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Living Apart, Living Together? The Role of Intergroup Contact in Social Integration

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There's many a difference quickly found
Between the different races,
But the only essential differential
Is living in different places.
(Ogden Nash, *Goody for Our Side and Your Side Too*, 1935)

Introduction

THE WORLD IS BECOMING a more diverse place, with the mix of groups in some localities so pronounced that it has been termed 'super-diversity' (Vertovec, 2007). Can these different groups co-exist and, better still, thrive together? The Cantle Report into social unrest in northern cities of England in 2001 referred to the 'depth of polarization' and segregated communities living 'a series of parallel lives' (Cantle, 2001); Sir Herman Ouseley's (2001) Commission for Racial Equality report remarked that, 'If left to their own devices it seems people will retreat into their own separate "comfort zones" surrounding themselves only by people like themselves.' More recent surveys seem to support the view that members of different

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ethnic, racial and religious groups still live largely separate lives in contemporary Britain: 'Four out of 10 whites do not want black neighbour, poll shows' (*The Guardian*, 19 January 2004); '90% of whites have few or no black friends' (*The Guardian*, 19 July 2004), yet they fail to take account of people's *opportunities* to make such cross-group contacts. Moreover, other newspapers report that 'one in ten children in Britain now lives in a mixed-race family' (*The Observer*, 18 January 2009), that 'there are enough examples of Muslims and non-Muslims learning to rub along', and (with reference to Huntington's, 1993, pessimistic thesis) that 'there is nothing predestined about the clash of civilisations' (*The Economist*, 6 December 2008). Meanwhile singer Timmy Thomas asks famously, 'Why can't we live together?' Yet others have a more sanguine view. Thurgood Marshall (first African-American to be appointed a Supreme Court judge) pointed to the benefits he gained from growing up in a mixed area of Baltimore (see Williams, 2000), and author Ralph Ellison attributed his integrationist views to growing up in Oklahoma among blacks, whites, Jews, and Native Americans (Als, 2007).

What are the implications of living together, or living apart? In this paper I will explore different, pessimistic and optimistic, perspectives on mixing and consider what the available data tell us. 'Integration' lies at the heart of this question, as does the frequently invoked concept of 'diversity'; contrary to some views (e.g., Caldwell, 2009), the two can, indeed I would argue that they should, co-exist. In a widely quoted definition, former British Home Secretary (interior minister) Roy Jenkins on 23 May 1966 defined integration 'not as a flattening process of uniformity but of cultural diversity, coupled with equal opportunity in an atmosphere of mutual tolerance' (quoted by Vertovec, 1998, p. 29: see Lester, 1967). Psychologists, however, have tended to refer to Berry's (1984) conception of integration as an individual-level orientation, which he usefully distinguishes from assimilation, separation and marginalisation. These four orientations are considered to result from the combination of two orthogonal orientations: a desire to maintain (or relinquish) one's ethnic identity, and a desire to engage with and have contact with other groups (or not; see also Dovidio, Kawakami and Gaertner, 2000). Thomas Pettigrew (1971), the senior scholar in the world on these issues, has also helpfully differentiated between *integration* and *desegregation*. This, as we shall see, is a fundamentally important distinction, which contrasts desegregation under conditions likely to improve relations between members of previously segregated groups (integration) with the simple creation of a racially or ethnically mixed institution or, in short, mere mixing. I will argue that integration is,

and must be, about 'meaningful contact', anything else just will not do. Finally, with a strong policy focus, Trevor Phillips (Chairman of the UK Commission on Equality and Human Rights) has conceived integration as 'a learned competence' (Phillips, 2005). I think this, too, is a useful interpretation, because a part of living together is learning to live together, and this comes through positive experience which, as we will see, involves overcoming initial anxieties and taking a more positive orientation to contact with members of unfamiliar groups.

I will focus here on the idea of 'intergroup contact', which asks about the conditions under which members of different social groups come together, and with what effect. My analysis will be largely, but not exclusively, based on social-psychological theory and data, and will draw mainly on the work of my research group over some twenty years. The following major sections of this contribution deal with six main issues: (1) *types* of intergroup contact, and whether they 'work'; (2) *when*, that is, under what conditions, contact is most effective; (3) *how*, that is, by what processes, does contact work; (4) how *extensive* are the effects of contact; (5) what are the major *policy* implications of intergroup contact; and (6) what criticisms have been raised against the idea of intergroup contact, and are they fair? Finally, I summarise progress in the form of a new theoretical model and draw some conclusions.

Varieties of intergroup contact and whether they 'work'

> Meaningful contact between people from different groups has been shown to break down stereotypes and prejudice. Contact is meaningful when: conversations go beyond surface friendliness; in which people exchange personal information or talk about each other's differences and identities; people share a common goal or share an interest; and they are sustained long term . . . (*Our Shared Future*, Report of the Commission on Integration and Cohesion, 2007)

Direct, face-to-face contact under 'optimal conditions'

The Harvard social psychologist Gordon Allport (1954) is generally credited with being the first to expound the 'contact hypothesis', which conceives of how members of different groups can be brought together to reduce hostilities and improve intergroup relations.[1] Allport coined the

[1] Williams (1947) put forward an initial formulation of the contact hypothesis and many of his ideas, including a focus on equal-status contact, were acknowledged by Allport (1954).

term, the 'contact hypothesis' (Allport, 1954; Hewstone and Brown, 1986; Pettigrew, 1986), and proposed that contact would be more likely to reduce prejudice and improve intergroup relations if four conditions were met. Firstly, there should be equal status among the groups who meet, or at least among the individuals drawn from different groups who meet. Secondly, the situation in which intergroup contact occurs should require cooperation between groups or offer common goals to both groups. Thirdly, the contact situation should be structured in such a way as to allow the development of close relationships with members of the outgroup. Finally, contact should be legitimised through institutional support.

Allport's (1954) formulation of the contact hypothesis has proven extremely influential and has inspired a great deal of empirical research that tested and extended its basic principles (for reviews see Brown and Hewstone, 2005; Pettigrew and Tropp, 2006). This work has used a diversity of research methods ranging from field studies to laboratory experiments and longitudinal surveys, and has had a profound impact on social policy in many countries (Miller and Brewer, 1984; Schofield and Eurich-Fulcer, 2001; see section on policy, below).

The prejudice-reducing effect of contact is now well established, even though that message is still not understood, or accepted, in some quarters (see section below on 'Contact and its critics'). The most convincing evidence was accumulated by Pettigrew and Tropp (2006), who conducted a meta-analysis (a quantitative review of the literature, which aggregates the effects detected across all the studies) covering 515 studies (including 713 independent samples), based on a total of over 250,000 participants.

Summarising greatly, I shall highlight three of the most important findings. First, there was a highly significant negative relationship between contact and prejudice (mean effect size $r = -.22$, $p < .0001$), suggesting that contact is an effective tool for reducing prejudice. Second, the effect size in the 134 samples where contact was structured to meet Allport's optimal contact conditions ($r = -.29$, $p < .0001$) was significantly greater than in the remaining studies that did not ($r = -.20$, $p < .0001$). Third, having contact with outgroup friends was found to be significantly more predictive of reduced prejudice ($r = -.26$) than was general intergroup contact ($r = -.22$). As we shall see later, cross-group friendships are perhaps the most effective form of intergroup contact, and have widespread effects and implications.

Additionally, Pettigrew and Tropp found that the size of the contact effect varied as a function of many moderating factors, including contact setting, target group, dependent measure, and majority vs minority group

status. The effect of contact was, for example, greater: in laboratory and recreational, than in educational and residential, settings; for target groups based on sexual-orientation and ethnicity than for those based on physical or mental handicap; for 'affective' measures (of emotions and feelings) than for 'cognitive' measures (of beliefs and stereotypes); and for majority-status than for minority-status groups. It must be emphasised, however, that these moderation effects qualify the *extent* of the contact effect, not its existence. Contact works. Across all studies, the baseline effect is that contact is associated with reduced prejudice. Thus, notwithstanding the 'booster' effect of contact involving Allport's four conditions, given the basic effect of contact on prejudice, these factors should be seen as 'facilitating' rather than as necessary conditions (Pettigrew, 1998).

One limitation of the data base for this meta-analysis is that so many studies have been cross-sectional, rather than experimental or longitudinal. For this reason some caution should be exercised in interpreting some of the data, and I consider this issue briefly in the following methodological note, before proceeding further.

A methodological note

Only experimental studies of intergroup contact yield unambiguous evidence that manipulated contact as an independent variable can and does *cause* changes in attitudinal and other dependent variables. Whenever studies are correlational in nature, this precludes drawing strong conclusions about the direction of causal influence. Do varying amounts of contact bring about change of intergroup attitude, or do people with different prior attitudes differentially seek out contact with outgroup members? Both hypotheses are plausible, and in many contexts it is likely that some bidirectional causality is at work. Although sophisticated modelling techniques have been used to compare both directional effects using cross-sectional data, use of longitudinal designs permits stronger causal interpretations and shows that under certain conditions contact does indeed lead to generalised attitude change.

This limitation has been addressed in three different ways, each of which gives us confidence in drawing quite strong inferences from correlational data to the effect that contact substantially affects attitudes and other outcomes (see Tausch, Kenworthy and Hewstone, 2006). First, researchers have tested effects using more sophisticated statistical models, and compared the effects of two possible paths: from contact to attitudes, and from attitudes

to contact. Sometimes both paths have been found to be significant, but typically the path from contact to attitudes is somewhat greater than the reverse path (Pettigrew, 1997; Powers and Ellison, 1995).

Second, researchers have assessed the effect of contact in situations where participants were given *no choice* about participating in intergroup contact; thus prior attitudes could not have been driving contact. In their meta-analysis, Pettigrew and Tropp (2006) reported that no-choice studies yielded by far the largest effect sizes between contact and attitudes.

Third, the problem of causality has also been addressed in a few longitudinal studies, although these are still relatively rare in a database of over 500 studies. In a particularly impressive example of such a longitudinal approach, Levin, van Laar and Sidanius (2003) collected data from American college students *over a period of 5 years*. Their results indicate that students who reported less favourable ethnic attitudes (and more intergroup anxiety) in their first year were indeed less likely to have outgroup friends during their second and third years of college, which is consistent with the argument that prior attitudes can determine the extent of intergroup contact (see also Binder *et al.*, 2009). Nevertheless, those students with more outgroup friends in years two and three had more positive attitudes and were less anxious in year five, even after their prior attitudes, friendships, and a number of relevant background variables were controlled for. Notably, both causal paths were equally strong (also found by Al-Ramiah, Hewstone, and Little, under review).

We examined the causal effects of contact on attitude in a recent longitudinal study of Catholics and Protestants in Northern Ireland. This setting, in which we have conducted much of our research, can be considered a particularly demanding one for tests of the contact hypothesis. There have been decades of ethno-political violence (the so-called 'Troubles'), and there is extensive residential, educational, and personal-marital segregation (Hewstone *et al.*, 2005; Niens, Cairns, and Hewstone, 2003). Our survey covered residents of several mixed and segregated neighbourhoods ($N = 404$ respondents who completed surveys at both time 1 and time 2, one year apart; Hewstone, Tausch, Hughes, and Cairns, 2008*a*). We conducted statistical analyses that exploit the fact that we had measures of both contact and bias towards the outgroup at two time points. This allowed us to compare the path from contact to bias with the reverse path, from bias to contact. We found that contact at time 1 had a negative effect on bias at time 2, but that bias at time 1 did not affect contact at time 2; these results are consistent with a causal effect of contact on bias, indicating that contact *reduced* bias.

Thus, given the available empirical evidence, the most plausible answer to the question of causality seems to be the operation of a bi-directional or cumulative process, in which contact reduces prejudice, which in turn makes future contact more likely (Pettigrew, 1997). However, this requires some clarification. Contact research has long acknowledged the possibility of reciprocal causal paths that predict contact from attitudes and vice versa (Pettigrew and Tropp, 2006); it is self-evident, for example, that most bigots will avoid contact with outgroup members. What is most crucial in terms of assessing contact as a social intervention, however, is that the path *from* contact *to* outgroup attitudes must remain statistically significant even after the reverse causal path has been accounted for. This underscores the viable role of contact in improving outgroup evaluations overall, notwithstanding the acknowledged evidence for self-selection bias.

Indirect Forms of Contact

Pettigrew (1997) suggested that a reduction in prejudice might be achieved by promoting direct friendship between members of rival groups. As we have seen, there is strong support for this 'direct cross-group friendship hypothesis' in the meta-analysis. Unfortunately, however, direct cross-group friendships have one inevitable limitation; they can only be used as an intervention to reduce prejudice when group members have the opportunity for contact in the first place. If people do not live in the same neighbourhood, attend the same school, or occupy the same workplace as outgroup members, they are unlikely to develop friendships with them. Given the practical obstacles to direct intergroup contact posed by various forms of segregation, several recent approaches have investigated the effectiveness of more indirect forms of contact.

The most important and best-established of these indirect forms of contact has been termed 'extended', 'indirect' or 'vicarious' contact. It refers to the impact on prejudice of the mere knowledge of at least one, and preferably more than one, ingroup member who has an outgroup friend (Wright, Aron, McLaughlin-Volpe, and Ropp, 1997). Tests of the 'indirect cross-group friendship hypothesis' were (deliberately) not included in the meta-analysis, because they do not involve face-to-face contact. However, this newly discovered form of contact is important in its own right, and highly effective too. Wright *et al*. provided both correlational and experimental evidence in support of this hypothesis. They showed that respondents—belonging to either majority or minority

groups—who knew at least one ingroup member with an outgroup friend consistently reported weaker outgroup prejudice than did respondents without indirect friends; furthermore, the greater the number of members of the ingroup who were known to have friends in the outgroup, the weaker was the prejudice.

Indirect friendship might have even greater potential for achieving harmonious intergroup relations than does direct friendship. Wright *et al.* (1997) believe indirect friendship to be more effective and easier to implement than direct friendship, for two reasons. First, to the observer of the cross-group friendship, the group memberships of those involved are expected to be relatively salient (i.e., it is clear that, for example, a white boy has an Asian friend); in contrast, the observer may well be unacquainted with individual characteristics of the member of the outgroup, and this will increase the likelihood that his or her behaviour is taken as typical or representative of the group. This characteristic of extended contact should facilitate generalisation of positive attitudes, from the individuals engaged in direct contact to the views of their respective groups. Second, when one is merely observing another ingroup member engaged in contact with an outgroup member, any anxiety felt about interacting with members of that outgroup ('intergroup anxiety'; Stephan and Stephan, 1985) should be lower than when one is involved directly in the contact. Observing or knowing about intergroup interactions that go unpunished may also change the perceived ingroup and outgroup norms regarding intergroup interactions.

A series of experimental, quasi-experimental and correlational studies have provided extensive empirical evidence that people knowing about, or observing, cross-group friendships show less prejudice than those who do not (for reviews see Turner, Hewstone, Voci, Paolini, and Christ, 2008; Vonofakou *et al.*, 2008). Importantly, this research has also demonstrated that the relationship between extended contact and outgroup attitudes holds after controlling for direct contact with outgroup members.

Indirect friendship is also easier to implement on a larger scale, because it can improve intergroup relations without every group member having to have outgroup friends themselves; the existence of a single friendship between an ingroup member and an outgroup member has the potential to affect the attitudes of many individuals in both groups who do not themselves have any cross-group friends (Wright *et al.*, 1997). Other indirect forms of contact include contact via the Internet (Amichai-Hamburger and McKenna, 2006), contact via the media (Mutz and Goldman, in press; Schiappa, Gregg, and Hewes, 2005), and simply

imagining contact with a member of an outgroup (Turner, Crisp, and Lambert, 2007*a*).

Summary

Drawing together this wealth of research, I can state categorically that contact works. For direct contact, the meta-analytic evidence is especially robust, whereas the research on forms of indirect contact reveals that intergroup contact can, and should, be broadly conceived, and is a highly flexible means of improving intergroup attitudes. Having thus covered *types* of intergroup contact, and whether they 'work', I turn next to *when*, that is, under what conditions, contact is most effective.

Under what conditions is contact most effective?

> Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between minority and majority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom or local atmosphere), and if it is of a sort that leads to the perception of common interests and common humanity between members of the two groups. (Gordon Allport, *The Nature of Prejudice*, 1954)

Some theoretical approaches have argued that contact situations should be structured so as to reduce the salience of available social categories and increase the likelihood of a more 'interpersonal' mode of thinking and behaving (e.g., Brewer and Miller, 1984, 1988; Miller, 2002). This would allow those involved in the intergroup interaction to focus on personal information and individuate outgroup members. Although these scholars report evidence to support their view, I have long argued that this approach is limited, because it tends to create positive *interpersonal* relations, rather than changing generalised views of outgroups as a whole. In short, by focusing solely on individuating information, the outgroup member would not be seen as an outgroup member at all, and thus any positive outcomes that result from the interaction would fail to generalise to other members of the category.

We have developed a contrasting view, which argues that there can be advantages in maintaining intergroup salience during contact, so long as some of Allport's other key conditions apply (Brown and Hewstone, 2005; Hewstone, 1996; Hewstone and Brown, 1986). We proposed that if

the contact can be arranged so that it takes place between ingroup and outgroup members who can be regarded as sufficiently typical or representative of their groups, then the positive changes that occur should generalise to those groups as a whole. Although at first sight this proposal might seem rather paradoxical, one of the necessary conditions for this to happen is that the group memberships retain some psychological salience. Over the past two decades we have devoted considerable energy to the testing and refinement of the model (see Brown and Hewstone, 2005, for a detailed review), and here I give merely a couple of examples to demonstrate that the cardinal idea of the model has subsequently been well supported by our own empirical research, both experimental and correlational.

Van Oudenhoven, Groenewoud, and Hewstone (1996) manipulated salience experimentally. Dutch school students participated in a cooperative learning group with a Turkish 'peer' (actually a confederate). There were two salience conditions. In one condition, participants (including the confederate) were introduced to each other by the experimenter early on in the session and explicit references were made to their respective ethnicities so that it was obvious that the confederate was of Turkish origin (High : High salience). In the second condition, these introductions were effected later on, about half way through the session (Low : High salience). In the control condition no references were made to ethnicity at any point (Low : Low). The intention of varying the timing of the salience manipulation was to investigate whether there can be social advantages in not introducing group salience until some level of interpersonal intimacy has been achieved (Pettigrew, 1998). At the conclusion of the learning session participants were asked to evaluate the particular Turkish person with whom they had worked on a number of trait ratings, and then, apparently for a different study (and in a different location), 'Turkish people in general' on a slightly broader set of traits. The results were clear. In all three conditions the Turkish confederate was evaluated equally favourably, presumably a consequence of the pleasant cooperative interaction they had just experienced. However, the ratings of Turkish people generally showed a marked difference between the salience and control conditions (see Fig. 1). When the confederate's nationality had been made explicit, whether early or late in the proceedings, the favourable attitude towards him generalised to the category as a whole.

In more naturalistic settings it is not always easy to manipulate salience, or typicality, experimentally. Thus in a series of field studies we have adopted a different approach. In these studies we have obtained measures of both the quantity and quality of contact that respondents

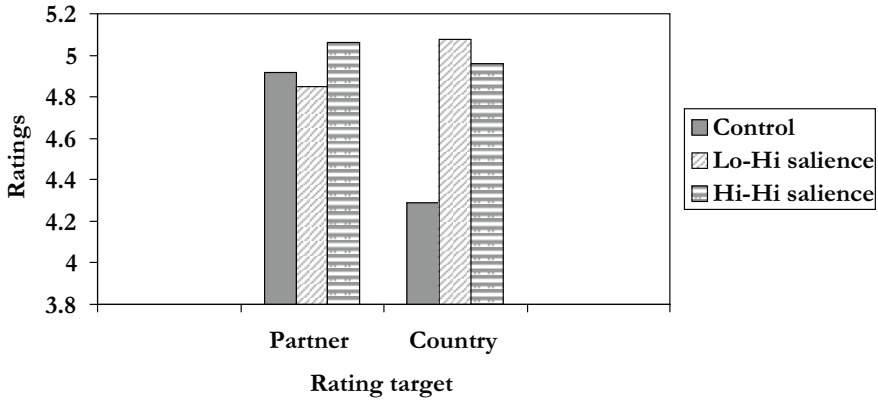

Figure 1. Ratings of individual outgroup partner and outgroup as a whole under different conditions of group salience (from Van Oudenhoven *et al*., 1996). (Figure drawn from data originally published in: Van Oudenhoven, J. P., Groenewoud, J. T. and Hewstone, M. (1996), 'Cooperation, ethnic salience and generalization of inter ethnic attitudes', *European Journal of Social Psychology*, 26: 649–62.)

report having with members of an outgroup. We also measured subjective group salience, usually with a reliable index based on perceived typicality of the outgroup person with respect to their group, self-reports of how frequently respective group memberships seem to feature in respondents' interactions with members of the outgroup, and how aware respondents were of group memberships during contact, and so on. We have used several criterion variables in these studies, but here I shall focus primarily on studies that have used some measure of attitude towards the outgroup as a whole.

Methodologically, because the data in these studies are correlational, rather than experimental, we have used conventional statistical techniques (e.g., multiple regression, path analysis and structural equation modelling) to test whether the association between contact and intergroup attitude is moderated by group salience (i.e., whether the association between contact and attitudes is greater for respondents who report 'high' vs 'low' salience during contact).

This analysis depends crucially on a distinction made by Baron and Kenny (1986) between so-called moderator and mediator variables (see also Kenny, Kashy, and Bolger, 1998). This distinction is central to understanding the mechanisms and processes of intergroup contact. As Baron and Kenny explain, the distinction is best understood in terms of the kinds of questions one is asking in research: moderator variables address

'when' questions (e.g., *when* does contact between members of different groups lead to an improvement in outgroup attitudes?), whereas mediator variables address 'how' or 'why' questions (e.g., *how* or *why* does contact improve attitudes?). Both moderation and mediation effects involve more than two variables; that is, they both deal with what happens when a third variable comes into play. But they do so in different ways. Moderation implies that the *level* of the third variable can change the strength of the relationship between the other two variables, whereas mediation implies that the relationship between the two variables is actually created by the third variable.

In the remainder of this section I will summarise some of our survey data that illustrate how the salience of group memberships during contact (or the perceived typicality of an outgroup member one has contact with) moderates the impact of contact on outgroup attitudes. In the following section I will consider variables that mediate the effect of contact, before discussing studies that have investigated moderating and mediating effects simultaneously.

Brown, Vivian, and Hewstone (1999) conducted a test of the moderation hypothesis in a European context. Students ($N = 293$) from six European countries were asked to nominate someone they knew in another country of the European Union. They then provided ratings of the amount and quality of the contact they had with this person, how competitive that relationship was, how salient group memberships were during contact with this person, and how much they desired to live in the outgroup country in question. Figure 2 shows the results of the regression analysis for respondents who had contact with a German (similar findings were obtained collapsing across all countries). As expected, amount of positive contact had a direct, positive effect on the desire to live in Germany, whereas competitive contact had a direct, negative effect. More interestingly, the salience variable proved to be a significant moderator, as predicted. Among respondents reporting that nationalities were highly salient in their relationship with a member of the outgroup, there was a reliable relationship between contact and (positive) outgroup attitude; by contrast, there was not a reliable relationship for the 'low' salience respondents.

The moderation effect has been replicated in numerous studies, and there is consistent evidence from a variety of research settings that both the amount and quality of contact with individual outgroup members have stronger, more beneficial and more generalised effects on intergroup attitudes when the contact person is seen as 'typical' of the outgroup and/or

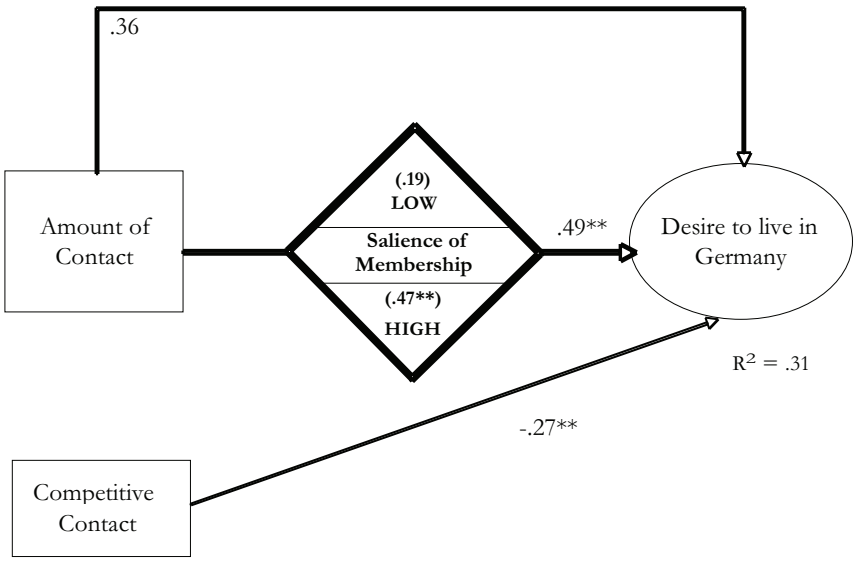

Figure 2. Group membership salience moderates effects of contact on desire to live in another country (from Brown *et al*., 1999). (Reprinted with permission from: Brown, R., Vivian, J. and Hewstone, M. (1999), 'Changing attitudes through intergroup contact: The effects of group membership salience', *European Journal of Social Psychology*, 29: 741–64.)

the respective group memberships are psychologically salient (Brown and Hewstone, 2005, table 2). At this point it is worth returning to Pettigrew and Tropp's (2006) meta-analysis. Recall that they reported a reliable negative association between contact and prejudice, across all studies. Given our finding that, in general, categories must be salient during contact, this suggests that categories *are* typically salient during intergroup encounters, which is perhaps not surprising given that the groups investigated often have visible differences and considerable social significance.

Summary

The research presented in this section suggests that, while it might appear to be an 'obvious' solution, ignoring or overlooking group membership during contact does not necessarily result in better intergroup attitudes and relations. Even if eliminating category salience may appear to be advantageous, group memberships are frequently both subjectively and collectively meaningful and emotionally significant, and in such cases group members are reluctant to surrender their identity and distinctiveness. Moreover, even

if avoiding group salience seems desirable, it may be perceptually impossible for certain groups, such as those defined by race, ethnicity, or age. The elimination of group membership is not only impractical and threatening; it also limits the impact of intergroup contact on generalisation. Therefore, retaining group salience in a positive, intimate, cross-group interaction appears to be the best way to optimise intergroup contact. The findings presented here indicate that interpersonal (Brewer and Miller, 1984; Miller, 2002) and intergroup (Hewstone and Brown, 1986) approaches are not incompatible, and should be employed together to produce the most effective intergroup contact. I will illustrate how to do this in the following section.

Mediators of the effects of contact

> You never really understand a person until you consider things from his point of view . . . until you climb into his skin and walk around in it. (Harper Lee, *To Kill a Mocking Bird*, 1960, p. 35)

What are the processes that drive any change of attitude that contact is able to effect? To answer this kind of question, *mediational* analyses are essential. In this section I review the progress that has been made in pursuit of mediating variables within the framework of the original Hewstone–Brown model and its later revisions (Brown and Hewstone, 2005; Hewstone, 1996).

One of the major additions to this literature since Allport's (1954) pioneering work has been the study of mediating variables. Indeed, with all the benefits of hindsight and a discipline that has matured theoretically, empirically and methodologically, it is striking how little Allport seemed concerned with 'how' or 'why' contact works effectively. To the extent that he asked these questions at all, Allport envisaged contact working by improving *knowledge* about the outgroup. However, subsequent research points to rather meagre effects of this variable (Pettigrew and Tropp, 2006; Stephan and Stephan, 1984). In fact, rather than factual information *per se* being important, more recent research has emphasised the importance of knowing about *differences* between groups (Wolsko, Park, Judd, and Wittenbrink, 2000), which is theoretically much closer to the conception of 'awareness of group differences' as a moderator of contact effects, which is central to the model we have developed.

Scholars have suggested several variables that could potentially mediate between contact and outcomes (Dovidio, Gaertner, and Kawakami,

2003; Kenworthy, Turner, Hewstone, and Voci, 2005; Pettigrew, 1998). I will not review development in all these areas here but will, instead, highlight the main mediators identified in research to date, again focusing on the results of our own research programme.

In current work, affective factors are now considered to be particularly important (Pettigrew, 1998), that is, the emotions that are associated with members of other groups, and the feelings experienced during intergroup interaction. Affective processes seem to play a greater role in the contact process than do cognitive factors (Pettigrew, 1998; Pettigrew and Tropp, 2008). Pettigrew's emphasis on affective factors comes out of his conviction that 'the contact situation must provide the participants with the opportunity to become friends' (Pettigrew, 1998, p. 76). Friendship, Pettigrew argues, can both reduce negative affect and augment positive affect. I turn now to a review of our studies on variables mediating the relationship between contact and outcomes, again focusing on the extent to which contact is associated with outgroup attitudes.

Because of the large number of studies, I split this section up into various subsections. First, I treat separately the research on mediators of *direct contact* (i.e., conventional self-reports of quality and quantity of face-to-face contacts), and *extended contact* (i.e., normally operationalised as knowing other ingroup members who have outgroup friends), because, to some extent at least, different mediators are proposed in each case. None of the studies I have grouped under 'direct contact' included measures of extended contact, whereas all the studies of 'extended contact' included measures of direct contact (because it is necessary to control statistically for such effects in order to isolate 'pure' effects of extended contact). Second, within that division, I separate research on different mediators, where possible, although a notable empirical development has been the trend towards tests of simultaneous mediators within the same study. Thus the studies reviewed proceed from 'simple' studies of one form of contact (direct) and one mediator, to studies of multiple forms of contact, and multiple mediators. This section ends with the most sophisticated research, in which moderators (as reviewed in the previous section) and mediators are assessed simultaneously.

Mediators of direct-contact effects

Logically, more positive outgroup attitudes can arise from either the reduction of negative affective processes assumed to be operative in intergroup relations and encounters, or the induction of positive affect that

leads to greater liking of the outgroup, or both. As we shall see, however, research on mediating factors in contact began with an emphasis on reducing the negative, and has only recently turned to accentuating the positive. It is important to consider positive and negative affective processes separately because they are not necessarily negatively related (Cacioppo and Berntson, 2001). The following review considers, in turn, four key categories of mediators of contact, for which there is now considerable evidence: (1) intergroup anxiety; (2) threat; (3) intergroup emotions, empathy, and perspective-taking; and (4) self-disclosure.

These studies again draw heavily, but not exclusively, on cross-sectional data. However, they make use of structural equation modelling (SEM) which considerably strengthens the inferences we draw from the data. SEM is a technique used for specifying and estimating models of linear relationships among multiple variables (MacCallum and Austin, 2000). An SEM is a hypothesised pattern of directional and non-directional linear relationships among a set of variables. Depending on factors including the number of items and the size of the sample, variables in a model may include measured or latent variables (the latter are hypothetical constructs that cannot be directly measured). It is generally agreed that the use of latent variables is preferable, and this is what we have used in the vast majority of our research.[2] We use SEM to test a proposed causal model of how a set of variables is interrelated. SEM has several significant advantages over other techniques, including: (a) that we can, as we should, evaluate alternative models using the same data, to test competitively the proposed model against other plausible models; (b) it provides a series of 'goodness-of-fit' indices, which report how well each model 'fits' the data; (c) it corrects for measurement error; and (d) it allows the researcher to treat multiple dependent (outcome) measures simultaneously.

The primary publications on which I draw report all this information, and for those interested summary statistics are shown in the figure captions reported in this article. Of course, the published papers only report models that fulfilled the conventional criteria for the fit indices. Finally, MacCallum and Austin (2000) urge researchers using SEM in this way to be aware of the limitations of single studies. For this reason the vast majority of our publications on which I draw consist of multiple-study papers. For readers unfamiliar with these kinds of models, they can be understood quite simply by tracing the single-headed arrows from left to

[2] All of the models reproduced in the figures here follow the usual convention: latent variables appear in ellipses, whereas measured variables appear in rectangles.

right in a model (double-headed arrows are bidirectional correlations); only significant paths are shown. The values of 'R^{2}' on the extreme right of each model indicate what proportion of the variance for each outcome variable has been 'explained' in the model. In the vast majority of cases the explained variance is comfortably high (in behavioural research we do not expect to explain 100% of the variance and are often quite content with percentages in the 20s, delighted if they are in the 30s, and so on). In very few cases we have reported lower R^2 values, because we felt that it was quite impressive to have obtained a significant effect at all.

Intergroup anxiety

In thinking about potential mediators of the effect of contact on attitudes, an early candidate was intergroup anxiety, which is a negative affective process that is integral to the contact situation and is experienced when anticipating future, or expecting actual, contact with an outgroup member (Stephan and Stephan, 1985). Particularly when encountering members of an outgroup for the first time, Stephan and Stephan proposed that people would be liable to feel somewhat apprehensive, perhaps because they were uncertain concerning the appropriate norms of behaviour, due to unfamiliarity, or because of some vestiges of culturally socialised aversion to the outgroup in question.

According to Stephan and Stephan, intergroup anxiety stems from the expectation of negative consequences for oneself in intergroup interactions, such as embarrassment, rejection, discrimination, or misunderstanding. Antecedents of intergroup anxiety may include minimal previous contact with members of the outgroup, negative outgroup stereotypes, a history of intergroup conflict, large status differentials, or a high ratio of outgroup to ingroup members.

Whatever its origins, such anxiety is not likely to be conducive to positive intergroup attitudes and behaviour. In part, this is because heightened arousal is generally associated with a narrowed cognitive and perceptual focus and an increased reliance on simplified information-processing based on stereotypes (Stephan and Stephan, 1985; 2000; see Paolini, Hewstone, Voci, Harwood, and Cairns, 2006). Importantly, intergroup anxiety may lead to *avoidance* of contact (Mendoza-Denton, Downey, Purdie, Davis, and Pietrzack, 2002), so it is particularly important to identify whether it is a significant mediator and, if so, to address it. Close friendships, however, are associated with reduced anxiety (La Greca and Lopez, 1998). If friendship functions as a stress-buffering

mechanism (Cohen, Sherrod, and Clark, 1986), then having outgroup friends can reduce anxiety and negative expectations of interactions with other outgroup members (Page-Gould, Mendoza-Denton and Tropp, 2008; Paolini, Hewstone, Cairns, and Voci, 2004; see also Tropp, 2003).

Our first study sought to establish whether the anxiety experienced during contact varied according to whether the contact was 'interpersonal' (e.g., based on getting to know each other as individuals) or 'intergroup' (e.g., based solely on respective group memberships). Islam and Hewstone (1993) investigated inter-religious contact between Muslims and Hindus in Bangladesh, a country with a majority of Muslims (86 per cent of the population) and a minority of Hindus (12%). Hindu and Muslim students ($N = 131$) gave their estimates of how much contact, and of what type, they had with members of the other religion, and also indicated whether that contact was more intergroup or interpersonal. Subsequently, they also answered scales measuring intergroup anxiety and overall attitude towards the religious outgroup. (We also included a measure of perceived outgroup variability, assessing the extent to which the outgroup was seen as 'all alike' or whether differences between members of the groups were noted.) As shown in Figure 3, both the quantity and quality of contact were directly positively associated with attitude towards the outgroup, and were also negatively correlated with anxiety. It

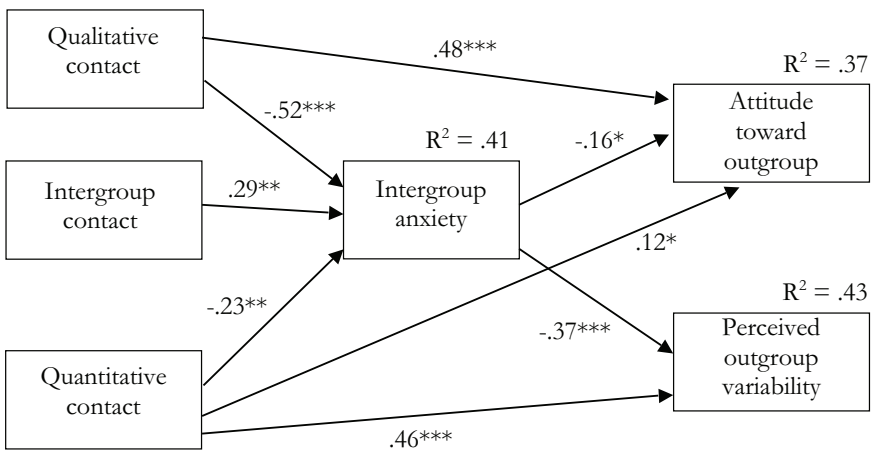

Figure 3. Intergroup anxiety as a mediator of effects of contact on outcome variables (Islam and Hewstone, 1993). * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 131$; $R^2 = .31$. (Reprinted with permission from: Islam, M. R. and Hewstone, M. (1993), 'Dimensions of contact as predictors of intergroup anxiety, perceived outgroup variability, and outgroup attitude: an integrative model', *Personality and Social Psychology Bulletin*, 19: 700–10.

will also be noted that here perceiving the contact as 'intergroup' rather than 'individual' was associated with greater anxiety. However, it should be emphasised that later research (as reviewed above) showed that intergroup contact should be conceived as a moderator, rather than, as here, as a predictor (contact needs to be both positive *and* intergroup). Consistent with Stephan and Stephan's (1985) claim, intergroup anxiety partly mediated the positive relationship between both contact quality and quantity of contact, as predictors, and outgroup attitudes and perceived outgroup variability, as outcomes. Moreover, it fully mediated the negative relationship between the extent to which the contact was focused exclusively on category memberships and both outcomes.

These results were important for two reasons. First, they provided initial evidence that intergroup anxiety was a key process that *mediated* the effects of contact (see, subsequently, e.g., Plant and Devine, 2003, and studies on direct and extended contact, reported below, plus Binder *et al.*, 2009, and Swart, Hewstone, Christ, and Voci, under review, for longitudinal evidence), and indeed this was the first study to investigate mediation effects in this context. Second, these findings served as a warning that an exclusive focus on categories during contact, while it might be advantageous for generalising attitudes from one member of the outgroup to the group as a whole, might have some drawbacks too, and that a better route forwards might be to harness the advantages of both 'intergroup' and 'interpersonal' kinds of contact.

Threat

Intergroup relations are characterised not just by individual-level concerns, such as feeling uncomfortable in intergroup interactions, but also by perceptions that the outgroup poses a threat to the ingroup. Stephan and colleagues emphasised the importance of perceived threats to the ingroup as predictors of prejudice (e.g., Stephan *et al.*, 2002; Stephan and Renfro, 2003). They distinguished *realistic threats* (e.g., threats to the ingroup's political and economic power) from *symbolic threats* (e.g., threats to the ingroup's value system, belief system, or worldview) as proximal predictors of prejudice. Available studies underline the potential role of contact in ameliorating perceived threats and their mediating role in the relationship between contact and attitudes (Stephan and Stephan, 2000).

Some of our own research extended these findings. Tausch, Tam, Hewstone, Kenworthy and Cairns (2007, Study 1) measured both quantity and quality of outgroup contact, as predictors, and symbolic threat,

realistic threat, and intergroup anxiety, as potential mediators, in a study of outgroup attitudes in Northern Ireland (see Fig. 4). Whereas the mere quantity of outgroup contact had a direct, positive effect on outgroup attitudes, quality of contact had an indirect effect, via reduced symbolic threat and intergroup anxiety. However, group-level threat was only a significant mediator in the relationship between contact and prejudice for those people who identified strongly with their ingroup. For low identifiers, in contrast, it was individual-level concerns, i.e., anxiety about interacting with outgroup members, that mediated the relationship between contact and prejudice (see also Tausch, Hewstone, Kenworthy, Cairns, and Christ, 2007).

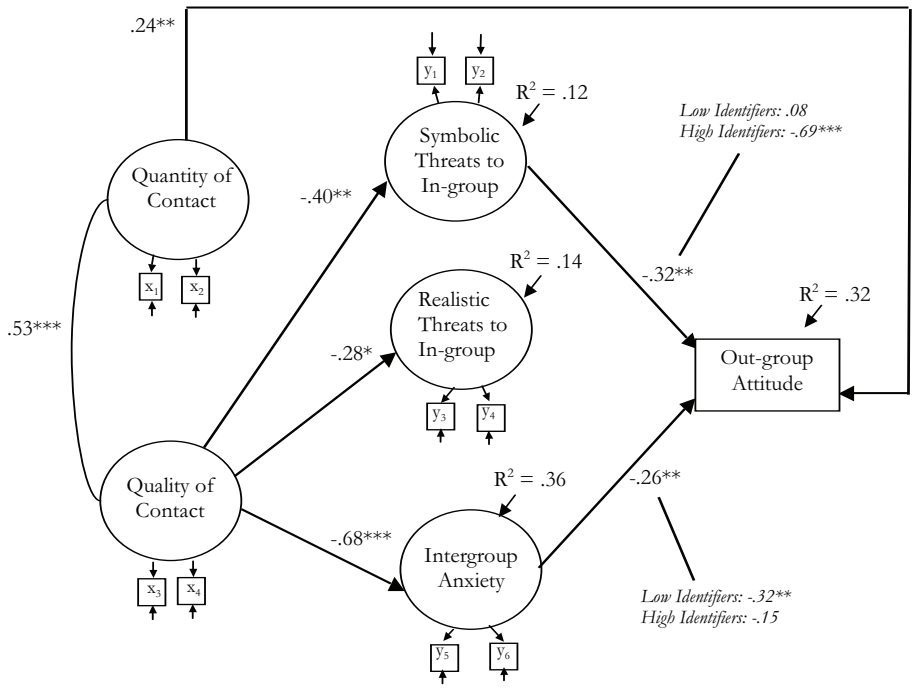

Figure 4. Structural equation model of the effects of contact on outgroup attitudes in Northern Ireland, showing the mediation of threat and intergroup anxiety (Tausch, N., Tam, T., Hewstone, M., Kenworthy, J. B. and Cairns, E., 2007; Study 1). * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 166$. (Reprinted with permission from: Tausch, N., Tam, T., Hewstone, M., Kenworthy, J. B. and Cairns, E. (2007), 'Individual-level and group-level mediators of contact effects in Northern Ireland: the moderating role of social identification', *British Journal of Social Psychology*, 46: 541–56.)

We have also recently conducted longitudinal work investigating threat and intergroup anxiety as mediators. We carried out a multi-group field study in Malaysia investigating the correlates and outcomes of intergroup contact in the context of a three-month nation-building intervention to promote positive intergroup relations among ethnic Malays, Chinese, and Indians (Al-Ramiah, Hewstone, and Little, under review). Our sample comprised 859 trainees of the Malaysian National Service Program, and the data were collected from nine National Service camps across Peninsular Malaysia at two time points. We found a strong and negative association between intergroup contact and perceptions of threat, a positive relationship between intergroup contact and outgroup evaluations, and a negative relationship between perceptions of threat and outgroup evaluations. All these relationships held when controlling for the initial levels of the constructs, and while positive contact led to reduced prejudice for most groups, the mediators varied somewhat by group.

Additionally, we found evidence for both causal paths; Time 1 contact directly and positively predicted Time 2 outgroup evaluations, and Time 1 outgroup evaluations similarly predicted Time 2 contact for almost all rater-group/target-group pairs. This means that we cannot say unequivocally that an improvement in the rater group's outgroup evaluations was driven largely by contact, because the reciprocal path seems to have been equally strong (i.e., those who had positive outgroup evaluations *prior to the camp* engaged in more positive contact *during the camp*).

Intergroup emotions, empathy and perspective-taking

Recent research has also gone beyond the focus on one negative emotion (intergroup anxiety) to the recognition that there are multiple (negative and positive) potentially relevant intergroup emotions. Thus researchers have shifted their interest from general evaluations to *specific* emotions felt towards an outgroup (Mackie and Smith, 2002; Smith 1993). According to Mackie and Smith, emotions like fear, anger, and disgust are related to specific action tendencies such as flight, fight, and avoidance; their distinction thus allows for better prediction of a variety of forms of behaviour towards outgroup members.

Pettigrew (1997) highlighted the value of promoting positive intergroup affect, especially via cross-group friendships. A key positive affect in this context is empathy. Batson *et al*. (1997) have shown that empathy is closely associated with *perspective-taking*. Taking the perspective of a

stigmatised person results in a greater understanding of the effects of prejudice (Coke, Batson, and McDavis, 1978), and empathy with a member of a stigmatised group reduces bias against the group as a whole (e.g., Batson *et al.*, 1997; Finlay and Stephan, 2000).

Whereas perspective-taking is cognitive in nature, affective empathy is the process by which a vicarious emotional state is triggered when witnessing the emotional state of another. Affective empathy involves imagining how another person perceives their situation and how they might feel as a result. Perspective-taking and affective empathy have a number of positive consequences for intergroup relations (see Galinsky and Moskowitz, 2000, for a review). In particular, they induce a merging of, or a perception of increased overlap between, the self and the other (Aron, Aron, Tudor, and Nelson, 1991; Aron, Aron, and Norman, 2001).

We included affective empathy as a mediator in a recently conducted three-wave longitudinal study conducted in South Africa. We followed up 319 coloured junior high-school students over twelve months, and assessed their views of the white majority group (Swart *et al.*, under review). We tested, for the first time, the full mediation of the effects of cross-group friendships on both perceived outgroup variability and negative action tendencies via intergroup anxiety and affective empathy. Although support was found for the bidirectional relationship between the various variables, the full mediation of the relationship between the variables at Time 1 and the variables at Time 3 was only supported in the 'forward' causal direction, from contact at Time 1 to prejudice at Time 3 (via mediators at Time 2). Cross-group friendships increased perceived outgroup variability (via both reduced intergroup anxiety and increased affective empathy) and decreased negative action tendencies (via increased affective empathy only) over time. These findings provide unequivocal support for the central claim of the contact hypothesis, that intergroup contact reduces prejudice over time. The findings also suggested an indirect causal relationship between intergroup anxiety at Time 1 and affective empathy at Time 3, via cross-group friendships at Time 2. Thus respondents with higher intergroup anxiety at Time 1 reported fewer outgroup friends at Time 2 which, in turn, predicted empathy at Time 3.

Self-disclosure

Pettigrew (1997, 1998) also identified self-disclosure as an important process in cross-group friendship. Self-disclosure is the presentation of

significant aspects of oneself to another person, and is important in the development of interpersonal relationships; it may also contribute towards more positive attitudes in an intergroup situation. By personalising an interaction, self-disclosure focuses attention on the individuating features of those involved, which may reduce the use of stereotypes in a contact situation. Central to the notion of self-disclosure as a mediator is the idea that it is a mode of communication that establishes mutual trust and detailed knowledge about the other party which may disconfirm negative attitudes.

In four cross-sectional studies we investigated contact between young white and Asian students in the UK (Turner, Hewstone, and Voci, 2007*b*). We found that self-disclosure significantly mediated part of the effect of contact on outgroup attitudes. Having demonstrated the effect in earlier studies, our fourth study (using a sample of 142 white British undergraduate students) probed further to ask how exactly self-disclosure exerted its effect. As shown in Figure 5, having Asian friends predicted greater self-disclosure which, in turn, predicted more positive outgroup attitudes via increased empathy, the rated importance of self-disclosure, and trust.

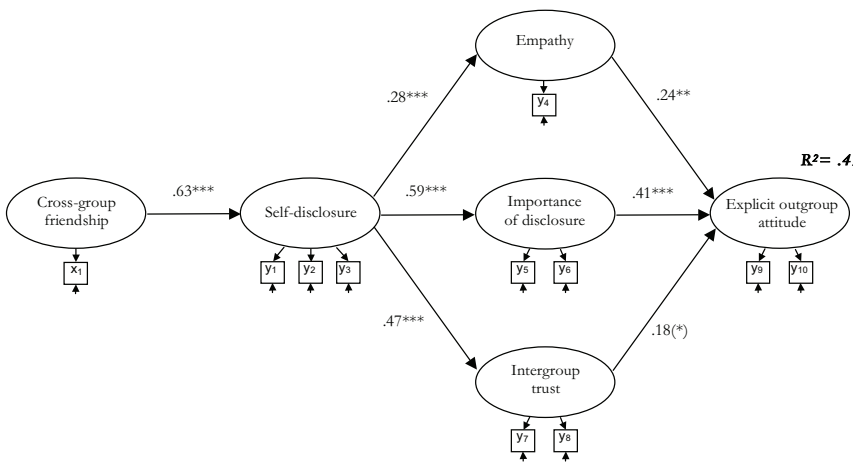

Figure 5. Structural equation model of the effects of cross-group friendship and self-disclosure with Asians on outgroup attitude, showing mediation via importance of self-disclosure, intergroup trust and empathy (Turner, Hewstone and Voci, 2007*b*; Study 4). * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 142$. (Reprinted with permission from: Turner, R. N., Hewstone, M. and Voci, A. (2007), 'Reducing explicit and implicit prejudice via direct and extended contact: the mediating role of self-disclosure and intergroup anxiety', *Journal of Personality and Social Psychology*, 93: 369–88.)

In our recent research in Northern Ireland we have also shown reliable mediation effects of self-disclosure (and intergroup anxiety) longitudinally (Hewstone, Tausch, Hughes and Cairns, 2008). We found mediation effects for both neighbourhood contact and friendship contact, as predictors. However, whereas Time 1 friendship contact reduced Time 2 bias by *increasing* self-disclosure, Time 1 neighbourhood contact reduced bias by *lowering* intergroup anxiety. Thus different types of contact worked in different ways.

Summary of mediators of direct contact

We have seen that there is consistent evidence for each of the mediators reviewed in this section. Pettigrew and Tropp (2008) have examined the relative importance of various mediators meta-analytically, and highlighted particularly the effects of two variables—one negative, anxiety reduction, and one positive, empathy induction. This finding is in line with the greater effect of contact on affective as opposed to cognitive forms of prejudice (Tropp and Pettigrew, 2005*a*). The present view bears out the importance, particularly, of recognising that prejudice can be reduced by multiple routes, both positive and negative. However, it is perhaps equally important to emphasise here that there are multiple mediators, and that they are best evaluated simultaneously. The relative importance of each depends on the given situation, the groups, and the outcomes. More systematic research is needed to predict which mediating mechanisms work under which conditions.

This body of evidence now seems particularly compelling, precisely because so many studies have investigated multiple mediators at the same time, and moreover longitudinal evidence bears out the results of cross-sectional studies. Spinoza argued that 'An emotion cannot be restrained nor removed unless by an opposed and stronger emotion' (1675, *Ethics* IV, part VII, p. 195). Perhaps he was not quite right. Prejudice, which can be conceived as an emotion (Smith, 1993), can be 'restrained' by either reducing negative emotions (e.g., relating to anxiety and threat), or by promoting positive emotions (e.g., relating to empathy), and preferably by both.

Mediators of extended-contact effects

We turn now, more briefly because there have been fewer studies, to mediators of extended contact. All these studies had to measure direct contact too, so as to control for its effects, but in this section I focus exclusively on the mediation of extended contact.

Our first study to explore this issue was conducted using Catholic and Protestant students ($N = 341$) in Northern Ireland (Paolini *et al*., 2004). Participants were asked to report the number of outgroup friends they had, the number of ingroup friends they had who had outgroup friends, their experience of intergroup anxiety, their attitudes towards the opposing community, and how variable they perceived the outgroup to be. Figure 6 shows that direct cross-group friendship was associated with lower levels of outgroup prejudice, a relationship that was partially mediated by reduced intergroup anxiety. Extended cross-group friendship was also associated with lower levels of outgroup prejudice, a relationship that was fully mediated by reduced intergroup anxiety. These findings were replicated in a second study, using a representative sample of 735 Catholic and Protestant adults.

When Wright *et al*. (1997) first outlined the idea of extended contact they proposed, but did not test, four mechanisms that they thought would underlie the prejudice-reducing impact of extended cross-group friendship: reduced intergroup anxiety, ingroup norms, outgroup norms, and inclusion of the outgroup in the self. They presented a strong rationale to explain why these mediators should be particularly important, which I consider briefly.

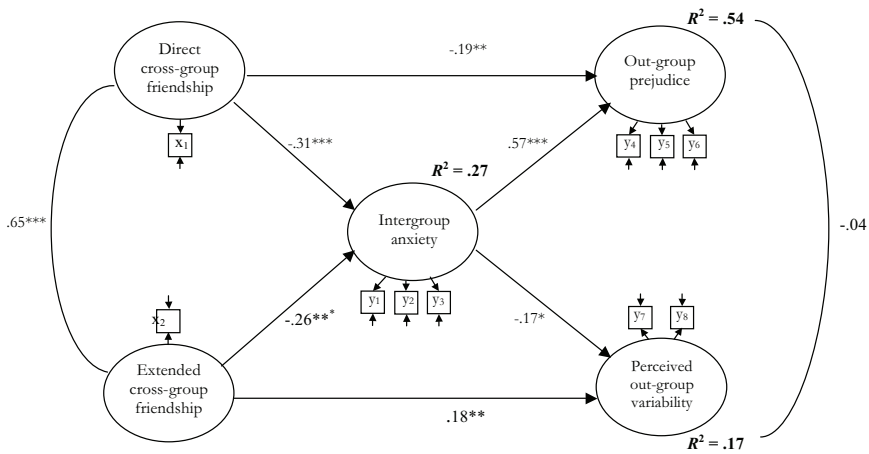

Figure 6. Structural equation model of the effects of direct and extended cross-group friendship on judgements concerning the religious outgroup in Northern Ireland, showing the mediation of intergroup anxiety (Paolini, Hewstone, Cairns and Voci, 2004; Study 1). * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 341$. (Reprinted with permission from: Paolini, S., Hewstone, M., Cairns, E. and Voci, A. (2004), 'Effects of direct and indirect cross-group friendships on judgments of Catholics and Protestants in Northern Ireland: the mediating role of an anxiety-reduction mechanism', *Personality and Social Psychology Bulletin*, 30: 770–86.)

First, extended friendship should reduce prejudice by lowering *intergroup anxiety* (as, indeed, was shown by Paolini *et al*., 2004). Observing a positive relationship between members of the ingroup and outgroup should reduce negative expectations about future interactions with the outgroup. Moreover, as extended cross-group friendship does not involve any actual interaction, participants can observe intergroup contact without the anxiety inherent in initial direct intergroup encounters (Stephan and Stephan, 1985).

Second, extended cross-group friendship should reduce prejudice by generating positive perceptions of *ingroup norms* about the outgroup. Extended cross-group friendship involves knowing about, or observing, the positive behaviour of an ingroup member as they interact with an outgroup member. Observing an ingroup member behaving positively towards the outgroup should therefore lead to the perception that there are positive ingroup norms regarding the outgroup. This, in turn, should have a strong positive influence on the observer's outgroup attitude.

Third, extended cross-group friendship should reduce prejudice by generating the perception that there are positive *outgroup norms* about the ingroup. Watching or knowing of an outgroup member behaving in a pleasant manner towards the ingroup may provide information about the attitudes and norms of the outgroup, showing the observer that the outgroup is interested in positive intergroup relations.

Fourth and finally, extended cross-group friendship should reduce prejudice by increasing the extent to which the *outgroup is included in the self.* It has emerged that when individuals self-categorise—that is, when they come to see themselves in terms of their group membership rather than as unique individuals—the ingroup becomes included in the self (Smith and Henry, 1996). Put another way, when we self-categorise, we believe that characteristics of the ingroup represent the self (Tropp and Wright, 2001). When someone observes a friendship between an ingroup member and an outgroup member, they should include the ingroup member (as part of the ingroup) in the self. Given that the observed outgroup member, as a close friend of the ingroup member, is perceived as cognitively overlapping with the ingroup member, this means that the observed outgroup member is also part of the observer's self. Finally, outgroup members are likely to include their own group—the observer's outgroup—in *their* self. By including the observed outgroup member in the self, observers also increase the extent to which the outgroup is included in the self. Accordingly the outgroup is likely to be treated like the self, positively (e.g., Aron, Aron, Tudor, and Nelson, 1991).

We conducted the first complete test of the extended contact hypothesis, testing simultaneously the role of all four mechanisms proposed by Wright *et al*. In a first survey study we asked white undergraduate students ($N = 142$) about their direct and extended cross-group friendship with and attitudes towards South Asians (Turner, Hewstone, Voci, and Vonofakou, 2008), and we included measures of intergroup anxiety, ingroup norms, outgroup norms, and inclusion of the outgroup in the self, which was measured using a single pictorial item based on Aron, Aron, Tudor, and Nelson (1991). Figure 7 shows the structural equation model indicating how these four mechanisms mediated the relationship between extended cross-group friendship and outgroup attitude (see Turner *et al*., 2008*b*, Study 2, for a replication). These results provided support for the four factors proposed by Wright *et al*. (1997) to mediate the relationship between extended cross-group friendship and prejudice.

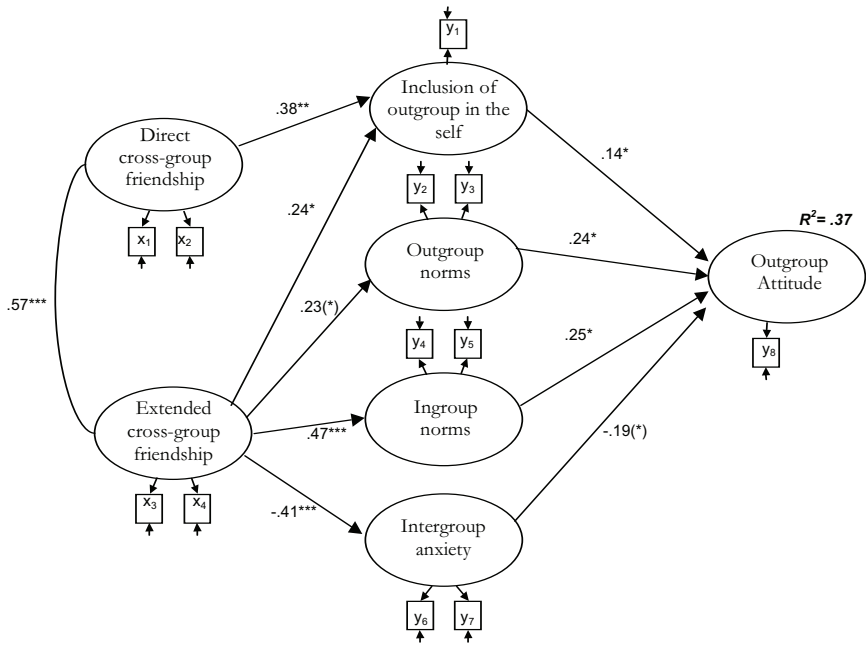

Figure 7. Structural equation model of the effects of direct and extended cross-group friendship on white attitudes towards South Asians, showing mediation via intergroup anxiety, perceived ingroup and outgroup norms, and inclusion of outgroup in the self (Turner, Hewstone, Voci and Vonofakou, 2008*b*; Study 1). (*) $p < .10$, * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 142$. (Reprinted with permission from: Turner, R. N., Hewstone, M., Voci, A. and Vonofakou, C. (2008), 'A test of the extended intergroup contact hypothesis: the mediating role of perceived ingroup and outgroup norms, intergroup anxiety and inclusion of the outgroup in the self', *Journal of Personality and Social Psychology*, 95: 843–60.)

Using our longitudinal data set from Northern Ireland (Hewstone *et al.*, 2008*b*) we were able to test whether the four variables highlighted by Wright *et al.* (1997), measured at Time 2, mediated between contact at Time 1 and outgroup bias at Time 2 (controlling for bias and anxiety at Time 1). Although Turner *et al.* (2008*b*) assessed ingroup and outgroup norms separately, in this data set ingroup and outgroup norms regarding contact were highly correlated. We therefore computed an average score denoting 'group norms'. These longitudinal data revealed that all three variables contributed to the mediation of the effect of extended contact on bias.

Summary of mediators of extended contact

Investigation into the mechanisms underlying the relationship between extended cross-group friendship and outgroup attitude is still in its early stages. Nevertheless, we have found evidence for all four mediating mechanisms proposed by Wright *et al.* (1997), and obtained the first longitudinal evidence for mediators of extended contact.

Studies of moderated mediation

Thus far we have discussed separately evidence for moderation and mediation effects. Thanks to recent developments in statistics and structural equation modelling (Jöreskog and Sörbom, 1996; Wegener and Fabrigar, 2000), it is now possible to analyse whether group salience during contact moderates any of the effects involving a mediator ('moderated mediation'). To be precise, we tested whether variations in the moderator affect the relation between a predictor and a mediator, or between a mediator and an outcome. Thus far, very few studies have examined this effect, but their results are rather consistent (for methodological details, see Muller, Judd, and Yzerbyt, 2005); for reasons of space, we illustrate with reference to one study.

Voci and Hewstone (2003) investigated the mediating role of anxiety in two studies of the effect of contact on Italians' attitudes towards immigrants in Italy. The structural equation model for the first study, involving Italian students ($N = 310$), is shown in Figure 8. Contact had direct, positive effects on both outgroup variability and outgroup attitude, and a direct, negative effect on 'subtle' prejudice (this is a measure that is correlated with standard measures of prejudice, but its items are less obviously measures of prejudice, and so it is less susceptible to socially desirable

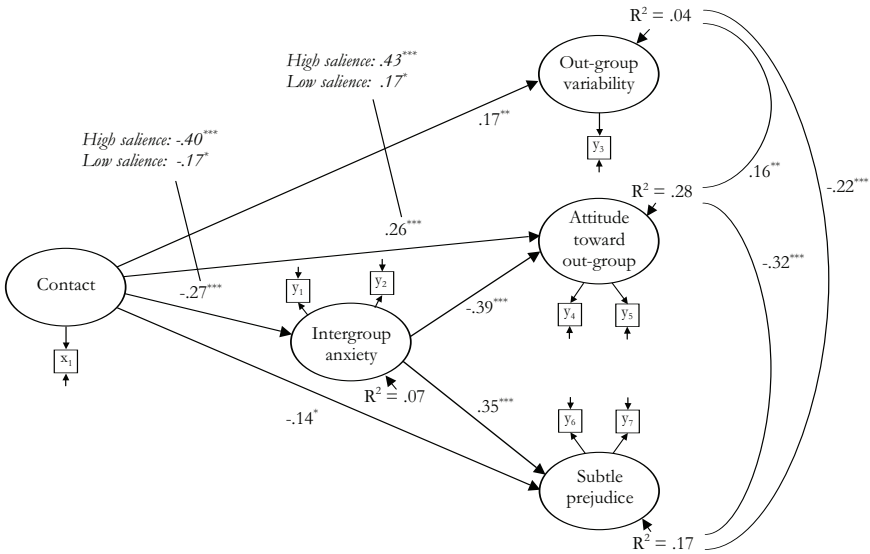

Figure 8. Structural equation model of the effects of contact on Italians' judgements concerning African immigrants, showing mediation via intergroup anxiety and moderation by group salience (Voci and Hewstone, 2003, Study 1). * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 310$. (Reprinted with permission from: Voci, A. and Hewstone, M. (2003), 'Intergroup contact and prejudice toward immigrants in Italy: the mediational role of anxiety and the moderational role of group salience', *Group Processes and Intergroup Relations*, 6: 37–54.)

responding; Pettigrew and Meertens, 1995). There was also an effect of contact, mediated by anxiety; contact negatively predicted anxiety, which negatively predicted outgroup attitude, and positively predicted subtle prejudice. This study also found two instances in which salience moderated the effects of contact. First, the effect of contact on favourable attitudes towards immigrants was significantly higher for those reporting high than low intergroup salience. Second, salience moderated the negative effect of contact on intergroup anxiety. The relationship was again stronger for those reporting high than low salience (for replications of moderated mediation effects, see Voci and Hewstone, 2003, Study 2; Harwood, Hewstone, Paolini, and Voci, 2005, Study 2).

Summary of research showing moderated mediation

There is growing evidence that some of the mediation effects are moderated by category salience, in line with predictions from our theory. Thus the routes by which contact has its effects (e.g., via reduced intergroup

anxiety) tend to be even more pronounced when group memberships are salient, or those involved in contact are aware of respective group identities. Taken as a whole, the research on mediators of both direct and extended contact shows quite convincingly that both positive and negative affect play a key role in mediating the effects of contact on intergroup attitudes. Moreover, these affective variables mediate the effects of extended, as well as direct, contact. Knowing which psychological processes are driving the effect of contact on attitudes, and when they operate, can be used to design and implement optimal interventions (an issue I consider further in the section below on policy implications).

How *extensive* are the effects of contact?

> Common sense suggests that the more contact you have with different races, religions and ethnicities, the less potential there is for stereotyping and dehumanising those different from yourself. But even that small achievement depends on the quality and power dynamics of the contact. (Gary Younge, *The Guardian*, 19 September 2005)

Thus far, to keep the focus on moderating and mediating effects, I have focused on studies with measures of outgroup attitude as the main outcome variable. I now consider the broad raft of measures on which contact effects have been detected. These show, beyond any doubt, the impact of contact, and that its effects go well beyond conscious self-reports of attitudes. I consider, first, other attitudinal measures, then forgiveness and trust, and finally, physiological and perceptual measures.

Variations on the theme of attitudes

(1) *Outgroup-to-outgroup generalisation: the 'secondary transfer effect'*. The potential of contact would be even greater *if* it could be shown that contact effects generalise from experience with one outgroup to attitudes towards *other* outgroups. Far-reaching or wildly optimistic as this sounds, it is, in fact, the case. Pettigrew (1997, 2009) demonstrated that respondents who had an outgroup friend from one minority group were also more accepting of many other outgroups, even groups that were not present in their country (see also Van Laar *et al*., 2005). We have recently replicated this effect in a number of new contexts (Tausch *et al*., under review). We have also tested this hypothesis longitudinally in Northern Ireland, showing that contact with the ethno-religious outgroup gener-

alises to more positive attitudes towards ethnic minorities. And we have begun to explore the mediators of this effect, showing that it can be due to a re-evaluation of the first outgroup, a reappraisal of the ingroup, or an increase in 'social identity complexity' (the extent to which one views various ingroups as non-overlapping, which is associated with greater tolerance and less bias, e.g. Brewer and Pierce, 2005).

This generalisation effect could have the most far-reaching effects. Current interest in 'cosmopolitanism' concerns its ethical or philosophical dimensions, especially regarding questions of how to live as a 'citizen of the world', open acceptance of diversity and willingness to engage with others (e.g. Appiah, 2006; Vertovec, in press). Contact appears to be a key ingredient.

(2) *Attitude strength*. Thus far we have treated all attitudes as if they were alike. The concept of *attitude strength* reflects the intensity, certainty, importance, and accessibility of a particular attitude (Krosnick, Boninger, Chuang, Berent, and Carnot, 1993). Fazio (1990) noted that, compared with attitudes based on second-hand information, attitudes based on direct experience are relatively strong, held more confidently, brought to mind more easily, are more resistant to change, and should be better predictors of subsequent behaviour than are weaker attitudes. Applying this reasoning to intergroup contact theory, greater *direct* experience with the outgroup should produce stronger intergroup attitudes. We investigated the effect of direct cross-group friendship on the *strength* of outgroup attitudes in two studies (Vonofakou, Hewstone, and Voci, 2007).

Both studies assessed heterosexuals' attitudes towards gay men. We used two measures of attitude strength. The first was a subjective self-report measure ('meta-attitudinal strength') based on the respondents' own assessments of their attitude along dimensions of certainty, importance, and how often they thought about and discussed their attitude. The second measure was a computer-based response-time measure of attitude accessibility ('operative attitude strength'), which assessed how fast the respondent replied to a series of attitude-relevant questions (faster responses denoting more accessible attitudes). Both studies revealed that cross-group friendships were associated with attitude strength.

The results of Study 2 ($N = 160$ heterosexual students) are shown in Figure 9. Direct cross-group friendships were directly associated with meta-attitudinally stronger and more accessible outgroup attitudes. Friendship was also indirectly related to outgroup attitude, meta-attitudinal strength and accessibility via closeness of friendship and intergroup anxiety.

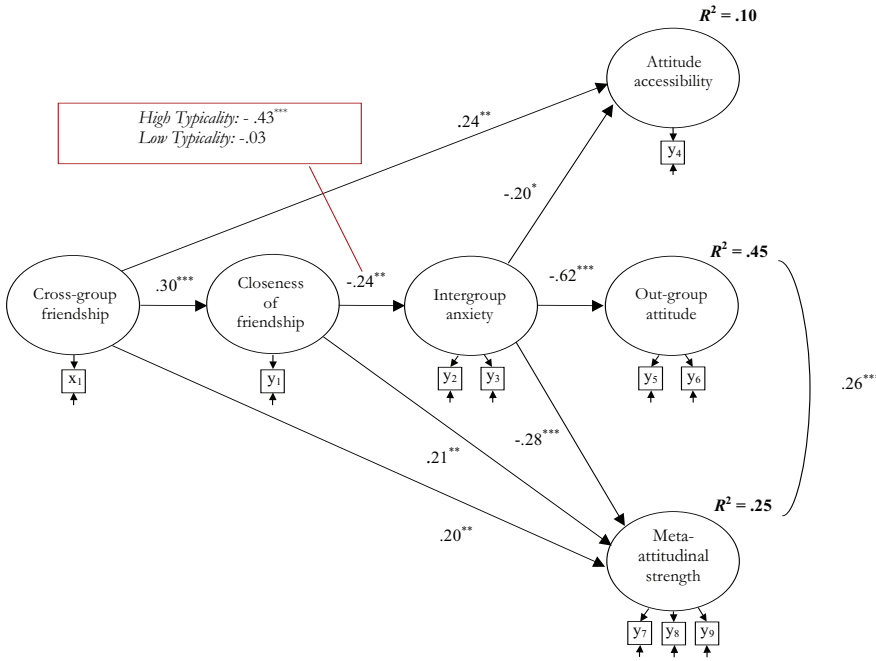

Figure 9. Structural equation model of the effects of friendship with gay men on heterosexuals' outgroup attitudes, meta-attitudinal strength and accessibility, showing mediation via intergroup anxiety and moderation via perceived group typicality (Vonofakou, Hewstone and Voci, 2007; Study 2). * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 160$. (Reprinted with permission from: Vonofakou, C., Hewstone, M. and Voci, A. (2007), 'Contact with outgroup friends as a predictor of meta-attitudinal strength and accessibility of attitudes towards gay men', *Journal of Personality and Social Psychology*, 92: 804–20.)

Specifically, the more outgroup friends participants had, the closer they rated their closest outgroup friendship and the less intergroup anxiety they reported. In turn, lower anxiety was associated with outgroup attitudes that were more positive, stronger and more accessible. (Figure 9 also shows a moderating effect involving the perceived typicality of one's closest gay friend: closeness of friendship was only associated with lower intergroup anxiety when the outgroup friend was perceived as highly typical of gays in general.)

The finding that direct contact affects attitude strength is an important one if we advocate contact as a social intervention. It suggests that direct, face-to-face intergroup contact can bring about reductions in prejudice that will persist over time, resist counter-persuasion, and reduce discrimination via actual behavioural changes. It is not yet clear, however, whether the same can be expected of indirect contact. Consistent with

earlier findings showing that direct experience with an attitude object has stronger effects on attitude strength than do indirect experiences (Fazio and Zanna, 1978). Christ *et al*. (2008) demonstrated that direct contact has stronger effects on attitude strength than extended (i.e., indirect) contact in a cross-sectional, but not in a longitudinal, study. It may be, however, that the impact of extended contact on attitude strength is greater if, for example, *many* significant others are known to have outgroup friends, or the ingroup members known to have such relationships are *particularly close* to oneself.

(3) *Implicit attitudes*. Some of the studies reviewed above have included non-attitudinal measures (e.g., behavioural intentions, and perceptions of outgroup variability), but these, too, are based on self-reports, typically in the form of ratings on multi-point response scales, which have some potential limitations. Psychologists now refer to measures of attitude of this type as *explicit* attitudes; they are conscious, deliberative and controllable. However, psychologists have also developed measures of *implicit* outgroup attitude, which are unintentionally activated by the mere presence (actual or symbolic) of an attitude object, and are considered to be beyond the respondent's control; they are therefore less likely to be influenced by social desirability or political correctness than are explicit measures. The best-known of these implicit measures is the implicit association test (IAT; Greenwald, McGhee, and Schwartz, 1998), which, by measuring response times on a computer task, assesses how quickly respondents associate different categories of word (i.e., positive and negative) with different group labels (i.e., typically names or faces showing members of the ingroup or the outgroup).

We have used the IAT in a number of our studies (e.g., Tam, Hewstone, Harwood, Voci and Kenworthy, 2005; Tam *et al*., 2008), including studies reported in Turner *et al*. (2007*b*) on white–Asian contact and attitudes. Study 1 (using white primary school children, aged 7 to 11 years) and Studies 2 and 3 (using white and Asian high school students, aged between 11 and 16), found that measures of contact were positively associated with implicit outgroup attitude. Study 1 showed this effect with a measure of cross-group friendship, whereas Studies 2 and 3 found it for a measure of opportunity for contact (which had not been measured in Study 1). Figure 10 shows the results for Study 3. Opportunity for contact (a measure of the proportion of outgroup members living in the same neighbourhood or attending the same school as participants), was positively associated with implicit outgroup attitude. The effect was direct and

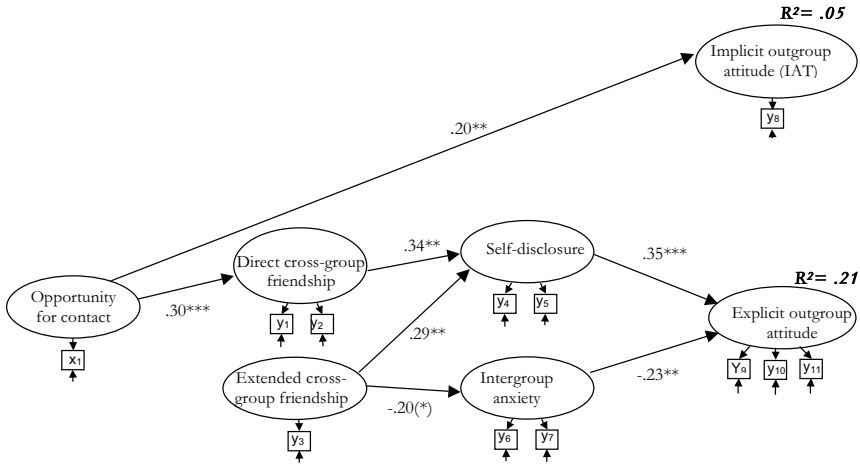

Figure 10. Structural equation model of the effects of direct and extended cross-group friendship with South Asians on explicit and implicit outgroup attitudes among White adolescents, showing mediation via intergroup anxiety (Turner, Hewstone and Voci, 2007*b*; Study 3) * $p < .05$; ** $p < .01$; *** $p < .001$; $N = 164$. (Reprinted with permission from: Turner, R. N., Hewstone, M. and Voci, A. (2007), 'Reducing explicit and implicit prejudice via direct and extended contact: the mediating role of self-disclosure and intergroup anxiety', *Journal of Personality and Social Psychology*, 93: 369–88.)

although it only accounted for a small proportion of the variance in the dependent variable, we were gratified to have found any kind of significant effect between a self-report measure of contact and an implicit measure of attitude. Consistent with the material reviewed above, Figure 10 also shows that opportunity for contact predicted direct, but not extended, contact, which affected explicit outgroup attitudes via the mediators of self-disclosure (both types of contact) and intergroup anxiety (extended contact only).

Forgiveness and trust

Given that contact is often promoted, and used, as an intervention not simply to reduce prejudice but also to reduce intergroup conflict, an exclusive focus on outgroup attitudes is unwise. Many real-world conflicts are corrosive in nature, and promoting outgroup liking may be both unlikely and unnecessary; achieving other outcomes may be more realistic and as, if not more, important. Two such outcomes to which we have devoted research attention are intergroup forgiveness and trust (Hewstone and Cairns 2001; Hewstone *et al.*, 2004, 2006, 2008*a*). Whereas forgiveness

may occur after members of the outgroup have been held responsible for an atrocity, trust can be seen as a more demanding gauge of intergroup relations than liking because it represents a potential risk to the ingroup, or perceived vulnerability to the outgroup, in a way that holding positive outgroup attitudes does not (Tam, Hewstone, Kenworthy, and Cairns, 2009, Study 2).

Using a sample of Catholic and Protestant students we found that contact predicted forgiveness via its effects on both outgroup attitude and anger towards the outgroup (Tam *et al.*, 2007, Studies 1 and 2). Using a representative sample of Catholic and Protestant adults in Northern Ireland ($N = 936$), we found that contact (with outgroup friends) had direct effects on prejudice, forgiveness, and outgroup trust (Voci, Hewstone, and Cairns, in prep.). In addition, contact affected all three outcomes indirectly, via both reduced anxiety and increased perspective-taking.

We have also explored other psychological mechanisms associated with post-conflict reconciliation in Northern Ireland, focusing on collective guilt, and both cognitive and affective components of empathy (Myers, Hewstone, and Cairns, under review). Three studies found that more cross-group friendship was associated with greater intergroup forgiveness and outgroup trust between Catholics and Protestants in Northern Ireland, and moreover these relationships were mediated by collective guilt, perspective-taking and empathic affect. Finally, we have shown that intergroup threats mediate the effect of contact on trust, just as they did for outgroup attitudes (Tausch *et al.*, 2007*a*, Study 2).

Physiological and perceptual measures

Mendes, Blascovich, Lickel, and Hunter (2002) distinguished between three types of anxious or threat responses: subjective (i.e., self-reported anxiety responses), behavioural (i.e., depleted performance and avoidance of contact), and physiological (i.e., responses of the autonomic system like sweating and increased heart rate). There is evidence that contact is associated with all three types of response. The studies reviewed earlier, showing a consistent link between positive contact and reduced intergroup anxiety, illustrate subjective responses.

Behavioural responses have been demonstrated, albeit negatively, in the research programme of Shelton and Richeson. For example, Richeson *et al.* (2003), using a sophisticated mix of psychological and neuroscience techniques, reported that whites who interacted with a black experimenter showed short-term depletion of mental resources available

to complete a task (see also Richeson and Trawalter, 2005, Experiment 1). Surprisingly little of the published research on intergroup contact has actually studied how members of different groups behave towards each other, and how they think and feel *as* they interact with one another. Shelton and Richeson (2006) have, however, studied subtle biases in real interactions between white and black Americans, and how their behaviour is influenced by expectations. They argue for a *relational* approach to the study of intergroup interactions, which considers multiple outcomes of such interactions, from the perspectives of both interaction partners.

Research using physiological responses has also revealed that interacting with outgroup individuals is often a stressful experience (Blascovich, Mendes, Hunter, Lickel, and Kowai-Bell, 2001). Blascovich and colleagues reported that interracial interactions evoke a state of physiological arousal that stems from an appraisal of the situation as a psychological threat. Specifically, participants interacting with members of stigmatised groups exhibit cardiovascular reactivity consistent with threat (i.e., responses of the autonomic system like sweating and increased heart rate). This abnormal pattern of cardiovascular reactivity inhibits the types of fluid behaviours that promote positive interpersonal interactions (Mendes, Blascovich, Hunter, Lickel, and Jost, 2007). More positively, however, intergroup contact had a positive moderating effect on these responses. Participants who reported more prior contact with black people showed reduced physiological threat reactions during interactions.

Recent findings also suggest that contact can moderate the neural processing of faces of members of other races. The 'own race bias' refers to the highly reliable phenomenon whereby members of one ethnic group show superior encoding and recognition of faces of their own versus other groups. We have found that detailed measures of outgroup contact predicted a weakened own-race effect in discriminating faces of own from other ethnic groups (Walker and Hewstone, 2006*a*, 2006*b*). Measuring event-related potentials in response to faces (using EEG), Walker, Silvert, Hewstone, and Nobre (2008) showed that, starting from early perceptual stages of structural encoding, race-of-face (i.e., own- vs other-race) has significant effects on face processing. However, differences in the processing of own vs other-race faces were reduced with increased self-reported outgroup contact, again demonstrating the malleability of neural responses through external social experiences such as intergroup contact.

These last pieces of evidence strike me as particularly powerful. Evolutionary psychologists have argued that for much of our long evolu-

tionary history, we have learned to associate intergroup contact with an increased risk of aggression and physical injury (Schaller and Neuberg, 2008). As a result, we may have learned unconsciously to associate members of outgroups with traits connoting aggression, violence, and danger. Even if this were true, it would be incorrect to believe that fear of outgroups is 'hard-wired' and inevitable. As I have shown, there is plentiful evidence that bias can be overcome, and even at the level of neural processes associated with the perception of own- and other-groups.

Summary

Clearly, the effects of intergroup contact go well beyond its long-demonstrated impact on attitudes. Contact affects not only explicit attitudes towards the target outgroup, but also attitudes towards other outgroups, the strength of attitudes towards the main outgroup, forgiveness and trust, and attitudinal, physiological, and perceptual measures beyond the conscious control of individuals, thus ruling out socially desirable responding.

Contact and its critics

> Better to light one candle than to curse the darkness. (Motto of the American Christopher Society, founded 1945)

The research reviewed thus far suggests that contact has significant potential as an intervention to challenge prejudice and improve intergroup relations. Before I consider policy issues, however, I consider criticisms that have been levelled at the contact hypothesis, its underlying theory, and the research supporting it. These criticisms (e.g., Connolly, 2000; Dixon, Durrheim and Tredoux, 2005; Forbes, 1997; McCauley, 2002; Putnam, 2007) deserve, and will receive, a detailed reply (Hewstone *et al.*, in preparation), but here I will focus on the key critiques, and present my response to them. I consider some of these criticisms to be misguided, and others to be valid; indeed, I too have drawn attention to some of the limitations and lacunae of work in this area. Intergroup contact is still a work in progress. At a time when contact research has made such theoretical and empirical progress, and has so much to offer in terms of policy interventions, it is important to rebut these criticisms, and I separate the questions considered here into theoretical, empirical, and ethical issues.

Theoretical issues

A common misunderstanding (e.g., Dixon *et al.*, 2005) is that contact only works under optimal, but rarefied, conditions that are seldom, if ever, found outside the laboratory when they can be manipulated. Yet, ten years ago Pettigrew (1998) made clear that the 'optimal' conditions proposed by Allport should be conceived as 'facilitating' and not necessary conditions. Moreover, the masterly meta-analysis by Pettigrew and Tropp (2006) shows an overall effect of contact, when effects are aggregated across all studies. Even if there are some contexts in which contact does not work (e.g., when threat or anxiety is high, or when minority members perceive discrimination against their racial group, see Tropp, 2007), *in general* contact works, and in the presence of some (there is no need for all) of the facilitating conditions, its effectiveness is significantly increased.

There is no sense in which our work can be seen as studying interactions occurring under rarefied conditions. In all our survey research on contact—whether in Northern Ireland, Malaysia, South Africa, England or numerous other countries—we have not imposed contact, but have undertaken an immensely detailed audit of how much and what kinds of outgroup contact individuals in these settings experience, what impact it has on a raft of outcome measures, by what processes, and under what conditions.

Although the contact hypothesis is quintessentially social-psychological—focusing, as it does, on individuals, affected by group memberships, acting in social situations—I and others have been at pains to emphasise that the social-psychological dimension of intergroup relations must never be divorced from the political, economic, historical and other dimensions. However, I as a social psychologist choose to focus my efforts on what I can do best, and what may be neglected in others' attempts.

It has long been acknowledged that intergroup conflicts have distinct *psychological* components that can become independent of the initiating, more objective causes of conflict and contribute to an escalation and continuation of violence even after the initial causes have become irrelevant (Deutsch, 1973; Tajfel and Turner, 1979). To give only one example, in Northern Ireland, where we have done so much of our research, the formal resolution of a conflict is just the first step toward peaceful coexistence. To promote peace and to prevent the re-igniting of violence, the parties involved have to engage in *reconciliation*, a psychological process that requires change in people's often well-entrenched beliefs and feelings about the outgroup, their ingroup, and the relationship between the two

(Bar-Tal, 2000). A crucial part of future reconciliation in Northern Ireland will involve interventions directed at the psychological sources and consequences of sectarianism and bigotry; intergroup contact is crucial to this work.

Endorsing the benefits of intergroup contact does not imply that support for interaction-based policy should be advanced at the expense of economic, political or other policies. What is evident, from Northern Ireland and many other settings of intergroup conflict and prejudice, is that, even when successful, economic and political policies leave social-psychological issues to be addressed.

Empirical issues

Direction of causality and long-term effects of contact. Doubts have been raised about whether contact leads to attitudes, rather than *vice versa*. The growing number of longitudinal studies has now yielded clear evidence that contact leads to reduced prejudice, although there is also evidence of the reverse selection bias, whereby prejudiced people are less likely to engage in intergroup contact and more tolerant people are likely to seek out contact (e.g., Eller and Abrams, 2004; Levin *et al*., 2003).

Lack of behavioural measures and focus on individual-level variables. We still lack evidence showing that contact affects actual *behaviour* towards outgroup members. This raises methodological problems because predicting behaviour from attitudes requires that both be measured at comparable levels of specificity (Fishbein and Ajzen, 1975). Thus, for example, it may be difficult to show that contact with members of an outgroup in one setting will affect behaviour towards a different individual member of the same group in a different situation. There is, however, evidence of the *societal* impact of contact in studies showing that ethnic disadvantage can, in part, be attributed to ethnically closed friendship networks (e.g., Petersen, Saporta, and Seidel, 2000; see McPherson, Smith-Lovin, and Cook, 2001), and that having cross-group friends in one's social network improves success in the labour market for members of minority groups (Braddock and McPartland, 1987).

Reliance on self-reports of contact. One potential concern with much of the research on intergroup contact is that the measures of intergroup contact, based on participants' self-reports, are subjective and possibly inaccurate, either unintentionally or to provide socially desirable or politically correct responses. However, we have addressed this problem in some of

our recent research by attempting to validate people's self-reports of contact by asking people who know them well (e.g., their friends and family members) to report on the extent and type of their outgroup contact. In one study, for example, we showed that within friendship networks, observers' reports and self-reports of contact were significantly associated, which constitutes a validation of self-report measures of contact (Hewstone, Sharp, and Judd, 2009).

Ethical Concerns

Whom is contact for, and whom does it help, and whom might it, in fact, hinder? These are some of the ethical questions that have also been raised about if or when we should aim to bring members of different groups together, under positive circumstances, to try to overcome prejudice. Some concerns have been expressed that contact, which is more strongly related to attitudes of majority members than minority members (Tropp and Pettigrew, 2005*b*; Tropp, 2007; see also Binder *et al*., 2009), should not be designed primarily to modify the beliefs of members of the dominant group and do little to assist members of minorities (Rubin and Lannutti, 2001). Although a focus on dominant group members' prejudices may be justified by their posing the greater problem of prejudice and its greater impact on society, contact is potentially problematic to the extent that it plasters over the perception of unfair practices and unequal treatment and outcomes for members of all ethnic groups. Wright (2001) worried that, by reducing differentiation between groups, contact may actually have adverse consequences for members of disadvantaged groups as it weakens their motivation to engage in collective action aimed at reducing intergroup inequalities (see Dixon, Durrheim, and Tredoux, 2007). When contact is institutionally arranged and supported, we should make sure that positive intergroup relations do not come at the expense of weakened ingroup identities for minority group members (Wright and Lubensky, 2008), and unrealistic expectations that inequality will be addressed and one need no longer protest about them (see Saguy, Tausch, Dovidio, and Pratto, 2009). It should be noted, however, that there is also evidence that at least one of the mediators highlighted above is associated with supporting minority group members in their attempts at social change. Mallet, Huntsinger, Sinclair and Swim (2008) reported that those who are most able to take the perspective of the disadvantaged outgroup appear most likely to become allies with the disadvantaged group's efforts.

Summary

Criticisms of research on intergroup contact are often ill informed about the practice of current research and the nature of the underlying theory. Intergroup contact is a developing, and improving, body of theory and research. I myself have drawn attention to some of its limitations. However, the theoretical, empirical, and ethical critiques considered here should not lead anyone to overlook the enormous potential of intergroup contact.

Policy implications of intergroup contact

> Deign on the passing world to turn thine eyes
> And pause awhile from Letters, to be wise.
> (Samuel Johnson, *The Vanity of Human Wishes*, 1749)

> A desk is a dangerous place from which to watch the world. (John le Carré, *The Honourable Schoolboy*, 1977)

Ever since Allport's (1954) classic statement, the policy implications of intergroup contact have been evident, especially in the United States (Pettigrew and Tropp, 2000; Schofield and Eurich-Fulcer, 2001), although Pettigrew (2008) has recently called for more direct applications to social policy, in which intergroup contact is tailored to the needs of specific settings. In the United Kingdom ideas concerning intergroup contact have equal relevance and I have discussed various policy implications of intergroup contact in several publications (e.g., Hewstone *et al*., 2005; Turner *et al*., 2008*a*). I will restrict myself here to two main issues: government policy on diversity and 'community cohesion', and progress towards reconciliation in Northern Ireland.

Diversity and its discontents

Diversity and cohesion have been frequently juxtaposed. Some studies have described how ethnic diversity may have negative effects on social interactions, trust, and overall societal integration (e.g., Alesina and La Ferrara, 2005; Banting, Johnston, and Soroka, 2006; Bjornskov, 2006; Costa and Kahn, 2003; Hero, 2003), while others linked increasing ethnic diversification to social disintegration, an erosion of the welfare state, and growing cleavages, even open conflicts, within democratic societies (e.g., Banting and Kymlicka, 2006; Goodhart 2004).

I am particularly challenged by Putnam's (2007) research, which has been widely reported, suggesting that social capital (social networks and associated norms of trustworthiness and reciprocity) may be lower in areas that are more ethnically diverse. This research has been subjected to critical analysis and ensuing debate has failed to reach agreement on the reliability of the findings (Briggs, 2008; Dawkins, 2008; Giddens, 2007; Gesthuizen, Van der Meer, and Scheepers, 2008; Lancee and Dronkers, 2008; Rothwell, 2009). Putnam's main pessimistic finding should, in my view, be considered premature for various reasons, one of which is relevant here: it largely neglects to measure actual face-to-face contacts between members of different groups, as opposed to merely living in the same neighbourhood. This is a conflation of *opportunity for contact* and *actual contact*. Putnam (2007) offers the view that, 'For progressives, the contact theory is alluring, but I think it is fair to say that most (though not all) empirical studies have tended to support the so-called "conflict theory", which suggests that . . . diversity fosters outgroup distrust' (p. 142). Well, I don't think it is 'fair' to say this, in the light of Pettigrew and Tropp's (2006) meta-analysis, but I can see how this misunderstanding arose. Living in a street or neighbourhood peopled by members of different ethnic groups does not constitute contact until and unless there is actual face-to-face interaction between them. We have shown, with data from both Hindu–Muslim relations in India and Catholic–Protestant relations in Northern Ireland, that merely co-existing with outgroup members, without contact, is associated with more negative attitudes, whereas the experience of contact is associated with more positive attitudes (Hewstone *et al*., 2008*c*; see also Hooghe, Reeskens, Stolle, and Trappers, 2009; Stolle, Soroka and Johnston, 2008).

Recent research by Stolle *et al.* (2008) is consistent with my interpretation. In an investigation of the effects of diversity on social trust in the USA and Canada, they found that although higher degrees of contextual diversity exerted a negative effect on social trust, the effect was ameliorated when taking into consideration the extent to which individuals tended to engage in social interaction with others (including those of a different ethnic background). I therefore predict that intergroup contact generally (but presumably especially contact in the neighbourhood) would exert a moderating effect between contextual ethnic diversity and social cohesion. Thus ethnic diversity might be negatively correlated with social cohesion primarily in the absence of positive cross-group encounters. Similarly, McLaren (2003) reported data on anti-immigrant prejudice in Europe consistent with the idea that contact mediates the effect of

the environment, and helps to lower perceived threat in the context of high immigration. Moreover, negative links between ethnic diversity and social cohesion indicators have been disputed (e.g., Laurence and Heath, 2008). The latter authors emphasised that disadvantage, rather than diversity, undermines individuals' perceptions of cohesion in the neighbourhood. They concluded that in Britain 'ethnic diversity is, in most cases, positively associated with community cohesion' (p. 7).

The findings reported in this article have important implications for government policy regarding interventions to improve social harmony. Segregation can be associated with feelings of support and acceptance from fellow ingroup members, which help to protect self-esteem in the face of rejection from outgroup members (Postmes and Branscombe, 2002), but there are also many costs associated with segregation, including limited opportunities for contact and access to mixed networks, both of which limit actual contact (Martinovic, van Tubergen, and Maas, 2009). Massey and Denton's (1993) seminal study, *American Apartheid*, pointed to the role of segregation in poverty, and more recent work has linked segregation, stress and poor health. Segregation functions to concentrate poverty and its associated social problems, raising the level of experienced stress (e.g., Massey, 2004), which undermines academic performance in terms of grades achieved (Charles, Dinwiddie, and Massey, 2004). Also using US data, Cutler and Glaeser (1997) reported that a reduction in racial segregation by one standard deviation would eliminate one third of black–white differences in rates of high-school completion, single parenthood, unemployment, and earnings (see Charles, 2003). There is also evidence from Britain that building cohesion has wider benefits—reducing crime, ill health and unemployment (see Communities and Local Government, 2009*a*).

But important as structural and economic change is for groups in society that are disadvantaged and marginalised, there is no guarantee that it will lead to changes in variables such as prejudice and trust; as Ted Cantle said, with respect to different ethnic groups, 'Just lifting them out of poverty is not necessarily going to dispel the distrust and myths they have of each other' (*The Guardian*, 21 September 2005). To achieve such changes contact will be necessary, and I have noted the extensive evidence for a relationship between direct contact (especially, but not exclusively, cross-group friendship) and a range of 'softer' outcome measures from attitudes to trust, through mechanisms such as lowered intergroup anxiety and enhanced empathy and self-disclosure. Contact schemes should therefore be introduced, especially in areas where segregation and tension is high,

and work has already begun on how best to facilitate cross-community interactions, and make contact meaningful, and not merely superficial (see Communities and Local Government, 2009*b*; Orton, 2008). Yet instigating cross-group friendships in segregated settings may be expensive and fraught with logistical difficulties. As such, it may not always be possible. Extended cross-group friendship, however, is not reliant on opportunities for contact (Turner *et al*., 2008*b*). Thus even those in segregated, ethnically homogeneous communities can experience extended cross-group friendship. Indeed, the experience of extended cross-group friendship may be especially important in such cases, as we note below. In sum, interventions based on both direct and extended cross-group friendship will generate more harmonious intergroup relations and this must be highlighted for educators and government policy-makers.

I have been heavily involved in liaising with policy-makers on issues concerning diversity. I was invited to present evidence to the Commission on Integration and Cohesion, set up by the UK Government, which published its report *Our Shared Future* in 2007. In my presentation to the Commission I highlighted the relevance of research and, specifically, underlined the value of 'meaningful contact', in which members of different ethnic and religious groups met face-to-face, exchanged personal information and went beyond stereotypes. This argument receives detailed attention in the Commission's report (see especially pp. 110–12), which acknowledges my work, and has been influential in policy terms. In October 2007 then-Chancellor of the Exchequer Gordon Brown announced a new cross-government Public Service Agreement (PSA 21) for building cohesive communities; there are three cohesion-related indicators which support the delivery of PSA 21, one of which relates to social mixing in the form of meaningful interaction between people from different ethnic or religious backgrounds (see Communities and Local Government, 2009*c*).

A Shared Future in Northern Ireland

Cross-community contact has long been a central plank of community-relations policy in Northern Ireland. Most recently, the revised policy and strategic framework for good relations in Northern Ireland, entitled *A Shared Future*, articulated policy aims both in terms of greater cross-community contact, and with regard to the establishment over time of a 'shared society' defined by a culture of tolerance, and the achievement of reconciliation and trust (OFM and DFM, 2005, p. 3). The document also made clear that 'benign apartheid' is not an option.

Given the extensive educational segregation in Northern Ireland (see, e.g., Niens *et al*., 2003) I believe that the policy implications of our work are especially evident for educational settings. We have, for example, shown in numerous studies the benefits of mixing at desegregated universities, benefits that are maximised for young people who have until then been educated in segregated settings (Hewstone *et al*., 2005).

The relatively new idea of extended contact also appears to be an important one in a society as strictly segregated as Northern Ireland. Two especially useful findings on extended contact emerged from our recent research (Hewstone *et al*., 2008*a*). First, the negative relationship between extended cross-group friendship and prejudice was stronger among participants who had few direct cross-group friends or lived in segregated rather than mixed communities (Christ *et al*., 2008). Thus extended contact may be an especially useful aspect of policy for those living in segregated neighbourhoods. Second, the experience of indirect contact facilitated direct contact. When people at Time 1 viewed others involved in cross-group contact this led to increased direct cross-group contact at Time 2.

Summary and caveat

Intergroup contact should be central to policy concerning intergroup relations, from managing diversity to post-conflict reconciliation. I have placed considerable emphasis on the value of establishing friendships across group boundaries; however, this point is sometimes misunderstood, so I will clarify. Outgroup friends seem to be the most effective vehicle for attitude change; studies that have compared different forms of outgroup contact (e.g., as 'friends', at 'work' and in the 'neighbourhood') confirm this (Hamberger and Hewstone, 1997; Pettigrew, 1997). This does not mean, however, that contact *must* be with friends, or that we believe that building interpersonal relationships will solve all manner of intergroup conflicts, but rather that positive intergroup contacts will likely help in such cases.

Conclusions

> But I know it must be very puzzling and strange to you. Especially to a lad coming from our street where there's those two sides and each side is supposed to be different from the other. That's how we grew up on that street,

> isn't it? . . . But it's all wrong. It isn't like that at all. We're not very different from one another . . . We're all just human beings with the same needs, the same desires, the same feelings as one another. (Harry Bernstein (2007), *The Invisible Wall*)

The quotation above comes from a remarkable memoir, whose narrator is still alive. It tells of the segregated lives of two communities in a northern English town. The communities are Jews and Christians, and our difficulty in imagining this stark divide reminds us that there is nothing inevitable about the levels of segregation between other communities in contemporary Britain. Things can and do change, and intergroup contact is centrally important in determining our progress towards social integration.

I hope to have shown in this article the enormous progress that has been made in this field of research in the last fifty or so years. Contact works, and it is now clear that we can conclude that contact *leads to* positive outgroup attitudes (although the reverse also occurs, but contact effects persist in the face of self-selection bias). The basic effect of contact has been shown in hundreds of studies, has been confirmed meta-analytically, and has been found with countless target groups and in multiple settings of intergroup relations. Contact comes in various forms, the most important distinction of which is between direct, face-to-face contact and extended contact. They work in different ways, and can be used preferentially in different circumstances, and we have made great progress in understanding when and how they work. There is growing evidence that key mediational effects are moderated by category salience, in line with predictions from our theory. Contact also has an impact in myriad ways, some well beyond the conscious control of individuals, thus ruling out beyond doubt any explanations in terms of socially desirable responding.

We are now in a position to summarise this theory in a schematic model, highlighting the types of contact effects, the mediation effects, and the moderation effects for which we have accrued evidence (see Fig. 11). This research shows quite convincingly that both positive and negative affect play a key role in mediating the effects of contact on intergroup attitudes. Moreover, these affective variables mediate the effects of both direct and extended contact on an impressive range of outcomes. Knowing which psychological processes are driving the effect of contact on attitudes, and when they operate, can be used to design and implement optimal interventions. Empirical vigour, theoretical advance and methodological sophistication have turned the 'contact hypothesis' into a fully fledged *theory*.

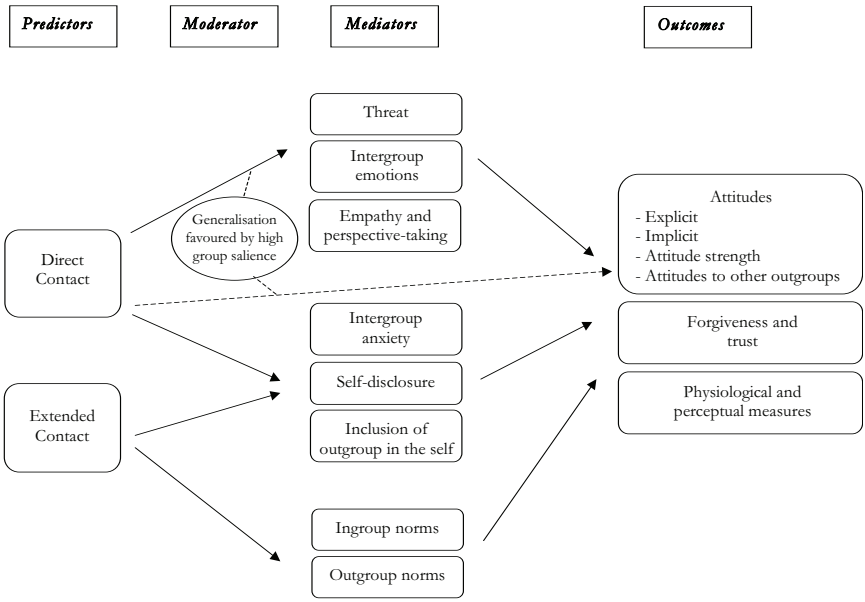

Figure 11. Schematic model of moderation and mediation effects involved in intergroup contact.

The policy potential of intergroup contact is enormous and, thus far, barely realised, and I have responded robustly to contact's critics (although I don't expect to have silenced them). In a world of increasingly diverse societies, contact is an idea whose time has come. Yet, neither I nor my many collaborators have ever been so naïve as to argue that contact is *the* solution. As an intervention, intergroup contact cannot possibly deal with all the problems posed by intergroup conflict, and in numerous places I have acknowledged the value of these other approaches (e.g., Hewstone, 1996; Hewstone, Rubin, and Willis, 2002). But it is difficult to imagine successful reduction of prejudice or intergroup conflict *without* sustained, positive contact between members of the two previously antipathetic groups. Contact is not the solution, but it must be part of any solution to the challenge posed by the enduring power of prejudice and its pernicious consequences.

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