to care for us."

Appendix R: Conceptual Representation of the Mentally Ill Measure in Study 3
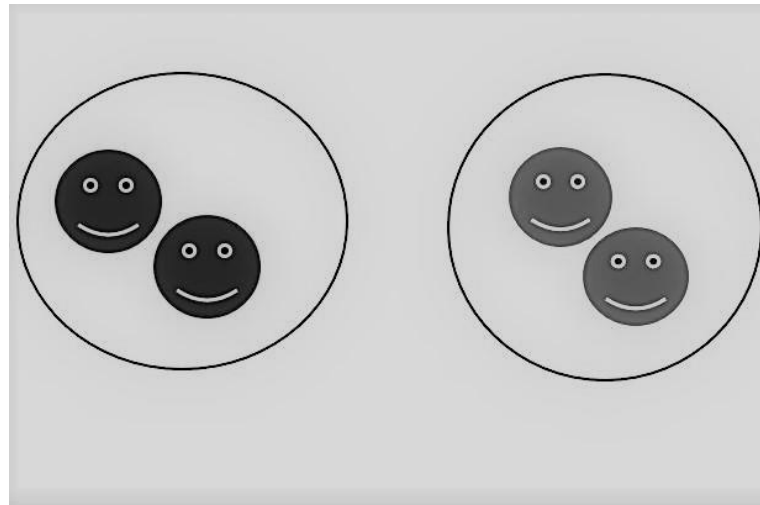
Please consider the three images below, then select the image that best matches your belief about the mentally-well and the mentally-ill in our society.
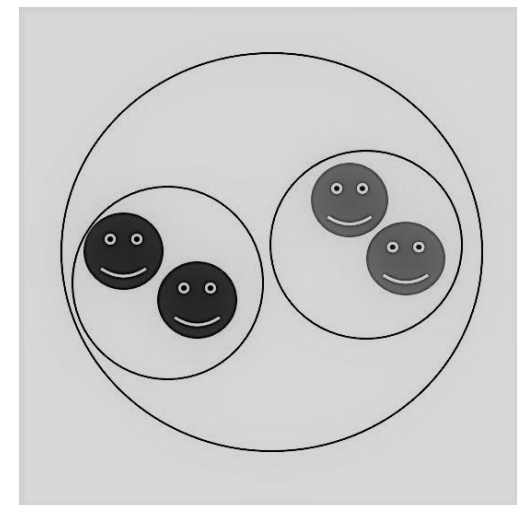**People who are mentally-well and people who are mentally-ill are best viewed as:**
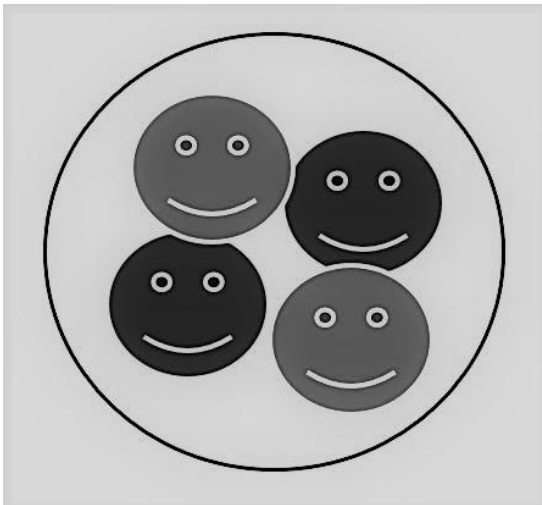
Part of one group   **Two separate groups**   **Two subgroups within one larger group**

Appendix S: Helping Behavioural Intention Measure in Study 3

Before continuing to the debrief and the end of the survey, **we would like to take this opportunity to invite you to support mental illness** by posting/sharing a mental illness stigma campaign poster from Time to Change on a social media site you belong to (e.g. FaceBook or Twitter).

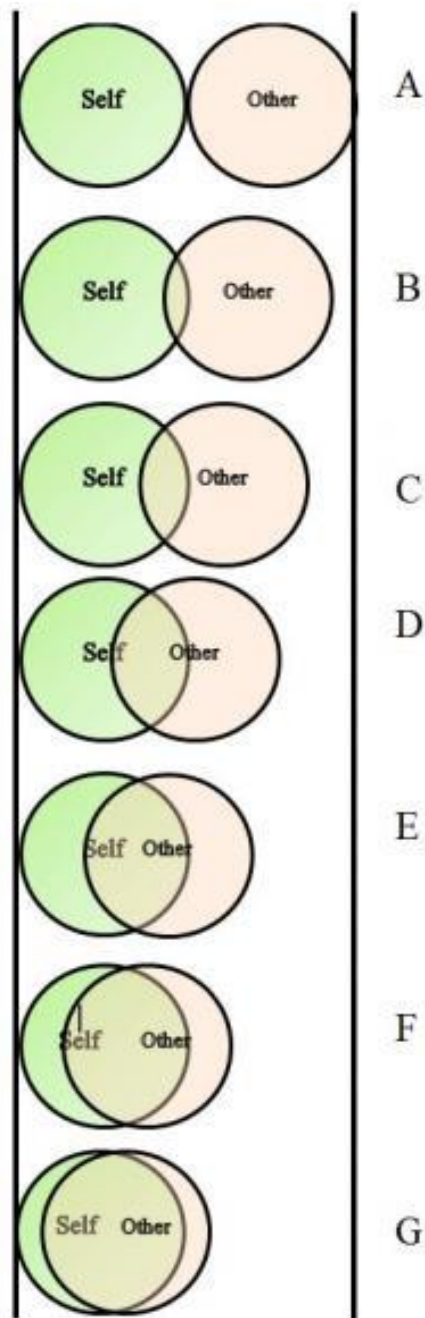**Please choose an option below, indicating your willingness to share the above campaign poster:**

Yes   - I would like to share the Time to Change poster to a social media site I use
No   - I do not wish to share the Time to Change poster to a social media site I use

If you indicated that you are willing to share the poster, you will receive a link to copy and paste to your chosen social media site following completion of this study.

Please take a moment to think about people who would be described as mentally-ill.

Using the scale below, please indicate to what extent you believe that you understand the perspective of members of this group, and are able to see the world through their eyes, by selecting the picture that best represents how much your perspectives overlap.

For example, picture A would indicate that you **do not** believe there is any overlap in perspective between you and people described as mentally-ill, whereas picture G would indicate that you **believe there is nearly complete overlap** in perspective between you and people described as mentally-ill.

Please think of how you would feel mixing socially with complete strangers who are mentally-ill.

Please try to imagine how you would feel if you were the only mentally-well person and you found yourself among a group of mentally-ill people.

Following the words below, rate how you would feel:

Not at all   Slightly   Somewhat   Moderately   Extremely

1. Anxious
2. Comfortable
3. Worried
4. At ease
5. Awkward
6. Confident
7. Apprehensive
8. Happy

Appendix V: Article Credibility Scale in Study 3

On the following scale, can you please rate the extent to which the article was:

Completely disagree	**Disagree**	**Undecided**	**Agree**	**Completely agree**

1. Credible
2. Convincing
3. Realistic
4. Trustworthy
5. Sincere
6. Reliable

In the last year, how much contact do you *think* you have had with people who:

	Never	Once/twice a year	Monthly	Weekly	Daily
1. are disabled					
2. are gay					
3. are mentally ill					

Appendix X: School Participant Interpersonal Reactivity - State Measure and Instructions in Study 4 and 5

Since we are planning to use this teaching method in other populations, especially younger ones, it would be helpful to know more about your experience of the teaching method you were just involved with.
For each of the statements below, indicate how well it describes you, using the scale provided.
Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers, please answer as honestly as you can.

Does not describe me   **Describes me slightly well**   **Describes me moderately well**   **Describes me very well**   **Describes me extremely well**

1. I found it difficult to see things from the points of view of the people/person I learnt about. [a]

2. I really got involved with the feelings of the people/person I learnt about.

3. When I was learning about the people/person in my teaching method, I didn't get completely caught up in it. [a]

4. After completing the teaching method, I felt as though I were the people/person I learnt about.

5. Being involved in the teaching method, I very easily put myself in the place of the other people/person.

6. Whilst involved in the teaching method, I tried to "put myself in the shoes" of the people/person it was teaching about for a while.

7. During the teaching method, I imagined how I would feel if the events in the lesson were happening to me.

8. I felt quite touched by the things that happened to the people/person I learnt about.

9. I felt quite protective of the people/person I learnt about in the teaching method.

Note. State fantasy ability subscale items = 2, 3, 4, 5 & 7; state empathy subscale items = 8 & 9; state perspective-taking subscale items = 1 & 6. [a] = reverse scored

Thinking about the mental health social group as a whole, to what extent do you feel you can assume the other group perspective and take it on board as your own?

Using the following pictogram scale, please indicate which picture best represents the degree to which you feel you take on board the other groups' perspective(s).

For example, picture A would represent that you did ***not*** take on board the other perspective at all, and picture G would represent that you ***took on board*** the other perspective almost completely.

Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers, please answer as honestly as you can.

A B C D E F G
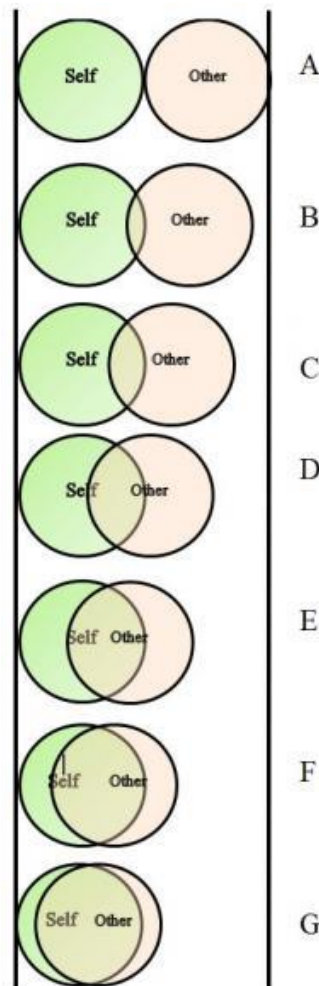
Appendix Z: School Participant Interpersonal Reactivity - Trait Measure and Instructions in Study 4

In this next section, we would like to get a better sense of you and how you generally operate in the world in relation to yourself, others, and your environment.
For each of the statements below, please indicate how well it describes you, using the scale provided.
Please be assured that your answers will remain anonymous and confidential. There are no right or wrong answers, please answer as honestly as you can.

Does not describe me	**Describes me slightly well**	**Describes me moderately well**	**Describes me very well**	**Describes me extremely well**

1. I daydream and fantasize, with some regularity, about things that might happen to me.

2. I often have tender, concerned feelings for people less fortunate than me.

3. Sometimes I don't feel very sorry for other people when they are having problems. [a]

4. I try to look at everybody's side of a disagreement before I make a decision.

5. I sometimes try to understand my friends better by imagining how things look from their perspective.

6. Becoming extremely involved in a good book or movie is somewhat rare for me. [a]

7. Other people's misfortunes do not usually disturb me a great deal. [a]

8. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments. [a]

9. When I see someone being treated unfairly, I sometimes don't feel very much pity for them. [a]

10. I believe that there are two sides to every question and try to look at them both.

11. I would describe myself as a pretty soft-hearted person.

12. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

Note. Trait fantasy ability subscale items = 1 & 6; trait empathy subscale items = 2, 3, 7, 9, & 11; trait perspective-taking subscale items = 4, 5, 8, 10, & 12. [a] = reverse scored

Appendix AA: Self Stigma of Mental Illness – Short Form Measure and Instructions in Study 4 and 5

As you answered 'yes' to considering yourself to have an ongoing mental health problem, please answer the following questions using the 9-point agreement scale.

I strongly disagree			**Neither agree nor disagree**				**I strongly Agree**	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

1. Because I have a mental health problem I am unable to take care of myself.

2. Because I have a mental health problem I will not recover or get better.

3. Because I have a mental health problem I am to blame for my problems.

4. Because I have a mental health problem I am unpredictable.

5. Because I have a mental health problem I am dangerous.

6. I currently respect myself less because I am unable to take care of myself.

7. I currently respect myself less because I am dangerous.

8. I currently respect myself less because I am to blame for my problems.

9. I currently respect myself less because I will not recover or get better.

10. I currently respect myself less because I am unpredictable.

Note. School T1 $n = 6$; T2 $n = 6$; T3 $n = 8$. University RPS T1 $n = 7$; T2 $n = 6$; T3 $n = 12$

Appendix BB: Marlowe-Crowne Social Desirability Short Form Scale Measure and
Instructions in Study 4 and 5

Listed below are a number of statements concerning general personal characteristics and style. Please read each item and decide whether or not the statement is true of you.

Select **'True'** if you think the statement is true of you and select **'False'** if you do not think the statement is true of you.

	True	**False**

1. It is sometimes hard for me to go on with my work if I am not encouraged.

2. I sometimes feel resentful when I don't get my way.

3. On a few occasions, I have given up doing something because I thought too little of my ability.

4. There have been times when I felt like rebelling against people in authority even though I knew they were right.

5. No matter who I'm talking to, I'm always a good listener.

6. There have been occasions when I took advantage of someone.

7. I'm always willing to admit it when I make a mistake.

8. I sometimes try to get even rather than forgive and forget.

9. I am always courteous, even to people who are disagreeable.

10. I have never been annoyed when people expressed ideas very different to my own.

11. There have been times when I was quite jealous of the good fortune of others.

12. I am sometimes irritated by people who ask favours of me.

13. I have never deliberately said something that hurt someone's feelings.

Note. Items 1, 2, 3, 4, 6, 8, 11, & 12 scored 1 point if false, 0 if true; items 5,7 9, 10, 13 scored 1 point if true, 0 points if false

Appendix CC: Experiential Intergroup Contact Condition Research Assistant Instructions
in Study 4 and 5

The following instructions are amendments added to the RA instructions detailed in
Appendix ?

Fish and chip shop:
In this fish and chip shop game, 3 of you will get to act a small scene, with the others acting as
the audience, then we will swap over.
RA read out-loud:
"Three people are waiting in a takeaway fish and chip shop (the audience), two people are
serving behind the counter, and one is the customer.
Servers mime, for example, frying the fish and chips, wrapping them, handing them over, taking
the money, chatting and bantering with the customers."
Servers and customer, now follow these instructions [RA direct]
- One character acts normally; everyone else moves normally, but are silent
- One character acts normally; everyone else is frozen
- One character acts normally; everyone speaks normally, but do not move at all
- One character acts normally; everyone else works in slow motion
- One character acts normally; one is frozen
Swap and allow the other group of 3 a go

- Please introduce yourselves as your main character/one of your characters
  highlighted in your script by SHAKING HANDS WITH ME [participants
  introduce selves to RA as character].

2nd HOUR

The weather meter
Ok, find a space. I'm going to call out a number on a scale of 1-10, representing temperature.
The number 5 is room temperature, and this moves up the scale to 10, which is Sahara Desert
heat, and down to 0, which is Antarctic.
We're going to move around demonstrating how the temperature would affect our movements.
[RA] shout out numbers between 0 and 10, with 5 being 'normal' movements.
It is a good idea to stop them with a 'freeze' command every now and then, and walk around
pointing out things you're noticed.
Now, 0 represents no wind at all, and 10 is gale-force winds, with 5 a mild wind.
[RA] shout out numbers between 0 and 10, with 5 being 'normal' movements.

- [swap roles, try and make sure two new people are Alice and Max]
- [if didn't finish script in session 1, pick up where left off]
- For 30-40 minutes you're going to swap roles (this is a chance to play another role).
- Please introduce yourselves as your main character/one of your characters
  highlighted in your script by SHAKING HANDS WITH ME [participants
  introduce selves to RA as character].
- You are asked to please read through your new roles out-loud as a group. You are
  not being judged on reading or acting ability – I will read the stage directions to
  help guide rehearsals.
- **Feel free to use the props that are mentioned in the script and are on the table.**
  - **Please encourage prop use and focus on scenes and stage directions –
    encourage e.g. participants setting the puppets/story scene.**
- Session closes.
  Gather the scripts back from the participants

- **[only if they are a school] Read the 'brief debrief' found at the end of this document**
- Thank you all for your participation. We're going to take a short break now and I'll see you soon, back in this room. Let them leave, mention the duration of the break _____ minutes – see timetable.

****

3rd HOUR

IMPORTANT: RAs please email/set up tablet for the feedback questionnaire link at the start of this session so that they can complete it at the end, prior to debrief.

For RPS studies – tablets should already have *Qualtrics* link on 'desktop', email participants who attend with the *RPS* link once they complete the questionnaire at the end via the psychgroupstudy@kent.ac.uk email, folder '1 Uok SESSION 4….'
[Schools - LINK FOUND IN EMAIL, LIST IN FOLDER, AND ON USB STICKS]

There is no deception being used in this study. You are simply asked to take on board and experience the perspective of your character/s in the script as you rehearse together.
- [swap roles, try and make sure two new people are Alice and Max]
- For 20 minutes you are you're going to swap roles (this is a chance to play another role).
- Please introduce yourselves as your main character/one of your characters highlighted in your script by SHAKING HANDS WITH ME [participants introduce selves to RA as character].
- You are asked to please read through your new roles out-loud as a group. You are not being judged on reading or acting ability – I will read the stage directions to help guide rehearsals.
  - Set-up audio recording device
- **Feel free to use the props that are mentioned in the script and are on the table.**
  - **Please encourage prop use and focus on scenes and stage directions – encourage e.g. participants setting the puppets/story scene.**
- For 20 minutes, we will now rehearse scene 4, and record it once. You may then pick a scene you like to rehearse and record once. Please read out-loud and assume the perspective of those characters highlighted for you for the benefit of the audio detector (you are not being judged on reading or acting ability - I will read the stage directions to help guide rehearsals).
  - Audio-record SCENE FOUR and participant chosen scene - the recording is to play back to the main researcher to see how the session ran.
- Now that we are finished, would you be able to explain the teaching method and the story to someone who was new to it?
  - [brief, 5 mins] Ask each participant to help each other explain it to you as if you are a new student encountering the teaching method and story.

Thank you for completing the teaching method.
[SCHOOLS ONLY] Before we go back to do the final questionnaire, please use these tablets and go to the link provided for some questions relating to the teaching method.
[UoK ONLY] Thank you all for your participation. You now need to complete the post-task questionnaire either on tablets provided or your mobile phones [IF MOBS NEED TO USE THE LINK SENT IN EMAIL FROM psychgroupstudy@kent.ac.uk]
- [SCHOOLS ONLY] We're going to move back over to the PC room.

Appendix DD: Experiential Intergroup Contact Condition Script Roles List for Research Assistants in Study 4 and 5

RAs list of possible participant role assignments

ROLES

1 RA Director
A Alice
B Max
C Crowd 2, George, Group 1, Group 3
D King, Van Gogh, Nash, Levine, Pundit 2, Mr Jones, John
E Narrator, Lee, Rowling, Gaga, Actor, anchor, Mrs Jones, teacher
F Group, Imagination, Queen, PC 1, 2, 3, Crowd 1 + 3, Chris, Applegate, Lovato, Pundit 1, Sam, Group 2, 4 + 5

Note. RA = research assistant

Appendix EE: School and University Imagined Intergroup Contact Condition Instructions in Study 4 and 5

Imaginative story-based teaching method: In the teaching method you have been randomly assigned to you will need to follow the instructions about imagining a situation with a group member with a mental health problem.
There is no deception being used in this teaching method. You are simply asked to follow the imaginative story-based instructions for learning about the mental health group.

Please take a minute to imagine the following scenario:
Imagine that you are waiting at a crowed train station for a train to London. Shortly after you find a seat, you see another person enter the train station—Tom Harrell.
Tom Harrell is a Jazz trumpeter and composer who loves the music of Louis Armstrong. After being diagnosed with a long-term mental health problem he continued to compose and play music, releasing several chart-topping albums. He stopped taking medication for his mental health problem, finding that his music helps him cope with his illness.
Please take 5 minutes to imagine the following scenario:

Shortly after arriving at the train station, Tom Harrell takes the seat beside you. Imagine yourself having a conversation with Tom Harrell at the train station. Imagine that the interaction is positive, relaxed and comfortable. We would like you to spend the time thinking, but please type down, from time to time, the things that you imagine.
Feel free to type whatever springs to mind in the following box: _____

Appendix FF: School and University Facts Condition Instructions in Study 4 and 5

Individual learning-based teaching method: In the teaching method you have been randomly assigned to you will be reading a document about members from the mental health problem group.

- You are asked as an individual to read through the document describing facts about people with mental health problems, in order to explain what it's like to have them.
- You are simply asked to read the facts about mental health problems.

There is no deception being used in this teaching method. You are simply asked to consider all the facts you read.

Please click on the link below to open a PDF version of the document in a new window.

IMPORTANT!!
PLEASE DO NOT CLOSE THIS SURVEY!
YOU NEED TO COME BACK TO IT ONCE YOU HAVE READ THE SCRIPT IN A SEPARATE WINDOW.

PLEASE READ PAGES 6-14

Please open the document here: Individual learning-based teaching method - https://kentpsych.eu.qualtrics.com/CP/File.php?F=F_db33VmqSlsVgoCh

Please note that the next page button cannot be accessed until 10 minutes have passed, to allow you time to read the document.

Appendix GG: Experiential Intergroup Contact Condition Prop List for Research Assistants in Study 5

Props guide:

Prop	*For role:*
Bear ears	Max – throughout
Teddy bear	Max – throughout
Puppets	All actors have one each – queen to queen etc. – bedtime story scene
Blanket	Max – lay on floor/two chairs as bed with blanket – bedtime story scene
END stigma posters	For droids (not Alice or Max) – museum scenes
Plastic beer glasses	All - pub garden scene

Appendix HH: Qualitative Interview Schedule in Study 6

"Hello _____, I'm Chloe and I will be interviewing you today about your experiences and involvement with the mental health play Stigmaphrenia©. If at any time you can't hear me let me know, and it's best to use headphones during the interview so there's no feedback. I will be recording this interview so it can be written-up later [start recording].
I would like to make it clear that there are no right or wrong answers, the study just wants to know your subjective opinion and experiences, and you can choose not to answer a question without giving a reason.

Before we begin, can you please confirm that you have read the study information sent via email/a prior questionnaire? And that you have had time to ask questions? Can you please confirm that you freely agree to participate in this interview study?
[If under 18] – As you are under 18 years of age I just want to remind you that if your parent/s/carer/s want to listen in on the interview they can."

I hope you are having a nice day so far…….[weather]			
Just to start us off I thought we could talk about your understanding of what mental health is.	So, what would you say mental health means to you?		Generally, what have your experiences of people with mental health differences been like?
	"That's interesting - would you like to tell me more about that?"		
I'm going to move on now by asking some questions about the play Stigmaphrenia© and your role in it.	[NAME], roughly how long ago did you take part in rehearsing and performing Stigmaphrenia©?– year?		
Establish when they were involved with Stigmaphrenia –	Why did you decide to get involved? What aspects drew you to the play?	And which character/s did you play? [What was your role?] Was there anything you liked/did not like about them?	How was it rehearsed and performed when you did it?

	What got you interested? [personal interest?] [How did you find out about it?]	Why?	
	"That's interesting - would you like to tell me more about that?"		
Detailed role -	If you think about the play – can you recall what it was about? [For instance] can you describe the storyline?	➔ OR Can you describe it [the play Stigmaphrenia©]?	➔ [That was the storyline], ➔ How would you explain the main theme or message to someone who doesn't know it? [What was it trying to convey to the audience?]
			[neuro-diversity – do they bring up this term un-prompted?]
Neuro-diversity – if not mentioned	Are you familiar with the term neurodiversity?	How do you understand it?	What do you associate it with?
Attitudes and language –			
And what kind of impact did your involvement with the play have?	How did it affect you? [Maybe it didn't] – if not, why not?	[probe if no particular issue]	OK, so how did the play affect your ability to discuss mental health?
Behaviour – Do they have more contact with those with differential mental health now?	*Before* Stigmaphrenia, did you have much involvement with people with mental health differences? [Volunteer] Can you elaborate? What was it like?	More involvement *now*? [volunteer, mentor, taken up a job, decided to care for someone?]	How do you think that you approach mental health and people with mental health differences now?

		[Or perhaps more aware of mental health differences now than before?]	[in a different way following your involvement?]
		"That's interesting – why do think that is?"	
[if change] What about your involvement with Stigmaphrenia© do you think led to this? [effect on behaviour/language]	What was it about the script and its message, or the general experience of doing Stigmaphrenia© do you think had an impact?	[on you?]	[attitudes and behaviours toward those with mental health differences]
Open ended [Self-stigma – only if participant brings it up]	I have a couple more questions, but we're coming to the end now, and I was wondering if there's anything personal to you that puts your answers during this interview in context?		Has anything changed about how you understand mental health?
	[Thought of self in one way before]	"That's interesting - would you like to tell me more about that?"	[Thought of self in one way after]
Changes/use of Stigmaphrenia©?	And to finish, what, if anything, would you change about the story and/or the play? Why?	Do you think Stigmaphrenia© would be a good way to address mental health stigma (negative attitudes and behaviour toward those with mental health differences) for young people, adolescents, and young adults?	
		Why/why not?	

Appendix II: Qualitative Interview Table of Themes in Study 6

Table II1
Study 6, Superordinate and Subordinate Themes, and Examples from Interviewee Transcripts

Superordinate themes	Sub-theme/s			Transcript example quote/s
			Line/s	
		Ca	446-447	There are people with ADHD and so on, but I didn't really believe in it, if that makes sense.
				Because, yeah, cuz back home, you're, you're crazy. Or you're not, you know, there's, and I hate that word. But, yeah, that would usually be the explanation. Oh, no, they're just just a bit crazy.
			643-645	
		Eu	315-316	but I'd always just thought that mental illness is mental illness
	Unawareness/peripheral awareness; **Acceptance of stigma stereotypes;**	Ge	108-111	I wouldn't really talk about it and I think as a young man, you're not really supposed to have mental health problems you kind of supposed to have a stiff upper lip, you get on with it and and keep going.
	Limited experience of mental health and stigma;			before, before Stigmaphrenia or anything like that, anything like that was just scary. And alien, and incomprehensible.
Before Stigmaphrenia©	**Concealment of own mental health experiences;**		661-663	
	Negative narrative of mental health as illness, pathology, and disorder	Ro	121-123	I mean, where I come from, we, we split people to crazy and normal. And I never thought that we tend to stigmatize people that have like a psychological issue
				That's how we treat them, as crazy people.
			187	
		Ru	120-125	I was very naive about mental health. Before I started it, like having. Well, not being sure if I'd really come across it at secondary school. And even in at secondary school, it was kind of a taboo topic that people didn't talk about.
				like with something, I think, especially, well with a number of different mental health issues, that you get very worried about telling people about them. Because I felt there still was a bit of a stigma around them
			506-509	

After Stigmaphrenia©	Heightened mental health and stigma awareness; Non-acceptance/active refutation; Understanding of own mental health and disclosure; Positive attitudes, language, and behaviour; Adoption of the neurodiversity narrative of difference, not illness	Ca	64-65	So it is, I don't know, I'm very proud to have been part of it, because I didn't really realize I didn't know the gravity of how hard it can affect everyone.
			100-101	Yeah, erm. Well, it's I'm much more understanding than I used to be.
			276-278	I understand it in the way that we all, no-one looks the same on the outside and I think that goes for the same on the inside. We're all different, we're diverse,
		Eu	383-387	and that's something that's changed over time and now I think it's something where I'm much more, when I talk to people, I'm much more willing to say like, you know I've have these issues, I understand, erm, it's OK to ask for help sort of things
			505-507	I think it's beneficial when it's expressing differences in terms of the expression that we are all different, and that there is no normal, that there are no true centres
		Ge	97-99	rather than mental health being almost like a dirty word, it is now it is now just something that is, you know, it's a simple to me something I check, I check on, like the weather.
			422-425	And so, if we're all on the spectrum together, we can understand You know, we can try to understand each other's feelings and each other's sort of ways of being, and appreciate and respect that, in it's own right And it's carried on, you know, here we are, six years later, five years, five years later, five years later. And it is it is something that I, I actively encourage people to talk about, because it only helps to talk about it
			583-587	Stigmaphrenia is the best coaching tool I've ever had. Erm, mental health issues are a big part of my life and my family's life. And having the tools and knowledge to understand those things better. Makes makes it an awful lot more bearable, and makes dealing with the hardest stuff, you know, easier to deal with
			672-682	

Ro	383-386	Instead, we should help them become part of the society. We're, as they already are. And, erm, I don't know, don't stigmatize them. Don't treat them differently.
	428-431	I mean, it's, yeah, it's how all people's brains are different, or how every person is different from the other, than the, yeah. Yeah. It's what it's what keeps us from being different from each other.
		what I do differently now is that I try to guide people in the right direction whenever they talk about another person that has a problem with their psychology, yeah, that's what I try to do
	712-715	
Ru	288-290	they aren't something that we should be trying to get rid of, or, or create stigma around, that we actually need to be more accepting of what is a natural diversity in the population
	360-374	the play have me give a greater appreciation of that, like, from my, I'm saying, it helped me get some, understand a bit more where they were, what they were going through…also one of my relatives, was diagnosed with bipolar. And I think some of their family weren't really sure how to deal with it, or like what they should do? And so when that occurred, I was able to chat with them, and just explain to them, that they're still, that they're still, who they are, they're just gonna, at times, they're going to have highs and lows, and just to try and, try and, it's helped me explain it to other people as well.
		I was able to explain to them in more general terms, like about that, you know, that, it's not like a bug that she's caught, or anything like that, you know, that there's other, that it's to come from a, you know, it's not, and you can't just treat it with a magic pill, like it, like you couldn't just give an antibiotic for it, and it will clear up in a week or so.
	383-393	

Self-stigma reduction	Reduction and/or pre-emption of self-stigma; Disclosure; Reframing embodied experience; Managing discredited/discreditable identity with neurodiversity narrative	Ca	504-505	Yeah, no, I'm, I'm very open about it now. erm I don't feel that it's something that needs to be shh-ed away.
			544-548	So yeah, I think I think the whole experience, to be honest, has been what it's been rewarding for me, because I feel I can handle it better now . And I'm fine with talking aloud about it. And it's just, it's just how it is really.
		Eu	387-389	so I think that's more the personal issue that having had help, it's kind of helped me to get over the fact of, I kind of self-stigmatisation really.
			399-403	I grew up with friends who were of the toxic masculine culture, so I picked up certain unhealthy habits, such as kind of never expressing when you need help, so I was willing to help others, but I was never willing to let other people know that I needed help, erm, and that's something that's changed.
		Ge	458-461	Stigmaphrenia gave me a sort of like a real understanding and appreciation of how my brain works and allowed me to take it seriously and stop pushing it, pushing it away.
			489-492	It can be literally anybody. And it doesn't mean you're not normal. That to me was kind of like a light bulb. And I was like, Oh, right. I get this now.
			575-583	Oh, so much so, the, I didn't really discuss it before…we, obviously we did a q&a with, with the audience. And, obviously, it's not an easy subject for some people to talk about for most people to talk about. And it was, it was as surprising to me as anyone else that I was, you know, quite happy to be the icebreaker. And, you know, kind of get the ball rolling, talking about myself and my own experiences. And I'd certainly never have done that.
		Ro	248-251	I mean, all of us, all of all of the people that are into arts have been to some place that wasn't very nice for them or that changed them, I mean have been, in erm, I mean in a, I mean their personality has has been affected. That's why, because I have been there as well, during my teenage years.

		Ru	417-423	I'm happy to talk to people about it, like it's not something that I shy away from, or, you know, I don't see it as a taboo topic, I actually think it's, I almost see it now, more that it's an important thing to talk about. Because I think for too long it has been taboo. And we actually need to discuss it more, because through discussing it more, we can actually help more people.
			502-504	I was recently diagnosed with depression. And it's helped me kind of, kind of come to terms with it, helped me understand where I've, I'm kind of, where it's coming from And I only disclose it to the people I'd also talked about the play with them, about.
			526-527	So the people I told were my parents, my best friend. And my partner, and all of them had been, had seen the play. I kind of felt that they were the right kind of people to also tell.
			531-536	
Intergroup Contact Criteria	**Positive experience; language; friendships; Goal-oriented performance; Cooperation Empathy and perspective-taking. Meta intergroup contact Facilitator; director; experienced negatively; Generalisation to other mental health problem group members outside of the Stigmaphrenia© experience**	**Ca**	376-377	It was lovely. They were, it was really fun. They were all lovely people. erm I think I've got all of them Facebook still.
		Eu	162-164	but I remember it being quite nice, quite informal, erm, people just being OK and cracking jokes if we got the lines wrong and just running it again.
			737-739	because even though you talking about other people to some degree, you're starting to think about yourself when you're acting something, you're starting to think how does this person relate to me
		Ge	217-220	And there would be an awful lot of laughs and sort of like camaraderie developing between us…. it was a fun time on those evenings where we would, where we we'd get together and we'd rehearse
			266-269	But, you know, if there was one thing that stopped it from being huge amounts of fun, it was, it was him, but then, you know, he is kind of the boss, when you're the director and you're not always supposed to be liked as the boss, so
				Yeah, it was a connection. It was a relation. You know, I could understand. I could understand her as a human being. And erm, yeah, I could see, I could see myself as her, in a way.
			540-543	

Ro 296-303 I mean, all of us could like chip in and do do our own direction of the play. But at times he was he was necessary, because it's hard to, I mean, it's hard to control a group if you don't know how to control it.

So we the the actors I mean the different roles try to make to help that boy understand, erm what mental health is, or why people act differently around people with mental health issues.
371-373

Ru 211-214 I felt as we were starting to bring it together more, you know, and we got, we saw it kind of taking shape, it just kind of, I think took on that role of him as a director and us as actors. As like a troupe

I think I also really enjoyed people's reaction to the play. like, I think that we had some, hearing people's feedback after we finished the play…Yeah, it just, it definitely led me to the think that people were getting
470-479 the right message from it.

Actor/process versus audience/product	Experiential, embodied sensory experience; Importance of actor performing, opposed to being an audience member; Practicalities of performing; Aesthetics – props; stage; set design; improvements to script	Ca	580-585	the way that the play was set up and everything, it just makes it realistic in my head, like I remember it much better than I think I would remember something else. erm instead of just reading it , and so on, but it's it's, it's stuck in my head and I think about often, it pops in my head once in a while.
			662-664	it was a play, and we had very limited. Erm, oh what's it called, like props and stuff. That could, that would be you know, it could be made a little bit cooler.
			743-746	I had a great experience from being the actor. I don't know if it would have had the same effects on me, as it did if I hadn't been in it instead of just watching it.
		Eu	458-461	when I was trying to get over my mental issues, when I started seeing a psychologist I started, erm, dungeon mastering, so running these games because that was a way of performing and being out there in a very safe space
			598-601	so I felt like in terms of the grand historical figures, erm, there could have been a way to like, I don't know if it's possible trace erm other characters, who are say black, or Muslim, or gay, whatever it may be
			693-694	for those who are acting there's definitely much more of a self-involvement
		Ge	111-113	for me the, the, what's so great about the play was that and just the whole process of it and learning for yourself and learning from others around us
			698-700	What's really stuck with me is things that I learned in the process of making it. And the things I learned about myself and other people
			807-809	actors often say that when they get into their characters costume for the first time, it's when they can properly appreciate the role.
			855-859	I think definitely the kids, if they if you've got kids to perform it, like if you were able to license it out as a as like a study materials or something like that, that, you know, kids performed as part of their curriculum. I think that would be extremely beneficial to them.

Ro	304-308	First of all, and I mean, also the staging was important. I mean, the way we, we separate objects, I mean, we found objects, how we use them. Where we have to see it, where we have to move.
		I mean theatre, you know, brings people closer because you share an experience with the other person. That was the most important thing.
	660-662	
		I mean, we got a lot more as we, of course, because we were rehearsing it almost every day.
		if your students of the school did the play, and their classmates watched it, it will be, it would have a more, a bigger impact, instead of sending, I mean professional actors do it. You know what I mean? [C: Yeah, yeah]. Cuz they would have a, would have a bigger involvement, involvement
	792-793	
	836-841	
Ru	612-616	Well, I think a play works well, because I always think, it's quite, plays make it a bit easier to take a message from it. I think it works better than, say, just a leaflet, or, er kind of just text to read. Like with a stage, you've got the like visual, my information all of that
		The benefit of them being actors, is that it seemed it would seem a lot, I think it would help, I think that overridingly would help break down the stigma
	670-673	
		I think it may help some of them come, either come to terms with their own, or get a greater appreciation of different issues people face.
	687-689	

Note. Pseudonyms: Ca = Cassandra; Eu = Eugen; Ge = George; Ro = Rocco; Ru = Russ.