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# UNLEARNING FEAR OF OUT-GROUP OTHERS

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## I

### INTRODUCTION

Group affiliation can affect individual resistance to intergroup reconciliation following conflict, as Douglas Yarn and Gregory Jones observe in their article in this symposium.<sup>1</sup> They posit that emotions, too, play a role: fear, anger, and distrust are hurdles to overcome on the road to such reconciliation. Finally, they suggest viewing these phenomena through a biological lens—specifically, that of evolutionary biology.

What if we were to take on all three challenges—group affiliation, emotion, and evolutionary biology? What might the biology of the interaction between *social-group judgment*—the evaluation that a human being belongs to a social group different from one’s own—and *fear* teach us about barriers to intergroup reconciliation, and what might evolutionary perspectives add?

This Comment offers one approach, using as its lens a single study on fear extinction and social-group judgment. Within this narrow focus, the contours of a larger law–science dialogue on repairing intergroup conflict—particularly when such conflict implicates race—may be sketched.

## II

### RACE AND FEAR EXTINCTION

A robust literature demonstrates that in a society in which race is a salient social category—such as ours—people often display implicit racial biases even when they report no explicit bias.<sup>2</sup> For example, such persons often show nonconscious, biological indicators of fear when viewing “out-group” faces—

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1. Douglas H. Yarn & Gregory Todd Jones, *A Biological Approach to Understanding Resistance to Apology, Forgiveness, and Reconciliation in Group Conflict*, 72 *LAW & CONTEMP. PROBS.* 63 (Spring 2008)

2. See, e.g., Anthony G. Greenwald & Linda Hamilton Krieger, *Implicit Bias: Scientific Foundations*, 94 *CAL. L. REV.* 945 (2006). Many such studies have been limited to white and African American participants. See Elizabeth A. Phelps & Laura A. Thomas, *Race, Behavior, and the Brain: The Role of Neuroimaging in Understanding Complex Social Behaviors*, 24 *POL. PSYCHOL.* 747, 753 (2003) (noting that African Americans show greater “variability than white Americans on measures of indirect race bias, with some showing a pro-black bias and others showing no bias or a pro-white bias”).

faces belonging to persons from a race other than their own.<sup>3</sup> Such results, admittedly profoundly internal and measured under controlled conditions, likely are not confined to the laboratory; rather, they may well manifest in discernable behavioral outputs. Evidence is building that implicit bias correlates with “non deliberate or spontaneous discriminatory behaviors,”<sup>4</sup> such as the use of altered speech and emotion-display patterns when the individual is interacting with persons perceived to be of a different race.

Building on such research, a recent study sought to examine fear conditioning in the context of cross-racial facial perception. In *The Role of Social Groups in the Persistence of Learned Fear*, Andreas Olsson and his coauthors cited literature suggesting that “race bias and fear conditioning . . . rely on overlapping neural systems.” They sought to determine whether a subject viewing the face of an unfamiliar, out-group other would more readily learn to fear that person, whether the subject would *less* readily learn *not* to fear that person, and how such phenomena (if found) would interact with indicators of explicit or implicit racial bias, as well as with reported levels of cross-racial life contacts.<sup>5</sup>

To answer these questions, the study used classic techniques of fear conditioning and extinction. In fear conditioning, a subject is trained to fear an otherwise-neutral stimulus—for example, by repeatedly pairing an electric shock with a picture of a blue square. Before too long the subject will show a physical, preconscious, anticipatory fear reaction when shown a blue square.<sup>6</sup> However, after enough instances in which a blue square is shown and no shock delivered, the subject will “unlearn” the fear reaction. This is known as “extinction.”<sup>7</sup>

Importantly, there exists one category of stimuli that humans associate more readily with aversive stimuli, to which such fear extinction is less complete. Known as “prepared” or “fear-relevant” stimuli, this category includes spiders and snakes.<sup>8</sup> A subject will learn to fear both a butterfly and a snake if both

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3. See, e.g., Elizabeth A. Phelps et al., *Performance on Indirect Measures of Race Evaluation Predicts Amygdala Activation*, 12 J. COGNITIVE NEUROSCIENCE 729, 734 (2000) (demonstrating that amygdala activation correlated with measures of implicit, but not explicit, bias). This effect was found in white participants when shown pictures of the faces of unfamiliar African Americans, but was not found when they were shown pictures of (a) unfamiliar whites and (b) famous and well-regarded whites and African Americans (for instance, John F. Kennedy and Bill Cosby). See *id.*

4. See Greenwald & Krieger, *supra* note 2, at 961–62 & nn.41–44 (describing results of studies showing correlations between measures of implicit bias and indicators of subtle or spontaneous discriminatory actions).

5. Andreas Olsson et al., *The Role of Social Groups in the Persistence of Learned Fear*, 309 SCIENCE 785, 785 (2005).

6. Michael S. Gazzaniga et al., COGNITIVE NEUROSCIENCE: THE BIOLOGY OF THE MIND 537, 556–59 (2d ed. 2002) (chapter on “Emotion,” co-authored with Elizabeth A. Phelps).

7. Olsson, *supra* note 5, at 785 (describing “classic fear conditioning,” associated with experiments pioneered by Pavlov, and fear extinction). Fear conditioning and extinction were measured by skin-conductance responses. See *id.*

8. *Id.*

images are paired with electric shock, but the aversive association with the snake will kick in more strongly and die more slowly—and incompletely.<sup>9</sup>

The experimental design was elegant in its simplicity. Using white and African American subjects, the study conditioned fear reactions to pictures of both white and African American faces by administering electric shock, ceased the shocks for an extinction phase, and measured the physical indicia of anticipatory fear reactions at both stages.<sup>10</sup> When thus trained to fear faces, would subjects treat the faces of out-group others more as they would butterflies or as they would snakes?

The latter, as it turned out. Both white and African American subjects acquired a stronger anticipatory fear response to out-group than to in-group faces, and both showed a resistance to fear extinction only for out-group faces. Thus, the “persistence of fear learning during extinction for out-group members mirrors the pattern observed for snakes and spiders,” demonstrating that “unfamiliar members of a racial out-group can serve as prepared stimuli in a fear-learning situation.”<sup>11</sup> Pointing to other research supporting a link between implicit racial bias and fear learning, the study’s authors asserted that “outgroup preparedness” can lead to more negative evaluations of the out-group and thus “belongs with other psychological mechanisms that have been identified as contributing to the genesis and maintenance of racial prejudice, especially implicit or less conscious forms of it.”<sup>12</sup>

Finally, as for interaction with racial attitudes and reported interracial contact, the authors found only one connection: higher levels of interracial dating correlated with lower levels of fear-conditioning bias.<sup>13</sup>

### III

#### IMPLICATIONS FOR RECONCILIATION ACROSS RACIAL DIVIDES

So what might a study such as this teach us?

Arne Öhman has suggested that the study contributes to “a scientific understanding of the emotional dynamics of intergroup conflicts.”<sup>14</sup> When one learns to fear members of another racial or ethnic group, he posits, that fear “precludes learning about a feared individual, making that person a blank slate

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9. *Id.* (observing that in humans and nonhuman primates, snakes and spiders “are more readily associated with aversive events than stimuli from fear-irrelevant categories”).

10. *Id.* Subjects self-calibrated an electric-shock level that would be uncomfortable but not painful. *See id.*

11. *Id.* at 786.

12. *Id.*

13. Olsson et al., *supra* note 5, at 768 (noting that though “the conditioning bias to fear racial outgroup members was attenuated among those with more interracial dating experience, consistent with a substantial body of research demonstrating that positive intergroup contact reduces negativity toward outgroups,” only correlation, not causation, could be shown).

14. Arne Öhman, *Conditioned Fear of a Face: A Prelude to Ethnic Enmity?* 309 *SCIENCE* 711, 711 (2005).

for projections that serve to justify the fear.”<sup>15</sup> Thus, a fear-conditioning bias might underlie a tendency to unduly “demonize” feared out-group others—which might both feed interracial conflict and hinder its demise.<sup>16</sup>

This hypothesis is highly plausible. Much intergroup conflict is born of a form of real-world fear conditioning: exposure to an emotionally aversive event (say, a cross-burning in one’s yard) or to series of events (such as a genocidal campaign) in which the target group identifies the aggressors at least partially by race. Such a real-life experience may act as the metaphoric electric shock that conditions an anticipatory fear reaction. Once that sort of group-based fear kicks in, it might be particularly resistant to conscious, cognitive diminution.<sup>17</sup> Indeed, the study’s results suggest that even in the face of new information—for example, that the formerly feared group and its members no longer wish your group harm, that they are seeking to make amends, or that you were mistaken to perceive them as aggressors—the fear may linger, relatively impervious to updating and rational persuasion. Such a period of natural, real-world “extinction” might prove as ineffective as was the controlled extinction in the laboratory. And all this in addition to the many other barriers that impede reconciliation under all circumstances, including within racial groups.<sup>18</sup>

There are, of course, many important caveats to this expansive interpretation. In addition to the usual caution warranted in extrapolating an expansive theory from a single study with modest and narrowly defined goals, an examination of this study reveals important unanswered questions. All participants were white or African American residents of the United States; all the pictures were of unfamiliar males; the model was dyadic. Whatever else it might teach us, the study does not tell us how fear extinction works in situations of greater diversity, or when fear learning involves previously known persons.<sup>19</sup>

Consider, too, that fear extinction was measured as to the very individuals to whom a fear response had been taught. Had the subjects been trained to fear one individual, and then shown pictures of other individuals of that same racial group, would the prepared fear response generalize to other out-group members? Would similar patterns obtain with nonracial group evaluations? What if the categories were instead persons from different religious groups, identified by distinctive clothing, or if the stimuli were not visual but, say, voices of persons with identifiably different accents?

As to these latter concerns, the study offers some possible answers. The direct correspondence of fear-extinction patterns with evolutionarily salient categories of threats—such as snakes—strongly suggests the evolved nature of

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15. *Id.*

16. *Id.* at 711, 713.

17. Olsson et al., *supra* note 5, at 786.

18. See Yarn & Jones, *supra* note 1, at 70–80 (describing factors that discourage reconciliation).

19. The Olsson study is therefore more relevant to the second, broader meaning of reconciliation (involving groups and persons at variance who may not previously have had a cooperative relationship) than to the first (involving repair of such a relationship). See Yarn & Jones, *supra* note 1.

the racial-conditioning bias. This is particularly so because the prepared-learning effect generally “does not extend to most culturally defined fear-relevant stimuli” that lack an evolutionary pedigree, such as broken electrical outlets.<sup>20</sup> But, the authors assert, it is unlikely that this mechanism involves race per se.<sup>21</sup> Rather, because racial differentiation happened quite recently (evolutionarily speaking, that is) and under conditions of racial separation, the far more plausible interpretation is that modern humans evolved a predisposition to fear “dissimilar others,” who were, in the environment of evolutionary adaptation, more likely to pose a threat to their social group. The precise content of the “dissimilar other” judgment is likely filled in by social and cultural learning.<sup>22</sup> If this explanation is correct, it seems likely that fear-conditioning bias would translate to other group evaluations in which the pertinent social division—be it on the basis of religion, language, ethnicity, gender, or other dividing lines—is highly relevant to the relative-status conditions of the society.

But what is learned can sometimes be unlearned. The interracial dating correlation, given additional grounding by robust data in support of the contact hypothesis,<sup>23</sup> suggests that the sociocultural learning aspect of this evolutionarily grounded mechanism might be malleable. As the study’s authors conclude, “Millennia of natural selection and a lifetime of social learning may predispose humans to fear those who seem different from them; however, developing relationships with those different others may be one factor that weakens this otherwise strong disposition.”<sup>24</sup>

Just so. Perhaps, too, persons in this society eventually will learn to see racial others not as “others” at all; perhaps different differences will become salient, or perhaps the concept of “dissimilar other” will simply come to mean

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20. See Olsson et al., *supra* note 5, at 786. (indicating that potentially contrary findings include a picture of a pointed gun paired with a loud noise).

21. *Id.* at 787 (“[R]ace inherently cannot be the basis of the outgroup preparedness result.”).

22. *Id.* at 786 (“[C]ultural learning can imbue a stimulus with qualities that engage similar learning mechanisms as do spiders and snakes.”). In the United States, at least, white and African American persons have ample opportunities to learn negative social and cultural lessons about the other race; indeed, few (if any) escape them. See *id.* at 787 (“[F]ew reach adulthood without considerable knowledge of these prejudices and stereotypes.”); see also Phelps et al., *supra* note 3, at 734 (“[B]oth amygdala activation as well as behavioral responses of race bias are reflections of social learning within a specific culture at a particular moment in the history of relations between social groups.”).

A related question is whether, to exhibit the prepared fear pattern, the fear stimulus must be directly experienced, or whether it may be learned through instruction, such as by being told of atrocities committed by one group against another. Other research strongly suggests that instruction may suffice. See, e.g., Gazzinaga et al., *supra* note 6, at 559–64.

23. See Olsson et al., *supra* note 5, at 786 (finding this interracial-dating correlation “consistent with a substantial body of research demonstrating that positive inter-group contact reduces negativity toward outgroups”); Jerry Kang & Mahzarin R. Banaji, *Fair Measures: A Behavioral Realist Revision of “Affirmative Action,”* 94 CAL. L. REV. 1063, 1101–05 (2006) (detailing research in support of the “social contact hypothesis” that “intergroup interaction decreases prejudice”); see also Yarn & Jones, *supra* note 1, at 75–76 (describing “Allport’s contact hypothesis”).

24. Olsson et al., *supra* note 5, at 787.

an individual whom one does not know. For the present, it is sobering to see a plausible scientific explanation—albeit a partial, hypothesized one—to buttress what we already knew, or suspected, through observation: interracial conflict characterized by fear is particularly difficult to heal. Our best hope, it appears, we also already knew or suspected. In the face of past harms and accumulated fears, we need to come to know one another as people bound by a shared humanity. By knowing one another well, we may eventually turn down the volume on internal alarms that keep ringing long after the danger has passed.