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## Consequences of Diversity for Social Cohesion and Prejudice: The Missing Dimension of Intergroup Contact

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*A controversial claim that diversity has negative consequences for trust and other outcomes spawned a contentious debate in sociology and political science, but was hardly noted in social psychology. I summarize the debate, and argue that the efficacy of direct, face-to-face intergroup contact as a means of reducing prejudice is a stark omission, as I illustrate with evidence of the association between diversity, on the one hand, and trust, prejudice, and social capital on the other. I also consider two other contributions of contact theory to this issue, namely that contact with members of one group has an impact on attitudes toward members of other groups; and that contact should be studied via social networks. Despite the importance I attach to contact, I note two “enemies of contact,” resegregation in ostensibly desegregated settings, and negatively valenced contact. Finally, I point to the kind of research we should do, in order to increase the impact of our work on the public policy debate on this issue.*

The world is becoming an increasingly more diverse place (see Cornelius & Rosenblum, 2005), with many of us now living in ethnically, racially, or otherwise diverse neighborhoods or cities (see, e.g., Hooghe, Reeskens, Stolle, & Trappers, 2009). Although *diversity* should strictly refer to the multiplicity of different groups in an area, and take account of their various proportions, in this article I follow the convention of using it as a short-hand for the rather long-winded formulation of “living in areas with a larger proportion of outgroup

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members.” A major task facing contemporary societies, and one to which I believe social psychology can make a fundamental contribution, is how we face the challenges and exploit the opportunities of this diversity. Do we “hunker down” (Putnam, 2007), or do we reach out and build bridges between different groups and communities, rather than subject certain groups (e.g., immigrants, ethnic minorities) to prejudice, discrimination, and social exclusion, with the associated negative consequences ranging from ill health to school underachievement and unemployment (e.g., Charles, Dinwiddie, & Massey, 2004; Massey, 2004).

Much of the debate on the potential consequences of diversity has taken part not in social psychology, but in neighboring disciplines of sociology (e.g., Van de Meer & Tolsma, 2014) and political science (e.g., Putnam, 2007). I have chosen this topic for the present article in order to highlight the relevance of this debate for social psychology, and to illustrate the insights and contributions that accrue from social-psychological theory and research. I shall do this in five main parts. First, I will summarize the rather contentious diversity debate, which has taken place in both academic and public policy domains, and argue that social psychology’s long-held focus on direct, face-to-face intergroup contact as a means of reducing prejudice constitutes a critical and missing piece of this jigsaw. Second, I will illustrate this claim with multiple evidence on the association between diversity, on the one hand, and trust, prejudice, and social capital on the other (social capital, a term more used in sociology and political science than in social psychology refers to social networks and associated norms of trustworthiness and reciprocity; bonding capital refers to such links with fellow ingroup members, while bridging capital refers to links between groups). Third, I will consider two other, more subtle contributions of contact theory to this issue, the growing evidence: that contact with members of one group has an impact on attitudes toward members of other groups; and that contact should be studied not only dyadically, but also in social networks. Fourth, notwithstanding my optimism, I will consider two “enemies of contact” that constitute important constraints on whether contact will, in fact, fulfill its potential role in influencing the impact of diversity (resegregation in ostensibly desegregated settings, and negatively valenced contact). Finally, I will consider the implications of my general argument for the kind of research we as social psychologists should do, in order to increase the impact of our work on the public policy debates in our various countries. Throughout, given the nature of this invited article, I will illustrate my claims especially with research by my own team, but locate that within the no-less-important contributions of others.

### **The Diversity Debate and the Missing Role of Contact**

#### *Putnam’s Pessimistic Prognoses*

Much of the debate has been fuelled by a controversial view on the consequences of diversity. Based on a large general population sample in the United

States (the “Social Capital Community Benchmark Survey”), Putnam (2007) concluded that diversity has negative consequences for a range of outcomes related to social capital, including, most prominently, trust. He reported that individuals residing in census tracts characterized by greater ethnic diversity reported not only lower levels of outgroup trust, but also of neighborhood trust (i.e., trust of one’s neighbors), and even ingroup trust. He stated that, in the short run at least, ethnic diversity negatively influences “[. . .] attitudes and behaviors, bridging and bonding social capital, public and private connections” (Putnam, 2007, p. 151). In explaining these findings on the negative consequences of diversity for different types of trust, much of the theoretical underpinning of Putnam’s argument reflect that of conflict theory. Diversity is thus assumed to evoke perceptions of threat, which drive down trust, especially outgroup trust. Yet Putnam extends his theoretical reasoning further, to argue that exposure to diverse social environments leads individuals to withdraw from others and from social life at large, to the extent that we end up trusting others—including those belonging to our own ethnic groups—less. In an oft-cited phrase, Putnam argues that “[. . .] people living in ethnically diverse settings appear to ‘hunker down’—that is, to pull in like a turtle” (Putnam, 2007, p. 149). Putnam loosely labeled this theoretical proposition “constrict theory,” hypothesizing that diversity reduces trust not only toward outgroup members, but also toward others more generally, including fellow ingroup members.

Putnam chose the term “constrict” to acknowledge that his ideas were based, in part, on the earlier “conflict theory” (e.g., Blalock, 1967; Blumer, 1958; Bobo, 1999), also commonly referred to as “group threat theory,” which was one of the first to explain how macro-level features of one’s social environment (i.e., the relative size of the outgroup) may negatively impact on individual-level outcomes. A limitation of many empirical investigations of conflict theory is, however, that they do not measure and test the effects of diversity on individuals’ *subjective perceptions* of threat (for exceptions see, e.g., Scheepers, Gijsberts, & Coenders, 2002; Schlueter & Scheepers, 2010). This matters, because Semyonov, Raijman, Tov, and Schmidt (2004) showed that only the *perceived*, but not the actual size of the outgroup population was associated with greater perceived threat and exclusionary outgroup attitudes, contrary to conflict theory’s predictions.

Given the provocative nature of Putnam’s conclusions it is not surprising that they triggered a wealth of subsequent studies that examined the effects of diversity on a range of different social capital related outcomes in a wide range of contexts and countries. As a recent meta-analytic review has shown, evidence is mixed (Van der Meer & Tolsma, 2014). Likely reasons for this mixed evidence base concerning the consequences of diversity for trust and intergroup attitudes lie in the focus on different countries with different immigration histories and social welfare policies (e.g., most of the evidence suggesting negative effects is from the United States), the focus on differently sized geographical units (e.g.,

examining diversity at the level of large metropolitan areas, or even at country levels as opposed to smaller neighborhood units), and the inclusion of different control variables across different studies. However, most critical, I argue, is that much of this prior research testing the claims of conflict and constrict theory appears to have been conducted in a somewhat atheoretical manner (see also Van der Meer, & Tolsma, 2014), without seeking to understand *how* diversity may affect trust and intergroup attitudes (Schmid, Al Ramiah, & Hewstone, 2014; Schmid, Hewstone, & Al Ramiah, 2015). By primarily testing a direct relationship between diversity measures and outcomes of trust and intergroup attitudes (albeit typically controlling for a range of sociodemographic variables), I argue that prior research has largely ignored two key mediating processes that are crucial to understanding the link between diversity and outcomes, such as trust and intergroup attitudes: intergroup contact and perceived intergroup threat.

“Intergroup contact theory” (Allport, 1954; Brown & Hewstone, 2005; Pettigrew, 1998) offers a more optimistic view of the consequences of diversity for trust and intergroup attitudes. Contact theory argues that engaging in positive contact with individuals from different groups promotes positive intergroup attitudes. A welter of evidence has now been accumulated for the positive effects of contact in many different contexts, under many different conditions, and on many different outcome measures, including trust (for reviews see especially Pettigrew & Tropp’s, 2006, meta-analysis; see also Hewstone & Swart, 2011; Hodson, Hewstone, & Swart, 2013; Pettigrew & Tropp, 2011). Moreover, contact researchers have furthered a more in-depth understanding of the different *types* of contact, and *when* and *how* contact works (for a detailed review see Brown & Hewstone, 2005). It is thus now well established that not only the frequency (or quantity) of contact, but importantly, the *quality* of contact determines the extent to which contact positively affects outgroup attitudes. Further, contact occurs via processes of generalization of positive attitudes from the encountered individual to the wider outgroup (see Brown & Hewstone, 2005; Hewstone, 2009), which are strengthened when group memberships are made salient, and occur especially via affective processes such as reduced intergroup anxiety and increased empathy (Pettigrew & Tropp, 2008), but intergroup contact also tends to be associated with reduced intergroup threat perceptions (e.g., Tausch, Tam, Hewstone, Kenworthy, & Cairns, 2007).

Thus, while Putnam (2007) argues that, at least in the short term, diversity has a negative impact, from contact theory I argue that diverse contexts offer opportunities for positive intergroup contact, i.e., for having positive face-to-face interactions with those diverse others who make up one’s social environment. Therefore, individuals living in geographical units with greater proportional shares of outgroup residents tend to have more intergroup contact (see, e.g., Frølund Thomsen, 2012; Pettigrew et al., 2010; Schleuter & Wagner, 2008; Stein, Post, & Rinden, 2000; Wagner, Christ, Pettigrew, Stellmacher, & Wolf, 2006). There is,

then, empirical evidence that intergroup contact tends to exert positive effects on intergroup attitudes, reduced intergroup threat perceptions, and trust. Crucially, McLaren (2003) reported data on anti-immigrant prejudice in Europe consistent with the idea that contact mediates the effect of the social environment, and helps to lower perceived threat in the context of high immigration, and Tausch et al. (2007) found that perceived intergroup threat mediated the effects of intergroup contact on intergroup attitudes and also outgroup trust.

*The relationship between diversity and contact: Empirical evidence.* In a series of papers our research group has investigated various ways in which the inclusion of measures of contact leads to a better understanding of the impact of diversity on various measures of social capital and intergroup relations.

*Contact moderates the impact of diversity on outgroup trust.* A limitation of many of the studies purporting to say something about the consequences of diversity on trust is that they did not even directly measure contact (for exceptions see, e.g., Marschall & Stolle, 2004; Stolle, Soroka, & Johnston, 2008). The study by Stolle et al. investigated the effects of diversity on social trust in the United States and Canada and 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).

We conducted a further cross-sectional study to investigate whether contact moderates effects of contextual diversity in a European setting (Stolle et al., 2013), and with purposive sampling from different neighborhoods to maximize the variance on neighborhood diversity and socioeconomic indicators. The study was designed as a neighborhood-level investigation as it was based on the argument that smaller geographical units such as neighborhoods are more meaningful than using larger areas, since it is in such smaller community contexts that individuals negotiate their everyday relations (see also Oliver & Wong, 2003).

The data set allowed us to link detailed contextual variables of the meaningful neighborhood context with individual measures of social interactions and particularly contact between immigrants and nonimmigrants. Fifty areas were randomly selected from 16 Western German cities with at least 50,000 inhabitants, each area defined on the basis of official boundaries and having on average about 7,400 inhabitants (for full sampling and methodological details, see Stolle et al., 2013). Respondents were contacted by a professional survey company, and completed a survey by telephone. For this analysis we focused only on a final sample of 1,976 nonmigrant native German respondents. The main measures for the present purposes were an objective measure of diversity, intergroup contact (frequency of talking with someone of a different migration background in the neighborhood), and outgroup trust (averaged across three outgroups: Turks, "Russian Germans," a common term for ethnic German immigrants, and "other West Europeans").

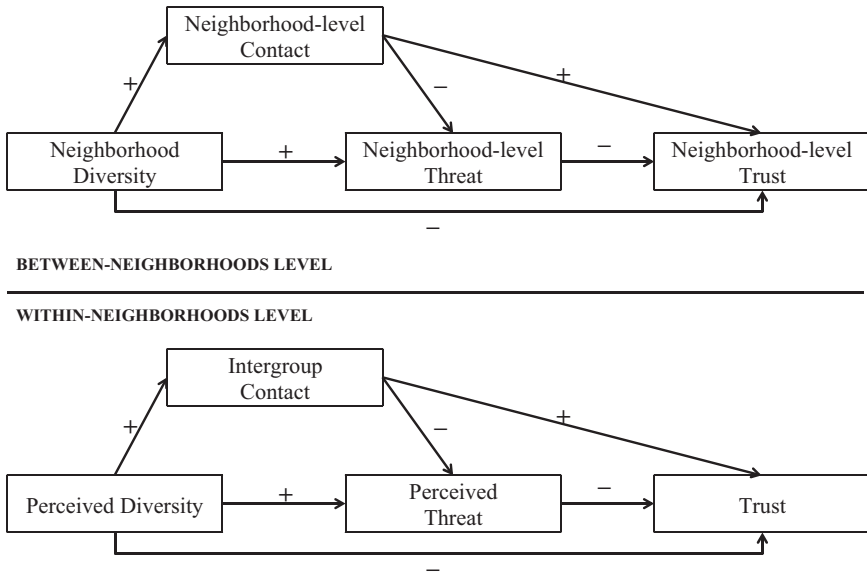
Analyses were all conducted while controlling for contextual (e.g., unemployment ratio, city size) and individual (e.g., age, gender, education, income, class, household size) variables.

First, neighborhood diversity did not seem to have the same negative effects on trust as in North America and some other European countries. Indeed our analyses showed that trust was relatively unaffected by the context of the share of foreigners in the neighborhood diversity overall. Second, we found evidence for a “cushioning effect” of interethnic contact for native majorities, whereby majority respondents with interethnic contacts did not reveal lower levels of outgroup trust when the share of foreigners in their neighborhood was higher, yet without such contacts, outgroup trust diminished with rising proportions of foreigners. Although this relationship only borders on conventional levels of statistical significance, this result shows that contact serves at least to a degree as a moderator of diversity effects.

*Contact and threat mediate the effects of diversity on outgroup trust.* Our next study was again a purposely designed, cross-sectional study with a large sample of the general population, this time in the United Kingdom (Schmid et al., 2014). We sought to examine the relationship between neighborhood ethnic diversity and three different types of trust: outgroup, ingroup, and neighborhood trust, as well as intergroup attitudes. We tested these relationships while accounting for intergroup contact and perceived intergroup threat, thereby examining potential indirect effects of diversity on trust and attitudes via these two mediators. This study was the first full test of Putnam’s diversity-distrust hypothesis, integrating ideas from sociology (conflict theory), political science (constrict theory), and social psychology (contact theory).

This study involved a large sample of adult members of the general population derived from neighborhoods (of approximately 7,000 people) varying in their proportion of ethnic minority residents (868 White British majority respondents from 218 neighborhoods; 798 ethnic minority respondents from 196 neighborhoods in England). We tested our predictions separately among White British majority and ethnic minority respondents. Specifically, we examined for the White British majority the consequences of living in neighborhoods of varying proportions of ethnic minority residents (diversity measured by the ethnic fractionalization index), and for the ethnic minority sample, the consequences of living in neighborhoods of varying proportions of White British majority residents (diversity measured by the Herfindahl index). Both these indices of “diversity” measure the relative size of the respective outgroups in individuals’ neighborhoods.

Data were again collected by a professional survey company, this time using a face-to-face interview in respondents’ own homes (for full details on design and methodology see Schmid et al., 2014). The main survey questions for the present purposes concerned respondents’ perceptions of and experiences with the ethnic outgroup and ingroup, positive contact with outgroup members in their



**Fig. 1.** Theoretical model showing hypothesized relationships between diversity, intergroup contact, perceived threat, and trust (Schmid, Hewstone, & Al Ramiah, 2015).

neighborhood, and perceived intergroup threat from the outgroup. We then asked respondents to rate their levels of trust of the outgroup, the ingroup and their neighbors, and their outgroup attitudes.

From statistical information about each neighborhood we had an objective measure of diversity. In addition, we asked respondents to rate the perceived proportion of outgroup residents in their neighborhood. This allowed us to test the effects of both objective and subjective diversity on trust and attitudes. Finally, we controlled for demographic variables (age, gender, education and income), as well as an additional macro-level variable, neighborhood deprivation (a variable which typically yields significant negative effects on trust and social capital, see, e.g., Laurence, 2011; Letki, 2008). Controlling for neighborhood deprivation was thus essential, since it allowed us to ensure that any effects of diversity did not simply occur due to co-variation between diversity and deprivation.

Figure 1 provides a graphical illustration of the main predictions. Using multilevel modeling (MLM) our analysis consisted of two linked parts. We looked for relationships at the neighborhood level (the “between-level”) as well as for relationships at the individual level (the “within-level”). At both the between-neighborhoods level (where we examined the effects of objective diversity measures on trust) and the within-neighborhoods level (where we examined the effects of perceived diversity on trust), following Putnam, we expected diversity

to exert direct negative effects on perceived threat and trust. Yet at the same time, following contact theory, we expected diversity to also exert positive direct effects on intergroup contact, and we predicted that intergroup contact would be associated with reduced intergroup threat perceptions, and thus positively affect trust. As a consequence of these expected effects, we also predicted that diversity, both actual and perceived, would be indirectly positively associated with increased trust, and that this would impact the total effects of diversity, such that the negative direct effects of diversity on trust would be reduced.

In analyzing our data, we calculated direct, indirect, and total effects of both actual and perceived diversity on all three types of trust, and intergroup attitudes, separately for the White British majority and the ethnic minority samples. Direct effects simply involve the estimation of direct relationships between diversity and the various outcome variables. Indirect effects refer to the mediated effects of diversity on the outcome variables, such that one is able to assert indirect relationships between diversity and trust and attitudes, via intergroup contact and perceived threat. Total effects refer, then, to the sum of the direct and indirect effects for each of the outcome variables, which allow us to gauge the overall, or net, effect of diversity on each outcome once the mediators were accounted for (for the full set of results see Schmid et al., 2014).

For the White British sample, we found that diversity was directly associated with lower outgroup and neighborhood trust, similar to effects reported by Putnam (2007) and others. Yet unlike Putnam's (2007) findings, we did not observe a significant effect of diversity on ingroup trust, nor on outgroup attitudes. Moreover, greater diversity was associated with increased contact with ethnic minorities in the neighborhood, which in turn was associated with reduced intergroup threat perceptions. Consequently, all indirect effects of diversity via the mediators of contact and threat were positive, for all types of trust, and outgroup attitudes. Importantly, when we estimated the total effects of diversity on trust and attitudes, these were all nonsignificant for trust, and were, in fact, positive for outgroup attitudes. These findings show that any direct negative effects of actual diversity in the neighborhood were canceled out once the indirect effects via intergroup contact were accounted for.

When considering the effects of perceived diversity, again we obtained direct negative effects on all three measures of trust, but not on attitudes. However, all indirect effects via contact and threat for all these outcomes were positive, such that greater perceived diversity was associated with more contact, and consequently less threat, which then led to positive indirect effects. Consideration of the total effects of perceived diversity revealed nonsignificant effects for outgroup trust and attitudes, yet for ingroup and neighborhood trust the total effects were negative (accounting for individuals' levels of contact thus did not cancel out these negative effects of perceived diversity on ingroup and neighborhood trust).



Results for the ethnic minority sample were distinctly different from those obtained for the White British majority. When we considered the effects of actual diversity we did not detect any direct negative effects on trust or attitudes. Conversely, all indirect effects of actual diversity, via contact and threat, were positive, but diversity did not exert any significant total effects on any of the outcome variables. We obtained similar findings for perceived diversity. The only direct effect occurred for ingroup trust, for which we actually found a positive direct effect. As before, all indirect effects via contact and threat were positive. Moreover, total effects on trust were positive, but there was no total effect on attitudes.

In this same study, we also asked about contact with and attitudes toward *Muslims* specifically, rather than ethnic minorities in general. This provides an additional, and perhaps more demanding, test of the above ideas, given that prejudice and discrimination against Muslims has increased dramatically in the last decade (see Halliday, 1999) and they suffer worse discrimination than members of other religious (Pew Forum on Religion and Public Life, 2009) or immigrant groups (Strabac & Listhaug, 2008).

Using only non-Muslim respondents, we tested both direct and indirect (via intergroup contact) effects of diversity on outgroup orientations toward Muslims. Since diverse contexts offer opportunities for positive contact (assuming, logically, that a substantial proportion of the ethnic minority population used for the sampling would be Muslims, given their proportion of the U.K. population), we expected diversity to be positively associated with contact, which, in turn, would be associated with more positive attitudes toward and lower social distance from Muslims. We found that individuals living in more ethnically diverse areas—regardless of whether they are White British members of the majority or non-Muslim members of ethnic minorities—had more positive contact with Muslims, with positive consequences for intergroup relations with Muslims.

*Contact is associated with the kind of associations we (do not) join.* Thus far, although Putnam (2007) explicitly stated that ethnic diversity negatively influences bridging and bonding social capital this prediction has largely been neglected. Putnam himself only presented evidence with regard to trust, focusing on ingroup (bonding) and outgroup (bridging) trust.

We recently investigated the impact of the ethnic composition of people's neighborhood on their intergroup contact (measured by the ethnic composition of the respondents' network of close friends) and, in turn, behavioral involvement in voluntary organizations (Savelkoul, Hewstone, Scheepers, & Stolle, 2015). This dimension of social capital has been linked to numerous positive societal outcomes (but see Portes & Vickstrom, 2011, for a critical review regarding this claim). We conducted secondary analysis of the 2005 U.S. "Citizenship, Involvement, Democracy" (CID) survey (using only data from 725 White, ethnic-majority respondents, living in 188 census tracts), which offered the unique possibility to

consider whether respondents are involved in (a large number of different) voluntary organizations in combination with the perceived ethnic composition of these associations. We tested whether a larger percentage of non-Whites in neighborhoods (census tracts, having an average of about 4,000 people) is, for Whites, negatively associated with the likelihood of bridging and bonding social ties alike, as Putnam claims.

We reasoned that having contact with ethnic outgroup members might help to explain people's likelihood of being involved in mixed organizations. It is well established that intergroup contact reduces anxiety about interacting with outgroup members (e.g., Brown & Hewstone, 2005; Pettigrew & Tropp, 2008). Hence as people have more intergroup contact, they may feel less anxious about encountering ethnic outgroup members during activities of such voluntary associations, and will, therefore, be less likely to avoid involvement in bridging associations. As intergroup contact changes the composition of people's social network, this might also affect their likelihood of being involved in bonding or bridging organizations in different ways. For example, one could come to know of the existence of *bridging* voluntary organizations or even become recruited into these organizations predominantly via one's ethnic outgroup friends.

There is also evidence that having intergroup contact can reshape one's view of the ingroup to become more inclusive, as the norms and customs of one's own ethnic group turn out not to be the only way to deal with the social world, what Pettigrew (1998) called "deprovincialization." Following the argument of deprovincialization, having intergroup contact might reshape preferences for homophily (McPherson, Smith-Lovin, & Cook, 2001), and reduce people's preference for involvement in *bonding* organizations, in which they are surrounded by similar others.

We found no support for a general negative impact of relative outgroup size on associational involvement in the United States as claimed by Putnam. Living in diverse areas did not affect the odds of involvement in any *bonding* leisure, interest or activist organizations, while it was positively associated with the odds of involvement in *bridging* interest organizations. Consistent with prior studies in both the United States (e.g., Sigelman, Bledsoe, Welch, & Combs, 1996) and Europe (e.g., Wagner et al., 2006) we found that living in more diverse neighborhoods was associated with increased intergroup contact, and we found limited evidence for a direct link between intergroup contact and associational involvement. For leisure organizations, there was a negative relationship between intergroup contact and the odds of involvement in bonding organizations; and contact was positively associated with the likelihood of involvement in bridging as compared to bonding leisure organizations for those people who were involved.

*Summary.* The studies reviewed so far provide robust evidence that the impact of diversity on outgroup attitudes can only be understood in the context

of levels of actual intergroup contact. When considering the impact of neighborhood or school-level ethnic diversity on attitudes toward outgroups, we found no evidence to support Putnam's (2007) pessimistic claims that diversity necessarily poses a challenge to social cohesion. Diversity offers the opportunity to engage in face-to-face contact with, rather than simply living in the same neighborhood as, members of outgroups. If such contact is positive, then diversity is a driver of more, not less, positive outgroup attitudes. One caveat is in order here, however, namely that all this data is cross-sectional, limiting our ability to draw inferences about causality. In other words, we have not been able to prove, for example, that, as a neighborhood becomes more diverse, positive contact ensues and attitudes and social distance are affected. Rather, we have shown that, in diverse neighborhoods, positive outgroup contact is correlated with positive attitudes. In the following section, however, I am able to include some longitudinal (panel) data that allowed for testing bi-directional relationships, and yielded greater confidence in inferring causality.

#### *More subtle Contributions of Contact to the Diversity Debate*

Thus far I have reported only on the link between contact with a specific outgroup and attitudes toward that same outgroup, and only on direct, face-to-face contact. In this section I highlight studies that contribute to the broader diversity debate in three ways. First, contact has secondary-transfer effects (STEs, from one outgroup to another). Second, contact occurs not only directly and dyadically, but also indirectly and via social networks. Third, there is a contextual effect of contact, whereby attitudes are influenced not only by one's own personal experiences, but also by aggregate levels of contact (e.g., in one's neighborhood). All of these contributions are important in the context of diversity, because we cannot expect everyone to have contact with all outgroups (especially where different outgroups live in different parts of a city, or different regions), nor can everyone have direct contact with every, sometimes any, outgroups (especially where segregation is profound, which places obvious limits on any impact via direct contact; Uslander, 2012).

*Secondary-transfer effects of contact.* The potential of contact would be even greater if we could show that contact effects generalize from experience with one group (a so-called "primary" outgroup) to attitudes toward other ("secondary") outgroups (e.g., positive contact between White and Asian students generalizes to positive attitudes toward other ethnic minorities). This would be especially useful given that societies are becoming *more* diverse. There is, in fact, growing evidence that contact does have precisely this secondary-transfer effect (Pettigrew, 1997, 2009; for a review, see Lolliot et al., 2013). I illustrate with examples from our research.

First, we (Schmid, Hewstone, Küpper, Zick, & Wagner, 2012) conducted a large cross-national survey of 7,042 respondents in each of eight European countries using different measures for attitudes toward primary (immigrants) and secondary (homosexuals and Jews) outgroups. Results showed that intergroup contact was not only directly related with primary outgroup attitudes but also indirectly associated with secondary outgroup attitudes, via attitude generalization (contact with immigrants improved attitudes toward immigrants and, in turn, attitudes toward the other two groups). However, these relationships occurred primarily for individuals low in social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994). This study, like most of those reviewed so far, was limited by its cross-sectional design, and also because it could not control for contact with the secondary outgroups.

Both these problems were resolved in a later study. Although Northern Ireland's sectarian conflict is well known, it is less widely appreciated that there appears to be a link between sectarianism and prejudice toward the country's small population of ethnic and racial minorities, who have been targets of a dramatic increase in racially motivated crimes and other forms of racism (McVeigh & Rolston, 2007; Tausch et al., (2010, Study 4) found that positive contact between Catholics and Protestants at time 1 generalized to more positive attitudes toward ethnic minorities one year later, even after controlling for contact with ethnic minorities (see also Van Laar, Levin, Sinclair, & Sidanius, 2005, for an impressive longitudinal study of the STE).

*Intergroup contact in social networks.* Contact research typically takes what is effectively a dyadic approach, either asking respondents to report on the quantity and quality of their contact with outgroup members, or manipulating such contact experimentally. The idea that contact often takes place within a social network (e.g., a school, a school class, an organization) has been relatively ignored (for an exception see Munniksma, Stark, Verkuyten, Flache, & Veenstra, 2013). I note here two advantages of a network approach that we have sought to exploit in our research.

First, this approach does justice to the quantity and quality of social ties in a person's social network (e.g., a classroom) in a way that underlines the importance of reciprocal friendship links (see Wölfer, Faber, & Hewstone, 2015). Traditional measures of contact, relying on self-reports of one's own direct contact miss out on this reciprocal aspect. For example, it is easy for someone to claim in a self-report survey item that they have outgroup friends, because this cannot be verified; using social networks, we can test A's claim that s/he and outgroup member B are friends, by seeing whether B reciprocates A's friendship.

Second, use of social networks can help to provide a more precise measure of extended contact, without relying exclusively on self-reports. "Extended" contact refers to the impact on prejudice of knowing about, or observing, at least one, and

preferably more than one, ingroup member who has an outgroup friend (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). There is now comprehensive evidence that even this diluted form of contact is associated with reduced outgroup prejudice (for a review see Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014), especially for people with few direct cross-group friends or who live in segregated rather than mixed communities (Christ et al., 2010). Yet, a potential weakness of self-reports to assess extended contact is that respondents may lack information about their ingroup friends' outgroup friends, or may give biased estimates of this information (e.g., by projecting from their own level of contact).

Utilizing a multimethod approach, we broke down the complex two-step process of assessing the friends of one's friends into two discrete steps. First, we elicited social networks via majority and minority students' nominations of their five best friends in the class setting. We then identified each student's reciprocal connections (i.e., direct ingroup and outgroup friends) from the network data, and used for this analysis only the reciprocal *ingroup* friends. Next, for each of the reciprocal ingroup friends we identified their self-reported outgroup contact from their a separate survey they completed, in which they reported on contact in and out of school. We then averaged the ingroup friends' self-reported outgroup contact. We followed this procedure using data collected as part of the Children of Immigrants Longitudinal Survey in Four European Countries (CILS4EU) project (Wölfer, Schmid, Hewstone, & van Zalk, under review).<sup>1</sup> We then conducted multilevel analyses (within-level: students, between-level: classes), separately for majority and minority students, in order to predict outgroup attitudes, while controlling for the ethnic density of the school, direct contact, number of ingroup friends, density, and reciprocity in network data. We found significant positive effects of direct contact on outgroup attitudes for both majority and minority students. We also found significant effects of extended contact for both samples, using a method that does justice to the true level of diversity in school classes, and schools, and we can be sure that these are not due to biased self-reporting of outgroup contact.

*Contextual effect of contact.* Almost all previous research on intergroup contact effects has focused on the impact of individual-, micro-level contact on prejudice. Previous research has shown that for social contexts, like regions or districts, a higher context level of intergroup contact is associated with less prejudice

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<sup>1</sup>This data set comprises a sample of 20,000 students (aged 14 years at wave 1) from over 400 schools, at four levels of ethnic density, across four countries (Germany, The Netherlands, Sweden, and the United Kingdom), over three waves. This analysis used data from only Wave 1 and could not include the United Kingdom, due to missing data. For more information on the project see <http://www.mzes.uni-mannheim.de/d7/en/projects/children-of-immigrants-longitudinal-survey-in-four-european-countries-cils4eu>.

(e.g., Wagner et al., 2006), but they did not test the *contextual effect* of contact (see Blalock, 1984): the difference between the effect of intergroup contact between social contexts (the *between-level effect*) and the effect of individual-level contact within contexts (the *within-level effect*; see Raudenbush & Bryk, 2002) on prejudice. Evidence for this contextual effect of positive contact would indicate that living in a place in which other ingroup members interact positively with members of the outgroup reduces prejudice, beyond one's own contact experiences and irrespective of whether one knows the ingroup members experiencing intergroup contact. Thus, a person living in a context with a higher mean level of positive intergroup contact is likely to be less prejudiced than a person with the same level of direct positive contact, but living in a context with a lower mean level of intergroup contact. We also proposed that perceived ingroup norms in social contexts where positive intergroup contact was more commonplace would be more tolerant, supporting positive interactions with outgroup members (De Tezanos-Pinto, Bratt, & Brown, 2010). In order to approximate norms at the neighborhood level, we measured *diversity beliefs*, which reflect the extent to which individuals value and endorse diversity (see, e.g., Tropp & Bianchi, 2006). When estimated at Level 2, for example the neighborhood level (i.e., as a random effect, involving the average or aggregate level of diversity beliefs in the neighborhood), our measures of diversity beliefs reflected positive social norms in the neighborhood.

We tested these predictions in seven multilevel studies (five cross-sectional and two longitudinal), all using large samples of the general population, drawn from multiple countries (in Europe, North America, and Africa) and measuring context at various levels (regional, district, census tract, and neighborhood; Christ et al., 2014). With a range of pertinent individual and, where possible, context-level controls, we consistently found that the between-level effect of intergroup contact on prejudice was significantly larger than the within-level effect, constituting a relatively small effect size of the contextual effect of contact. Next, for three of the studies we could test whether the contextual effect could be explained by differences in social norms between the different social contexts. When norms were controlled, the difference between the within-level and the between-level effect of intergroup contact was substantially reduced in all cases, and the contextual effect was rendered non-significant. Thus, living in a place where fellow ingroup members interact positively with outgroup members has a benign impact on prejudice, beyond one's own contact experiences, via social norms that value diversity.

A possible interpretation of these cross-sectional results is that people who are low in prejudice are more likely to select places to live that are more diverse. Although this interpretation contradicts evidence that prejudice rises with minority group proportions (e.g., Quillian, 1995; Taylor, 1998), it remains possible that more tolerant people *select* places with higher context-level contact. We ruled out this self-selection account by replicating the contextual effect in two studies using

longitudinal data from Germany, one of which also included a measure of norms and replicated the mediation via norms.

These results demonstrate that intergroup contact at the social context level has greatest consequences for individuals' attitudes, and that the processes involved cannot be reduced to characteristics of individuals or specific situations in which intergroup contact occurs (Oishi & Graham, 2010), or selection bias. This work has both theoretical and practical contributions.

Theoretically, in terms of better understanding the consequences of diversity and the role of contact, it reiterates a point that seems to be lost on some scholars who would critique the contact approach: macro-level diversity should not be equated with actual intergroup contact. It is not sufficient to report the proportion of outgroup members in an area; one must report the extent to which members of different groups engage in positive contact.<sup>2</sup> It also indicates that contact has even more beneficial effects than was previously thought (e.g., Hewstone, 2009; Pettigrew & Tropp, 2006). Contact does not merely change attitudes on a micro-scale, in the case of those people who experience direct positive contact with members of the outgroup, nor do interventions on that micro-level offer the only means of reducing prejudice. Rather, contact also affects prejudice on a macro-level, whereby people are influenced by the behavior of others in their social context. Prior research that has prioritized the interpersonal nature of contact has underplayed its potential widespread impact. Even individuals who have no direct intergroup contact experience can benefit from living in mixed settings, provided that fellow ingroup members do engage in positive intergroup contact: Prejudice is a function not only of whom you know, but also of where you live.

Practically, this work contributes by underlining the policy potential of contact as a social intervention to improve intergroup relations on a wider level. Our research demonstrates the value of living in mixed settings where positive intergroup interaction occurs, over and above positive effects of each individual's own positive contact experiences. This potential positive impact of diversity, via intergroup contact, is, however, constrained by segregation (Nightingale, 2012; Uslaner, 2012), which precludes contact. The full potential of positive intergroup

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<sup>2</sup>A recent field experiment by Enos (2014) makes the same mistake. He randomly assigned Spanish-speaking confederates to specific mostly White commuter trains for a period of days, and compared attitudes with a control group not "exposed to the same Spanish-speaking persons in a location near their homes." As Enos writes, he sought to create an analogue to the situation of immigrants moving into people's neighborhood and using public transportation. Enos reports that "contact" led to more exclusionary attitudes toward the outgroup. The only problem is that this manipulation has nothing whatsoever to do with intergroup contact as any social psychologist since Allport would understand it. There is no meaningful cross-group face-to-face interaction or opportunity to build a relationship and get beyond stereotypes. This is essentially an experimental analogue of Putnam's diversity-*without*-contact result that I have critiqued above. A good rule to follow is that if a study neither manipulates nor measures intergroup contact . . . it is not a test of intergroup contact.

contact can only be realized with a reduction in segregation that results in increased opportunities for contact, and of course when members of different groups take up those opportunities and engage in more frequent, positive, face-to-face contact.

*Summary.* All three pieces of work reviewed in this section testify to the impact of contact beyond dyadic, interpersonal encounters. In doing so, they make a theoretical contribution in better understanding the consequences of diversity, and a practical contribution in underlining the policy potential of contact as a social intervention to improve intergroup relations on a wider level.

### *Enemies of Contact*

Notwithstanding my positive outlook on intergroup and diversity, there remain what I refer to as two main “enemies” of contact—resegregation, and negative contact.

Resegregation (Schofield, 1997) refers to the phenomenon whereby members of different groups in desegregated settings fail to take up opportunities for intergroup contact and, instead, segregate informally in a desegregated setting. For example, members of ethnic and racial groups in mixed educational institutions may resegregate into distinct areas of school and university cafeterias (e.g., Clack, Dixon, & Tredoux, 2005). Where resegregation occurs, we should not assume that any actual intergroup contact is occurring, but rather should assess such contact empirically. We should, moreover, seek to better understand why resegregation is occurring. Our own initial attempts to do this, studying why White-British and Asian/Muslim-British students sit apart in school cafeterias suggested that such resegregation may reflect a lack of interest in mixing on the part of both groups, rather than more overt prejudice, but also showed the value of promoting cross-group friendships and creating more positive norms about mixing to limit resegregation (Al Ramiah, Schmid, Hewstone, & Floe, 2014).

Finally, Pettigrew (2008) argued that future research must pay more attention to the negative factors operating in some contact situations, which poison intergroup relations. One of these was identified by Tropp (2007), who found that when minority members perceive discrimination against their racial group contact is no longer effective. It is hard to exaggerate the importance of this finding, because it indicates the need to promote contact alongside, and not instead of, social justice concerns in a fair society. More recently Barlow et al.’s (2012) seminal paper raised the question of the comparative impact of positive and negative contact experiences (of which discrimination can be on kind of negative contact), and concluded that negative contact, despite occurring less frequently, was nonetheless a stronger predictor of racism and outgroup avoidance than was positive contact. This raises a very important issue, because diversity provides opportunities for both positive and negative experiences with outgroup members. Our own research in schools



and neighborhoods confirms that negative contact occurs much less frequently than positive contact (Fell, Lollot, Christ, Schmid, & Hewstone, in preparation; Hewstone et al., 2015), but we are more concerned to study the *interactive* effects of positive and negative encounters with outgroups (e.g., whether positive contact attenuates detrimental effects of negative contact; or negative contact reduces the impact of positive contact effects).

### Implications and Conclusions

The study of intergroup contact has come a long way since Allport's (1954) classic work and has become arguably social psychology's most central contribution to the issue of how to reduce prejudice. The path has not always been smooth, with doubts raised along the way, including my own (Hewstone & Brown, 1986), and the pessimistic view most eloquently expressed by Rothbart and John's (1985) remark that: "The contact hypothesis brings to mind T.H. Huxley's remark about the tragedy that occurs when 'a lovely idea is assaulted by a gang of ugly facts'" (p. 42). But the facts have been reevaluated, and reanalyzed, with Pettigrew and Tropp's (2006) monumental meta-analysis providing the most persuasive demonstration that contact is, typically, effective. Yet still questions remain for what future research is needed, how it should be done, and how we can increase the impact of social psychology in the area of diversity. I end with a few words on each of these issues.

What research is needed? I have already mentioned the interaction between positive and negative contact as one topic. There is also great interest in, but relatively little study of, change in, and the speed of change of, diversity: we need research examining changes in outgroup size and their effects on contact and outcomes.

How should this research be done? Ideally with a range of methods, including, but not limited to, surveys and experiments. In the case of both valenced contact and change in diversity there exist already good models of both survey (see Barlow et al., 2012; Ziller, 2014, respectively) and experimental (see Outten, Schmitt, Miller, & Garcia, 2012; Paolini et al., 2014) research, respectively. But while social psychology has traditionally prioritised experiments, there are surely limitations to how well experimental studies, albeit elegant, can accurately model the real experience of contextual diversity.

How can we increase the impact of social psychology in this area? Based on my own attempts to influence government policy, and many meetings with officials, I have become convinced that we will have greater impact in this area with larger studies using samples drawn from the general population, rather than undergraduate students in the lab. There is already recognition among some researchers interested in the consequences of contact that we need to consider wider contextual phenomena and their interplay with individual-level outcomes (see,

e.g., Pettigrew, 2008; Pettigrew & Tropp, 2011), and this would ideally be done using longitudinal and multilevel studies.

By way of conclusion, I refer to two prominent events that occurred as I finished this article: the riots in Ferguson, Missouri, and the atrocities in Paris. These events confirmed my view that what is sometimes called “benign apartheid” is not the solution. A society in which Blacks live apart from Whites, Catholics from Protestants, or French Muslims from their non-Muslim counterparts is not going to deliver safety, peace, and justice for all. We have to aspire to something more than that, an *integrated* community of fellow-citizens. History records that it is possible for different cultural and ethnic groups to live together; although it remains controversial whether the *convivencia* of longstanding neighbors in regions, such as Spain, Sicily, and Syria implied acceptance, indifference, or merely temporary tolerance. Contemporary society also provides examples of successful integration, although they seem inevitably to lose media space to the more sensational stories of conflict. Philosophers with higher aspirations have written of the “imperative of integration” (Anderson, 2010) and the value of “cosmopolitanism” (Appiah, 2006), understood as the open acceptance of diversity and willingness to engage with others. Intergroup *contact*, and not merely living together, apart is crucial to this end.

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