## A Summary of Research Findings on the Effects of Intergroup Contact

## Testimony Prepared for the Minnesota Education Commission Task Force on Integrated Schools

Linda R. Tropp, Ph.D.

Associate Professor of Psychology
Director, Psychology of Peace and Violence Program
University of Massachusetts Amherst
tropp@psych.umass.edu

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I wish to thank the Task Force for this opportunity to speak, and to summarize social science evidence *demonstrating the benefits of racial integration* for reducing interracial prejudice and promoting positive relations between racial groups.

I am a social psychologist, and using mostly quantitative methods, my work concerns how people relate to each other as members of different groups, and what strategies we can use to encourage positive intergroup relations.

With my colleague Thomas Pettigrew, I have conducted a *meta-analysis* of research on intergroup contact (Pettigrew & Tropp, 2006; Pettigrew & Tropp, 2011). A meta-analysis is essentially a *quantitative integration* of studies, where researchers work to find every study ever conducted on a particular topic; then, they can statistically pool the results of those studies to examine the overall effects, and they can code the research studies for additional factors that might strengthen or weaken those effects (see Johnson & Eagly, 2000).

Our meta-analytic research concerned the effects of intergroup contact, to provide an answer to the question: What happens when members of different groups interact with each other? From a six year search, we found a total of 515 studies testing the effects of intergroup contact, where the contact is defined in terms of actual, face-to-face interactions between members of different groups. These studies span from the 1940s through the year 2000 and they include responses from over 250,000 participants in 38 countries.

Our results overwhelmingly show that greater intergroup contact predicts lower intergroup prejudice (see Pettigrew & Tropp, 2006; 2011). Approximately 94% of the cases in our analysis show a relationship such that greater contact is associated with lower prejudice. Further analysis (see Rosenthal, 1991) reveals that it would take more than 1,200 additional studies showing no relationship between contact and prejudice to undo the significance of the overall effect we have found.

Findings from our meta-analysis are illustrated in graphs such as Figure 1 below. In this figure, the values on the Y-axis represent mean effects and correspond with values of the correlation coefficient r. A "zero" value on the Y-axis means that there is no meaningful relationship between intergroup contact and prejudice (mean r = .00). Positive values would mean that intergroup contact is associated with greater prejudice, and negative values mean that intergroup contact is associated with lower prejudice.

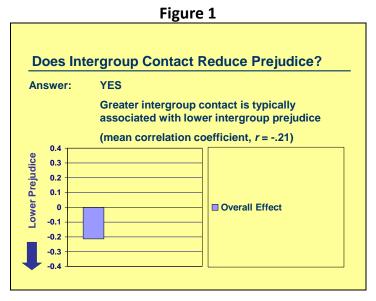
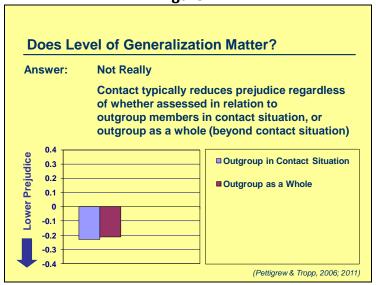


Figure 1 shows the mean contact-prejudice relationship, corresponding to a correlation coefficient r of -.21, such that greater intergroup contact is associated with lower prejudice. This mean effect is relatively modest in magnitude, but it is a highly significant effect and a highly consistent effect that becomes only slightly stronger or weaker depending on other characteristics of the studies.

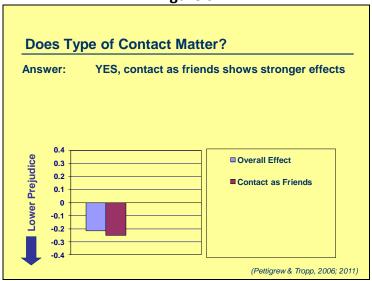
Generalization. For example, we examined whether the effects of contact can generalize. Here, we coded whether prejudice was assessed toward the individual outgroup members with whom the contact occurred (in the contact situation) or toward the outgroup as a whole (beyond the contact situation; see Figure 2). We find that the effects of contact on prejudice toward the outgroup as a whole do not significantly differ from the effects of contact toward the individual outgroup members in the contact situation. These results suggest that the effects of contact can generalize from positive experiences with individual members of other groups to more positive attitudes toward those groups as a whole.

Figure 2



**Friendship contact.** We have also looked closely at the types of contact people have with other groups. We find that, compared to the general contact effect, there are greater reductions in prejudice when the contact involves friendships between members of different groups (see Figure 3). There is also experimental evidence that supports this finding (Page-Gould, Mendoza Denton, & Tropp, 2008), as well as research with children (Aboud, Mendelson, & Purdy, 2003) and adults (Davies, Tropp, Aron, Pettigrew, & Wright, 2011) showing that friendship contact is especially effective for reducing prejudice.

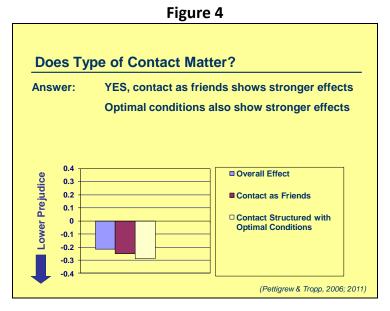
Figure 3



This finding is also an important reminder that not all types of contact are equal, and that superficial forms of contact may be relatively unlikely to change our attitudes. But the more able we are to cultivate meaningful relationships across groups, the more likely it is that the contact will be effective in reducing prejudice.

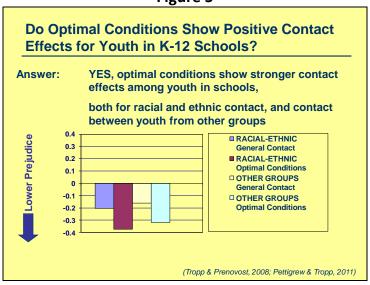
Still, in order for these cross-group relationships to develop, children must have opportunities to become friends with people from other groups. This issue points to the importance of promoting racial integration in schools and classrooms, because cross-race friendships typically increase with greater racial and ethnic diversity in schools (Quillian & Campbell, 2003). Other work also shows that White children in ethnically heterogeneous schools and classrooms are more likely to perceive that children from different ethnic groups can be friends, and to select children from other ethnic groups as potential friends (Hallinan & Teixeira, 1987; Wright & Tropp, 2005). Additional research suggests that Whites who report having had contact with Blacks during their childhoods report less racial prejudice as adults (Wood & Sonleitner, 1996). Furthermore, recent longitudinal studies with White children and adolescents indicate that greater numbers of cross-race friendships predict more positive attitudes toward racial and ethnic minorities over time (Feddes, Noack, & Rutland, 2009; Binder, Zagefka, Brown, Funke, et al., 2009; Levin, Van Laar, & Sidanius, 2003)

**Optimal conditions for contact.** Our meta-analytic research also shows that positive effects of contact are found in schools, as well as in other settings. Such positive outcomes of contact are especially likely to occur when the contact situation is structured in terms of *optimal conditions* (Allport, 1954), such as when there are institutional norms that support equality and cooperation between the groups (see Figure 4).



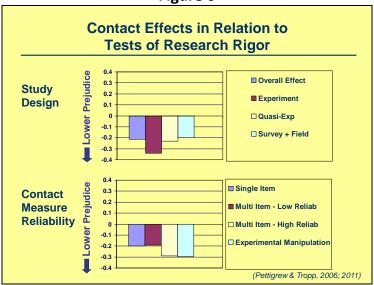
We have conducted a more specialized analysis to look specifically at the effects of optimal contact among children and adolescents in K-12 schools (see Tropp & Prenovost, 2008; Pettigrew & Tropp, 2011). We find that contact under these optimal conditions yields significantly greater reductions in prejudice among children and adolescents in school settings; this finding is consistent when the contact occurs between youth from different racial and ethnic groups and between youth from other groups (e.g., children with or without physical or mental disabilities; see Figure 5).

Figure 5



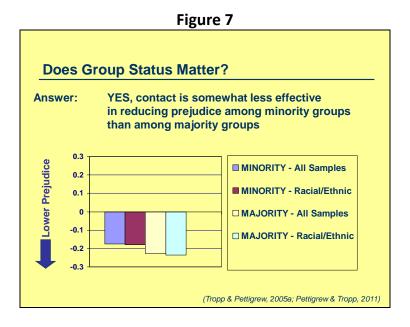
**Research rigor.** Importantly, our research also indicates that the contact studies that use more rigorous research methods are more likely to show that contact reduces prejudice. For example, we observe stronger contact effects when the study design involved a controlled experiment, which allows for testing the causal effects of contact on prejudice, as compared to other kinds of studies (see top of Figure 6). We also find that when intergroup contact was measured using more reliable indicators, stronger relationships between contact and prejudice emerge (see bottom of Figure 6). Across these and other indicators, what we find is that the more rigorous research procedures used in the studies, the more clearly we observe that greater contact predicts reduced prejudice (Pettigrew & Tropp, 2006; 2011).

Figure 6



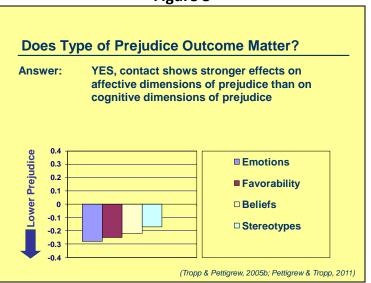
"Extended" effects of contact. Furthermore, a growing body of research with children, adolescents, and adults shows that, even when they do not have direct contact with other groups, simply knowing that members of their group are friends with members of other groups can promote more positive attitudes and a greater willingness to engage in contact (Cameron, Rutland, Brown, & Douch, 2006; Gómez, Tropp, & Fernandez, 2011; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). This finding is important, because it suggests that benefits of racial integration can be achieved both when children themselves develop cross-race friendships, and when they observe others' cross-race friendships in their social environments

Additional effects of contact. At the same time, our research shows that, while still significant, the positive effects of contact tend to be less pronounced among members of minority status groups than among members of majority status groups; this pattern is consistent whether minority-majority effects are examined in the context of racial and ethnic contact, or in other group contexts (see Figure 7). Given that most students in Minnesota public schools are part of the White majority, these findings suggest that positive effects of racial and ethnic contact would likely emerge for the great majority of students in Minnesota's public schools.

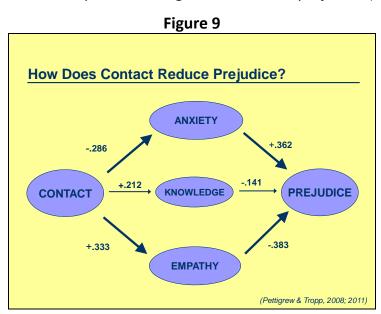


We also find that contact is especially likely to predict lower prejudice when *affective* dimensions of prejudice are assessed (e.g., how we feel toward and evaluate other groups), while the effects of contact tend to be weaker for more *cognitive* dimensions such as stereotypes (see Figure 8). Thus, intergroup contact can be particularly effective for changing how youth from different racial and ethnic groups feel toward each other.

Figure 8



**Mediators of contact effects.** Through our meta-analytic research, we have also learned more about the *mediators* of contact effects, or the processes through which contact reduces prejudice (see Pettigrew & Tropp, 2008). We find some evidence that contact enhances our knowledge about other groups, and greater knowledge contributes to lower levels of prejudice. But once again, we see the particularly important role of affect, in that contact reduces our anxiety in relation to other groups and enhances our ability to empathize with other groups, and these in turn predict stronger reductions in prejudice (see Figure 9)<sup>1</sup>.



**Conclusions.** Overall, the findings from our meta-analysis and other recent work overwhelmingly show that greater intergroup contact predicts lower prejudice. Moreover, intergroup contact is especially likely to reduce prejudice when (a) the studies are conducted with rigorous research procedures, (b) we seek to change how we feel toward other groups, (c) the contact takes the form of cross-group friendships, and (d) when the contact occurs

under optimal conditions, such as with institutional support for equality and cooperation among different groups. Having racially integrated schools and classrooms can play crucial roles in promoting positive effects of intergroup contact, by providing opportunities for children from different groups to interact and become friends, and by establishing norms that support equality and cooperation among diverse groups.

## **Notes**

<sup>1</sup> The reader should note that, for ease of presentation, Figure 9 represents summary results from separate analyses testing each of the three mediators.

## **References**

- Aboud, F. E., Mendelson, M. J., & Purdy, K. T. (2003). Cross-race peer relations and friendship quality. *International Journal of Behavioral Development*, *27*, 165-173.
- Allport, G. W. (1954). The nature of prejudice. Reading, MA: Addison-Wesley.
- Binder, J., Zagefka, H., Brown, R., Funke, F., Kessler, T., Mummendey, A., Maquil, A., Demoulin, S., & Leyens, J.-P. (2009). Does contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the contact hypothesis amongst majority and minority groups in three European countries. *Journal of Personality and Social Psychology*, 96, 843-856.
- Cameron, L., Rutland, A., Brown, R., & Douch, R. (2006). Changing children's intergroup attitudes toward refugees: Testing different models of extended contact. *Child Development*, 77, 1208-1219.
- Davies, K., Tropp, L. R., Aron, A., Pettigrew, T. F., & Wright, S. C. (2011). Cross-group friendships and intergroup attitudes: A meta-analytic review. *Personality and Social Psychology Review*, 15, 332-351.
- Feddes, A. R., Noack, P., & Rutland, A. (2009). Direct and extended friendship effects on minority and majority children's interethnic attitudes: A longitudinal study. *Child Development*, 80, 377-390.
- Gómez, A., Tropp, L. R., & Fernandez, S. (2011). When extended contact opens the door to future contact: Testing the effects of extended contact on intergroup attitudes and expectancies among minority and majority groups. *Group Processes and Intergroup Relations*, 14, 161-173.
- Johnson, B. T., & Eagly, A. H. (2000). Quantitative synthesis of social psychological research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social psychology* (pp. 496-528). Cambridge: Cambridge University Press.

- Levin, S., Van Laar, C., & Sidanius, J. (2003). The effects of ingroup and outgroup friendships on ethnic attitudes in college: A longitudinal study. *Group Processes and Intergroup Relations*, 6, 76-92.
- McGlothlin, H., & Killen, M. (2010). How social experience is related to children's intergroup attitudes. *European Journal of Social Psychology*, 40, 625-634.
- Page-Gould, E., Mendoza-Denton, R., & Tropp, L. R. (2008). With a little help from my cross-group friend: Reducing anxiety in intergroup contexts through cross-group friendship. *Journal of Personality and Social Psychology, 95,* 1080-1094.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. Journal of Personality and Social Psychology, 90, 751-783.
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Metaanalytic tests of three mediators. *European Journal of Social Psychology*, 38. 922-934.
- Pettigrew, T. F., & Tropp, L. R. (2011). *When groups meet: The dynamics of intergroup contact.* New York: Psychology Press.
- Quillian, L., & Campbell, M. E. (2003). Beyond black and white: The present and future of multiracial friendship segregation. *American Sociological Review, 68*, 540-566.
- Rosenthal, R. (1991). Meta-analytic procedures for social research. Newbury Park, CA: Sage.
- Tropp, L. R., & Pettigrew, T. F. (2005a). Relationships between intergroup contact and prejudice among minority and majority status groups. *Psychological Science*, *16*, 651-653.
- Tropp, L. R. & Pettigrew, T. F. (2005b). Differential relationships between intergroup contact and affective and cognitive dimensions of prejudice. *Personality and Social Psychology Bulletin*, *31*, 1145-1158.
- Tropp, L. R. & Prenovost, M. (2008). The role of intergroup contact in predicting interethnic attitudes: Evidence from meta-analytic and field studies. In S. Levy and M. Killen (Eds.), Intergroup attitudes and relations in childhood through adulthood (pp. 236-248). Oxford: Oxford University Press.
- Wood, P. B., & Sonleitner, N. (1996). The effect of childhood interracial contact on adult antiblack prejudice. *International Journal of Intercultural Relations*, 20, 1-17.
- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, 73, 73-90.